Endangered Species Act
Federal Columbia River Power System
2008 Annual ESA Progress Report

Project Tables for Reasonable and Prudent Alternative (RPA) Action Implementation

Attachment 1: Habitat, Hatchery, Predation Management, and RM&E Projects Completed or in Progress in 2008

Attachment 2: Summary of FY07 and FY08 Accomplishments, by Population

Attachment 3: FY07–FY08 Progress of Projects and Actions Identified for 2007-2009 Implementation in the FCRPS Biological Assessment, Attachment B.2.2-2, Tables 1-6

Attachment 4: Tributary Habitat Reports by the Bureau of Reclamation

Attachment 5: Action Agency 2008 Estuary Habitat Projects

Attachment 1: Habitat, Hatchery, Predation Management, and RM&E Projects Completed or in Progress in 2008

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1983-436-00	Umatilla Passage O&M	10/1/1983	http://www.cbfish.org/Project.mvc/Display/1983-436-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1984-021-00	Mainstem, Middle Fork, John Day Rivers Fish Habitat Enhancement Project	3/1/1984	http://www.cbfish.org/Project.mvc/Display/1984-021-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1984-025-00	ODFW Blue Mountain Oregon Fish Habitat Improvement	3/1/1984	http://www.cbfish.org/Project.mvc/Display/1984-025-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1987-100-01	Umatilla Anad Fish Hab – CTUIR	2/1/1987	http://www.cbfish.org/Project.mvc/Display/1987-100-01
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1987-100-02	Umatilla Subbasin Fish Habitat Improvement Project	10/1/1987	http://www.cbfish.org/Project.mvc/Display/1987-100-02
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1988-022-00	Umatilla Fish Passage Operations	1/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-022-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1988-120-25	YKFP Management, Data, Habitat	10/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-120-25

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1988-120-35	YKFP Klickitat Management, Data, and Habitat	5/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-120-35
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1989-027-00	Power Repay Umatilla Basin Project	10/1/1989	http://www.cbfish.org/Project.mvc/Display/1989-027-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1992-009-00	Yakima Phase II/Huntsville Screen Operation & Maintenance	5/1/1992	http://www.cbfish.org/Project.mvc/Display/1992-009-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1992-026-01	Grand Ronde Model Watershed Program Habitat Restoration - Planning, Coordination and Implementation	5/1/1992	http://www.cbfish.org/Project.mvc/Display/1992-026-01
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1992-062-00	Yakama Nation - Riparian/Wetlands Restoration	4/1/1992	http://www.cbfish.org/Project.mvc/Display/1992-062-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1993-040-00	Fifteenmile Creek Habitat Restoration and Monitoring Project	10/1/1993	http://www.cbfish.org/Project.mvc/Display/1993-040-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1993-066-00	Oregon Fish Screens Project	1/1/1993	http://www.cbfish.org/Project.mvc/Display/1993-066-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1994-015-00	Idaho Fish Screening and Passage Improvements	7/1/1994	http://www.cbfish.org/Project.mvc/Display/1994-015-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1994-018-05	Continued Implementation of Prioritized Asotin Creek Watershed Habitat Projects	1/1/1994	http://www.cbfish.org/Project.mvc/Display/1994-018-05
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1994-018-06	Tucannon Stream and Riparian Protection, Enhancement, and Restoration	10/1/1994	http://www.cbfish.org/Project.mvc/Display/1994-018-06
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1994-018-07	Improve Habitat For Fall Chinook, Steelhead in the Lower Snake and Tucannon Sub basins.	6/1/1994	http://www.cbfish.org/Project.mvc/Display/1994-018-07
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1994-042-00	Trout Creek Fish Habitat Restoration Project	2/1/1994	http://www.cbfish.org/Project.mvc/Display/1994-042-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1995-033-00	O&M Yakima Basin Fish Screens	5/1/1995	http://www.cbfish.org/Project.mvc/Display/1995-033-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1996-011-00	Walla Walla Juvenile and Adult Passage Improvements	9/1/2009	http://www.cbfish.org/Project.mvc/Display/1996-011-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1996-035-01	Yakama Reservation Watersheds Project	10/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-035-01

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1996-042-00	Restore and Enhance Anadromous Fish Populations and Habitat in Salmon Creek	8/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-042-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1996-046-01	Walla Walla River Basin Fish Habitat Enhancement	4/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-046-01
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1996-077-02	Protect and Restore Lolo Creek Watershed	3/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-077-02
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1996-077-05	Restore McComas Meadows/ Meadow Creek Watershed	3/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-077-05
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1996-083-00	CTUIR Grande Ronde Subbasin Restoration Project	4/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-083-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1997-051-00	Yakima Basin Side Channels	4/1/2001	http://www.cbfish.org/Project.mvc/Display/1997-051-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1997-056-00	Klickitat Watershed Enhancement	10/1/1997	http://www.cbfish.org/Project.mvc/Display/1997-056-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1998-021-00	Hood River Fish Habitat	10/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-021-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1998-028-00	Trout Creek Watershed Restoration Project	4/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-028-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1999-010-00	Pine Hollow/Jackknife Habitat	11/1/1999	http://www.cbfish.org/Project.mvc/Display/1999-010-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1999-016-00	Protect & Restore the Big Canyon Creek Watershed	5/1/1999	http://www.cbfish.org/Project.mvc/Display/1999-016-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1999-017-00	Protect and Restore Lapwai Creek Watershed	5/1/1999	http://www.cbfish.org/Project.mvc/Display/1999-017-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	1999-019-00	Restore Salmon River (Challis, Idaho)	5/1/1999	http://www.cbfish.org/Project.mvc/Display/1999-019-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2000-001-00	Anadromous Fish Habitat & Pass	2/1/2000	http://www.cbfish.org/Project.mvc/Display/2000-001-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2000-015-00	Oxbow Conservation Area Management	4/28/2000	http://www.cbfish.org/Project.mvc/Display/2000-015-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2000-031-00	North Fork John Day Basin Anadromous Fish Habitat Enhancement Project	4/1/2000	http://www.cbfish.org/Project.mvc/Display/2000-031-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2000-033-00	Walla Walla River Fish Passage Operations	1/1/2000	http://www.cbfish.org/Project.mvc/Display/2000-033-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2000-035-00	Rehabilitate Newsome Creek - S	12/1/2000	http://www.cbfish.org/Project.mvc/Display/2000-035-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2000-036-00	Protect And Restore Mill Creek	3/1/2000	http://www.cbfish.org/Project.mvc/Display/2000-036-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2001-021-00	15 Mile Creek Riparian Buffers	4/1/2001	http://www.cbfish.org/Project.mvc/Display/2001-021-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2001-041-01	Forrest Conservation Area Management	12/1/2001	http://www.cbfish.org/Project.mvc/Display/2001-041-01
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2002-013-01	Water Entity (RPA 151) NWPCC - Anadromous	10/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-013-01
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2002-015-00	Provide Coordination and Technical Assistance to Watershed Councils and Individuals in Sherman County, Oregon	7/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-015-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2002-019-00	Wasco Riparian Buffers	5/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-019-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2002-034-00	Wheeler Co Riparian Buffers	5/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-034-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2002-035-00	Gilliam Co Riparian Buffers	7/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-035-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2002-050-00	Continued Riparian Buffer Projects on Couse/Tenmile and other Salmonid Bearing Streams in Asotin County.	1/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-050-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2002-059-00	Yankee Fork Salmon River Dredge Tailings Restoration Project	6/15/2002	http://www.cbfish.org/Project.mvc/Display/2002-059-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2002-061-00	Restore Potlatch R Watershed	9/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-061-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2002-070-00	Lapwai Cr Anadromous Habitat	5/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-070-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2002-072-00	Protect & Restore Red River Watershed	12/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-072-00

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H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Reporting	Protect and Improve Tributary Habitat	34	All	BPA	2003-022-00	CCT OBMEP	3/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-022-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-034-00	Columbia Cascade Pump Screen Correction	8/15/2007	http://www.cbfish.org/Project.mvc/Display/2007-034-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-035-00	UPA Project - Methow Basin Riparian Enhancement	8/20/2007	http://www.cbfish.org/Project.mvc/Display/2007-035-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-055-00	Entiat River - UPA - Lower Entiat River Off-Channel Restoration Project	10/1/2006	http://www.cbfish.org/Project.mvc/Display/2007-055-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-064-00	Protect and Restore Slate Creek	9/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-064-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-065-00	Coordinate and implement tributary habitat restoration in the Little Salmon River and lower Salmon River Idaho	5/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-065-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-077-00	Hemlock Dam Removal	6/15/2007	http://www.cbfish.org/Project.mvc/Display/2007-077-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-086-00	UPA Wenatchee Subbasin Riparian Enhancement Proposal	9/27/2007	http://www.cbfish.org/Project.mvc/Display/2007-086-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-092-00	Clearwater B Run Steelhead	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-092-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-112-00	Teanaway Watershed - Protect critical habitat from development, reduce water temperatures and increase instream flows, restore habitat forming processes in the floodplain.	1/7/2007	http://www.cbfish.org/Project.mvc/Display/2007-112-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-113-00	Cowiche Restoration and Protection Project (Easement/Fee Simple Acquisition)	9/30/2007	http://www.cbfish.org/Project.mvc/Display/2007-113-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-127-00	Reestablish Connectivity and Restore Fish Habitat in the East Fork of the South Fork Salmon River Watershed	7/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-127-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-145-00	Okanogan Livestock and Water	9/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-145-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-172-00	UPA Project - MVID West Canal Diversion and Headworks	10/1/2006	http://www.cbfish.org/Project.mvc/Display/2007-172-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-194-00	Oak Flats Acquisition and Habitat Enhancement	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-194-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-214-00	UPA Project - Fender Mill Floodplain Restoration – Phase 1	8/20/2007	http://www.cbfish.org/Project.mvc/Display/2007-214-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-217-00	Operation and Maintenance for Walla Walla Basin Passage Projects	1/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-217-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-224-00	Implementation of the Okanogan Subbasin Plan. Initiate a Programmatic and Sequenced set of Key Habitat Restoration and Protection Actions	2/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-224-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-231-00	UPA Entiat Subbasin Riparian Enhancement Program	9/17/2007	http://www.cbfish.org/Project.mvc/Display/2007-231-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-237-00	UPA Project - Elbow Coulee Floodplain Restoration	6/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-237-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-251-00	UPA Project - Methow Valley Irrigation District East Diversion Dam Replacement	10/1/2006	http://www.cbfish.org/Project.mvc/Display/2007-251-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-264-00	UPA Project - Programmatic Habitat Complexity Projects in the Methow River Subbasin	9/24/2007	http://www.cbfish.org/Project.mvc/Display/2007-264-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-268-00	Idaho Watershed Habitat Restoration Project via Custer Soil and Water Conservation District	6/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-268-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-318-00	Entiat River - UPA - Knapp-Wham Hanan Detwiler Irrigation System Consolidation Project.	6/8/2007	http://www.cbfish.org/Project.mvc/Display/2007-318-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-325-00	UPA Wenatchee Subbasin Complexity Proposal	9/27/2007	http://www.cbfish.org/Project.mvc/Display/2007-325-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-393-00	NPT Protect and Restore NE OR	7/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-393-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-394-00	Idaho Watershed Habitat Restoration Lemhi County	8/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-394-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-395-00	Protect and Restore the Upper Lochsa Watershed	5/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-395-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-396-00	Walla Walla Basinwide Tributary Passage and Instream Flow	9/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-396-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-397-00	John Day Tributary/Passage & Flow	2/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-397-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-398-00	Yakima River Basinwide Tributary/Passage & Flow	6/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-398-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-399-00	Upper Salmon Screen Tributary Passage	6/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-399-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2007-400-00	Wenatchee Basinwide Passage	6/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-400-00
Habitat	Protect and Improve Tributary Habitat	34	All	BPA	2008-748-00	Additional B-Run Steelhead Work	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2008-748-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	1990-092-00	Wanaket Wildlife Area	1/1/1990	http://www.cbfish.org/Project.mvc/Display/1990-092-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	1995-060-01	Iskuulpa Watershed Project	2/1/1995	http://www.cbfish.org/Project.mvc/Display/1995-060-01

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H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2007-027-00	Colville Confederated Tribes Acquisition Project	9/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-027-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-102-00	Okanogan Habitat	9/1/2010	http://www.cbfish.org/Project.mvc/Display/2008-102-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-103-00	Okanogan River Water Acquisition (Commitment to allocate some water transactions project funding to Okanogan)	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2008-103-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-104-00	Land and Water Acquisition	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2008-104-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-201-00	CTUIR Ceded Area Tributary Culvert/Passage Assessment, Prioritization and Implementation	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2008-201-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-202-00	Protect and Restore Tucannon Watershed	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2008-202-00

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H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-204-00	Inventory and assess habitat status and needs for anadromous reintroductions in Eastern Oregon tributaries above Hells Canyon Dam	9/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-204-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-206-00	Instream flow restoration projects, including water rights purchase from willing sellers and development and replacement of water sources for agricultural uses in Umatilla tributaries.***	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2008-206-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-207-00	CTUIR Ceded Area Priority Stream Corridor Conservation and Protection (capital acquisition) (Formerly: Expanded CTUIR Ceded Area Priority Stream Corridor Protection - Conservation Easements and Acquisition (upper Grande Ronde a priority area).)	9/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-207-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-301-00	Deschutes River restoration program	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2008-301-00

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H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-471-00	Upper Columbia Nutrient Supple	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2008-471-00
Habitat	#N/A	35	All	BPA	2008-601-00	Upper Lemhi River Acquisition and Habitat Restoration: Acquisition	9/1/2009	http://www.cbfish.org/Project.mvc/Display/2008-601-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-602-00	Upper Lemhi River Acquisition and Habitat Restoration: Restoration activities	9/1/2012	http://www.cbfish.org/Project.mvc/Display/2008-602-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-603-00	Pahsimeroi River Habitat Project	1/1/2010	http://www.cbfish.org/Project.mvc/Display/2008-603-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-604-00	Lower Clearwater River/Potlatch River Watershed Management Plan Implementation	1/1/2010	http://www.cbfish.org/Project.mvc/Display/2008-604-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-605-00	Lower Lemhi River Habitat Restoration Project: Easements	9/1/2012	http://www.cbfish.org/Project.mvc/Display/2008-605-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-606-00	Lower Lemhi River Habitat Restoration Project: Habitat restoration	9/1/2010	http://www.cbfish.org/Project.mvc/Display/2008-606-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-608-00	Water Transactions Fund	1/1/2010	http://www.cbfish.org/Project.mvc/Display/2008-608-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2008-748-00	Additional B-Run Steelhead Work	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2008-748-00
Habitat	Protect and Improve Tributary Habitat	35	All	BPA	2009-003-00	Upper Columbia Habitat Restoration	2/1/2009	http://www.cbfish.org/Project.mvc/Display/2009-003-00
Habitat	Protect and Improve Tributary Habitat	36	All	BPA	1999-025-00	Sandy River Delta Habitat Restoration	7/1/1999	http://www.cbfish.org/Project.mvc/Display/1999-025-00
Habitat	Improve Fish Survival in Estuary Habitat	36	All	BPA	2003-011-00	Columbia R/Estuary Habitat	5/21/2003	http://www.cbfish.org/Project.mvc/Display/2003-011-00
Habitat	Improve Fish Survival in Estuary Habitat	36	All	BPA	2003-013-00	Grays River Watershed Restoration	5/15/2003	http://www.cbfish.org/Project.mvc/Display/2003-013-00
Habitat	Improve Fish Survival in Estuary Habitat	38	1, 2	BPA	2003-011-00	Columbia R/Estuary Habitat	5/21/2003	http://www.cbfish.org/Project.mvc/Display/2003-011-00
Hatchery	Improve Fish Survival in Estuary Habitat	40	All	BPA	2008-712-00	Implement Hatchery Reform Action	10/1/2009	http://www.cbfish.org/Project.mvc/Display/2008-712-00
Hatchery	Ensure Funded Hatchery Programs are not Impeding Recovery	40	All	BPA	2008-714-00	Recondition Upper Columbia Kelt Steelhead	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2008-714-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Hatchery	Ensure Funded Hatchery Programs are not Impeding Recovery	40	All	BPA	2008-716-00	Transition the Touchet River steelhead supplementation program to local broodstock (hatchery reform)	10/1/2009	http://www.cbfish.org/Project.mvc/Display/2008-716-00
Hatchery	Ensure Funded Hatchery Programs are not Impeding Recovery	40	All	BPA	2008-717-00	Transition the Tucannon River steelhead supplementation program to local broodstock (hatchery reform)	10/1/2009	http://www.cbfish.org/Project.mvc/Display/2008-717-00
Hatchery	Ensure Funded Hatchery Programs are not Impeding Recovery	41	All	BPA	1996-043-00	Johnson Creek Artificial Propagation Enhancement Project	1/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-043-00
Hatchery	Execute on Safety Net and Conservation Objectives	41	All	BPA	2000-019-00	Tucannon River Spring Chinook Captive Broodstock Program	10/1/2000	http://www.cbfish.org/Project.mvc/Display/2000-019-00
Hatchery	Execute on Safety Net and Conservation Objectives	41	All	BPA	2007-402-00	Snake River Sockeye Salmon Captive Propagation	7/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-402-00
Hatchery	Execute on Safety Net and Conservation Objectives	41	All	BPA	2007-403-00	ID Snake River Spr/Summer Chinook Captive Propagation	12/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-403-00
Hatchery	Execute on Safety Net and Conservation Objectives	41	All	BPA	2007-404-00	OR Snake River Spring/Summer Chinook Salmon Captive Propagation	1/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-404-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Hatchery	Execute on Safety Net and Conservation Objectives	42	All	BPA	1988-053-01	Grande Ronde/Imnaha Endemic Spring Chinook Supplementation - Northeast Oregon Hatchery	1/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-053-01
Hatchery	Execute on Safety Net and Conservation Objectives	42	All	BPA	2001-053-00	Reintroduction of Chum Salmon into Duncan Creek	10/1/2001	http://www.cbfish.org/Project.mvc/Display/2001-053-00
Hatchery	Execute on Safety Net and Conservation Objectives	42	All	BPA	2003-023-00	Chief Joseph Hatchery Program	7/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-023-00
Hatchery	Execute on Safety Net and Conservation Objectives	42	All	BPA	2007-212-00	Develop a locally-adapted summer steelhead program to supplement natural production throughout the Okanogan River basin	7/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-212-00
Hatchery	Execute on Safety Net and Conservation Objectives	42	All	BPA	2007-401-00	Kelt Reconditioning/Reproductive Success	4/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-401-00
Hatchery	Execute on Safety Net and Conservation Objectives	42	All	BPA	2007-402-00	Snake River Sockeye Salmon Captive Propagation	7/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-402-00
Hatchery	Execute on Safety Net and Conservation Objectives	42	All	BPA	2008-458-00	Upper Columbia Steelhead Kelt Reconditioning	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2008-458-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Hatchery	Execute on Safety Net and Conservation Objectives	42	All	BPA	2008-710-00	Assess habitat potential for reintroduction of CR chum in tributaries below Bonneville Dam	5/1/2009	http://www.cbfish.org/Project.mvc/Display/2008-710-00
Hatchery	Execute on Safety Net and Conservation Objectives	42	All	BPA	2008-713-00	Investigate feasibility and potentially develop a plan for ground transport of adult sockeye from LGR dam to Redfish Lake	10/1/2009	http://www.cbfish.org/Project.mvc/Display/2008-713-00
Predation Management	Implement Piscivorous Predation Control Measures	43	All	BPA	1990-077-00	Development of Systemwide Predator Control	1990	http://www.cbfish.org/Project.mvc/Display/1990-077-00
Predation Management	Implement Avian Predation Control Measures	45	All	BPA	1997-024-00	Avian Predation on Juvenile Salmonids	1997	http://www.cbfish.org/Project.mvc/Display/1997-024-00
Predation Management	Implement Avian Predation Control Measures	46	All	BPA	1997-024-00	Avian Predation on Juvenile Salmonids	1997	http://www.cbfish.org/Project.mvc/Display/1997-024-00
Predation Management	Implement Avian Predation Control Measures	47	All	BPA	1997-024-00	Avian Predation on Juvenile Salmonids	1997	http://www.cbfish.org/Project.mvc/Display/1997-024-00
Predation Management	Implement Marine Mammal Control Measures	49	All	BPA	2008-003-00	Removal of Sea Lions at Bonneville Dam	2008	http://www.cbfish.org/Project.mvc/Display/2008-003-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Predation Managem ent	Implement Marine Mammal Control Measures	49	All	BPA	2008-004-00	Sea Lion Non-Lethal Hazing	2008	http://www.cbfish.org/Project.mvc/Display/2008-004-00
RM&E	Implement Marine Mammal Control Measures	50	1	BPA	1990-080-00	Columbia Basin Pit-Tag Informa	3/1/1990	http://www.cbfish.org/Project.mvc/Display/1990-080-00
RM&E	Monitor Fish Populations	50	3	BPA	1991-028-00	Pit Tagging Wild Chinook	4/1/1991	http://www.cbfish.org/Project.mvc/Display/1991-028-00
RM&E	Monitor Fish Populations	50	3	BPA	1994-033-00	Fish Passage Center	12/1/1994	http://www.cbfish.org/Project.mvc/Display/1994-033-00
RM&E	Monitor Fish Populations	50	3	BPA	2008-724-00	Pittag Sr Sockeye-Uc Sp.Chnook	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-724-00
RM&E	Monitor Fish Populations	50	4	BPA	1983-319-00	New Marking & Monitoring Technology		http://www.cbfish.org/Project.mvc/Display/1983-319-00
RM&E	Monitor Fish Populations	50	4	BPA	1996-017-00	Tech Support Bio Analyst Inc	1/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-017-00
RM&E	Monitor Fish Populations	50	4	BPA	1989-098-00	Hood River Production M&E - Warm Springs		http://www.cbfish.org/Project.mvc/Display/1989-098-00
RM&E	Monitor Fish Populations	50	4	BPA	1989-107-00	Statistical Support For Salmon		http://www.cbfish.org/Project.mvc/Display/1989-107-00
RM&E	Monitor Fish Populations	50	4	BPA	1998-016-00	Escapement/Productivi ty Spring	9/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-016-00
RM&E	Monitor Fish Populations	50	4	BPA	1998-022-00	Pine Creek/Wagner Management	2/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-022-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Monitor Fish Populations	50	4	BPA	1990-077-00	Salmon Studies ID Rivers IDFC		http://www.cbfish.org/Project.mvc/Display/1990-077-00
RM&E	Monitor Fish Populations	50	4	BPA	2008-729-00	Adult Pop. Status Monitoring	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-729-00
RM&E	Monitor Fish Populations	50	4	BPA	1993-066-00	Oregon Fish Screens Project		http://www.cbfish.org/Project.mvc/Display/1993-066-00
RM&E	Monitor Fish Populations	50	4	BPA	1994-042-00	Trout Creek O&M		http://www.cbfish.org/Project.mvc/Display/1994-042-00
RM&E	Monitor Fish Populations	50	4	BPA	1996-040-00	Trout Creek O&M		http://www.cbfish.org/Project.mvc/Display/1996-040-00
RM&E	Monitor Fish Populations	50	4	BPA	1999-016-00	Pine Creek / Wagner Management		http://www.cbfish.org/Project.mvc/Display/1999-016-00
RM&E	Monitor Fish Populations	50	4	BPA	2002-061-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2002-061-00
RM&E	Monitor Fish Populations	50	4	BPA	2002-074-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2002-074-00
RM&E	Monitor Fish Populations	50	4	BPA	2003-007-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2003-007-00
RM&E	Monitor Fish Populations	50	4	BPA	2003-010-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2003-010-00
RM&E	Monitor Fish Populations	50	5	BPA	1992-062-00	ID Steelhead M&E Studies		http://www.cbfish.org/Project.mvc/Display/1992-062-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Monitor Fish Populations	50	5	BPA	1992-068-00	ID Steelhead M&E Studies		http://www.cbfish.org/Project.mvc/Display/1992-068-00
RM&E	Monitor Fish Populations	50	5	BPA	1993-029-00	ID Steelhead M&E Studies		http://www.cbfish.org/Project.mvc/Display/1993-029-00
RM&E	Monitor Fish Populations	50	5	BPA	1993-037-01	ID Steelhead M&E Studies		http://www.cbfish.org/Project.mvc/Display/1993-037-01
RM&E	Monitor Fish Populations	50	5	BPA	1993-056-00	ID Steelhead M&E Studies		http://www.cbfish.org/Project.mvc/Display/1993-056-00
RM&E	Monitor Fish Populations	50	5	BPA	1993-060-00	ID Steelhead M&E Studies		http://www.cbfish.org/Project.mvc/Display/1993-060-00
RM&E	Monitor Fish Populations	50	5	BPA	2008-748-00	Additional B-Run Steelhead Work		http://www.cbfish.org/Project.mvc/Display/2008-748-00
RM&E	Monitor Fish Populations	50	6	BPA	1984-025-00	NE Oregon Habitat Projects		http://www.cbfish.org/Project.mvc/Display/1984-025-00
RM&E	Monitor Fish Populations	50	6	BPA	1986-050-00	Umatilla Anadromous Fish Habitat - CTUIR		http://www.cbfish.org/Project.mvc/Display/1986-050-00
RM&E	Monitor Fish Populations	50	6	BPA	1987-100-01	Umatilla Anadromous Fish Habitat - CTUIR		http://www.cbfish.org/Project.mvc/Display/1987-100-01
RM&E	Monitor Fish Populations	50	6	BPA	1987-100-02	Umatilla Anadromous Fish Habitat - CTUIR		http://www.cbfish.org/Project.mvc/Display/1987-100-02
RM&E	Monitor Fish Populations	50	6	BPA	1988-022-00	Umatilla Fish Passage Operations		http://www.cbfish.org/Project.mvc/Display/1988-022-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Monitor Fish Populations	50	6	BPA	1988-065-00	Smolt Monitoring By Non - Federal		http://www.cbfish.org/Project.mvc/Display/1988-065-00
RM&E	Monitor Fish Populations	50	6	BPA	1989-024-01	Smolt Monitoring By Non - Federal		http://www.cbfish.org/Project.mvc/Display/1989-024-01
RM&E	Monitor Fish Populations	50	6	BPA	1998-007-03	Grande Ronde Supp. O&M/M&E	1/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-007-03
RM&E	Monitor Fish Populations	50	6	BPA	1991-073-00	Idaho Natural Production Monitoring		http://www.cbfish.org/Project.mvc/Display/1991-073-00
RM&E	Monitor Fish Populations	50	6	BPA	1992-026-04	Life Studies Of Spring Chinook		http://www.cbfish.org/Project.mvc/Display/1992-026-04
RM&E	Monitor Fish Populations	50	6	BPA	2008-736-00	Tech Sprt Status & Trend Projects	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-736-00
RM&E	Monitor Fish Populations	50	6	BPA	1994-026-00	PIT Tagging Wild Chinook		http://www.cbfish.org/Project.mvc/Display/1994-026-00
RM&E	Monitor Fish Populations	50	6	BPA	1996-035-01	Yakama Reservation Watershed Project		http://www.cbfish.org/Project.mvc/Display/1996-035-01
RM&E	Monitor Fish Populations	50	6	BPA	1997-030-00	Listed Stock Adult Escapement		http://www.cbfish.org/Project.mvc/Display/1997-030-00
RM&E	Monitor Fish Populations	50	6	BPA	1998-007-02	Johnson Creek Artificial Propagation		http://www.cbfish.org/Project.mvc/Display/1998-007-02
RM&E	Monitor Fish Populations	50	6	BPA	1998-010-03	Spawning distribution of Snake River fall Chinook		http://www.cbfish.org/Project.mvc/Display/1998-010-03

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Monitor Fish Populations	50	6	BPA	1998-010-04	Imnaha River Smolt Monitoring NPT		http://www.cbfish.org/Project.mvc/Display/1998-010-04
RM&E	Monitor Fish Populations	50	6	BPA	1998-021-00	Wind River Watershed		http://www.cbfish.org/Project.mvc/Display/1998-021-00
RM&E	Monitor Fish Populations	50	6	BPA	2000-039-00	Walla Walla River Basin Monitoring		http://www.cbfish.org/Project.mvc/Display/2000-039-00
RM&E	Monitor Fish Populations	50	6	BPA	2001-003-00	Walla Walla River Basin Monitoring		http://www.cbfish.org/Project.mvc/Display/2001-003-00
RM&E	Monitor Fish Populations	50	6	BPA	2002-030-00	Snake River Fall Chinook Life History Investigation		http://www.cbfish.org/Project.mvc/Display/2002-030-00
RM&E	Monitor Fish Populations	50	6	BPA	2002-032-00	Snake River Fall Chinook Life History Investigation		http://www.cbfish.org/Project.mvc/Display/2002-032-00
RM&E	Monitor Fish Populations	50	6	BPA	2002-053-00	Assess Salmonids Asotin Creek WS		http://www.cbfish.org/Project.mvc/Display/2002-053-00
RM&E	Monitor Fish Populations	50	6	BPA	2003-054-00	Rock Creek Fish And Habitat Assessment		http://www.cbfish.org/Project.mvc/Display/2003-054-00
RM&E	Monitor Fish Populations	50	6	BPA	2003-060-00	Rock Creek Fish And Habitat Assessment		http://www.cbfish.org/Project.mvc/Display/2003-060-00
RM&E	Monitor Fish Populations	50	6	BPA	2005-001-00	Rock Creek Fish And Habitat Assessment		http://www.cbfish.org/Project.mvc/Display/2005-001-00
RM&E	Monitor Fish Populations	50	6	BPA	2007-156-00	Snake River Sockeye Captive Propagation		http://www.cbfish.org/Project.mvc/Display/2007-156-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Monitor Fish Populations	50	6	BPA	2007-233-00	ID Spring Chinook Captive Propagation		http://www.cbfish.org/Project.mvc/Display/2007-233-00
RM&E	Monitor Fish Populations	50	6	BPA	2007-396-00	OR Spring Chinook Captive Propagation		http://www.cbfish.org/Project.mvc/Display/2007-396-00
RM&E	Monitor Fish Populations	50	6	BPA	2007-400-00	Deschutes River Fall Chinook Research and Monitoring		http://www.cbfish.org/Project.mvc/Display/2007-400-00
RM&E	Monitor Fish Populations	50	6	BPA	2007-403-00	ID Spring Chinook Captive Propagation		http://www.cbfish.org/Project.mvc/Display/2007-403-00
RM&E	Monitor Fish Populations	50	6	BPA	2008-311-00	Natural Production Management & Monitoring		http://www.cbfish.org/Project.mvc/Display/2008-311-00
RM&E	Monitor Fish Populations	50	7	BPA	1983-350-03	Nez Perce Tribal Hatchery M&E	1/1/1983	http://www.cbfish.org/Project.mvc/Display/1983-350-03
RM&E	Monitor Fish Populations	50	7	BPA	1988-053-04	Hood River Production M&E-ODFW	10/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-053-04
RM&E	Monitor Fish Populations	50	7	BPA	1990-005-00	Umatilla Hatchery - M&E	11/1/1990	http://www.cbfish.org/Project.mvc/Display/1990-005-00
RM&E	Monitor Fish Populations	50	7	BPA	1988-053-07	Hood River Production O&M - WS / ODFW		http://www.cbfish.org/Project.mvc/Display/1988-053-07
RM&E	Monitor Fish Populations	50	7	BPA	1998-007-02	Gd Ronde Supp Lostine O&M/M&E	1/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-007-02
RM&E	Monitor Fish Populations	50	7	BPA	1998-010-04	M&E Snake R. Fall Ch Spawning	1/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-010-04

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Monitor Fish Populations	50	7	BPA	2008-740-00	Addtl Marking Hatchery Fish	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-740-00
RM&E	Monitor Fish Populations	50	8	BPA	2008-734-00	Technical Spt-Annual Pop Status	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-734-00
RM&E	Monitor Fish Populations	50	8	BPA	None Identified			-
RM&E	Monitor Fish Populations	50	4, 5, 6, 7	BPA	1989-098-00	Salmon Studies Id Rvrs Idfc	1/1/1989	http://www.cbfish.org/Project.mvc/Display/1989-098-00
RM&E	Monitor Fish Populations	50	2,5	BPA	2005-002-00	Lower Granite Dam Adult Trap Operations		http://www.cbfish.org/Project.mvc/Display/2005-002-00
RM&E	Monitor Fish Populations	50	3, 4,6, 7,	BPA	1987-127-00	Smolt Monitoring By Non-Feder	3/1/1987	http://www.cbfish.org/Project.mvc/Display/1987-127-00
RM&E	Monitor Fish Populations	50	4, 5	BPA	1991-073-00	Idaho Natural Production Monit	2/1/1991	http://www.cbfish.org/Project.mvc/Display/1991-073-00
RM&E	Monitor Fish Populations	50	4, 6	BPA	1990-018-00	Salmon Studies ID Rivers IDFC		http://www.cbfish.org/Project.mvc/Display/1990-018-00
RM&E	Monitor Fish Populations	50	4, 6	BPA	2008-306-00	Deschutes River Fall Chinook Research and Monitoring		http://www.cbfish.org/Project.mvc/Display/2008-306-00
RM&E	Monitor Fish Populations	50	4, 6,7	BPA	1988-053-04	Smolt Monitoring By Non - Federal		http://www.cbfish.org/Project.mvc/Display/1988-053-04
RM&E	Monitor Fish Populations	50	4, 7	BPA	1989-108-00	Modeling & Evaluate Supplementation / CRISP		http://www.cbfish.org/Project.mvc/Display/1989-108-00
RM&E	Monitor Fish Populations	50	4,5, 6	BPA	1990-055-00	Salmon Studies ID Rivers IDFC		http://www.cbfish.org/Project.mvc/Display/1990-055-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Monitor Fish Populations	50	4,5,6	BPA	2003-017-00	Integrated Status/Effect Progr	7/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-017-00
RM&E	Monitor Fish Populations	50	4,5,6	BPA	1994-050-00	Idaho Natural Production Monitoring		http://www.cbfish.org/Project.mvc/Display/1994-050-00
RM&E	Monitor Fish Populations	50	4,5,6,7	BPA	1982-013-01	Coded Wire Tag - PSMFC		http://www.cbfish.org/Project.mvc/Display/1982-013-01
RM&E	Monitor Fish Populations	50	4,6	BPA	1990-044-00	Salmon Studies ID Rivers IDFC		http://www.cbfish.org/Project.mvc/Display/1990-044-00
RM&E	Monitor Fish Populations	50	4,6	BPA	1991-019-01	Salmon Studies ID Rivers IDFC		http://www.cbfish.org/Project.mvc/Display/1991-019-01
RM&E	Monitor Fish Populations	50	4,6	BPA	2003-039-00	Monitor Repro In Wenat/Tuc/Kal	4/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-039-00
RM&E	Monitor Fish Populations	50	4,6	BPA	1994-043-00	Idaho Natural Production Monitoring		http://www.cbfish.org/Project.mvc/Display/1994-043-00
RM&E	Monitor Fish Populations	50	4,6	BPA	2002-059-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2002-059-00
RM&E	Monitor Fish Populations	50	4,6	BPA	1991-028-00	Modeling & Evaluate Supplementation / CRISP		http://www.cbfish.org/Project.mvc/Display/1991-028-00
RM&E	Monitor Fish Populations	50	4,6,7	BPA	1982-013-04	New Marking & Monitoring Technology		http://www.cbfish.org/Project.mvc/Display/1982-013-04
RM&E	Monitor Fish Populations	50	4,6,7	BPA	1988-053-03	Hood River Production M&E - Ws	10/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-053-03

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Monitor Fish Populations	50	4,6,7	BPA	1995-063-35	Klickitat Fishery Ykfp M & E	5/1/1995	http://www.cbfish.org/Project.mvc/Display/1995-063-35
RM&E	Monitor Fish Populations	50	4,6,7	BPA	1998-019-00	Escapement / Productivity Spring		http://www.cbfish.org/Project.mvc/Display/1998-019-00
RM&E	Monitor Fish Populations	50	4,6,7	BPA	2007-402-00	Deschutes River Fall Chinook Research and Monitoring		http://www.cbfish.org/Project.mvc/Display/2007-402-00
RM&E	Monitor Fish Populations	50	5,6	BPA	1993-040-00	ID Steelhead M&E Studies		http://www.cbfish.org/Project.mvc/Display/1993-040-00
RM&E	Monitor Fish Populations	50	5,6 7	BPA	1996-020-00	Pit Tagging Spring/Summer Chin	3/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-020-00
RM&E	Monitor Fish Populations	50	5,6,7	BPA	1996-046-01	PIT Tagging Spring / Summer Chinook		http://www.cbfish.org/Project.mvc/Display/1996-046-01
RM&E	Monitor Fish Populations	50	6, 7	BPA	1983-350-00	Nez Perce Tribal Hatchery O&M	1/1/1983	http://www.cbfish.org/Project.mvc/Display/1983-350-00
RM&E	Monitor Fish Populations	50	6, 7	BPA	1988-053-08	Hood R Powerdale/Oak Springs	10/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-053-08
RM&E	Monitor Fish Populations	50	6, 7	BPA	1995-063-25	Ykfp - Monitoring And Evaluati	5/1/1995	http://www.cbfish.org/Project.mvc/Display/1995-063-25
RM&E	Monitor Fish Populations	50	6, 7	BPA	1997-015-01	Imnaha R Smolt Monitoring Npt	1/1/1997	http://www.cbfish.org/Project.mvc/Display/1997-015-01
RM&E	Monitor Fish Populations	50	6, 7	BPA	2007-083-00	Grande Ronde Suppmentation M&E	1/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-083-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Monitor Fish Populations	50	6,7	BPA	1982-013-02	Coded Wire Tag - ODFW		http://www.cbfish.org/Project.mvc/Display/1982-013-02
RM&E	Monitor Fish Populations	50	6,7	BPA	1982-013-03	Coded Wire Tag - USFWS		http://www.cbfish.org/Project.mvc/Display/1982-013-03
RM&E	Monitor Fish Populations	50	6,7	BPA	1983-350-03	Nez Perce Tribal Hatchery M&E		http://www.cbfish.org/Project.mvc/Display/1983-350-03
RM&E	Monitor Fish Populations	50	6,7	BPA	1996-043-00	Johnson Creek Artificial Propagation		http://www.cbfish.org/Project.mvc/Display/1996-043-00
RM&E	Monitor Fish Populations	50	6,7	BPA	1996-077-02	PIT Tagging Spring / Summer Chinook		http://www.cbfish.org/Project.mvc/Display/1996-077-02
RM&E	Monitor Fish Populations	50	6,7	BPA	1996-077-05	PIT Tagging Spring / Summer Chinook		http://www.cbfish.org/Project.mvc/Display/1996-077-05
RM&E	Monitor Fish Populations	50	6,7	BPA	2003-022-00	Grande Ronde Supplementation M&E		http://www.cbfish.org/Project.mvc/Display/2003-022-00
RM&E	Monitor Fish Populations	50	6,7	BPA	2007-404-00	OR Spring Chinook Captive Propagation		http://www.cbfish.org/Project.mvc/Display/2007-404-00
RM&E	Monitor Fish Populations	51	1	BPA	1982-013-04	New Marking & Monitoring Technology		http://www.cbfish.org/Project.mvc/Display/1982-013-04
RM&E	Monitor Fish Populations	51	1	BPA	2008-734-00	Technical Spt-Annual Pop Status	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-734-00
RM&E	Monitor Fish Populations	51	1	BPA	1997-038-00	Listed Stock Chinook Salmon Gamete		http://www.cbfish.org/Project.mvc/Display/1997-038-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Monitor Fish Populations	51	1	BPA	2007-407-00	Upper Snake River Tribes Regional Coord		http://www.cbfish.org/Project.mvc/Display/2007-407-00
RM&E	Monitor Fish Populations	51	2	BPA	2008-729-00	Adult Pop. Status Monitoring	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-729-00
RM&E	Monitor Fish Populations	51	2	BPA	2008-733-00	Regional Strategy-Status/Trend	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-733-00
RM&E	Monitor Fish Populations	51	2	BPA	2008-739-00	Tech Spt Fish Pop Status Monit	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-739-00
RM&E	Monitor Fish Populations	51	2	BPA	None Identified			-
RM&E	Monitor Fish Populations	51	3	BPA	2004-002-00	PNAMP Funding	10/1/2004	http://www.cbfish.org/Project.mvc/Display/2004-002-00
RM&E	Monitor Fish Populations	51	1, 3	BPA	1988-108-04	Streamnet (Cis/Ned)	10/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-108-04
RM&E	Monitor Fish Populations	51	1,3	BPA	1982-013-01	Coded Wire Tag - PSMFC		http://www.cbfish.org/Project.mvc/Display/1982-013-01
RM&E	Monitor Fish Populations	51	1,3	BPA	1994-033-00	Fish Passage Center		http://www.cbfish.org/Project.mvc/Display/1994-033-00
RM&E	Monitor Fish Populations	51	1,3	BPA	1996-043-00	Johnson Creek Artificial Propagation		http://www.cbfish.org/Project.mvc/Display/1996-043-00
RM&E	Monitor Fish Populations	51	1,3	BPA	1998-031-00	Implement Wy - Kan - Ush - Mi Wa - Kis		http://www.cbfish.org/Project.mvc/Display/1998-031-00
RM&E	Monitor Fish Populations	51	1,3	BPA	2008-505-00	Streamnet Library		http://www.cbfish.org/Project.mvc/Display/2008-505-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	52	2	BPA	1983-319-00	New Marking & Monitoring Technology		http://www.cbfish.org/Project.mvc/Display/1983-319-00
RM&E	Hydrosystem RM&E	52	2	BPA	1989-098-00	Salmon Studies Id Rvrs Idfc		http://www.cbfish.org/Project.mvc/Display/1989-098-00
RM&E	Hydrosystem RM&E	52	2	BPA	1991-028-00	Pit Tagging Wild Chinook		http://www.cbfish.org/Project.mvc/Display/1991-028-00
RM&E	Hydrosystem RM&E	52	2	BPA	1993-029-00	Survival Est For Passage Throu	4/11/1993	http://www.cbfish.org/Project.mvc/Display/1993-029-00
RM&E	Hydrosystem RM&E	52	2	BPA	1993-040-00	Fifteenmile Creek Habitat Impr	4/11/1993	http://www.cbfish.org/Project.mvc/Display/1993-040-00
RM&E	Hydrosystem RM&E	52	2	BPA	1996-020-00	Pit Tagging Spring / Summer Chin		http://www.cbfish.org/Project.mvc/Display/1996-020-00
RM&E	Hydrosystem RM&E	52	6	BPA	1994-033-00	Fish Passage Center		http://www.cbfish.org/Project.mvc/Display/1994-033-00
RM&E	Hydrosystem RM&E	52	6	BPA	2008-738-00	Tech Spt Hydro Tagging/Marking	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-738-00
RM&E	Hydrosystem RM&E	52	1, 2	BPA	2003-041-00	Eval Salmon Thru Snake R Dams	4/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-041-00
RM&E	Hydrosystem RM&E	52	1, 2, 3	BPA	1991-051-00	M&E Statistical Support For Life Cycle Models		http://www.cbfish.org/Project.mvc/Display/1991-051-00
RM&E	Hydrosystem RM&E	52	1, 2,3, 4,5, 7	BPA	1987-127-00	Smolt Monitoring By Non-Feder	3/1/1987	http://www.cbfish.org/Project.mvc/Display/1987-127-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	52	2, 5	BPA	NEW	Pilot study of Snake River Sockeye survival to Lower Granite Dam and SAR of in - river and transported smolts.		-
RM&E	Hydrosystem RM&E	52	3,7	BPA	2005-002-00	Lower Granite Dam Adult Trap Operations		http://www.cbfish.org/Project.mvc/Display/2005-002-00
RM&E	Hydrosystem RM&E	52	4, 5	BPA	2008-724-00	Pittag Sr Sockeye-Uc Sp.Chnook	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-724-00
RM&E	Hydrosystem RM&E	53	2	BPA	1996-021-00	Gas Bubble Disease Mon & Resea	10/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-021-00
RM&E	Hydrosystem RM&E	53	1, 2	BPA	1994-033-00	Fish Passage Center		http://www.cbfish.org/Project.mvc/Display/1994-033-00
RM&E	Hydrosystem RM&E	53	1, 2,3, 4	BPA	1987-127-00	Smolt Monitoring By Non-Feder	3/1/1987	http://www.cbfish.org/Project.mvc/Display/1987-127-00
RM&E	Hydrosystem RM&E	53	1,2	BPA	1991-029-00	Flow Augmentation On S.R. Fall Chinook		http://www.cbfish.org/Project.mvc/Display/1991-029-00
RM&E	Hydrosystem RM&E	53	1,2	BPA	1991-051-00	M&E Statistical Support For Life Cycle Models		http://www.cbfish.org/Project.mvc/Display/1991-051-00
RM&E	Hydrosystem RM&E	53	1,2,3	BPA	2008-506-00	PSMFC - Smolt Monitoring		http://www.cbfish.org/Project.mvc/Display/2008-506-00
RM&E	Hydrosystem RM&E	53	2, 3	BPA	1989-098-00	Hood River Production M&E - Warm Springs		http://www.cbfish.org/Project.mvc/Display/1989-098-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	53	2,3	BPA	1991-028-00	Modeling & Evaluate Supplementation / CRISP		http://www.cbfish.org/Project.mvc/Display/1991-028-00
RM&E	Hydrosystem RM&E	53	2,3	BPA	1993-040-00	ID Steelhead M&E Studies		http://www.cbfish.org/Project.mvc/Display/1993-040-00
RM&E	Hydrosystem RM&E	53	2,3	BPA	1996-020-00	PIT Tagging Spring / Summer Chinook		http://www.cbfish.org/Project.mvc/Display/1996-020-00
RM&E	Hydrosystem RM&E	53	2,3	BPA	2003-041-00	Evaluate Salmon Through Snake River Dams		http://www.cbfish.org/Project.mvc/Display/2003-041-00
RM&E	Hydrosystem RM&E	53	4, 5	BPA	1983-319-00	New Marking & Monitoring Technology		http://www.cbfish.org/Project.mvc/Display/1983-319-00
RM&E	Hydrosystem RM&E	54	6	BPA	NEW	Pilot study of Snake River Sockeye survival to Lower Granite Dam and SAR of in - river and transported smolts.		-
RM&E	Hydrosystem RM&E	54	8	BPA	1990-077-00	Dev Of Sytemwide Pred Control	4/1/1990	http://www.cbfish.org/Project.mvc/Display/1990-077-00
RM&E	Hydrosystem RM&E	54	8	BPA	1997-024-00	Avian Predation On Juvenile Sa	2/1/1997	http://www.cbfish.org/Project.mvc/Display/1997-024-00
RM&E	Hydrosystem RM&E	54	12	BPA	2008-742-00	Pit Detectors In Natal Streams	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-742-00
RM&E	Hydrosystem RM&E	54	1, 2, 9, 11, 12, 13, 14	BPA	1983-319-00	New Marking & Monitoring Technology		http://www.cbfish.org/Project.mvc/Display/1983-319-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	54	2, 13	BPA	1994-033-00	Fish Passage Center	12/1/1994	http://www.cbfish.org/Project.mvc/Display/1994-033-00
RM&E	Hydrosystem RM&E	54	2, 6,7	BPA	1987-127-00	Smolt Monitoring By Non - Federal		http://www.cbfish.org/Project.mvc/Display/1987-127-00
RM&E	Hydrosystem RM&E	54	6,7,8, 10, 12	BPA	1989-098-00	Hood River Production M&E - Warm Springs		http://www.cbfish.org/Project.mvc/Display/1989-098-00
RM&E	Hydrosystem RM&E	54	6,7,8, 10, 12	BPA	1993-040-00	ID Steelhead M&E Studies		http://www.cbfish.org/Project.mvc/Display/1993-040-00
RM&E	Hydrosystem RM&E	54	6,7,8, 10, 12	BPA	1996-020-00	PIT Tagging Spring / Summer Chinook		http://www.cbfish.org/Project.mvc/Display/1996-020-00
RM&E	Hydrosystem RM&E	54	6,7,8, 10, 12	BPA	1991-028-00	Pit Tagging Wild Chinook	4/1/1991	http://www.cbfish.org/Project.mvc/Display/1991-028-00
RM&E	Hydrosystem RM&E	54	6,7,8,10, 12	BPA	2003-041-00	Evaluate Salmon Through Snake River Dams		http://www.cbfish.org/Project.mvc/Display/2003-041-00
RM&E	Hydrosystem RM&E	55	1	BPA	NEW	Pilot study of Snake River Sockeye survival to Lower Granite Dam and SAR of in - river and transported smolts.		-
RM&E	Hydrosystem RM&E	55	2	BPA	1994-033-00	Fish Passage Center		http://www.cbfish.org/Project.mvc/Display/1994-033-00
RM&E	Hydrosystem RM&E	55	2	BPA	2003-114-00	Acoustic Tracking For Survival	12/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-114-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	55	3	BPA	2008-725-00	Post Bonneville Mortality Wkshp	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-725-00
RM&E	Hydrosystem RM&E	55	4	BPA	1991-029-00	Flow Aug On S.R. Fall Chinook	6/1/1991	http://www.cbfish.org/Project.mvc/Display/1991-029-00
RM&E	Hydrosystem RM&E	55	4	BPA	2002-032-00	Fall Chin Passage Lower Granit	4/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-032-00
RM&E	Hydrosystem RM&E	55	7	BPA	2008-741-00	Pit-Tag Dtctrs Spllwys-Turbine	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-741-00
RM&E	Hydrosystem RM&E	55	8	BPA	2008-744-00	Evaluate New Tagging Technology	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-744-00
RM&E	Hydrosystem RM&E	55	1, 2, 5	BPA	2008-724-00	Pittag Sr Sockeye-Uc Sp.Chnook	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-724-00
RM&E	Hydrosystem RM&E	55	1,2	BPA	1989-098-00	Hood River Production M&E - Warm Springs		http://www.cbfish.org/Project.mvc/Display/1989-098-00
RM&E	Hydrosystem RM&E	55	1,2	BPA	1991-028-00	Modeling & Evaluate Supplementation / CRISP		http://www.cbfish.org/Project.mvc/Display/1991-028-00
RM&E	Hydrosystem RM&E	55	1,2	BPA	1993-040-00	ID Steelhead M&E Studies		http://www.cbfish.org/Project.mvc/Display/1993-040-00
RM&E	Hydrosystem RM&E	55	1,2	BPA	1996-020-00	PIT Tagging Spring / Summer Chinook		http://www.cbfish.org/Project.mvc/Display/1996-020-00
RM&E	Hydrosystem RM&E	55	1,2	BPA	2003-041-00	Evaluate Salmon Through Snake River Dams		http://www.cbfish.org/Project.mvc/Display/2003-041-00

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H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	55	1,2	BPA	2005-002-00	Lower Granite Dam Adult Trap Operations		http://www.cbfish.org/Project.mvc/Display/2005-002-00
RM&E	Hydrosystem RM&E	55	1,2,4	BPA	1987-127-00	Smolt Monitoring By Non - Federal		http://www.cbfish.org/Project.mvc/Display/1987-127-00
RM&E	Hydrosystem RM&E	55	4,5,7,8,9	BPA	1983-319-00	New Marking & Monitoring Technology		http://www.cbfish.org/Project.mvc/Display/1983-319-00
RM&E	Tributary Habitat RM&E	56	1	BPA	1987-100-02	Umatilla Anadromous Fish Habitat - CTUIR		http://www.cbfish.org/Project.mvc/Display/1987-100-02
RM&E	Tributary Habitat RM&E	56	1	BPA	1988-053-03	Hood River Production M&E - Warm Springs		http://www.cbfish.org/Project.mvc/Display/1988-053-03
RM&E	Tributary Habitat RM&E	56	1	BPA	1988-053-04	Smolt Monitoring By Non - Federal		http://www.cbfish.org/Project.mvc/Display/1988-053-04
RM&E	Tributary Habitat RM&E	56	1	BPA	1989-098-00	Hood River Production M&E - Warm Springs		http://www.cbfish.org/Project.mvc/Display/1989-098-00
RM&E	Tributary Habitat RM&E	56	1	BPA	1990-018-00	Salmon Studies ID Rivers IDFC		http://www.cbfish.org/Project.mvc/Display/1990-018-00
RM&E	Tributary Habitat RM&E	56	1	BPA	1990-044-00	Salmon Studies ID Rivers IDFC		http://www.cbfish.org/Project.mvc/Display/1990-044-00
RM&E	Tributary Habitat RM&E	56	1	BPA	1991-019-01	Salmon Studies ID Rivers IDFC		http://www.cbfish.org/Project.mvc/Display/1991-019-01
RM&E	Tributary Habitat RM&E	56	1	BPA	1992-026-04	Life Studies Of Spring Chinook		http://www.cbfish.org/Project.mvc/Display/1992-026-04

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Tributary Habitat RM&E	56	1	BPA	1993-040-00	ID Steelhead M&E Studies		http://www.cbfish.org/Project.mvc/Display/1993-040-00
RM&E	Tributary Habitat RM&E	56	1	BPA	1994-018-05	Asotin Enhancement / Restoration		http://www.cbfish.org/Project.mvc/Display/1994-018-05
RM&E	Tributary Habitat RM&E	56	1	BPA	1994-018-06	Tucannon Stream And Riparian R		http://www.cbfish.org/Project.mvc/Display/1994-018-06
RM&E	Tributary Habitat RM&E	56	1	BPA	1994-042-00	Trout Creek O&M		http://www.cbfish.org/Project.mvc/Display/1994-042-00
RM&E	Tributary Habitat RM&E	56	1	BPA	1995-063-35	Oregon Fish Screens Project		http://www.cbfish.org/Project.mvc/Display/1995-063-35
RM&E	Tributary Habitat RM&E	56	1	BPA	1996-017-00	Oregon Fish Screens Project		http://www.cbfish.org/Project.mvc/Display/1996-017-00
RM&E	Tributary Habitat RM&E	56	1	BPA	1996-035-01	Yakama Reservation Watershed Project		http://www.cbfish.org/Project.mvc/Display/1996-035-01
RM&E	Tributary Habitat RM&E	56	1	BPA	1996-040-00	Trout Creek O&M		http://www.cbfish.org/Project.mvc/Display/1996-040-00
RM&E	Tributary Habitat RM&E	56	1	BPA	1996-077-02	PIT Tagging Spring / Summer Chinook		http://www.cbfish.org/Project.mvc/Display/1996-077-02
RM&E	Tributary Habitat RM&E	56	1	BPA	1996-077-05	PIT Tagging Spring / Summer Chinook		http://www.cbfish.org/Project.mvc/Display/1996-077-05
RM&E	Tributary Habitat RM&E	56	1	BPA	1997-015-01	Imnaha River Smolt Monitoring NPT		http://www.cbfish.org/Project.mvc/Display/1997-015-01

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Tributary Habitat RM&E	56	1	BPA	1997-056-00	Klickitat Watershed Enhance		http://www.cbfish.org/Project.mvc/Display/1997-056-00
RM&E	Tributary Habitat RM&E	56	1	BPA	1998-010-03	Spawning distribution of Snake River fall Chinook		http://www.cbfish.org/Project.mvc/Display/1998-010-03
RM&E	Tributary Habitat RM&E	56	1	BPA	1998-019-00	Escapement / Productivity Spring		http://www.cbfish.org/Project.mvc/Display/1998-019-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2000-035-00	Rehabilitate Newsome Creek - S		http://www.cbfish.org/Project.mvc/Display/2000-035-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2000-036-00	Protect And Restoration Mill Creek		http://www.cbfish.org/Project.mvc/Display/2000-036-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2000-039-00	Walla Walla River Basin Monitoring		http://www.cbfish.org/Project.mvc/Display/2000-039-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2001-003-00	Walla Walla River Basin Monitoring		http://www.cbfish.org/Project.mvc/Display/2001-003-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2002-032-00	Snake River Fall Chinook Life History Investigation		http://www.cbfish.org/Project.mvc/Display/2002-032-00
RM&E	Tributary Habitat RM&E	56	1	BPA	1983-350-03	Ne Oregon Habitat Projects	3/1/1984	http://www.cbfish.org/Project.mvc/Display/1983-350-03
RM&E	Tributary Habitat RM&E	56	1	BPA	1984-021-00	John Day Habitat Enhancement	3/1/1984	http://www.cbfish.org/Project.mvc/Display/1984-021-00
RM&E	Tributary Habitat RM&E	56	1	BPA	1984-025-00	Ne Oregon Habitat Projects	3/1/1984	http://www.cbfish.org/Project.mvc/Display/1984-025-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Tributary Habitat RM&E	56	1	BPA	2002-061-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2002-061-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2002-072-00	Protect & Restoration Red River WS		http://www.cbfish.org/Project.mvc/Display/2002-072-00
RM&E	Tributary Habitat RM&E	56	1	BPA	1996-020-00	Pit Tagging Spring/Summer Chin	3/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-020-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2003-022-00	Grande Ronde Supplementation M&E		http://www.cbfish.org/Project.mvc/Display/2003-022-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2003-039-00	Monitoring Reproductive In Wenatchee / Tucannon / Kal		http://www.cbfish.org/Project.mvc/Display/2003-039-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2003-060-00	Rock Creek Fish And Habitat Assessment		http://www.cbfish.org/Project.mvc/Display/2003-060-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2005-001-00	Rock Creek Fish And Habitat Assessment		http://www.cbfish.org/Project.mvc/Display/2005-001-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2007-086-00	Mitigation Of Marine - Derived Nutrients		http://www.cbfish.org/Project.mvc/Display/2007-086-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2007-127-00	E Fork Of S Fork Salmon Passage R		http://www.cbfish.org/Project.mvc/Display/2007-127-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2008-745-00	Additional IMW Studies	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-745-00
RM&E	Tributary Habitat RM&E	56	1	BPA	2007-233-00	ID Spring Chinook Captive Propagation		http://www.cbfish.org/Project.mvc/Display/2007-233-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Tributary Habitat RM&E	56	1	BPA	2007-332-00	Mitigation Of Marine - Derived Nutrients		http://www.cbfish.org/Project.mvc/Display/2007-332-00
RM&E	Tributary Habitat RM&E	56	1.2	BPA	2007-325-00	UPA Wenatchee Complexity		http://www.cbfish.org/Project.mvc/Display/2007-325-00
RM&E	Tributary Habitat RM&E	56	2	BPA	1999-016-00	Pine Creek / Wagner Management		http://www.cbfish.org/Project.mvc/Display/1999-016-00
RM&E	Tributary Habitat RM&E	56	2	BPA	2000-001-00	Enhance North Fork John Day River		http://www.cbfish.org/Project.mvc/Display/2000-001-00
RM&E	Tributary Habitat RM&E	56	2	BPA	1998-022-00	Pine Creek/Wagner Management	2/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-022-00
RM&E	Tributary Habitat RM&E	56	2	BPA	2008-745-01	Additional IMW Studies		http://www.cbfish.org/Project.mvc/Display/2008-745-01
RM&E	Tributary Habitat RM&E	56	3	BPA	1986-050-00	Umatilla Anadromous Fish Habitat - CTUIR		http://www.cbfish.org/Project.mvc/Display/1986-050-00
RM&E	Tributary Habitat RM&E	56	3	BPA	2002-032-00	Snake River Fall Chinook Life History Investigation		http://www.cbfish.org/Project.mvc/Display/2002-032-00
RM&E	Tributary Habitat RM&E	56	3	BPA	2008-747-00	Juven Productivity Monitoring	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-747-00
RM&E	Tributary Habitat RM&E	56	3	BPA	2008-745-02	Additional IMW Studies		http://www.cbfish.org/Project.mvc/Display/2008-745-02
RM&E	Tributary Habitat RM&E	56	1, 2	BPA	2002-074-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2002-074-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Tributary Habitat RM&E	56	1, 2	BPA	2000-031-00	Enhance North Fork John Day Ri	4/1/2000	http://www.cbfish.org/Project.mvc/Display/2000-031-00
RM&E	Tributary Habitat RM&E	56	1, 2	BPA	2003-017-00	Integrated Status/Effect Progr	7/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-017-00
RM&E	Tributary Habitat RM&E	56	1,2	BPA	2002-059-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2002-059-00
RM&E	Tributary Habitat RM&E	56	1,2	BPA	2003-006-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2003-006-00
RM&E	Tributary Habitat RM&E	56	1,2	BPA	2003-007-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2003-007-00
RM&E	Tributary Habitat RM&E	56	1,2	BPA	2003-010-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2003-010-00
RM&E	Tributary Habitat RM&E	56	1,2	BPA	2007-083-00	Grande Ronde Supplementation M&E		http://www.cbfish.org/Project.mvc/Display/2007-083-00
RM&E	Tributary Habitat RM&E	56	1,2	BPA	2007-156-00	Snake River Sockeye Captive Propagation		http://www.cbfish.org/Project.mvc/Display/2007-156-00
RM&E	Tributary Habitat RM&E	56	1,2	BPA	2007-397-00	John Day Tributary / Passage & Flow		http://www.cbfish.org/Project.mvc/Display/2007-397-00
RM&E	Tributary Habitat RM&E	56	1,2	BPA	2008-471-00	Upper Columbia Nutrient Supplementation		http://www.cbfish.org/Project.mvc/Display/2008-471-00
RM&E	Tributary Habitat RM&E	56	1,2	BPA	2009-003-00	Upper Columbia Habitat Restoration		http://www.cbfish.org/Project.mvc/Display/2009-003-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Tributary Habitat RM&E	56	1,3	BPA	1987-100-01	Umatilla Anadromous Fish Habitat - CTUIR		http://www.cbfish.org/Project.mvc/Display/1987-100-01
RM&E	Tributary Habitat RM&E	56	1,3	BPA	2002-070-00	Lapwai Creek Anadromous Habitat		http://www.cbfish.org/Project.mvc/Display/2002-070-00
RM&E	Tributary Habitat RM&E	57	1	BPA	2002-061-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2002-061-00
RM&E	Tributary Habitat RM&E	57	2	BPA	1989-098-00	Hood River Production M&E - Warm Springs		http://www.cbfish.org/Project.mvc/Display/1989-098-00
RM&E	Tributary Habitat RM&E	57	2	BPA	1990-044-00	Salmon Studies ID Rivers IDFC		http://www.cbfish.org/Project.mvc/Display/1990-044-00
RM&E	Tributary Habitat RM&E	57	2	BPA	1991-019-01	Salmon Studies ID Rivers IDFC		http://www.cbfish.org/Project.mvc/Display/1991-019-01
RM&E	Tributary Habitat RM&E	57	4	BPA	1994-042-00	Trout Creek O&M		http://www.cbfish.org/Project.mvc/Display/1994-042-00
RM&E	Tributary Habitat RM&E	57	4	BPA	1996-040-00	Trout Creek O&M		http://www.cbfish.org/Project.mvc/Display/1996-040-00
RM&E	Tributary Habitat RM&E	57	4	BPA	2007-083-00	Grande Ronde Supplementation M&E		http://www.cbfish.org/Project.mvc/Display/2007-083-00
RM&E	Tributary Habitat RM&E	57	4	BPA	2007-156-00	Snake River Sockeye Captive Propagation		http://www.cbfish.org/Project.mvc/Display/2007-156-00
RM&E	Tributary Habitat RM&E	57	4	BPA	2007-325-00	Upa Wenatchee Complexity	9/27/2007	http://www.cbfish.org/Project.mvc/Display/2007-325-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Tributary Habitat RM&E	57	4	BPA	2007-397-00	John Day Trib/Pass & Flow	2/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-397-00
RM&E	Tributary Habitat RM&E	57	4	BPA	2009-003-00	Upper Columbia Habitat Restoration		http://www.cbfish.org/Project.mvc/Display/2009-003-00
RM&E	Tributary Habitat RM&E	57	5	BPA	None Identified			-
RM&E	Tributary Habitat RM&E	57	1234	BPA	2008-745-00	Additional IMW Studies	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-745-00
RM&E	Tributary Habitat RM&E	57	1234	BPA	2008-746-00	Nutrient Supplementation Studies	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-746-00
RM&E	Tributary Habitat RM&E	57	1234	BPA	2008-745-03	Additional IMW Studies		http://www.cbfish.org/Project.mvc/Display/2008-745-03
RM&E	Tributary Habitat RM&E	57	1, 2,3,4	BPA	2003-017-00	Integrated Status/Effect Progr	7/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-017-00
RM&E	Tributary Habitat RM&E	57	2,4	BPA	2002-059-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2002-059-00
RM&E	Tributary Habitat RM&E	57	2,3	BPA	2003-010-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2003-010-00
RM&E	Tributary Habitat RM&E	57	3,4	BPA	2002-074-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2002-074-00
RM&E	Tributary Habitat RM&E	57	3,4	BPA	2003-006-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2003-006-00
RM&E	Tributary Habitat RM&E	57	3,4	BPA	2003-007-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2003-007-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Estuary Habitat RM&E	58	3	BPA	2003-011-00	Columbia River / Estuary Habitat		http://www.cbfish.org/Project.mvc/Display/2003-011-00
RM&E	Estuary Habitat RM&E	58	3	BPA	2003-007-00	Lower Columbia River/Estuary Ecosystem Monitoring	9/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-007-00
RM&E	Estuary Habitat RM&E	58	3	BPA	2008-743-00	Early-Ocean Productivity Asmnt	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-743-00
RM&E	Estuary Habitat RM&E	58	2, 3, 4	BPA	2003-010-00	Historic Habitat Opportunities and Food-Web Linkages	5/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-010-00
RM&E	Estuary Habitat RM&E	58	2,3	BPA	2005-001-00	Rock Creek Fish And Habitat Assessment		http://www.cbfish.org/Project.mvc/Display/2005-001-00
RM&E	Estuary Habitat RM&E	58	3, 4	BPA	1998-014-00	Ocean Survival of Salmonids	9/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-014-00
RM&E	Estuary Habitat RM&E	59	1	BPA	2007-513-00	Eelgrass Enhancement And Restoration		http://www.cbfish.org/Project.mvc/Display/2007-513-00
RM&E	Estuary Habitat RM&E	59	1, 2, 5	BPA	2003-007-00	Lower Columbia River/Estuary Ecosystem Monitoring	9/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-007-00
RM&E	Estuary Habitat RM&E	59	1, 4, 5	BPA	2005-001-00	Estuary RME Tidal Freshwater	2/20/2005	http://www.cbfish.org/Project.mvc/Display/2005-001-00
RM&E	Estuary Habitat RM&E	59	1,5	BPA	2003-011-00	Columbia River / Estuary Habitat		http://www.cbfish.org/Project.mvc/Display/2003-011-00
RM&E	Estuary Habitat RM&E	59	4,5	BPA	2003-010-00	Historic Habitat Opportunities and Food-Web Linkages	5/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-010-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Estuary Habitat RM&E	60	1	BPA	2005-001-00	Rock Creek Fish And Habitat Assessment		http://www.cbfish.org/Project.mvc/Display/2005-001-00
RM&E	Estuary Habitat RM&E	60	2	BPA	2005-001-00	Estuary RME Tidal Freshwater	2/20/2005	http://www.cbfish.org/Project.mvc/Display/2005-001-00
RM&E	Estuary Habitat RM&E	60	2	BPA	2007-513-00	Eelgrass Enhancement And Resto	2/1/2008	http://www.cbfish.org/Project.mvc/Display/2007-513-00
RM&E	Estuary Habitat RM&E	60	1, 2	BPA	2003-007-00	Lower Columbia River/Estuary Ecosystem Monitoring	9/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-007-00
RM&E	Estuary Habitat RM&E	60	1, 2, 3	BPA	2003-011-00	Lower Columbia River/Estuary Habitat Restoration	5/21/2003	http://www.cbfish.org/Project.mvc/Display/2003-011-00
RM&E	Estuary Habitat RM&E	61	1	BPA	2005-001-00	Rock Creek Fish And Habitat Assessment		http://www.cbfish.org/Project.mvc/Display/2005-001-00
RM&E	Estuary Habitat RM&E	61	1	BPA	2007-275-00	Impact Of American Shad		http://www.cbfish.org/Project.mvc/Display/2007-275-00
RM&E	Estuary Habitat RM&E	61	2	BPA	2003-114-00	Pacific Ocean Shelf Tracking (POST)	12/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-114-00
RM&E	Estuary Habitat RM&E	61	3	BPA	2003-011-00	Columbia River / Estuary Habitat		http://www.cbfish.org/Project.mvc/Display/2003-011-00
RM&E	Estuary Habitat RM&E	61	3	BPA	2005-001-00	Estuary RME Tidal Freshwater	2/20/2005	http://www.cbfish.org/Project.mvc/Display/2005-001-00
RM&E	Estuary Habitat RM&E	61	1, 2	BPA	2003-009-00	Canada-USA Shelf Sal Survival Study	10/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-009-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Estuary Habitat RM&E	61	1, 2, 4	BPA	1998-014-00	Ocean Survival Of Salmonids	9/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-014-00
RM&E	Estuary Habitat RM&E	61	1, 3, 4	BPA	2003-010-00	Historic Habitat Opportunities and Food-Web Linkages	5/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-010-00
RM&E	Estuary Habitat RM&E	61	1,3	BPA	2003-007-00	Lower Columbia River/Estuary Ecosystem Monitoring	9/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-007-00
RM&E	Harvest RM&E	62	1	BPA	1997-015-01	Imnaha River Smolt Monitoring NPT		http://www.cbfish.org/Project.mvc/Display/1997-015-01
RM&E	Harvest RM&E	62	1	BPA	2008-502-00	Expanded Tribal Catch Sampling		http://www.cbfish.org/Project.mvc/Display/2008-502-00
RM&E	Harvest RM&E	62	1	BPA	2008-508-00	Power Analysis Catch Sampling Rates		http://www.cbfish.org/Project.mvc/Display/2008-508-00
RM&E	Harvest RM&E	62	2	BPA	2007-083-00	Grande Ronde Supplementation M&E		http://www.cbfish.org/Project.mvc/Display/2007-083-00
RM&E	Harvest RM&E	62	2	BPA	1993-060-00	Select Area Fishery Evaluation	11/1/1993	http://www.cbfish.org/Project.mvc/Display/1993-060-00
RM&E	Harvest RM&E	62	4	BPA	1990-005-00	Umatilla Hatchery - M&E		http://www.cbfish.org/Project.mvc/Display/1990-005-00
RM&E	Harvest RM&E	62	4	BPA	1982-013-01	Coded Wire Tag - Psmfc	1/1/1982	http://www.cbfish.org/Project.mvc/Display/1982-013-01
RM&E	Harvest RM&E	62	4	BPA	1982-013-02	Coded Wire Tag - ODFW	1/1/1982	http://www.cbfish.org/Project.mvc/Display/1982-013-02

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Harvest RM&E	62	4	BPA	1982-013-03	Coded Wire Tag - USFWS	1/1/1982	http://www.cbfish.org/Project.mvc/Display/1982-013-03
RM&E	Harvest RM&E	62	4	BPA	1982-013-04	Coded Wire Tag - WDFW	1/1/1982	http://www.cbfish.org/Project.mvc/Display/1982-013-04
RM&E	Harvest RM&E	62	4	BPA	2008-740-00	Addtl Marking Hatchery Fish	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-740-00
RM&E	Harvest RM&E	62	5	BPA	1997-038-00	Listed Stock Chinook Salmon Gamete		http://www.cbfish.org/Project.mvc/Display/1997-038-00
RM&E	Harvest RM&E	62	5	BPA	2003-050-00	Evaluation Of Reproductive Success Of Steelhead		http://www.cbfish.org/Project.mvc/Display/2003-050-00
RM&E	Harvest RM&E	62	5	BPA	2003-063-00	Reproductive Success Abernathy Creek		http://www.cbfish.org/Project.mvc/Display/2003-063-00
RM&E	Harvest RM&E	62	5	BPA	2008-311-00	Natural Production Management & Monitoring		http://www.cbfish.org/Project.mvc/Display/2008-311-00
RM&E	Harvest RM&E	62	5	BPA	2008-907-00	Genetic Assessment of Columbia River Stocks		http://www.cbfish.org/Project.mvc/Display/2008-907-00
RM&E	Harvest RM&E	62	5	BPA	1983-350-00	Nez Perce Tribal Hatchery O&M	1/1/1983	http://www.cbfish.org/Project.mvc/Display/1983-350-00
RM&E	Harvest RM&E	62	5	BPA	1988-053-04	Hood River Production M&E-ODFW	10/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-053-04
RM&E	Harvest RM&E	62	5	BPA	1988-053-08	Hood R Powerdale/Oak Springs	10/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-053-08

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Harvest RM&E	62	5	BPA	1989-096-00	Genetic M&E Prog For Sal/Steel	11/1/1989	http://www.cbfish.org/Project.mvc/Display/1989-096-00
RM&E	Harvest RM&E	62	5	BPA	2002-030-00	Salmonid Progeny Markers	5/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-030-00
RM&E	Harvest RM&E	62	5	BPA	2003-054-00	Repro of Steelhead In Hood River	10/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-054-00
RM&E	Harvest RM&E	62	5	BPA	2003-060-00	Eval Repro Success Snake Rvr C	8/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-060-00
RM&E	Harvest RM&E	62	5	BPA	2007-404-00	Or Spr Chinook Captive Prop	1/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-404-00
RM&E	Harvest RM&E	62	1, 4, 5	BPA	1983-350-03	Nez Perce Tribal Hatchery M&E	1/1/1983	http://www.cbfish.org/Project.mvc/Display/1983-350-03
RM&E	Harvest RM&E	62	1, 5	BPA	1989-098-00	Salmon Studies Id Rvrs Idfc	1/1/1989	http://www.cbfish.org/Project.mvc/Display/1989-098-00
RM&E	Harvest RM&E	62	1,4	BPA	1988-053-03	Hood River Production M&E - Warm Springs		http://www.cbfish.org/Project.mvc/Display/1988-053-03
RM&E	Harvest RM&E	62	1,5	BPA	1996-043-00	Johnson Creek Artificial Propagation		http://www.cbfish.org/Project.mvc/Display/1996-043-00
RM&E	Harvest RM&E	62	2, 3	BPA	2007-249-00	Eval Of Live Capture Gear	9/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-249-00
RM&E	Harvest RM&E	62	4, 5	BPA	1995-063-25	Ykfp - Monitoring And Evaluation	5/1/1995	http://www.cbfish.org/Project.mvc/Display/1995-063-25

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Harvest RM&E	62	4,5	BPA	1988-053-07	Hood River Production O&M - WS / ODFW		http://www.cbfish.org/Project.mvc/Display/1988-053-07
RM&E	Hatchery RM&E	63	1	BPA	1992-026-04	Life Studies Of Spring Chinook		http://www.cbfish.org/Project.mvc/Display/1992-026-04
RM&E	Hatchery RM&E	63	1	BPA	1996-043-00	Johnson Creek Artificial Propagation		http://www.cbfish.org/Project.mvc/Display/1996-043-00
RM&E	Hatchery RM&E	63	1	BPA	1997-038-00	Listed Stock Chinook Salmon Gamete		http://www.cbfish.org/Project.mvc/Display/1997-038-00
RM&E	Hatchery RM&E	63	1	BPA	2001-053-00	Reintroduction Of Chum In Duncan Creek		http://www.cbfish.org/Project.mvc/Display/2001-053-00
RM&E	Hatchery RM&E	63	1	BPA	2007-083-00	Grande Ronde Supplementation M&E		http://www.cbfish.org/Project.mvc/Display/2007-083-00
RM&E	Hatchery RM&E	63	1	BPA	2009-009-00	Basinwide Supplementation Evaluation		http://www.cbfish.org/Project.mvc/Display/2009-009-00
RM&E	Hatchery RM&E	63	1	BPA	1989-096-00	Genetic Monitoring of Snake River Chinook Salmon and Steelhead (BPA 1989-096-00)	11/1/1989	http://www.cbfish.org/Project.mvc/Display/1989-096-00
RM&E	Hatchery RM&E	63	1	BPA	1998-007-02	Grande Ronde Supplementation Lostine River O&M/M&E (BPA 1998-007-02)	1/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-007-02
RM&E	Hatchery RM&E	63	1	BPA	1998-007-03	Grande Ronde Supplementation O&M/M&E (BPA 1998-007-03)	1/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-007-03

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hatchery RM&E	63	1	BPA	1998-007-04	Grande Ronde Sp Chinook-ODFW	1/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-007-04
RM&E	Hatchery RM&E	63	1	BPA	2007-402-00	Snake River Sockeye Captive Propagation (BPA 2007-402-00)	7/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-402-00
RM&E	Hatchery RM&E	63	1, 2	BPA	1989-098-00	Salmon Studies Id Rvrs Idfc	1/1/1989	http://www.cbfish.org/Project.mvc/Display/1989-098-00
RM&E	Hatchery RM&E	64	1	BPA	1988-053-08	Hood R Powerdale/Oak Springs	10/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-053-08
RM&E	Hatchery RM&E	64	1	BPA	2003-054-00	Repro Of Steelhead In Hood River	10/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-054-00
RM&E	Hatchery RM&E	64	2	BPA	1983-350-00	Nez Perce Tribal Hatchery M&E		http://www.cbfish.org/Project.mvc/Display/1983-350-00
RM&E	Hatchery RM&E	64	2	BPA	1983-435-00	Umatilla Hatchery O&M - CTUIR		http://www.cbfish.org/Project.mvc/Display/1983-435-00
RM&E	Hatchery RM&E	64	2	BPA	1988-053-01	NE OR Hatchery Master Plan		http://www.cbfish.org/Project.mvc/Display/1988-053-01
RM&E	Hatchery RM&E	64	2	BPA	1992-026-04	Life Studies Of Spring Chinook		http://www.cbfish.org/Project.mvc/Display/1992-026-04
RM&E	Hatchery RM&E	64	2	BPA	1996-043-00	Johnson Creek Artificial Propagation		http://www.cbfish.org/Project.mvc/Display/1996-043-00
RM&E	Hatchery RM&E	64	2	BPA	1997-015-01	Imnaha River Smolt Monitoring NPT		http://www.cbfish.org/Project.mvc/Display/1997-015-01

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hatchery RM&E	64	2	BPA	1997-038-00	Listed Stock Chinook Salmon Gamete		http://www.cbfish.org/Project.mvc/Display/1997-038-00
RM&E	Hatchery RM&E	64	2	BPA	1998-010-03	Spawning distribution of Snake River fall Chinook		http://www.cbfish.org/Project.mvc/Display/1998-010-03
RM&E	Hatchery RM&E	64	2	BPA	2000-019-00	Tucannon River Spring Chinook		http://www.cbfish.org/Project.mvc/Display/2000-019-00
RM&E	Hatchery RM&E	64	2	BPA	2002-031-00	Chinook Growth Rate Modulation		http://www.cbfish.org/Project.mvc/Display/2002-031-00
RM&E	Hatchery RM&E	64	2	BPA	2008-311-00	Natural Production Management & Monitoring		http://www.cbfish.org/Project.mvc/Display/2008-311-00
RM&E	Hatchery RM&E	64	2	BPA	2008-458-00	Steelhead Kelt Reconditioning		http://www.cbfish.org/Project.mvc/Display/2008-458-00
RM&E	Hatchery RM&E	64	2	BPA	1983-350-03	Nez Perce Tribal Hatchery M&E [Snake River fall Chinook component] (BPA 1983-350-03)	1/1/1983	http://www.cbfish.org/Project.mvc/Display/1983-350-03
RM&E	Hatchery RM&E	64	2	BPA	1989-096-00	Genetic M&E Prog For Sal/Steel	11/1/1989	http://www.cbfish.org/Project.mvc/Display/1989-096-00
RM&E	Hatchery RM&E	64	2	BPA	1990-005-00	Umatilla Hatchery M&E [MCR steelhead component] (BPA 1990-005-00)	11/1/1990	http://www.cbfish.org/Project.mvc/Display/1990-005-00
RM&E	Hatchery RM&E	64	2	BPA	1995-063-25	YKFP – Monitoring and Evaluation (BPA 1995-063-25)	5/1/1995	http://www.cbfish.org/Project.mvc/Display/1995-063-25

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hatchery RM&E	64	2	BPA	1998-007-02	Gd Ronde Supp Lostine O&M/M&E	1/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-007-02
RM&E	Hatchery RM&E	64	2	BPA	1998-007-03	Grande Ronde Supp. O&M/M&E	1/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-007-03
RM&E	Hatchery RM&E	64	2	BPA	1998-007-04	Grande Ronde Sp Chinook-ODFW	1/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-007-04
RM&E	Hatchery RM&E	64	2	BPA	1998-010-04	M&E Snake R. Fall Ch Spawning	1/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-010-04
RM&E	Hatchery RM&E	64	2	BPA	2002-030-00	Develop Progeny Marker for Salmonids to Evaluate Supplementation (BPA 2002-030-00 – a project in the Agreement on 2007 FCRPS Fish Operations)	5/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-030-00
RM&E	Hatchery RM&E	64	2	BPA	2003-039-00	Monitoring the Reproductive Success of Naturally Spawning Hatchery and Natural Spring Chinook Salmon in the Wenatchee Watershed (BPA 2003-039-00)	4/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-039-00
RM&E	Hatchery RM&E	64	2	BPA	2003-050-00	Evaluation of Reproduction of Steelhead (BPA 2003-050-00)	12/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-050-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hatchery RM&E	64	2	BPA	2003-060-00	Eval Repro Success Snake Rvr C	8/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-060-00
RM&E	Hatchery RM&E	64	2	BPA	2003-063-00	Reproductive Success of Abernathy Creek Steelhead (BPA 2003-063-00)t	1/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-063-00
RM&E	Hatchery RM&E	64	2	BPA	2007-401-00	Evaluate the Relative Reproductive Success of Reconditioned Kelt Steelhead (BPA 2004-401-00)	4/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-401-00
RM&E	Hatchery RM&E	64	1, 2	BPA	1988-053-03	Hood River Production M&E - Ws	10/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-053-03
RM&E	Hatchery RM&E	64	1, 2	BPA	1988-053-04	Hood River Production M&E-ODFW	10/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-053-04
RM&E	Hatchery RM&E	64	1, 2	BPA	2007-083-00	Grande Ronde Suppmentation M&E	1/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-083-00
RM&E	Hatchery RM&E	64	1,2	BPA	1988-053-07	Hood River Production O&M - WS / ODFW		http://www.cbfish.org/Project.mvc/Display/1988-053-07
RM&E	Hatchery RM&E	64	2, 3	BPA	1989-098-00	Salmon Studies Id Rvrs Idfc	1/1/1989	http://www.cbfish.org/Project.mvc/Display/1989-098-00
RM&E	Hatchery RM&E	64	2, 3	BPA	2007-402-00	Snake River Sockeye Cap Prop	7/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-402-00
RM&E	Hatchery RM&E	64	2, 3	BPA	2007-403-00	Id Spr Chinook Captive Prop	12/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-403-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hatchery RM&E	64	2, 3	BPA	2007-404-00	Or Spr Chinook Captive Prop	1/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-404-00
RM&E	Hatchery RM&E	64	All	BPA	2008-721-00	Investigate Snake River sockeye salmon smolt mortality between the Stanley Basin and Lower Granite Dam (New - BPA 2008-721-00)	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-721-00
RM&E	Hatchery RM&E	64	All	BPA	2008-722-00	Methow River steelhead relative reproductive success study (New - BPA 2008-722-00)	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-722-00
RM&E	Hatchery RM&E	65	3		None Identified			http://www.cbfish.org/Project.mvc/Display/None Identified
RM&E	Hatchery RM&E	65	?	BPA	2008-724-00	PIT Tag Snake River Sockeye and Upper Columbia Spring Chinook		http://www.cbfish.org/Project.mvc/Display/2008-724-00
RM&E	Hatchery RM&E	65	1, 2	BPA	1998-010-03	M&E Yearling Snake R. Fall Ch	12/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-010-03
RM&E	Hatchery RM&E	65	1, 2	BPA	1998-010-04	M&E Snake R. Fall Ch Spawning	1/1/1998	http://www.cbfish.org/Project.mvc/Display/1998-010-04
RM&E	Hatchery RM&E	65	1,2	BPA	2003-060-00	Rock Creek Fish And Habitat Assessment		http://www.cbfish.org/Project.mvc/Display/2003-060-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hatchery RM&E	66	All	BPA	1997-024-00	Monitor and Evaluate the Caspian Tern Population in the Columbia River Estuary	2/1/1997	http://www.cbfish.org/Project.mvc/Display/1997-024-00
RM&E	Predation Management RM&E	67	All	BPA	1997-024-00	Monitor and Evaluate the Double Crested Cormorant Population in the Columbia River Estuary	2/1/1997	http://www.cbfish.org/Project.mvc/Display/1997-024-00
RM&E	Predation Management RM&E	68	All	BPA	1997-024-00	Monitor and Evaluate Inland Avian Predation	2/1/1997	http://www.cbfish.org/Project.mvc/Display/1997-024-00
RM&E	Predation Management RM&E	69	123	BPA	2008-003-00	RM&E - Marine Mammal Predation	2/22/2008	http://www.cbfish.org/Project.mvc/Display/2008-003-00
RM&E	Predation Management RM&E	69	123	BPA	2008-004-00	RM&E - Marine Mammal Predation	4/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-004-00
RM&E	Predation Management RM&E	70	4	BPA	2008-720-00	Workshop Non-Indigenous Fishes	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2008-720-00
RM&E	Predation Management RM&E	70	1, 2,3	BPA	1990-077-00	Dev Of Systemwide Predator Control	4/1/1990	http://www.cbfish.org/Project.mvc/Display/1990-077-00
RM&E	Coordination and Data Management	71	1		None Identified			http://www.cbfish.org/Project.mvc/Display/None Identfied
RM&E	Coordination and Data Management	71	2		None Identified			http://www.cbfish.org/Project.mvc/Display/None Identfied

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Coordination and Data Management	71	3	BPA	1996-020-00	PIT Tagging Spring / Summer Chinook		http://www.cbfish.org/Project.mvc/Display/1996-020-00
RM&E	Coordination and Data Management	71	3	BPA	1996-043-00	Johnson Creek Artificial Propagation		http://www.cbfish.org/Project.mvc/Display/1996-043-00
RM&E	Coordination and Data Management	71	4	BPA	1982-013-01	Coded Wire Tag - PSMFC		http://www.cbfish.org/Project.mvc/Display/1982-013-01
RM&E	Coordination and Data Management	71	4	BPA	1988-108-04	Streamnet (CIS / NED)		http://www.cbfish.org/Project.mvc/Display/1988-108-04
RM&E	Coordination and Data Management	71	4	BPA	2003-007-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2003-007-00
RM&E	Coordination and Data Management	71	4	BPA	2003-022-00	Grande Ronde Supplementation M&E		http://www.cbfish.org/Project.mvc/Display/2003-022-00
RM&E	Coordination and Data Management	71	4	BPA	2007-402-00	Deschutes River Fall Chinook Research and Monitoring		http://www.cbfish.org/Project.mvc/Display/2007-402-00
RM&E	Coordination and Data Management	71	4	BPA	2007-403-00	ID Spring Chinook Captive Propagation		http://www.cbfish.org/Project.mvc/Display/2007-403-00
RM&E	Coordination and Data Management	71	4	BPA	2007-404-00	OR Spring Chinook Captive Propagation		http://www.cbfish.org/Project.mvc/Display/2007-404-00
RM&E	Coordination and Data Management	71	4	BPA	2008-505-00	Streamnet Library		http://www.cbfish.org/Project.mvc/Display/2008-505-00
RM&E	Coordination and Data Management	71	5	BPA	2005-001-00	Rock Creek Fish And Habitat Assessment		http://www.cbfish.org/Project.mvc/Display/2005-001-00

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Coordination and Data Management	71	6	BPA	2008-727-01	Regional Data Management Support and Coordination		http://www.cbfish.org/Project.mvc/Display/2008-727-01
RM&E	Coordination and Data Management	71	6	BPA	2003-036-00	Cbfwa Monitor/Eval Program	9/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-036-00
RM&E	Coordination and Data Management	71	3, 6	BPA	2007-216-00	Pnamp Rme Design And Protocals	10/1/2007	http://www.cbfish.org/Project.mvc/Display/2007-216-00
RM&E	Coordination and Data Management	71	3,4	BPA	1994-033-00	Fish Passage Center		http://www.cbfish.org/Project.mvc/Display/1994-033-00
RM&E	Coordination and Data Management	71	3,4,5,6	BPA	2004-002-00	Pnamp Funding	10/1/2004	http://www.cbfish.org/Project.mvc/Display/2004-002-00
RM&E	Coordination and Data Management	71	4, 6	BPA	2008-727-00	Regional Data Management Support and Coordination	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-727-00
RM&E	Coordination and Data Management	71	4,5	BPA	2003-017-00	Integrated Status / Effect Program		http://www.cbfish.org/Project.mvc/Display/2003-017-00
RM&E	Coordination and Data Management	71	4,5,6	BPA	2003-072-00	Biodiversity System For Columbia		http://www.cbfish.org/Project.mvc/Display/2003-072-00
RM&E	Coordination and Data Management	71	5,6	BPA	2002-077-00	Estuary / Ocean RM&E Support		http://www.cbfish.org/Project.mvc/Display/2002-077-00
RM&E	Coordination and Data Management	72	1	BPA	1987-127-00	Smolt Monitoring By Non - Federal		http://www.cbfish.org/Project.mvc/Display/1987-127-00
RM&E	Coordination and Data Management	72	1	BPA	2008-727-02	Regional Data Management Support and Coordination		http://www.cbfish.org/Project.mvc/Display/2008-727-02

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Coordination and Data Management	72	1	BPA	2002-077-00	Estuary/Ocean Rme Support	10/1/2002	http://www.cbfish.org/Project.mvc/Display/2002-077-00
RM&E	Coordination and Data Management	72	1	BPA	2003-036-00	Cbfwa Monitor/Eval Program	9/1/2003	http://www.cbfish.org/Project.mvc/Display/2003-036-00
RM&E	Coordination and Data Management	72	1	BPA	2005-001-00	Estuary Rme Pilot Project	2/20/2005	http://www.cbfish.org/Project.mvc/Display/2005-001-00
RM&E	Coordination and Data Management	72	2	BPA	2008-727-03	Regional Data Management Support and Coordination		http://www.cbfish.org/Project.mvc/Display/2008-727-03
RM&E	Coordination and Data Management	72	2	BPA	1996-019-00	Dart-Data Access In Real Time	10/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-019-00
RM&E	Coordination and Data Management	72	3	BPA	2008-727-04	Regional Data Management Support and Coordination		http://www.cbfish.org/Project.mvc/Display/2008-727-04
RM&E	Coordination and Data Management	72	3	BPA	1996-017-00	Tech Support Bio Analyst Inc	1/1/1996	http://www.cbfish.org/Project.mvc/Display/1996-017-00
RM&E	Coordination and Data Management	72	1, 2, 3	BPA	1988-108-04	Streamnet (Cis/Ned)	10/1/1988	http://www.cbfish.org/Project.mvc/Display/1988-108-04
RM&E	Coordination and Data Management	72	1, 3	BPA	2004-002-00	Pnamp Funding	10/1/2004	http://www.cbfish.org/Project.mvc/Display/2004-002-00
RM&E	Coordination and Data Management	72	1,2,3	BPA	2008-727-00	Regional Data Management Support and Coordination	10/1/2008	http://www.cbfish.org/Project.mvc/Display/2008-727-00
RM&E	Coordination and Data Management	72	1,3	BPA	1982-013-01	Coded Wire Tag - PSMFC		http://www.cbfish.org/Project.mvc/Display/1982-013-01

Table 1. BPA Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Coordination and Data Management	72	1,3	BPA	1998-031-00	Implement Wy - Kan - Ush - Mi Wa - Kis		http://www.cbfish.org/Project.mvc/Display/1998-031-00
RM&E	Coordination and Data Management	72	1,3	BPA	2008-505-00	Streamnet Library		http://www.cbfish.org/Project.mvc/Display/2008-505-00
RM&E	Implementation and Compliance Monitoring	73	1,2,3	BPA	None identified	None identified	None identified	

Table 2. Reclamation Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4034	MVID East Canal Diversion Dam	9/13/2002	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4035	MVID West Canal Diversion Dam	9/13/2002	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4261	Elbow Coulee Side Channel Restoration	5/4/2005	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4263	Upper Beaver Creek Side Channel Reconnection	5/3/2005	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4328	L-1 Diversion	4/1/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4342	Pole Creek Diversion Enhancement	9/10/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4239	East Fork Salmon River-EF 13 Diversion	3/9/2004	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4247	East Fork Salmon River-EF 14 Diversion	2/16/2006	

Table 2. Reclamation Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4249	East Fork Salmon River EF 16 Diversion	2/16/2006	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4335	Big Springs Creek 1 Diversion Enhancement	7/1/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4296	Smith Ditch Diversion	10/18/2006	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4345	Boulder Creek Ranch Diversion	7/25/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4304	Panama Ditch Diversion	10/18/2006	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4300	Bower's/Lemon's Ditch Diversion	10/18/2006	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4302	Long Box Diversion	10/18/2006	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4298	Beech Creek Crossing	10/18/2006	

Table 2. Reclamation Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4301	Hufstader Pump Station	10/18/2006	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4323	Kennedy (UPJD RM 209) and Murray (UPJD RM 210.2) Ditch Diversions	1/24/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4369	Grant SWCD-Cummings River Ditch Diversion (UPJD RM 222.5)	2/4/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4314	Grant SWCD-Stout Diversion (UPJD RM 214.3)	3/31/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4350	Oliver Ditch # 47 (UPJD RM 253.3) Diversion (combined with Oliver #48 in 2008)	7/28/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4351	Oliver Ditch # 48 (UPJD RM 253.2) Diversion (combined with Oliver # 47 in 2008)	7/28/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4353	Oliver Ditch # 49 Diversion (UPJD RM 252.2)	7/28/2008	

Table 2. Reclamation Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4349	Eddington Ditch Diversion (Page Pump Station- UPJD RM 231.7)	7/28/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4288	Stillwater Complexity Project	7/21/2006	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4326	Keystone Canyon Project	1/29/2007	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4329	Harrison Side Channel	6/26/2007	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4306	WPP Beaver Creek 3 Culvert Replacements	1/19/2007	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4258	Wenatchee Watershed Fluvial Habitat Resoration Plan (WWFHRP)	9/26/2005	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4193	Jones Shotwell Ditch	2/2/2004	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4330	Poorman Cutoff Road Culvert	2/15/2008	

Table 2. Reclamation Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4325	Big Valley Reach Assessment	10/2/2006	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4333	Big Valley Light Heath	1/19/2007	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4262	Rockview-Fender Mills Phase I Side Channel Reconnection	5/12/2005	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4318	CTWSRO Middle Fork Forrest Reach Assessment	9/18/2007	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4319	CTWSRO Oxbow Reach Assessment	9/5/2007	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4162	Chewuch Basin Water Acquisition	10/1/2007	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4214	Pioneer Ditch	7/26/2004	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4380	Two Mission Creek Projects- 2008	6/26/2008	

Table 2. Reclamation Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4315	CMZ 12/13	2/26/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4316	CMZ 11	2/26/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4378	Upper Lemhi River Flow Enhancement / Eighteenmile Creek Reconnect	10/16/2006	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4327	Orodell Diversion Fish Passage Enhancement Project	9/24/2007	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4198	Pauls Upper John Day Water Lease	10/1/2007	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4347	Fry-Ingle Diversion	7/28/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4348	Cummings Creek Pump	6/28/2008	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4283	Big Boulder Habitat Improvement Project	9/6/2005	

Table 2. Reclamation Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4317	Middle Fork Rock Replacement Projects	9/17/2007	
Habitat	Protect and Improve Tributary Habitat	34	All	Reclamation	4320	Forrest-Emmel Habitat Improvement Program	8/27/2007	
RM&E	Tributary Habitat RM&E	56	1	Reclamation	USBR IA w/ USGS 1425-08-AA-1C-4887	Methow Fish Production, Food Webs,		../../../../Documents and Settings/RWS4093/My Documents/BiOp RPA/Reports/Attachment 2 final 200901005 withlinks.htm - RANGE!P1#RANGE!P1
RM&E	Tributary Habitat RM&E	56	1	Reclamation	USBR IA 1425-06-AA-IC-4797	Fish Pop Genetics		../../../../Documents and Settings/RWS4093/My Documents/BiOp RPA/Reports/Attachment 2 final 200901005 withlinks.htm - RANGE!P1#RANGE!P1
RM&E	Tributary Habitat RM&E	57	4	Reclamation	USGS IA 1425-08-AA-1C-4887	Methow Channel Restoration and Fish Productivity Response		../../../../Documents and Settings/RWS4093/My Documents/BiOp RPA/Reports/Attachment 2 final 200901005 withlinks.htm - RANGE!P1#RANGE!P1
RM&E	Tributary Habitat RM&E	57	5	Reclamation	NWFSC IA 1425-06-AA-1C-4806	Landscape Influences on Stream Condition		../../../../Documents and Settings/RWS4093/My Documents/BiOp RPA/Reports/Attachment 2 final 200901005 withlinks.htm - RANGE!P1#RANGE!P1

Table 3. Corps Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	52	1	COE	SPE-06-2	Comparative Performance of Acoustic - Tagged and PIT - Tagged Juvenile Salmonids		
RM&E	Hydrosystem RM&E	52	1	COE	SPE-P-08-3	Studies of Surface Spill at John Day Dam		
RM&E	Hydrosystem RM&E	52	1	COE	SPE-W-04-2	Juvenile Survival and Passage at Little Goose Dam.		
RM&E	Hydrosystem RM&E	52	1	COE	SPE-W-05-1	Evaluation of Temporary Spillway Weirs (TSW's) at McNary Dam		
RM&E	Hydrosystem RM&E	52	1	COE	SPE-W-08-4	Fish passage and survival at Lower Monumental Dam after installation of an RSW		
RM&E	Hydrosystem RM&E	52	3, 7	COE	ADS-00-4	Investigation of Fate of Fish; Straying in Adult Salmon and Steelhead. (RM&E)		

Table 3. Corps Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	53	5	COE	ADS-P-00-6	Evaluation of Steelhead Kelt and Overwintering Summer Steelhead Downstream Passage Through Columbia and Snake River dams.		
RM&E	Hydrosystem RM&E	54	2	COE	SPE-P-08-2	Condition and Gatewell Retention Time Evaluation for Subyearling Chinook (Spring Creek Hatchery Origin & Run - of - the - River) through FGE modified units at the Second Powerhouse Bonneville Dam.		
RM&E	Hydrosystem RM&E	54	4	COE	TSP-05-1	Pressure Investigations to Support Biological Index Testing		
RM&E	Hydrosystem RM&E	54	6	COE	TPE-W-00-06	Analyze the Benefits of Transporting Lower Snake River Juvenile Fall Chinook Salmon		

Table 3. Corps Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	54	6	COE	TPE-W-04-1	Determine the Seasonal Effects of Transporting fish from the Snake River to optimize a Transportation Strategy.		
RM&E	Hydrosystem RM&E	54	8	COE	AVS-08–01	Evaluate Management Measures and Develop Baseline Information on Double - crested Cormorants Directed at Reducing the Impact of Their Predation on Salmonid Smolts in the Columbia River Estuary		
RM&E	Hydrosystem RM&E	54	8	COE	AVS-W-03-01	Evaluate the Impact of Avian Predation on Salmonid Smolts from the Columbia and Snake Rivers		
RM&E	Hydrosystem RM&E	54	9	COE	ADS-00-4	Investigation of Fate of Fish; Straying in Adult Salmon and Steelhead. (RM&E)		

Table 3. Corps Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	54	9	COE	SPE-06-2	Comparative Performance of Acoustic - Tagged and PIT - Tagged Juvenile Salmonids		
RM&E	Hydrosystem RM&E	54	10	COE	ADS-W-08-1	Little Goose Adult Passage at Varying Spill Levels and Patterns.		
RM&E	Hydrosystem RM&E	54	12	COE	ADS-00-1	Evaluation of Adult Salmon and Steelhead Delay and Fallback at Snake and Columbia River Dams.		
RM&E	Hydrosystem RM&E	54	13	COE	ADS-P-00-6	Evaluation of Steelhead Kelt and Overwintering Summer Steelhead Downstream Passage Through Columbia and Snake River dams.		
RM&E	Hydrosystem RM&E	54	14	COE	ADS-P-00-6	Evaluation of Steelhead Kelt and Overwintering Summer Steelhead Downstream Passage Through Columbia and Snake River dams.		

Table 3. Corps Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	54	1, 2,3,4,5, 9	COE	SPE-P-08-3	Studies of Surface Spill at John Day Dam		
RM&E	Hydrosystem RM&E	54	1, 2,3,4,5, 9	COE	SPE-W-04-2	Juvenile Survival and Passage at Little Goose Dam.		
RM&E	Hydrosystem RM&E	54	1, 2,3,4,5, 9	COE	SPE-W-05-1	Evaluation of Temporary Spillway Weirs (TSW's) at McNary Dam		
RM&E	Hydrosystem RM&E	54	1, 2,3,4,5, 9	COE	SPE-W-08-4	Fish passage and survival at Lower Monumental Dam after installation of an RSW		
RM&E	Hydrosystem RM&E	54	3, 9	COE	SPE-P-08-1	Evaluation of a Behavioral Guidance Structure at Bonneville Dam Second Powerhouse		
RM&E	Hydrosystem RM&E	54	3, 9	COE	SPE-W-09-New	Direct Injury and Survival of Juvenile Salmonids through the Spillway at Little Goose Dam.		
RM&E	Hydrosystem RM&E	55	1	COE	TPE-W-00-06	Analyze the Benefits of Transporting Lower Snake River Juvenile Fall Chinook Salmon		

Table 3. Corps Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	55	1	COE	TPE-W-04-1	Determine the Seasonal Effects of Transporting fish from the Snake River to optimize a Transportation Strategy.		
RM&E	Hydrosystem RM&E	55	2	COE	EST-02-01	A Study of Salmonid Survival and Behavior through the Columbia River Estuary Using Acoustic Tags		
RM&E	Hydrosystem RM&E	55	2	COE	TPE-W-00-06	Analyze the Benefits of Transporting Lower Snake River Juvenile Fall Chinook Salmon		
RM&E	Hydrosystem RM&E	55	2	COE	TPE-W-04-1	Determine the Seasonal Effects of Transporting fish from the Snake River to optimize a Transportation Strategy.		
RM&E	Hydrosystem RM&E	55	4	COE	EST-02-01	A Study of Salmonid Survival and Behavior through the Columbia River Estuary Using Acoustic Tags		

Table 3. Corps Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Hydrosystem RM&E	55	4	COE	TPE-W-00-06	Analyze the Benefits of Transporting Lower Snake River Juvenile Fall Chinook Salmon		
RM&E	Hydrosystem RM&E	55	6	COE	TSP-05-1	Pressure Investigations to Support Biological Index Testing		
RM&E	Hydrosystem RM&E	55	8	COE	SPE-06-2	Comparative Performance of Acoustic - Tagged and PIT - Tagged Juvenile Salmonids		
RM&E	Hydrosystem RM&E	55	9	COE	ADS-00-4	Investigation of Fate of Fish; Straying in Adult Salmon and Steelhead. (RM&E)		
RM&E	Estuary Habitat RM&E	58	1	COE	EST-02-01	A Study of Salmonid Survival and Behavior through the Columbia River Estuary Using Acoustic Tags		

Table 3. Corps Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Estuary Habitat RM&E	58	1	COE	EST-09-P-new	Evaluation of Life History Diversity, Habitat Connectivity, and Survival Benefits Associated with Habitat Restoration Actions in the Lower Columbia River and Estuary		
RM&E	Estuary Habitat RM&E	58	2	COE	EST-09-P-new	Evaluation of Life History Diversity, Habitat Connectivity, and Survival Benefits Associated with Habitat Restoration Actions in the Lower Columbia River and Estuary		
RM&E	Estuary Habitat RM&E	59	1	COE	AER7	JBH Tide Gate Replacement		
RM&E	Estuary Habitat RM&E	59	3	COE	AER7	JBH Tide Gate Replacement		
RM&E	Estuary Habitat RM&E	59	4	COE	EST-02-01	A Study of Salmonid Survival and Behavior through the Columbia River Estuary Using Acoustic Tags		
RM&E	Estuary Habitat RM&E	59	5	COE	STM3	Tides and Currents		

Table 3. Corps Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Estuary Habitat RM&E	59	5	COE	STM4	ODEQ Ambient Water Quality Monitoring		
RM&E	Estuary Habitat RM&E	59	5	COE	STM5	USGS Discharge and WQ Monitoring		
RM&E	Estuary Habitat RM&E	59	5	COE	STM6	WDOE Ambient WQ Monitoring		
RM&E	Estuary Habitat RM&E	59	1, 5	COE	EST-02-P-04	Evaluating Cumulative Ecosystem Response to Habitat Restoration Projects in the Lower Columbia River and Estuary		
RM&E	Estuary Habitat RM&E	59	2,3	COE	EST-09-P-new	Evaluation of Life History Diversity, Habitat Connectivity, and Survival Benefits Associated with Habitat Restoration Actions in the Lower Columbia River and Estuary		
RM&E	Estuary Habitat RM&E	60	2	COE	AER5	Pile Structure Evaluation Coal Creek		
RM&E	Estuary Habitat RM&E	60	2	COE	AER9	Tenasillahe Is. Monitoring		

Table 3. Corps Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Estuary Habitat RM&E	60	1, 2, 3	COE	EST-02-P-04	Evaluating Cumulative Ecosystem Response to Habitat Restoration Projects in the Lower Columbia River and Estuary		
RM&E	Estuary Habitat RM&E	60	2, 3	COE	AER10	Monitoring at Smith and Bybee Lakes		
RM&E	Estuary Habitat RM&E	60	2, 3	COE	AER12	Ramsey Lake Project Monitoring		
RM&E	Estuary Habitat RM&E	60	2, 3	COE	AER7	JBH Tide Gate Replacement		
RM&E	Estuary Habitat RM&E	60	2, 3	COE	AER8	Crims Island Monitoring		
RM&E	Estuary Habitat RM&E	61	1	COE	EST-02-01	A Study of Salmonid Survival and Behavior through the Columbia River Estuary Using Acoustic Tags		
RM&E	Estuary Habitat RM&E	61	3	COE	EST-02-P-04	Evaluating Cumulative Ecosystem Response to Habitat Restoration Projects in the Lower Columbia River and Estuary		
RM&E	Estuary Habitat RM&E	61	4	COE	STM3	Tides and Currents		

Table 3. Corps Project List

H-Section	BiOp Strategy	RPA #	RPA Subaction	Agency	Project #	Project Title	Start Date	Action Information Link
RM&E	Estuary Habitat RM&E	61	4	COE	STM5	USGS Discharge and WQ Monitoring		
RM&E	Estuary Habitat RM&E	61	2, 3	COE	EST-02-01	A Study of Salmonid Survival and Behavior through the Columbia River Estuary Using Acoustic Tags		

Attachment 2: Summary of FY07 and FY08 Accomplishments, by Population

Attachment 2 summarizes the tributary habitat measures implemented with funding from BPA or with technical assistance from Reclamation in 2007 and 2008. BPA uses Pisces, a contract management system, to track and record planned and actual work accomplishments. Reclamation metrics included here were summarized from the detailed metrics reported in Attachment 3, Tables 5.2 and 5.3. Further detail of work accomplished can be found in BPA's Report Center Habitat Metrics Report, available at http://www.efw.bpa.gov/IntegratedFWP/reportcenter.aspx.

NOTE: Metrics in this attachment may be reported twice if they are located in areas used by Chinook and steelhead.

2007/2008 Completed Metric				Water Quantity	Entrain-ment	Passage	Channel complexity	Water Quality Riparian Protection and Enhancement		
ESA-listed ESU/ DPS	**MPG**	**Population**	**CFS acquired or enhanced**	**# of screens addressed**	**# of barriers addressed**	**Stream miles opened**	**Stream miles improved**	**Stream miles protected**	**Riparian acres improved**	**Riparian Acres protected**
Snake River Spring/ Summer Chinook	Grande Ronde / Imnaha	Catherine Creek			2	23.5				
		Lostine/Wallowa River	17.22		1	5	1		16	
		Minam River								
		Grande Ronde River upper mainstem					2		220.5	
		Wenaha River								
		Big Sheep Creek								
		Imnaha River mainstem								
	Middle Fork Salmon River	Bear Valley Creek								
		Big Creek								
		Camas Creek					0.08			
		Loon Creek								
		Marsh Creek								
		Sulphur Creek								
		Middle Fork Salmon River above Indian Creek								
		Chamberlain Creek								
		Middle Fork Salmon River below Indian Creek								

2007/2008 Completed Metric				Water Quantity	Entrain-ment	Passage	Channel complexity	Water Quality Riparian Protection and Enhancement		
ESA-listed ESU/ DPS	**MPG**	**Population**	**CFS acquired or enhanced**	**# of screens addressed**	**# of barriers addressed**	**Stream miles opened**	**Stream miles improved**	**Stream miles protected**	**Riparian acres improved**	**Riparian Acres protected**
	South Fork Salmon River	East Fork South Fork Salmon River					2			
		Little Salmon River			3	15.5				
		Secesh River								
		South Fork Salmon River mainstem								
	Lower Snake	Asotin Creek			1	11.2			34.9	
		Tucannon River						17.8		369.8
	Upper Salmon River	East Fork Salmon River	39.53							
		Lemhi River			5	147			0.4	
		North Fork Salmon River	0							
		Pahsimeroi River	29.55							
		Salmon River lower mainstem below Redfish Lake		1	2	3			5	
		Salmon River upper mainstem above Redfish Lake	29.61							
		Valley Creek								
		Yankee Fork								
Snake River Spring/Summer Chinook Total			***115.91***	***1***	***14***	***205.2***	***5.08***	***17.8***	***276.8***	***369.8***
Upper Columbia River Spring Chinook	Upper Columbia - Below Chief Joseph	Entiat River	0	0	1	0	1			
		Methow River	63.4	1	6	113.8	3.5			
		Wenatchee River	0	5	13	20.4	1.2		0.1	
Upper Columbia River Spring Chinook Total			***63.4***	***6***	***20***	***134.2***	***5.7***	***0***	***0.1***	***0***
Middle	Cascades									
			104				0.9	51.7		598.6

2007/2008 Completed Metric				Water Quantity	Entrain-ment	Passage	Channel complexity	Water Quality Riparian Protection and Enhancement		
ESA-listed ESU/ DPS	**MPG**	**Population**	**CFS acquired or enhanced**	**# of screens addressed**	**# of barriers addressed**	**Stream miles opened**	**Stream miles improved**	**Stream miles protected**	**Riparian acres improved**	**Riparian Acres protected**
Columbia River Steelhead	Eastern Slope Tributaries	eastside								
		Deschutes River - westside						20.14		652.4
		Fifteenmile Creek (winter run)	3.76					21.16		340.8
		Klickitat River								
		Rock Creek								
	John Day River	John Day River lower mainstem tributaries			15	42.5	0.37	60.51	44	869.9
		John Day River upper mainstem	7.65	1	17	58.25	8.1	9.7	8.8	153.1
		Middle Fork John Day River	25.27		13	80.5	8.42	3	33.5	55
		North Fork John Day River	0.9		1	2.5		5.1	112.1	492
		South Fork John Day River		1	2	4.5	0.2	2.3	15	52
	Umatilla and Walla Walla River	Touchet River	2.78		2	100.1			130	
		Umatilla River	6.2		3	13	24.84	14.98	10	18.3
		Walla Walla River	1.22		1	30	0.22			
	Yakima River Group	Naches River	1.2		1	1.5	0.25			
		Satus Creek						112		8062
		Toppenish			1	50	1.5	1.7		97
		Yakima River upper mainstem	36.79		1	1.5	0.11	10	0.9	
Middle Columbia River Steelhead Total			***189.77***	***2***	***57***	***384.35***	***44.91***	***312.29***	***354.3***	***11391.1***
Snake River Steelhead	Clearwater River	Clearwater River lower mainstem			3	18.3			279.6	
		Lochsa River			4	5			62.5	
		Lolo Creek			2	5.2	0.1			

2007/2008 Completed Metric				Water Quantity	Entrain-ment	Passage	Channel complexity	Water Quality Riparian Protection and Enhancement		
ESA-listed ESU/ DPS	**MPG**	**Population**	**CFS acquired or enhanced**	**# of screens addressed**	**# of barriers addressed**	**Stream miles opened**	**Stream miles improved**	**Stream miles protected**	**Riparian acres improved**	**Riparian Acres protected**
		Selway River								
		South Fork Clearwater River			6	28			12.6	
	Grande Ronde River	Grande Ronde River lower mainstem tributaries			2	11.5				
		Grande Ronde River upper mainstem			3	28.5	15.2		375.4	
		Joseph Creek (OR)			1	1.2	8		2	
		Joseph Creek (WA)								
		Wallowa River	17.22		1	5	1		16	
	Hells Canyon	Hells Canyon								
	Imnaha River	Imnaha River								
	Lower Snake	Asotin Creek							124.2	
		Tucannon River			1	11.2		17.8		369.8
	Salmon River	Lower Middle Fork mainstem and tribs (Big, Camas, and Loon Creeks)					0.08			
		Chamberlain Creek	2							
		East Fork Salmon River		1	1	2	2		0.4	
		Lemhi River	39.53		5	147				
		Little Salmon and Rapid River	0		3	15.5				
		Middle Fork Salmon River upper mainstem	7.66							
		North Fork Salmon River	0							

2007/2008 Completed Metric				Water Quantity	Entrain-ment	Passage	Channel complexity	Water Quality Riparian Protection and Enhancement		
ESA-listed ESU/ DPS	**MPG**	**Population**	**CFS acquired or enhanced**	**# of screens addressed**	**# of barriers addressed**	**Stream miles opened**	**Stream miles improved**	**Stream miles protected**	**Riparian acres improved**	**Riparian Acres protected**
		Pahsimeroi River	37.15		1	1				
		Panther Creek	0							
		Salmon River upper mainstem	37.15		1	3			5	
		Secesh River								
		South Fork Salmon River								
Snake River Steelhead Total			***140.71***	***1***	***34***	***282.4***	***26.38***	***17.8***	***877.7***	***369.8***
Upper Columbia River Steelhead	Upper Columbia River - Below Chief Joseph	Entiat River			1		1			
		Methow River	97.5	1	6	113.8	3.5			
		Okanogan River	25					0.51	20.4	
		Wenatchee River		5	13	20.4	1.2		0.6	
Upper Columbia River Steelhead Total			***122.5***	***6***	***20***	***134.2***	***5.7***	***0.51***	***21***	

Attachment 3: FY07 – FY08 Progress of Projects, and Actions Identified for 2007-2009 Implementation in the FCRPS Biological Assessment, Attachment B.2.2-2, Tables 1-6

The Action Agencies committed to provide funding and technical assistance for specific tributary habitat projects as listed in Attachment B.2.2-2, Tables 1-6, of the FCRPS Biological Assessment. These projects were used as the basis for estimating changes in habitat quality for specific populations and established an initial performance standard for annual progress reporting. The tables in Attachment 3 describe the 2007 and 2008 implementation progress of the projects identified for implementation in the FCRPS Biological Assessment. Accomplishments may be reported more than once if they benefit both Chinook and steelhead. The 2009 Annual Progress Report will provide a full accounting of project progress for the 2007-2009 implementation cycle as anticipated in the FCRPS Biological Assessment.

Table 1. Tributary Habitat Actions Identified for 2007-2009 Implementation in FCRPS BA, Attachment B.2.2-2, Tables 1a & b: Upper Columbia Spring Chinook & Steelhead

Upper Columbia Spring Chinook & Steelhead (*NOTE: Projects that benefit multiple ESUs/DPSs or populations are reported more than once)*				
Population	**Project #**	**Project Title & Short Description**	**2007–09 Action Description**	**FY07-08 Progress**
Entiat River	200703400	Columbia Cascade Pump Screen Correction This project proposes to start a voluntary compliance pump screen correction program in the Methow, Entiat, and Wenatchee River basins in order to reduce juvenile fish losses due to entrapment in water diversions.	Install Fish Screen	Pending inventory assessment
	200705500	Entiat River - UPA - Lower Entiat River Off-Channel Restoration Project The Lower Entiat River Off-Channel enhancement project will provide 0.28 miles of off-channel habitat to benefit Upper Columbia ESA listed steelhead, spring Chinook, and bull trout. An irrigation channel will be enhanced for rearing and spawning habitat.	Develop Pond	Contract in FY10
			Increase Instream Habitat Complexity	
			Install Fish Passage Structure	
			Plant Vegetation	
	200723100	UPA Entiat Subbasin Riparian Enhancement Program Riparian projects are being proposed in the Entiat	Install Fence	0.5 riparian mile fenced; 0.7 riparian mile planted
			Maintain Vegetation	

Upper Columbia Spring Chinook & Steelhead (*NOTE: Projects that benefit multiple ESUs/DPSs or populations are reported more than once)*				
Population	**Project #**	**Project Title & Short Description**	**2007–09 Action Description**	**FY07-08 Progress**
		subbasin to benefit Upper Columbia spring Chinook, steelhead and bull trout. Funding is requested for Tillicum Creek Fence and programmatic riparian projects.	Plant Vegetation	
	200731800	Entiat River - UPA - Knapp-Wham Hanan Detwiler Irrigation System Consolidation Project Consolidation of the Knapp-Wham and Hanan Detwiler irrigation systems will eliminate partial fish passage barriers associated with 2 surface water diversions, add instream habitat within the lower Entiat River, and enhance instream flows via water saved.	Develop Alternative Water Source	10 new wells installed; regulatory permits received for instream structures
			Increase Instream Habitat Complexity	
			Install Well	
			Remove/Install Diversion	
Methow River	200703400	Columbia Cascade Pump Screen Correction This project proposes to start a voluntary compliance pump screen correction program in the Methow, Entiat, and Wenatchee River basins in order to reduce juvenile fish losses due to entrapment in water diversions.	Install Fish Screen	Project work focused on Okanogan; Methow pending inventory, assessment, prioritization
	200703500	UPA Project - Methow Basin Riparian Enhancement MSRF proposes to partner with Bureau of Reclamation and Methow Conservancy to identify and prioritize riparian enhancement projects that will add value to passage, access and conservation projects. All projects will focus on TES species and habitat.	Install Fence	2.03 miles riparian fencing installed; 2.8 riparian miles planted
			Plant Vegetation	
	200717200	UPA Project - MVID West Canal Diversion and Headworks Move POD 175' upstream by installing new concrete diversion headworks, realign 150' of	Install Fish Passage Structure	Project scope under consideration to assess fish benefits

Upper Columbia Spring Chinook & Steelhead (*NOTE: Projects that benefit multiple ESUs/DPSs or populations are reported more than once)*				
Population	**Project #**	**Project Title & Short Description**	**2007–09 Action Description**	**FY07-08 Progress**
		West Canal intake and build new access road to connect new headworks, construct permanent channel-spanning natural rock roughened channel permanent diversion.	Operate and Maintain Habitat/Passage	
			Plant Vegetation	
			Remove/Install Diversion	
	200721400	UPA Project - Fender Mill Floodplain Restoration - Phase 1Restore natural channel process, reestablish side channel rearing habitat, restore-improve riparian forest habitat, add wood complexes in main stem, install rock structure to keep majority of flow in main stem, breach existing levee, connect side channels.	Create, Restore, and/or Enhance Wetland	Implementation deferred because of lengthy land acquisition and permitting processes
			Increase Instream Habitat Complexity	
			Operate and Maintain Habitat/Passage	
			Plant Vegetation	
	200723700	UPA Project - Elbow Coulee Floodplain Restoration This project would eliminate a dike; open an existing side channel and floodplain; reconnect a wetland; and use large woody debris and boulders to split flows. These would increase habitat complexity and create more dynamic habitats for listed salmonids.	Create, Restore, and/or Enhance Wetland	Dike notching, sill construction, and minimal channel improvements completed
			Enhance Floodplain	
			Increase Instream Habitat Complexity	
			Operate and Maintain Habitat/Passage	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
			Upland Erosion and Sedimentation Control	

Upper Columbia Spring Chinook & Steelhead (*NOTE: Projects that benefit multiple ESUs/DPSs or populations are reported more than once)*				
Population	**Project #**	**Project Title & Short Description**	**2007–09 Action Description**	**FY07-08 Progress**
	200725100	UPA Project - Methow Valley Irrigation District East Diversion Dam Replacement This project will remove the present channel-spanning irrigation diversion dam and replace it with a reinforced earth and rock wing dam parallel to the thalweg. This project will also re-open 1/4 mile of side channel habitat blocked by a pushup berm.	Operate and Maintain Habitat/Passage	Regulatory permitting and environmental compliance completed
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
			Remove/Install Diversion	
	200726400	UPA Project - Programmatic Habitat Complexity Projects in the Methow River Subbasin These projects would eliminate dikes, open side channels, and enhance floodplain connectivity at various sites in the Methow subbasin. Identification and ranking to be based on MIHRP study.	Realign, Connect, and/or Create Channel	Regulatory permitting and environmental compliance under way
	200201301	Water Entity Fund water right transactions that restore streamflows and focused riparian easements on criticial fish-bearing Columbia Basin tributaries. Implemented as the Columbia Basin Water Transactions Program (CBWTP) in a partnership between BPA and NFWF.	Acquire Water Instream	29.3 cfs acquired or enhanced
			Develop and Negotiate Water Right Transaction	
			Install Flow Measuring Device	
			Land Purchase	
Wenatchee River	200703400	Columbia Cascade Pump Screen CorrectionThis project proposes to start a voluntary compliance pump screen correction program in the Methow, Entiat, and Wenatchee River basins in order to reduce juvenile fish losses due to entrapment in water diversions.	Install Fish Screen	Project work focused on Okanogan; Wenatchee pending inventory, assessment, prioritization

Upper Columbia Spring Chinook & Steelhead (*NOTE: Projects that benefit multiple ESUs/DPSs or populations are reported more than once)*				
Population	**Project #**	**Project Title & Short Description**	**2007–09 Action Description**	**FY07-08 Progress**
	200704200	UPA Wenatchee Passage Program To replace 9 barrier culverts in Alder Creek, Clear Creek and Beaver Creek with fish-friendly structures to provide 4.0 miles of spawning and rearing habitat for ESA listed Upper Columbia steelhead.	Install Fish Passage Structure	Combined into new project 200740000
			Remove/Modify Dam	
	200708500	UPA Nason Creek Oxbow Reconnection Project Project proposes to install two bottomless arch culverts in SR 207 to successfully reconnect 0.64 miles of historic oxbow habitat to the mainchannel Nason Creek. This project will increase Spring Chinook salmonid abundance by 25-50% in the Nason A.U.	Install Fish Passage Structure	Combined into new project 200740000
	200708600	UPA Wenatchee Subbasin Riparian Enhancement Proposal The Wenatchee Riparian proposal will involve planting native vegetation and fencing to establish a properly functioning riparian buffer in the Wenatchee Assessment Units. This project will benefit Upper Columbia steelhead, spring Chinook and bull trout.	Install Fence	0.26 mile riparian vegetation improved
			Maintain Vegetation	
			Plant Vegetation	
	200728300	UPA Wenatchee Subbasin Access Proposal Forty three (43) potential fish passage barrier structures are being proposed for funding to benefit Upper Columbia spring Chinook, steelhead and bull trout. Emphasis is on replacing the Mill Creek Culvert near the mouth of Peshastin Creek.	Install Fish Passage Structure	Combined into new project 200740000

Upper Columbia Spring Chinook & Steelhead (*NOTE: Projects that benefit multiple ESUs/DPSs or populations are reported more than once)*				
Population	**Project #**	**Project Title & Short Description**	**2007–09 Action Description**	**FY07-08 Progress**
	200732500	UPA Wenatchee Subbasin Complexity Proposal Five potential complexity projects are being proposed for funding to benefit Upper Columbia spring Chinook, steelhead and bull trout. Funds are also requested for unidentified potential complexity projects to assist in meeting UPA metric goals.	Realign, Connect, and/or Create Channel	0.1 mile stream complexity improved
	200740000	Wenatchee River Subbasin Fish Passage Enhancement (combination of 200704200, 2000708500, & 200728300)	Install Fish Passage Structure	0.8 mile instream habitat accessed
Okanogan River	199604200	Restore and Enhance Anadromous Fish Populations and Habitat in Salmon Creek This project is directed at reconnecting a productive tributary of the Okanogan River, Salmon Creek. This project involves a water lease with the Okanogan Irrigation District and construction of a low flow channel within the lower reach.	Acquire Water Instream	Channel modification design drafted, permits acquired
			Develop and Negotiate Water Right Transaction	
			Install Well	
			Realign, Connect, and/or Create Channel	
	200000100	Anadromous Fish Habitat & Passage The Tribe proposes continuing habitat rehabilitation efforts to decrease sediment loads and improve passage for anadromous steelhead and salmon. In addition, monitoring and evaluation efforts will assess effectiveness of ongoing activities.	Develop Alternative Water Source	1.2 miles riparian, 0.4 mile upland fence installed
			Install Fence	
	200714500	Okanogan Livestock and WaterProvide a cost share program to assist producers in developing offsite water for livestock and provide assistanc	Develop Alternative Water Source	1.1 miles riparian fenced
			Install Fence	

Upper Columbia Spring Chinook & Steelhead (*NOTE: Projects that benefit multiple ESUs/DPSs or populations are reported more than once)*				
Population	**Project #**	**Project Title & Short Description**	**2007–09 Action Description**	**FY07-08 Progress**
		fencing riparian areas. Allowing producers to respond to and prevent complaints.	Plant Vegetation	
	200722400	Implementation of the Okanogan Subbasin Plan. Initiate a Programmatic and Sequenced set of Key Habitat Restoration and Protection Actions The integration of science into management, decision-making and recommended actions is an essential task for resource managers. This phased and programmatic plan is the centerpiece for mitigation, recovery and conservation in the Okanogan R & the Province.	Acquire Water Instream	2 riparian acres improved
			Enhance Floodplain	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
			Upland Erosion and Sedimentation Control	
	200201301	Water Entity Fund water right transactions that restore streamflows and focused riparian easements on criticial fish-bearing Columbia Basin tributaries. Implemented as the Columbia Basin Water Transactions Program (CBWTP) in a partnership between BPA and NFWF.	Acquire Water Instream	25 cfs acquired
			Develop and Negotiate Water Right Transaction	
			Install Flow Measuring Device	
			Land Purchase	

Table 2. Actions Identified for 2007-2009 Implementation in FCRPS BA, Attachment B.2.2-2, Table 2: Middle Columbia Steelhead

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
Klickitat River (above BON)	199705600	Klickitat Watershed Enhancement This project (KWEP) restores, enhances, and protects watershed health to aid recovery of native salmonid stocks in the Klickitat subbasin. Implemented by the Yakama Nation Fisheries Program and funded by BPA, KWEP addresses FWP goals and objectives.	Create, Restore, and/or Enhance Wetland	Environmental compliance, plan design and specifications prepared; 2.2 miles instream habitat accessed and 7.3 riparian acres improved
			Develop Alternative Water Source	
			Enhance Floodplain	
			Increase Instream Habitat Complexity	
			Install Fence	
			Install Fish Passage Structure	
			Install Flow Measuring Device	
			Maintain Vegetation	
			Operate and Maintain Habitat/Passage	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
			Upland Erosion and Sedimentation Control	

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
			Decommission Road	
			Enhance Nutrients Instream	
			Improve/Relocate Road	
			Remove vegetation	
			Remove Debris	
	198812035	YKFP Klickitat Management, Data, and Habitat Proposal provides for all YN management functions associated with the Yakima/Klickitat Fisheries Project including project planning, O&M, research, data management, and habitat improvement and acquisition actions in the Klickitat Subbasin.	Habitat improvement	Klickitat Master Plan under development
			Lease Land	
Fifteen Mile Creek (above TDA)	200102100	15 Mile Creek Riparian Buffers This proposal develops riparian buffer systems on streams in the Fifteenmile Subbasin and other direct tributaries to the Columbia River in northern Wasco County. Implementation of buffer plans developed under this proposal are fully funded by USDA.	Riparian Enhancement	373.6 riparian acres protected through CCRP/CREP agreements
	199304000	Fifteenmile Creek Habitat Restoration and Monitoring Project Provide continued operation and maintenance on previously installed fencing and instream habitat, monitor the success of all restoration efforts, and begin implementation to improve instream habitat	Develop Alternative Water Source	2.15 miles riparian fencing installed
			Increase Instream Habitat Complexity	
			Install Fence	

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
		complexity within the Fifteenmile Creek Subbasin.	Maintain Vegetation	
			Operate and Maintain Habitat/Passage	
Eastside Deschutes (above TDA)	199404200	Trout Creek Fish Habitat Restoration ProjectConstruction, O&M, and M&E of numerous new and existing instream and riparian habitat restoration projects; Monitoring and Evaluation of summer steelhead smolt production and adult return. M&E of instream and riparian habitat restoration activities.	Develop Alternative Water Source	0.9 stream mile added; 3 acres wetland improved as a result of channel work
			Enhance Floodplain	
			Maintain Vegetation	
			Realign, Connect, and/or Create Channel	
	199802800	Trout Creek Watershed Restoration Project Implementation of numerous riparian and upland habitat improvement projects on private lands in the Trout Creek watershed, Deschutes Basin. Monitoring and evaluation of current and past projects.	Enhance Floodplain	Johnson & Priday irrigation improvements — pipeline installed, instream water acquired, fish screens installed
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
			Remove/Install Diversion	
			Install Pipeline	

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
	200201900	Wasco Riparian Buffers This proposal develops riparian buffer systems in southern Wasco County in the lower Deschutes and lower John Day subbasins of the Columbia Plateau Province. Implementation of buffer plans developed under this proposal is fully fun	Riparian Enhancement	1179 riparian acres protected through CCRP/CREP agreements
At least 1 John Day MPG population (above John Day dam)	200201900	Wasco Riparian Buffers This proposal develops riparian buffer systems in southern Wasco County in the lower Deschutes and lower John Day subbasins of the Columbia Plateau Province. Implementation of buffer plans developed under this proposal is fully funded by USDA.	Riparian Enhancement	1179 riparian acres protected
	198402100	Mainstem, Middle Fork, John Day Rivers Fish Habitat Enhancement Project This project was initiated on July 1, 1984, (BPA) contract number DE A179-84 BP17460 and allows for initial landowner contacts, agreement development, project design, budgeting, and implementation for anadromous fish habitat on private lands.	Develop Alternative Water Source	58 structures installed, 0.57 mile stream complexity improved, 54 miles riparian fencing, 471 riparian acres protected through leases, 100 riparian acres planted
			Increase Instream Habitat Complexity	
			Install Fence	
			Operate and Maintain Habitat/Passage	
			Plant Vegetation	
			Remove vegetation	
	199306600	Oregon Fish Screens Project The project provides immediate and long-term protection for anadromous and resident fish species in the John Day,	Install Fish Passage Structure	6.5 miles habitat accessed, 1 screen addressed
			Install Fish Screen	

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
		Umatilla, and Walla Walla basins by the installation or replacement of out dated fish protection and passage devices on irrigation diversions.	Operate and Maintain Habitat/Passage	
			Remove/Install Diversion	
	199801800	John Day Watershed RestorationContinue implementation of protection and restoration actions, planned under the John Day Subbasin Plan, to improve water quality, water quantity, and riparian habitat, and to eliminate passage barriers for anadromous and resident fish.	Develop Alternative Water Source	3.5 miles habitat accessed
			Increase Instream Habitat Complexity	
			Install Fish Passage Structure	
			Maintain Vegetation	
			Plant Vegetation	
			Remove/Install Diversion	
			Remove vegetation	
			Install Pipeline	
	199901000	Pine Hollow/Jackknife Habitat Implement practices to reduce erosion, flooding, and protect critical areas in the stream corridor which will allow natural recovery of riparian vegetation and channel stability in the Pine Hollow and Jackknife watersheds.	Develop Alternative Water Source	468 upland acres improved
			Install Fence	
			Plant Vegetation	
			Upland Erosion and Sedimentation Control	

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
			Remove vegetation	
	200001500	Oxbow Conservation Area Management The 1,022-acre Oxbow Conservation Area project is a mitigation property acquired by the CTWSRO through BPA funding. This proposal aims to continue the O&M, M&E, and habitat improvement projects on this valuable anadromous fish property.	Develop and Negotiate Water Right Transaction	2.3 miles riparian fencing installed; 1 acre riparian vegetation planted; 33 acres riparian weed control and vegetation management
			Increase Instream Habitat Complexity	
			Install Fence	
			Install Fish Passage Structure	
			Install Fish Screen	
			Maintain Vegetation	
			Operate and Maintain Habitat/Passage	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
			Remove vegetation	
			Conduct Controlled Burn	
	200003100	North Fork John Day Basin Anadromous Fish Habitat Enhancement ProjectIncrease habitat for Chinook salmon and steelhead on private and public-owned lands via	Enhance Floodplain	1.3 miles riparian fencing installed; 380 riparian acres protected through lease; 69 acres riparian vegetation planted
			Increase Instream Habitat Complexity	

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
		implementing fencing, off-stream water development, revegetation, culvert replacement, pool development, mine tailing removal and large wood placement projects.	Install Fence	
			Install Fish Passage Structure	
			Maintain Vegetation	
			Plant Vegetation	
			Lease Land	
			Remove Mine Tailings	
	200104101	Forrest Conservation Area Management The Forrest Conservation Area consists of 4,232 acres and contains 8.5 miles of critical fish habitat in the Upper Mainstem and Middle Fork John Day River systems. Management prioritizes protection of fish, wildlife and their associated habitats.	Develop and Negotiate Water Right Transaction	1 riparian acre enhanced through dike recontour; 35 instream structures installed; 1.15 miles stream complexity improved; 4 miles habitat accessed; 0.5 riparian acre planted; 3 riparian acres improved through vegetation management
			Increase Instream Habitat Complexity	
			Install Fish Passage Structure	
			Install Fish Screen	
			Maintain Vegetation	
			Operate and Maintain Habitat/Passage	
			Plant Vegetation	
			Remove vegetation	
			Conduct Controlled Burn	

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
			Investigate Trespass	
	200201500	Provide Coordination and Technical Assistance to Watershed Councils and Individuals in Sherman County, Oregon	Riparian Enhancement	261 riparian acres protected through CCRP/CREP Agreements
	200203400	Wheeler Co Riparian Buffers This proposal will provide technical support and planning needed to implement riparian buffer contracts (CREP) on streams within Wheeler County. Ripairan buffers address many of the limiting factors identified in the John Day Sub-basin Plan	Riparian Enhancement	115 riparian acres protected through CCRP/CREP Agreements
	200203500	Gilliam Co Riparian Buffers We seek BPA funding to continue our riparian buffer position. This job entails making 10-15 year contracts with private landowners to establish riparian areas. Non-BPA monies are then leveraged to develop, maintain and enhance fish and wildlife resources.	Riparian Enhancement	382 riparian acres protected through CCRP/CREP Agreements
Umatilla River (above John Day dam)	198343600	Umatilla Passage O&M Westland Irrigation District, as contractor to Bonneville Power Administration, and West Extension Irrigation District, as subcontractor to Westland, provide labor, equipment, and material necessary for the operation, care, and maintenance of fish facilities.	Operate and Maintain Habitat/Passage	Annual O&M at 17 sites to ensure that ladders, bypasses, screen sites. and trap facilities operate according to design criteria
	198710001	Umatilla Anad Fish Hab - CTUIR instream and riparian habitat restoration for fisheries and wildlife in the Umatilla River Basin.	Develop Alternative Water Source	41 miles stream complexity improved; 13 miles instream habitat accessed; 2 riparian acres planted; 365 riparian acres improved through noxious weed control

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
			Increase Instream Habitat Complexity	
			Install Fence	
			Maintain Vegetation	
			Operate and Maintain Habitat/Passage	
			Plant Vegetation	
			Remove/Modify Dam	
			Remove vegetation	
			Lease Land	
	198710002	Umatilla Subbasin Fish Habitat Improvement Project The ongoing Umatilla Subbasin Fish Habitat Improvement Project (19871-100-02) is aimed at protecting (where possible) and enhancing/rehabilitating (where required), degraded fish habitat on private lands using passive and active restoration techniques.	Develop Alternative Water Source	3.25 miles riparian fencing installed; 7 riparian acres protected through cooperative agreements/leases/easements; 4 riparian acres planted
			Develop and Negotiate Water Right Transaction	
			Increase Instream Habitat Complexity	
			Install Fence	
			Maintain Vegetation	
			Operate and Maintain Habitat/Passage	

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
			Remove/Modify Dam	
			Improve/Relocate Road	
			Remove vegetation	
			Lease Land	
	198802200	Umatilla Fish Passage Operations Increase survival of migrating juvenile and adult salmon and steelhead in the Umatilla Basin by operating passage facilities, flow enhancement measures, trapping facilities, and transport equipment to provide adequate passage conditions.	Operate and Maintain Habitat/Passage	Trap and haul of 2,360 migrants
			Trap and Haul	
	198902700	Power Repay Umatilla Basin Project Provide reimbursement of power costs to Umatilla Electric Coopeative and Pacific Powr & Light Company for the Umatilla Basin Project pumping plants that provide Columbia River water to irrigators in exchange for Umatilla River water left instream.	Acquire Water Instream	Ongoing utility reimbursements

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
Walla Walla River (above MCN)	199601100	Walla Walla Juvenile and Adult Passage Improvements Provide safe passage for migrating juvenile and adult salmonids in the Walla Walla Subbasin by constructing and maintaining passage facilities at irrigation diversion dams and canals and other passage barriers.	Install Fish Screen	Fish passage structures installed — 30 miles instream habitat accessed Project work now combined with 2007-396-00
	199604601	Walla Walla River Basin Fish Habitat EnhancementThe proposed project is a continued effort by the CTUIR to protect and restore habitat critical to the recovery of salmonid fish populations in the Walla Walla River Basin.	Increase Instream Habitat Complexity	0.22 mile stream complexity improved; 0.75 mile riparian fencing installed; 9 riparian acres planted; 29 upland acres planted
			Maintain Vegetation	
			Plant Vegetation	
	200003300	Walla Walla River Fish Passage Operations Increase survival of migrating salmonids in the Walla Walla Basin by coordinating the overall passage program including monitoring passage conditions and operation of passage facilities and transport equipment to provide adequate passage conditions.	Operate and Maintain Habitat/Passage	261 fish trapped and hauled
			Trap and Haul	
	200203600	Restore Walla Walla River Flow Irrigation efficiency and shallow aquifer recharge will improve Walla Walla River flows on flow -impaired priority restoration reaches at times of the year that are critical for steelhead, spring Chinook, and bull trout passage and habitat use.	Develop and Negotiate Water Right Transaction	Project work merged into 2007-396-00 Walla Walla Basinwide Tributary Passage and Flow Project — new intake and fish screens and fish passage structure installed to access 100 miles of habitat
			Install Pipeline	
			Install Sprinkler	

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
	200721700	Operation and Maintenance for Walla Walla Basin Passage Projects Operation and maintenance of BPA-Constructed fish passage facilities in the Walla Walla Sub-basin.	Operate and Maintain Habitat/Passage	Annual O&M at Garden City/Lowden No. 2 Diversion Consolidation and Fish Passage Project, Gardena Fish Screens and related equipment, Gardena Ladder and related equipment, Little Walla Walla River fish screen facility, Nursery Bridge fish ladder
At least 1 populations: - Satus Creek (above MCN) - Toppenish Creek (above MCN) - Naches River (above MCN) - Upper Mainstem Yakima (above MCN)	199206200	Yakama Nation - Riparian/Wetlands Restoration Continue implementation on YN Wetlands/Riparian Restoration Project by protecting and restoring native floodplain habitats along anadromous fish-bearing waterways in the agricultural area of the Yakama Reservation (~2,000 acres per year).	Maintain Vegetation	60 riparian acres and 35 upland acres improved through controlled burn; 97 riparian acres protected through lease/easement/purchase; 165 upland acres planted
			Operate and Maintain Habitat/Passage	
			Plant Vegetation	
			Remove Debris	
			Lease Land	
	199603501	Yakama Reservation Watersheds Project The YRWP works to restore natural function to the Satus, Toppenish and Ahtanum Watersheds. Our restoration and monitoring efforts take a comprehensive approach to the restoration of habitat for fisheries resources including steelhead and bull trout.	Enhance Floodplain	40 floodplain acres improved; 1.5 miles stream complexity improved; 13.2 miles riparian fencing installed; 59 miles stream habitat accessed; 1 fish screen installed; 8,062 riparian acres and 72,559 upland acres protected through lease
			Increase Instream Habitat Complexity	
			Install Fence	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
			Lease Land	
	198812025	YKFP Management, Data, Habitat Proposal provides for all YN management functions associated with the Yakima/Klickitat Fisheries Project including	Increase Instream Habitat Complexity	10 instream structures installed 155 riparian acres planted 11 riparian acres improved through vegetation removal

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
			Plant Vegetation	
	199200900	Yakima Phase II/Huntsville Screen Operation & Maintenance Continue to provide operation and maintenance to BPA's Phase II Fish Screen Facilities to ensure they provide maximum protection to all species and life stages of fish. This O&M function will include the addition of the Manastash basin facilities.	Operate and Maintain Habitat/Passage	Annual maintenance to provide properly functioning Yakima and Walla Walla Phase II fish protection facilities
	199503300	O&M Yakima Basin Fish Screens This proposal provides for continuation of funding for the existing comprehensive operation & maintenance program by Reclamation of BPA owned Yakima Phase II fish screening and trapping facilities.	Operate and Maintain Habitat/Passage	Routine O&M and annual maintenance to provide properly functioning fish screens
	200202501	Yakima Tributary Access & Habitat Program The Yakima Tributary Access and Habitat Program intends to: a) screen diversion structures; b) provide for fish passage at man-made barriers; c) assist landowners improve stream habitat; and, d) coordinate the acquisition of riparian buffer easements.	Create, Restore, and/or Enhance Wetland	0.11 mile of stream complexity improved; 15 instream structures installed; 1.5 miles of habitat accessed; installed Hanson fish screen; removed Upper Lust diversion; installed Eslinger/Sorenson Parke Cr pipeline; improved 1.1 miles of stream reach
			Develop Alternative Water Source	
			Enhance Floodplain	
			Increase Instream Habitat Complexity	
			Install Fence	
			Install Fish Passage Structure	
			Install Fish Screen	
			Install Well	

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
			Maintain Vegetation	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
			Remove/Install Diversion	
			Install Pipeline	
	200300100	Manastash Crk Passage & Screening The Manastash Creek Project will provide fish passage, diversion screening and seek instream flow to support fish recovery in the Yakima Basin. This proposal is for Phase 1: screening/passage. Phase 2: instream flow will be a second proposal.	Install Fish Passage Structure	Design and permitting for Manastash & Keats Jensen diversions, BPA/Water User MOA signed for Barnes Road facilities
			Install Fish Screen	
			Maintain Vegetation	
			Operate and Maintain Habitat/Passage	
			Plant Vegetation	
			Remove/Modify Dam	
			Install Pipeline	

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
	200702000	Manastash Instream Flow Enhancement This proposal seeks to enhance instream flow by working with water users to implement irrigation conveyance and onfarm water use efficiency projects, to trust water to the creek and investigate diversion timing to assist steelhead migration.	Acquire Water Instream Develop and Negotiate Water Right Transaction Install Well Install Pipeline Install Sprinkler	Project merged into 20739800 Yakima Basinwide Tributary Passage and Flow — 0.25 mile stream complexity improved, 5 instream structures installed, fish screens installed at six sites, 0.16 mile riparian vegetation planted, Pott Dam removal/modification with 1.5 miles habitat accessed
	200711300	Cowiche Restoration and Protection Project (Easement/Fee Simple Acquisition) The goal of this project is to protect stream and riparian habitat, and floodplain functions along the Cowiche Creek. The project will acquire conservation easements protecting more than five miles of critical, high quality, steelhead and coho habitat.	Lease Land	Project closed — Funds transferred to Oak Flats on the Naches
	199705100	Yakima Basin Side Channels We will replace problematic irrigation diversions and culverts in the Lower North Fork and Mid-mainstem John Day Watersheds with fish-friendly structures that ensure fish passage and improve riparian habitat while efficiently meeting landmanagers' needs.	Land Purchase	Conducting real property reviews for habitat acquisitions
All	200201301	Water Entity (Rpa 151) Nwppc Fund water right transactions that restore streamflows and focused riparian easements on criticial fish-bearing Columbia	Acquire Water Instream	189.77 cfs flow acquired in 2007/20008 for Middle Columbia River steelhead

Middle Columbia Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
		Basin tributaries. Implemented as the Columbia Basin Water Transactions Program (CBWTP) in a partnership between BPA and NFWF.	Develop and Negotiate Water Right Transaction	
Naches River	200719400	Oak Flats Acquisition and Habitat Enhancement Acquire a 357 acre multi-parcel site on the Naches River to protect from rural development and enhance 3.0 miles of streamside riparian habitat. Site supports Chinook salmon and Federally threatened mid-Columbia summer steelhead and bull trout.	Acquire Water Instream	Environmental land audit completed; acquisition delayed as a result of MOA and hazardous materials work
			Enhance Floodplain	
			Plant Vegetation	
			Remove/Modify Dam	
			Remove Debris	
Yakima River upper mainstem	200711200	Teanaway Watershed - Protect critical habitat from development, reduce water temperatures and increase instream flows, restore habitat forming processes in the floodplain. Teanaway watershed supports viable salmonid populations with complex spatial structure and diversity. Maximizing abundance and productivity of focal species requires protecting critical habitat, augmenting instream flows, & restoring floodplain functions.	Acquire Water Instream	Pre-acquisition activities for North Fork Teanaway Riparian Conservation Easement; Conservation Plan for the Teanaway Tract completed
			Develop and Negotiate Water Right Transaction	
			Increase Instream Habitat Complexity	
			Install Fence	
			Maintain Vegetation	
			Operate and Maintain Habitat/Passage	
			Plant Vegetation	

Table 3.1. Actions Identified for 2007-2009 Implementation in FCRPS BA, Attachment B.2.2-2, Table 3a: Snake River Steelhead

Snake River Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
Multiple	200201301	Water Entity Fund water right transactions that restore streamflows and focused riparian easements on criticial fish-bearing Columbia Basin tributaries. Implemented as the Columbia Basin Water Transactions Program (CBWTP) in a partnership between BPA and NFWF.	Acquire Water Instream	115.91 cfs acquired/enhanced — 17.22 cfs in Lostine/Wallowa River; 39.53 cfs in Lemhi River; 29.55 in Pahsimeroi River; 29.61 in Salmon River upper mainstem above Redfish Lake
	199202601	Grand Ronde Model Watershed Program Habitat Restoration - Planning, Coordination and Implementation The project coordinates BPA funded restoration activities in the Grande Ronde and Imnaha Subbasins working with tribes, agencies and landowners. The project annually implements 10-20 habitat restoration projects. Project also to consider including habitat actions proposed in Wallowa, Lostine, & Joseph Cr. watersheds (200710500, 200711600, 200724500).	Increase Instream Habitat Complexity	200 riparian acres restored in Meadow Creek wetland; 5.6 miles road treated in riparian zones; 162 structures installed and 9.6 miles stream complexity improved in Bear Creek, Chesnimnus Creek, and Elk Creek; 0.2 riparian mile fenced; fish passage barriers addressed to access 41.2 miles of habitat; 12 acres riparian planting; McDonald Creek channel restoration added 0.4 mile stream; 260 riparian acres treated for invasive/noxious plants; removed headgate in upper McDonald Creek to access 5.0 miles instream habitat.
			Install Fence	
			Install Fish Passage Structure	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
	199608300	CTUIR Grande Ronde Subbasin Restoration Project The CTUIR Grande Ronde Subbasin Restoration Project plans, designs, implements, maintains, and monitors habitat enhancement and restoration projects in the Grande Ronde Subbasin. Planned FY 2007-09 projects include Meadow Cr, End Cr, Ladd Cr, and main GR.	Create, Restore, and/or Enhance Wetland	62.9 riparian acres planted in Meadow Creek, End Creek, Longley Meadow, and Wallowa River
			Install Fence	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	

Snake River Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
Grande Ronde upper mainstem Catherine Creek	198402500	ODFW Blue Mountain Oregon Fish Habitat Improvement This project works with landowners, and other government and quasi-governmental agencies to protect and enhance habitat for federal ESA listed fish in the Blue Mountain Province of Oregon.	Create, Restore, and/or Enhance Wetland	End Creek/McDonald Creek and Wallowa River Phase 2 improved 41 riparian acres; 584 instream structures installed and 5.1 miles stream complexity improved in End Creek, Meadow Creek, and Wallowa River; 1.5 riparian miles fenced; 14.2 miles and 77.5 acres riparian vegetation planted; 9.1 instream miles added and 341 wetland acres added through channel improvements
			Increase Instream Habitat Complexity	
			Install Fence	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
Lostine River Imnaha River Big Sheep Creek	200739300	NPT Protect and Restore NE OR Funding for Coordination, Planning, Design, Implementation. Initially the funds were placed under 200724500. Established a new project for the Wallowa and Imnaha watersheds.	Decommission Road	Tamarack Creek culvert removal scheduled for FY09 implementation
			Enhance Floodplain	
			Increase Instream Habitat Complexity	
			Install Fence	
			Install Fish Passage Structure	
			Maintain Vegetation	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
			Remove vegetation	

Snake River Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
Asotin Creek (extirpated)	199401805	Continued Implementation of Prioritized Asotin Creek Watershed Habitat Projects On-going project for prioritizing & implementing on-the-ground habitat projects for wild steelhead & Chinook salmon in Asotin watershed. Bull trout also benefit from this ridge-top-to-ridge-top approach with match from private landowners & other grants.	Install Fence	2.36 riparian miles fenced; 12.5 riparian acres planted/maintained; 2,778.2 upland acres improved through no-till conservation systems
			Plant Vegetation	
			Practice No-till and Conservation Tillage Systems	
	200205000	Continued Riparian Buffer Projects on Couse/Tenmile and other Salmonid Bearing Streams in Asotin County On-going project to continue implementation of prioritized habitat protection on private property for ESA listed steelhead, Chinook salmon and bull trout as identified in the Asotin Subbasin Plan. Cost share provided by private landowners & other sources.	Install Fence	3.17 miles riparian fencing installed; 89.3 riparian acres planted; 1,272.4 upland acres improved with no-till conservation systems; erosion and sedimentation control on 95.6 upland acres
			Plant Vegetation	
			Practice No-till and Conservation Tillage Systems	
			Upland Erosion and Sedimentation Control	
Tucannon River	199401806	Tucannon Stream and Riparian Protection, Enhancement, and Restoration Implement habitat protection, enhancement, and recovery strategies to support Subbasin Plan identified ESA focal, cultural significant and species of interest recovery within the Tucannon Subbasin.	Increase Instream Habitat Complexity	Fish screens installed at 5 diversions; 369.8 riparian acres/17.8 riparian miles protected through CREP extensions
			Lease Land	

Snake River Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
	199401807	Improve Habitat For Fall Chinook, Steelhead in the Lower Snake and Tucannon Sub basins To obtain funding to continue with the districts effort to reduce soil erosion on the uplands and along the streams of Garfield County to improve water quality and fish habitat.	Plant Vegetation Remove vegetation Upland Erosion and Sedimentation Control	3,787 upland acres improved through erosion and sediment control and no-till conservation systems
All	199401500	Idaho Fish Screening and Passage Improvements Provide management and operational support for a capital construction program dedicated to the protection of anadromous fish from loss in water diversions, improve fish passage at diversions for juvenile and adult anadromous fish, and improve stream flow conditions where possible.	Install Fish Screen Remove/Install Diversion	New headgates and fish screens installed at four sites on Wimpy and Big Spring creeks; two unscreened diversions consolidated into one screened ditch and accessed 3 miles of habitat
Little Salmon River	200706500	Coordinate and implement tributary habitat restoration in the Little Salmon River and lower Salmon River Idaho Implement fish habitat restoration on private lands dominated by agricultural practices using cost sharing by Bonneville, Idaho Pacific Coast Salmon Recovery Funds, Idaho Water Quality Program for Agriculture, and landowner participation.	Install Fence Plant Vegetation Remove vegetation Remove/Install Diversion	Squaw Creek culvert replacement accessed 11 miles of habitat
Little Salmon River	200706400	Protect and Restore Slate Creek Restore and protect the Slate Creek Watershed for the benefit of both resident and anadromous fish using an overall watershed approach. Restoration and	Decommission Road Plant Vegetation Remove vegetation	Completed a Barrier Assessment and Prioritization Report for the Little Slate sub-watershed summarizing the assessment procedure, total number of sites assessed, condition of all sites, total miles of habitat

Snake River Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
		protection efforts will be done cooperatively with the Nez Perce National Forest.	Upland Erosion and Sedimentation Control	blocked, and top priorities for fish passage restoration. Barriers were prioritized for replacement beginning in FY09.
Secesh River South Fork Salmon River	200712700	Reestablish Connectivity and Restore Fish Habitat in the East Fork of the South Fork Salmon River Watershed This project will reestablish fish passage through a 30-foot tall cascade using natural channel design and rehabilitate one mile of fish habitat through an anthropogenically degraded reach of the upper mainstem East Fork of the South Fork Salmon River.	Enhance Floodplain Increase Instream Habitat Complexity Install Fish Passage Structure Plant Vegetation	Fish barrier removal and instream habitat complexity contracted for FY09 implementation.
East Fork Salmon River Pahsimeroi River Salmon River upper mainstem	200726800	Idaho Watershed Habitat Restoration Project via Custer Soil and Water Conservation District The project scope is to implement high priority action items to maintain, enhance and restore fish habitat and fish passage in the priority stream segments of the Upper Salmon Basin area within the administrative boundaries of the Custer SWCD.	Install Fence Remove/Install Diversion Remove/Modify Dam	2.1 miles stream complexity improved and nine instream structures installed in Herd Creek and Slate Creek; 6.15 riparian miles fenced; 5 riparian acres planted; Challis Creek diversion relocation accessed 2 miles habitat; one screen addressed at Highline Canal
Lemhi River	200739400	Idaho Watershed Habitat Restoration Lemhi County Move funds for coordination, planning, design and implementation from 1992-026-03, Upper Salmon Basin Watershed Project.	Acquire Water Instream Install Fence Install Fish Passage Structure Install Fish Screen	0.2 riparian mile fenced; diversion modifications at three sites accessed 2.5 miles habitat

Snake River Steelhead				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
Salmon River lower mainstem	199901900	Restore Salmon River (Challis, Idaho) Passive restoration by securing easements will assist restoration efforts via the Corps 206 Program. The development of side channels will help create a more naturally functioning floodplain, provide a wide array of environmental and ecological benefit.	Investigate Trespass	Visitation log to investigate Stark property conservation values
Yankee Creek	200205900	Yankee Fork Salmon River Dredge Tailings Restoration Project Restore natural river channel characteristics, floodplain function, hydraulic and sediment regimes, and aquatic habitat within the dredged reach of the YFSR, initially by redistributing dredge tailings piles from the floodplain.	Plant Vegetation	Inventory, assessment, monitoring being conducted prior to on-the-ground work
			Remove Mine Tailings	

Table 3.2. Actions Identified for 2007-2009 Implementation in FCRPS BA, Attachment B.2.2-2, Table 3b: Snake River Spring/Summer Chinook

Snake River Spring/Summer Chinook				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
Multiple	200201301	Water Entity Fund water right transactions that restore streamflows and focused riparian easements on critical fish-bearing Columbia Basin tributaries. Implemented as the Columbia Basin Water Transactions Program (CBWTP) in a partnership between BPA and NFWF.	Acquire Water Instream	115.91 cfs acquired/enhanced — 17.22 cfs n Lostine/Wallowa River; 39.53 cfs in Lemhi River; 29.55 in Pahsimeroi River; 29.61 in Salmon River upper mainstem above Redfish Lake
	199202601	Grand Ronde Model Watershed Program Habitat Restoration - Planning, Coordination and Implementation The project coordinates BPA funded restoration activities in the Grande Ronde and Imnaha Subbasins working with tribes, agencies and landowners. The project annually implements 10-20 habitat restoration projects. Project also to consider including habitat actions proposed in Wallowa, Lostine, & Joseph Cr. watersheds (200710500, 200711600, 200724500).	Increase Instream Habitat Complexity Install Fence Install Fish Passage Structure Plant Vegetation Realign, Connect, and/or Create Channel	200 riparian acres restored in Meadow Creek wetland; 5.6 miles road treated in riparian zones; 162 structures installed and 9.6 miles stream complexity improved in Bear Creek, Chesnimnus Creek, and Elk Creek; 0.2 riparian mile fenced; fish passage barriers addressed to access 41.2 miles of habitat; 12 acres riparian planting; McDonald Creek channel restoration added 0.4 mile stream; 260 riparian acres treated for invasive/noxious plants; removed headgate in upper McDonald Creek to access 5.0 mile instream habitat
	199608300	CTUIR Grande Ronde Subbasin Restoration Project The CTUIR Grande Ronde Subbasin Restoration Project plans, designs, implements, maintains, and monitors habitat enhancement and restoration projects in the Grande Ronde Subbasin. Planned FY 2007-09 projects include Meadow Cr, End Cr, Ladd Cr, and main GR.	Create, Restore, and/or Enhance Wetland Install Fence Plant Vegetation Realign, Connect, and/or Create Channel	62.9 riparian acres planted in Meadow Creek, End Creek, Longley Meadow, and Wallowa River

Snake River Spring/Summer Chinook				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
Grande Ronde upper mainstem Catherine Creek	198402500	ODFW Blue Mountain Oregon Fish Habitat Improvement This project works with landowners, and other government and quasi-governmental agencies to protect and enhance habitat for federal ESA listed fish in the Blue Mountain Province of Oregon.	Create, Restore, and/or Enhance Wetland	End Creek /McDonald Creek, and Wallowa River Phase 2 improved 41 riparian acres; 584 instream structures installed and 5.1 miles stream complexity improved in End Creek, Meadow Creek, and Wallowa River; 1.5 riparian miles fenced; 14.2 miles and 77.5 acres riparian vegetation planted; 9.1 instream miles added and 341 wetland acres added through channel improvements
			Increase Instream Habitat Complexity	
			Install Fence	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
Lostine River Imnaha River Big Sheep Creek	200739300	NPT Protect and Restore NE OR Funding for Coordination, Planning, Design, Implementation. Initially the funds were placed under 200724500. Established a new project for the Wallowa and Imnaha watersheds.	Decommission Road	Tamarack Creek culvert removal scheduled for FY09 implementation
			Enhance Floodplain	
			Increase Instream Habitat Complexity	
			Install Fence	
			Install Fish Passage Structure	
			Maintain Vegetation	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
			Remove vegetation	

Snake River Spring/Summer Chinook				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
Asotin Creek (extirpated)	199401805	Continued Implementation of Prioritized Asotin Creek Watershed Habitat Projects On-going project for prioritizing & implementing on-the-ground habitat projects for wild steelhead & Chinook salmon in Asotin watershed. Bull trout also benefit from this ridge-top-to-ridge-top approach with match from private landowners & other grants.	Install Fence Plant Vegetation Practice No-till and Conservation Tillage Systems	2.36 riparian miles fenced; 12.5 riparian acres planted/maintained; 2,778.2 upland acres improved through no-till conservation systems
	200205000	Continued Riparian Buffer Projects on Couse/Tenmile and other Salmonid Bearing Streams in Asotin County On-going project to continue implementation of prioritized habitat protection on private property for ESA listed steelhead, Chinook salmon and bull trout as identified in the Asotin Subbasin Plan. Cost share provided by private landowners & other sources.	Install Fence Plant Vegetation Practice No-till and Conservation Tillage Systems Upland Erosion and Sedimentation Control	3.17 miles riparian fencing installed; 89.3 riparian acres planted; 1,272.4 upland acres improved with no-till conservation systems; erosion and sedimentation control on 95.6 upland acres
Tucannon River	199401806	Tucannon Stream and Riparian Protection, Enhancement, and Restoration Implement habitat protection, enhancement, and recovery strategies to support Subbasin Plan identified ESA focal, cultural significant and species of interest recovery within the Tucannon Subbasin.	Increase Instream Habitat Complexity Lease Land	Fish screens installed at five diversions; 369.8 riparian acres/17.8 riparian miles protected through CREP extension
	199401807	Improve Habitat For Fall Chinook, Steelhead in the Lower Snake and Tucannon Sub basins To obtain funding to continue with the districts effort to reduce soil erosion on the uplands and along the streams of Garfield County to improve water quality and fish habitat.	Plant Vegetation Remove vegetation Upland Erosion and Sedimentation Control	3,787 upland acres improved through erosion and sediment control and no-till conservation systems

Snake River Spring/Summer Chinook				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
All	199401500	Idaho Fish Screening and Passage Improvements Provide management and operational support for a capital construction program dedicated to the protection of anadromous fish from loss in water diversions, improve fish passage at diversions for juvenile and adult anadromous fish, and improve stream flow conditions where possible.	Install Fish Screen	New headgates and fish screens installed at four sites on Wimpy and Big Spring creeks; two unscreened diversions consolidated into one screened ditch and accessed 3 miles of habitat
			Remove/Install Diversion	
Little Salmon River	200706500	Coordinate and implement tributary habitat restoration in the Little Salmon River and lower Salmon River Idaho Implement fish habitat restoration on private lands dominated by agricultural practices using cost sharing by Bonneville, Idaho Pacific Coast Salmon Recovery Funds, Idaho Water Quality Program for Agriculture, and landowner participation.	Install Fence	Squaw Creek culvert replacement accessed 11 miles of habitat
			Plant Vegetation	
			Remove vegetation	
			Remove/Install Diversion	
	200706400	Protect and Restore Slate Creek Restore and protect the Slate Creek Watershed for the benefit of both resident and anadromous fish using an overall watershed approach. Restoration and protection efforts will be done cooperatively with the Nez Perce National Forest.	Decommission Road	Completed a Barrier Assessment and Prioritization Report for the Little Slate sub-watershed summarizing the assessment procedure, total number of sites assessed, condition of all sites, total miles of habitat blocked, and top priorities for fish passage restoration; barriers prioritized for replacement beginning in FY09
			Plant Vegetation	
			Remove vegetation	
			Upland Erosion and Sedimentation Control	
Secesh River South Fork Salmon River	200712700	Reestablish Connectivity and Restore Fish Habitat in the East Fork of the South Fork Salmon River Watershed This project will reestablish fish passage through a 30-foot tall cascade using natural channel design and rehabilitate one mile of fish habitat through an anthropogenically	Enhance Floodplain	Fish barrier removal and instream habitat complexity contracted for FY09 implementation
			Increase Instream Habitat Complexity	
			Install Fish Passage Structure	

Snake River Spring/Summer Chinook				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
		degraded reach of the upper mainstem East Fork of the South Fork Salmon River.	Plant Vegetation	
East Fork Salmon River Pahsimeroi River Salmon River upper mainstem	200726800	Idaho Watershed Habitat Restoration Project via Custer Soil and Water Conservation District The project scope is to implement high priority action items to maintain, enhance and restore fish habitat and fish passage in the priority stream segments of the Upper Salmon Basin area within the administrative boundaries of the Custer SWCD.	Install Fence	2.1 miles stream complexity improved and nine instream structures installed in Herd Creek and Slate Creek; 6.15 riparian miles fenced; 5 riparian acres planted; Challis Creek diversion relocation accessed 2 miles habitat; one screen addressed at Highline Canal
			Remove/Install Diversion	
			Remove/Modify Dam	
Lemhi River	200739400	Idaho Watershed Habitat Restoration Lemhi County Move funds for coordination, planning, design and implementation from 1992-026-03, Upper Salmon Basin Watershed Project.	Acquire Water Instream	0.2 riparian mile fenced; diversion modifications at three sites accessed 2.5 miles habitat
			Install Fence	
			Install Fish Passage Structure	
			Install Fish Screen	
Salmon River lower mainstem	199901900	Restore Salmon River (Challis, Idaho) Passive restoration by securing easements will assist restoration efforts via the Corps 206 Program. The development of side channels will help create a more naturally functioning floodplain, provide a wide array of environmental and ecological benefit.	Investigate Trespass	Visitation log to investigate Stark property conservation values
Yankee Creek	200205900	Yankee Fork Salmon River Dredge Tailings Restoration Project Restore natural river channel characteristics,	Plant Vegetation	Inventory, assessment, and monitoring being conducted prior to on-the-ground work

Snake River Spring/Summer Chinook				
Population	**Project #**	**Project Title & Short Description**	**2007-09 Action Description**	**FY07-08 Progress**
		floodplain function, hydraulic and sediment regimes, and aquatic habitat within the dredged reach of the YFSR, initially by redistributing dredge tailings piles from the floodplain.	Remove Mine Tailings	

Tables 4.1, 4.2, and 4.3 — Actions Identified for 2008-2009 Implementation in FCRPS BA, Attachment B.2.2-2, Tables 4a-c

Tables 4a-c in the FCRPS BA indicated tributary habitat actions the Action Agencies could implement in the 2008 and 2009 timeframe if funding was expanded beyond the initial 2007–2009 Fish and Wildlife Program funding levels. The expanded funding was targeted to address specific limiting factors for populations with the greatest biological needs for improvement. Tables 4.1, 4.2, and 4.3 list the projects that received expanded funding levels to implement these or similar suites of actions and any actual metrics that were completed.

Table 4.1. Actions Identified for 2007-2009 Implementation in FCRPS BA, Attachment B.2.2-2, Table 4a: Snake River spring/summer Chinook

Snake River Spring/Summer Chinook				
MPG	**Population**	**Primary Limiting Factor(s) by AU**	**Action Description**	**FY07-08 Progress**
Grande Ronde	Catherine Creek	In-channel characteristics	In-stream enhancement, LWD, modify/enhance channel	GRMW/Umatilla Tribe contract, End Creek Restoration Project. McDonald Creek restoration channel segments and spring channels added 0.4 mile stream habitat.
			Opportunistic channel enhancement	
		Riparian / Floodplain	livestock exclusion/reveg/weed control/expand streamside buffers/levee or road mod/restore meadows	GRMW/USFS contract, Riparian Fencing and Water Development project. Permitting and design in FY08, implementation in FY09.
			wetland project development	
			riparian fencing (FS)	
			road obliteration/sediment reduction (FS)	
		Fish Passage	culverts/irrigation diversion improvements	GRMW contract, Catherine Creek State Diversion Fish Passage project: fish ladder construction and diversion modification to access 22 miles habitat. Smutz Draw culvert replacement to access 1.5 miles habitat.
			Catherine Creek State Diversion Fish Passage	
			Catherine Creek Diversion Townley-Dobin	GRMW contract, Townley-Dobbin and Mill Creek Fish Passage Project: permitting and design in FY09, implementation in FY10.

Snake River Spring/Summer Chinook				
MPG	**Population**	**Primary Limiting Factor(s) by AU**	**Action Description**	**FY07-08 Progress**
			Catherine Creek Davis Dams Fish Passage (design)	GRMW contract, permitting and design initiated.
			Scout Creek Culvert Replacement (design)	GRMW contract, design pending completion of USFS review.
	Upper Grande Ronde	In-channel characteristics	End Creek Restoration - Phase IV	GRMW/Umatilla Tribe contract, End Creek Restoration. McDonald Creek restoration channel segments and spring channels added 0.4 mile stream habitat.
			Willow Ck channel improvement /wetland restoration (new)	
			Indian Ck channel enhancement and wetland restoration	
		Riparian / Floodplain	Indian/Little Indian riparian fencing/water development- start in 09, continue through 15 (FS)	GRMW/Umatilla Tribe contract, End Creek Restoration project: 0.64 acre riparian planting.
		Passage	culverts/irrigation diversion improvements	GRMW/Umatilla Tribe contract, End Creek Restoration Project — McDonald Creek Headgate removal accessed 5 miles habitat.
Grande Ronde (con't)	Upper Grande Ronde (con't)	In-channel characteristics	Upper GR River mine tailings (FS)	GRMW/USFS contract: planning, permitting, design, and implementation in FY09.
			Fly Ck (FS)	GRMW/USFS contract, Fly Creek Stream Restoration: planning, permitting, design in FY09, implementation in FY10.
			UGR/Fly/Sheep Ck riparian fencing + water development- 2009 (FS)	GRMW/USFS contract, Riparian Fencing and Water Development project: permitting and design in FY08, implementation in FY09.
			Camp Carson erosion control 2008 (FS)	Cancelled — lack of fish benefits.

Snake River Spring/Summer Chinook				
MPG	**Population**	**Primary Limiting Factor(s) by AU**	**Action Description**	**FY07-08 Progress**
	Wallowa	Lack of passage - Lack of access to diversity of habitats,	Fish Passage Improvements	GRMW contract, Deer Creek Culvert Replacement to access 5 miles habitat.
Middle Fork Salmon	Big Creek	Sediment effects on rearing and spawning success - lack of intersticial space, reduced pool volume, reduced spawning success	Road Decommissioning, Road Improvement, Culvert Removal / Replacement, Riparian Restoration near Mining Sites, Weed Management, Silvacultural BMPs	BPA funding for project 200726800, Idaho Watershed Restoration to implement high-priority action items to maintain, enhance, and restore fish habitat and fish passage in the priority stream segments of the Upper Salmon Basin. 0.4 mile riparian fencing; 0.08 miles stream complexity improved in Herd Creek.
		Migration Barriers associated with roads and mining activities	Assess stream crossings and anthropogenic migration barriers to determine actions necessary for salmonid passage. Provide for salmonid passage at identified passage barriers (e.g., culvert replacement)	
South Fork Salmon River	South Fork Salmon River mainstem	Sediment effects on rearing and spawning success - lack of inter-sticial space, reduced pool volume, reduced spawning success	Road Decommissioning, Road Improvement, Culvert Removal / Replacement, Riparian Restoration, Mine rehabilitation	BPA expanded funding to project 200712700, Reestablish Connectivity and Restore Fish Habitat in the East Fork of the South Fork Salmon River Watershed. Conducted assessment, inventory, and prioritization of habitat opportunities in FY08. Implementation to follow pending planning, design, environmental review, and permitting.
		Migration Barriers	Assess stream crossings and anthropogenic migration barriers to determine actions necessary for salmonid passage. Provide for salmonid passage at identified passage barriers. The Stibnite-Glory Hole passage project is a priority.	Funding through 200712700 (see above). Stibnite-Glory Hole passage project cancelled, replaced with watershed-scale assessment of passage barriers (culverts), channel complexity, and floodplain reconnection opportunities, and prioritized road decommissioning. Implementation in FY09 and beyond based on inventory and assessment and pending environmental review and permitting.

Snake River Spring/Summer Chinook				
MPG	**Population**	**Primary Limiting Factor(s) by AU**	**Action Description**	**FY07-08 Progress**
	Secesh River	Sediment effects on rearing and spawning success - lack of intersticial space, reduced pool volume, reduced spawning success	Road Decommissioning, Road Improvement, Culvert Removal / Replacement, Weed Management, Silvacultural BMPs	Funding included in expanded funding to 200712700. See above.

Table 4.2. Actions Identified for 2007-2009 Implementation in FCRPS BA, Attachment B.2.2-2, Table 4b: Snake River summer/winter steelhead

Snake River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) (PLF) by AU**	**Action Description**	**FY07-08 Progress**
Upper Grande Ronde	Mid Grande Ronde River and Tribs	In-channel characteristics	End Creek Restoration - Phase IV	GRMW contract, End Creek Restoration. McDonald Creek restoration channel segments and spring channels added 0.4 mile stream habitat.
			Willow Ck channel improvement /wetland restoration (new)	
			Indian Ck channel enhancement and wetland restoration	
		Riparian / Floodplain	Indian/Little Indian Riparian fencing/water development 2009 start (FS)	GRMW/Umatilla Tribe End Creek Restoration project: 0.64 acres riparian planting
	Upper Grande Ronde and Tribs	In-channel characteristics	Upper GR River mine tailings (FS)	GRMW/USFS contract: planning, permitting, design, and implementation in FY09.
			Fly Ck (FS)	GRMW/USFS contract, Fly Creek Stream Restoration: planning, permitting, design in FY09, implementation in FY10
		Sediment	Camp Carson erosion control (FS)	Cancelled — lack of fish benefits.
Upper Grande Ronde (con't)	Catherine Creek	In-channel characteristics	In-stream enhancement, LWD, modify/enhance channel	GRMW/Umatilla Tribe contract, End Creek Restoration Project. McDonald Creek restoration channel segments and spring channels added 0.4 mile stream habitat.

Snake River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) (PLF) by AU**	**Action Description**	**FY07-08 Progress**
		Riparian / Floodplain	livestock exclusion/reveg/weed control/expand streamside buffers/levee or road mod/restore meadows	GRMW/USFS contract, Riparian Fencing and Water Development project. Permitting and design in FY08, implementation in FY09.
			wetland project development	
			Catherine Ck road obliteration/sediment reduction 2009 start (FS)	
		Fish Passage	culverts/irrigation diversion improvements	GRMW contract, Catherine Creek State Diversion Fish Passage project: fish ladder construction and diversion modification to access 22 miles habitat. Smutz Draw culvert replacement to access 1.5 miles habitat.
			Catherine Creek State Diversion Fish Passage	
			Catherine Creek Diversion Townley-Dobin	GRMW contract, Townley-Dobbin and Mill Creek Fish Passage Project: permitting and design in FY09, implementation in FY10.
			Catherine Creek Davis Dams Fish Passage (design)	GRMW contract, permitting and design initiated.
			Scout Creek Culvert Replacement (design)	Design pending completion of USFS review.
Lochsa	Crooked Fork	Connectivity - Lack of access to diversity of habitats	Culvert Replacement or Removal	BPA funding for project 200739500, Protect and Restore the Lochsa River beginning in 2007; budget expanded by $756k/year beginning in FY09. Implementation through Nez Perce Tribe, Watershed Program and the Clearwater National Forest. In Upper Lochsa, treated 1 mile road, 3.5 riparian acres revegetated.

Snake River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) (PLF) by AU**	**Action Description**	**FY07-08 Progress**
		Sediment effects on rearing and spawning success - lack of interstitial space, reduced pool volume, reduced spawning success	Road Removal and Improvement/ Land Acquisition	
		Temperature and Instream Habitat-poor quality pools and structure	Revegetation to allow for woody debris recruitment and riparian area cover. Land Acquisition	
	Middle Lochsa North Face Tribs (from Post Office to Bald Mountain)	Loss of riparian vegetation and complexity, lack of shade, loss of nutrients	Riparian Rehabilitation	Project 200739500: Culvert and bridge replacements to access 3.5 miles of habitat in Lower and Middle Lochsa.
		Lack of passage - Lack of access to diversity of habitats,	Culvert Replacement or Removal	Project 200739500: Culvert and bridge replacements to access 3.5 miles of habitat in Lower and Middle Lochsa.
		Sediment effects on rearing and spawning success - lack of interstitial space, reduced pool volume, reduced spawning success	Road Decommissioning, Culvert Removal / Replacement, Noxious Weed Control	Project 200739500: Decommissioned 2.7 riparian miles and 15.7 miles of road in Lower and Middle Lochsa.
		Temperature	Road Removal, Riparian Rehabilitation	Project 200739500: 8.5 riparian acres planted in Lower and Middle Lochsa.
	Lower Lochsa (Fish Creek to Pete King Creek)	Loss of riparian vegetation and complexity, lack of shade, loss of nutrients	Riparian Rehabilitation	Project 200739500: 8.5 riparian acres planted in Lower and Middle Lochsa.

Snake River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) (PLF) by AU**	**Action Description**	**FY07-08 Progress**
		Lack of passage - Lack of access to diversity of habitats	Culvert Replacement or Removal, Remove engineered instream structures	Project 200739500: Culvert and bridge replacements to access 3.5 miles of habitat in Lower and Middle Lochsa.
		Temperature	Road Removal, Riparian Rehabilitation	Project 200739500: 8.5 riparian acres planted in Lower and Middle Lochsa.
		Sediment effects on rearing and spawning success - lack of interstitial space, reduced pool volume, reduced spawning success	Road Decommissioning, Culvert Removal / Replacement, Noxious Weed Control	Project 200739500: Decommissioned 2.7 riparian miles and 15.7 miles of road in Lower and Middle Lochsa.
Lolo Creek	Musselshell Creek	Sediment from roads, timber harvest, cattle grazing, and historic mining - effects on rearing and spawning success, interstitial space and pool volume.	Road Decommissioning and road drainage improvements, Weed Control	BPA funding for project 199607702, Protect and Restore the Lolo Creek Watershed — budget expanded by $100K/year beginning in FY09: 20 upland acres treated for exotic invasive plants in Musselshell Meadows.
		Loss of riparian vegetation and complexity - lack of stream shading resulting in elevated temperatures	Riparian Rehabilitation & Large Woody Debris	
		Lack of passage - Lack of access to diversity of habitats,	Musselshell Tunnel/ Stream Relocation, Culvert Replacement	

Snake River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) (PLF) by AU**	**Action Description**	**FY07-08 Progress**
	Yoosa Creek	Sediment from roads, timber harvest, cattle grazing, and historic mining - effects on rearing and spawning success, interstitial space and pool volume.	Road Decommissioning and road drainage improvements, Weed Control	Project 199607702: Mox Creek culvert design.
	Lolo Creek	Sediment from roads, timber harvest, cattle grazing,- effects on rearing and spawning success, interstitial space and pool volume	Road obliteration and road drainage improvements	Project 199607702: Decommissioned 2 miles of riparian roads and 5 miles of upland roads.
		Reduced channel complexity from streamside roads, reduced LWD & historic dredge mining	Riparian Rehabilitation & Large Woody Debris	Project 199607702: 0.1 mile stream complexity increased in Jim Brown Creek.
		Loss of riparian vegetation and complexity - lack of stream shading resulting in elevated temperatures	Riparian planting	Project 199607702: two culvert replacements to access 5.2 miles instream habitat.
		Lack of passage - Lack of access to diversity of habitats.	Culvert Replacement, Eldorado Falls Adjustment	Project 199607702: 3 miles riparian vegetation planted.
Selway River	O'Hara Creek	Sediment from roads, timber harvest, cattle grazing - effects on rearing and spawning success, interstitial space and pool volume.	Road Decommissioning and road drainage improvements, Weed Control	No tributary habitat improvement projects funded by BPA for 2008 implementation in the Selway River.

Snake River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) (PLF) by AU**	**Action Description**	**FY07-08 Progress**
		Loss of riparian vegetation and complexity - lack of stream shading resulting in elevated temperatures	Riparian Rehabilitation & Large Woody Debris	
	Lower Selway River	Sediment from roads - effects on rearing and spawning success, interstitial space and pool volume.	Riparian Rehabilitation & Sediment Filters	
		Lack of passage - Lack of access to diversity of habitats,	Culvert Replacement	
South Fork Clearwater River	Newsome Creek	Channel Morphology - Channel straightened, lack of pools, lack of pool depth, lack of complexity, lack of cover	Channel / Riparian Rehabilitation	BPA funding for Project 200003500, Rehabilitate Newsome Creek — budget expanded by $321k/year beginning in FY08: design and preparation for the restoration of Stream Reach 5.
South Fork Clearwater River (con't)		Loss of riparian vegetation and complexity - dredge mine effects, lack of shade, loss of nutrients	Channel / Riparian Rehabilitation	
		Lack of passage - Lack of access to diversity of habitats,	Culvert Replacement	Project 200003500: Mare Creek and Mule Creek culvert replacements to access 6 miles instream habitat.
		Sediment effects on rearing and spawning success - lack of interstitial space, reduced pool volume, reduced spawning	Road Decommissioning, Road Improvement, Culvert Removal / Replacement	Project 200003500: 0.3 riparian mile and 8.5 upland miles road treatment/decommissioning.

Snake River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) (PLF) by AU**	**Action Description**	**FY07-08 Progress**
		success		
	Meadow Creek	Sediment effects on rearing and spawning success - lack of interstitial space, reduced pool volume, reduced spawning success	Road Decommissioning, Soil Restoration, Culvert Removal / Replacement, Weed Control	BPA funding for Project 199607705, Restore McComas Meadows/Meadow Creek Watershed — budget expanded by $200k/year beginning in FY08: 2 riparian miles and 17 upland miles of road treated/removed along Orchard Creek.
		Lack of passage - Lack of access to diversity of habitats,	Culvert Replacement	Project 199607705: Covert Creek culvert replacement to access 2 miles instream habitat.
		Loss of riparian vegetation and complexity - lack of large woody debris recruitment resulting in lack of habitat complexity	Riparian Rehabilitation	Project 199607705: 6 miles riparian vegetation planted in Orchard Creek, McComas Meadows, and Mill Creek.
South Fork Clearwater River (con't)		Loss of riparian vegetation and complexity - lack of stream shading resulting in elevated temperatures	Riparian Rehabilitation	
	Mill Creek	Lack of passage - Lack of access to diversity of habitats,	Culvert Replacement	BPA funding for Project 200003600, Protect and Restore Mill Creek — budget expanded by $150k/year beginning in FY08: Hepner Creek and Merton Creek culvert replacement to access 8 miles instream habitat.

Snake River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) (PLF) by AU**	**Action Description**	**FY07-08 Progress**
		Loss of riparian vegetation and complexity - lack of large woody debris recruitment resulting in lack of habitat complexity	Riparian Rehabilitation	Project 200003600: 0.5 mile riparian vegetation planted.
		Loss of riparian vegetation and complexity - lack of stream shading resulting in elevated temperatures	Riparian Rehabilitation	
	American River	Channel Morphology - Channel straightened, lack of pools, lack of pool depth, lack of complexity, lack of cover	Channel / Riparian Rehabilitation on Telephone, Whitaker, & Queen Creeks. BLM proposed restoration of American River.	No tributary habitat improvement projects funded by BPA for 2007-09 implementation in the American River AU.
		Loss of riparian vegetation and complexity - dredge mine effects, lack of shade, loss of nutrients	Channel / Riparian Rehabilitation on Telephone, Whitaker, & Queen Creeks	
		Lack of passage - Lack of access to diversity of habitats	Culvert Replacement	
		Sediment effects on rearing and spawning success - lack of interstitial space, reduced pool volume, reduced spawning success	Road Decommissioning, Road Improvement, Culvert Removal / Replacement, Weed Control	

Snake River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) (PLF) by AU**	**Action Description**	**FY07-08 Progress**
		Riparian and channel alteration from floodplain/riparian development	Maines Estate Land Acquisition / Conservation Easements	
	Crooked River	Channel Morphology - Channel straightened, lack of pools, lack of pool depth, lack of complexity, lack of cover	Channel / Riparian Rehabilitation, includes both BPA proposals and FS Stewardship actions	No tributary habitat improvement projects funded by BPA for 2007-09 implementation in the Crooked River AU.
		Loss of riparian vegetation and complexity - dredge mine effects, lack of shade, loss of nutrients	Channel / Riparian Rehabilitation, includes both BPA proposals and FS Stewardship actions	
		Lack of passage - Lack of access to diversity of habitats	Culvert Replacement	
South Fork Clearwater River (con't)		Sediment effects on rearing and spawning success - lack of interstitial space, reduced pool volume, reduced spawning success	Road Decommissioning, Road Improvement, Culvert Removal / Replacement, Weed Control	
	Red River	Channel Morphology - Channel straightened, lack of pools, lack of pool depth, lack of complexity, lack of cover	Channel / Riparian Rehabilitation	BPA funding for Project 200207200, Protect and Restore Red River Watershed — budget expanded by $198k/year beginning in FY08.
		Loss of riparian vegetation and complexity - dredge	Channel / Riparian Rehabilitation	Project 200207200: 15.6 miles decommissioned roads reseeded in riparian zones.

Snake River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) (PLF) by AU**	**Action Description**	**FY07-08 Progress**
		mine effects, lack of shade, loss of nutrients		
		Lack of passage - Lack of access to diversity of habitats,	Culvert Replacement	Project 200207200: Culvert #1709 replaced to open 12 miles instream habitat.
		Sediment effects on rearing and spawning success - lack of interstitial space, reduced pool volume, reduced spawning success	Road Decommissioning, Road Improvement, Culvert Removal / Replacement, Weed Control	Project 200207200: 1.0 mile road decommissioned in riparian zones; 20 miles road decommissioned in upland area; 139 acres upland erosion and sedimentation control on decommissioned roads.
		Riparian and channel alteration from floodplain/riparian development.	Red River Meadows Land Acquisition / Conservation Easements	Project 200207200: Red River Meadows stream restoration planned for FY09 implementation.
Big Creek	Entire Big Creek Watershed	Chemical Pollution From Mining Activities	Mine Rehabilitation and Riparian Restoration	BPA funding for Project 200726800, Idaho Watershed Restoration to implement high-priority action items to maintain, enhance, and restore fish habitat and fish passage in the priority stream segments of the Upper Salmon Basin. 0.4 mile riparian fencing; 0.08 mile stream complexity improved in Herd Creek.
		Sediment effects on rearing and spawning success - lack of interstitial space, reduced pool volume, reduced spawning success	Road Decommissioning, Road Improvement, Culvert Removal / Replacement, Riparian Restoration near Mining Sites, Weed Management, Silvicultural BMPs	

Snake River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) (PLF) by AU**	**Action Description**	**FY07-08 Progress**
		Migration Barriers associated with roads and mining activities	Assess stream crossings and anthropogenic migration barriers to determine actions necessary for salmonid passage. Provide for salmonid passage at identified passage barriers (e.g., culvert replacement)	Project 200726800: Replaced Squaw Creek and Little Salmon River culverts to access 11 miles instream habitat.
Secesh River	Entire Secesh Basin	Sediment effects on rearing and spawning success - lack of interstitial space, reduced pool volume, reduced spawning success	Road Decommissioning, Road Improvement, Culvert Removal / Replacement, Weed Management, Silvicultural BMPs	BPA expanded funding to Project 200712700, Reestablish Connectivity and Restore Fish Habitat in the East Fork of the South Fork Salmon River Watershed. Conducted assessment, inventory, and prioritization of habitat opportunities in FY08. Implementation to follow pending planning, design, environmental review, and permitting.
South Fork Salmon	EFSF Salmon and tribs	Sediment effects on rearing and spawning success - lack of interstitial space, reduced pool volume, reduced spawning success	Road Decommissioning, Road Improvement, Culvert Removal / Replacement, Riparian Restoration, Mine rehabilitation	BPA expanded funding to Project 200712700, Reestablish Connectivity and Restore Fish Habitat in the East Fork of the South Fork Salmon River Watershed. Conducted assessment, inventory, and prioritization of habitat opportunities in FY08. Implementation to follow pending planning, design, environmental review, and permitting.
		Migration Barriers	Assess stream crossings and anthropogenic migration barriers to determine actions necessary for salmonid passage. Provide for salmonid passage at identified passage barriers. The Stibnite-Glory Hole passage project is a priority.	Funding through 200712700 (see above). Stibnite-Glory Hole passage project cancelled, replaced with watershed-scale assessment of passage barriers (culverts), channel complexity and floodplain reconnection opportunities, and prioritized road decommissioning. Implementation in FY09 and beyond based on inventory and assessment and pending environmental review and permitting.

Snake River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) (PLF) by AU**	**Action Description**	**FY07-08 Progress**
		Heavy Metal Contamination	Mine oversight and management to protect and restore water quality and fish habitat. Riparian, floodplain, and wetland restoration.	

Table 4.3. Actions Identified for 2007-2009 Implementation in FCRPS BA, Attachment B.2.2-2, Table 4c: Upper Columbia River Summer/Winter Steelhead

Upper Columbia River Steelhead				
Population	**Assessment Unit (AU)**	**Primary Limiting Factor(s) by AU**	**Action Description**	**FY08 Progress**
Okanogan River	Omak Creek MSA	Passage-culverts	provide passage at barriers	Colville Tribe Accord Agreement: approximately $850k budget increase in FY08 (Projects 2000-00-100 Omak Creek Anadromous Fish Habitat and Passage, 1996-042-00 Restore Salmon Creek Anadromous Fish, 2007-224-00 Okanogan Subbasin Habitat Implementation Program). 100 acres riparian acres purchased along Omak Creek, 20 riparian acres planted, 0.3 instream mile instream habitat complexity in Wildhorse Spring Creek.
	Small Trib Creeks Combined mSA	Riparian and floodplain function	land acquisition	
	Salmon Creek	Low stream flow	water acquisition	
		In-channel habitat quantity*	Salmon Creek Project funded under 2007-09 F&W Pgm Funding Decision. Potential to fund water acquisition through the Water Entity/CBWTP.	
		Passage-flow barrier in lower reach	improve water management/channel reconstruction	
	Loup Loup Creek	Low stream flow	improve water management	
		Riparian and floodplain function	water conservation	
		Passage- flow barrier in lower reach	provide passage at barriers	

Table 5.1. Status of Completed and Ongoing 2007 FCRPS Biological Assessment Table 5a Tributary Habitat Actions Performed with Reclamation Technical Assistance

Table 5.1 contains metric and metric values for actions completed in 2007-2008 and ongoing actions that will continue into 2009 and later with technical assistance provided by Reclamation. Ongoing actions are those with no date in the "Action End" column. Some of the projects listed in this Table *complement* BPA-funded projects listed in Attachment 3, Tables 1 to 4. The following abbreviations apply. Streamflow: streamflow protected under state law. Stream length: stream length affected. Extent of barrier: P, partial (upstream access seasonably inaccessible prior to action); F (absolutely no passage prior to action), full. Access: miles made accessible to next upstream full or partial barrier. Stream length affected by screen: miles between action location and next diversion. Complexity miles: length of instream habitat treated after action completed.

BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Lat. (north)i	Long. (west)	Action Start	Action End	Stream flow (cfs)	Stream Length (mi.)	Extent of Barrier	Access miles	# of screens	Screen dis-charge (cfs)	Screen dis-charge (A-F/yr)	Stream Miles affected	Complexity (Miles)
4292	John Day Middle Fork	Channel Access	North Ditch Diversion	Project purpose is to provide fish passage. The diversion has an 18 inch, open ended CMP pipe for a headgate which is regulated by placing boards and plastic across the opening. The instream part of the structure is composed of large rocks and gravels. The diversion will be replaced by a lay-flat stanchion dam by the GSWCD.	Middle Columbia River Steelhead	44 35 18	118 26 27	10/11/2006	8/15/2007			P	24					
4293	John Day Middle Fork	Channel Access	Upper Clear Creek Diversion	Project purpose is to provide fish passage. The diversion has an 18 inch, open ended CMP pipe for a headgate which is regulated by placing boards and plastic across the opening. The instream part of the structure is composed of large rocks, boards, and plastic supported by steel fence posts. The diversion will be replaced by a lay-flat stanchion dam by the GSWCD.	Middle Columbia River Steelhead	44 34 37	118 29 35	10/13/2006	8/15/2007			P	14					

BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Lat. (north)i	Long. (west)	Action Start	Action End	Stream flow (cfs)	Stream Length (mi.)	Extent of Barrier	Access miles	# of screens	Screen dis-charge (cfs)	Screen dis-charge (A-F/yr)	Stream Miles affected	Complexity (Miles)
4294	John Day Middle Fork	Channel Access	Vinegar Creek Diversion	Project purpose is to provide fish passage. The instream part of the structure is composed of 2-4 foot boulders on the permanent part of the structure with smaller rocks, debris, boards, and plastic on the part that is hand built each year. The diversion will be replaced by a modified version of a lay-flat stanchion dam by the GSWCD	Middle Columbia River Steelhead	44 37 49	118 29 59	10/13/2006	8/15/2007			P	7					
4295	John Day Middle Fork	Channel Access	South Ditch Diversion (MFJDR)	Project purpose is to provide fish passage. The diversion has an 18 inch, open ended CMP pipe for a headgate which is regulated by placing boards and plastic across the opening. The instream part of the structure is composed of large rocks. The diversion will be replaced by a lay-flat stanchion dam by the GSWCD.	Middle Columbia River Steelhead	44 35 53	118 28 10	10/13/2006	8/15/2007			F	2					
4296	John Day Middle Fork	Channel Access	Smith Ditch Diversion	Project purpose is to provide fish passage. Historically a pushup dam was required for the irrigator to divert a the full water right rate. A concrete headgate structure with two slide headgates, control the flow into the ditch. The Grant SWCD anticipates installing a typical lay-flat stanchion dam at this site with fish passage. Construction is targeted for 2008.	Middle Columbia River Steelhead	44 40 57	118 45 47	10/18/2006	8/1/2008			P	1					

BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Lat. (north)i	Long. (west)	Action Start	Action End	Stream flow (cfs)	Stream Length (mi.)	Extent of Barrier	Access miles	# of screens	Screen dis-charge (cfs)	Screen dis-charge (A-F/yr)	Stream Miles affected	Complexity (Miles)
4345	John Day Middle Fork	Channel Access	Boulder Creek Ranch Diversion	Project purpose is to provide fish passage. The Boulder Creek Ranch Diversion is about 15 miles Northwest of Austin Junction, Oregon on Big Boulder Creek. Big Boulder Creek is a major tributary to the Middle Fork John Day River. The instream part of the structure is composed of large cobble, and traps.	Middle Columbia River Steelhead	44 40 26	118 43 01	7/25/2008				P	13					
4278	John Day Upper Main	Channel Access	GSWCD-North Diversion, Reynolds Creek	Grant SWCD is proposing to build a lay-flat stanchion type dam to replace the current dam. The new structure would incorporate fish passage meeting current criteria.	Middle Columbia River Steelhead	44 24 40	118 34 04	10/7/2005	8/15/2007			F	0.2					
4297	John Day Upper Main	Channel Access	Axe Ditch Diversion-Reynolds Creek	Project purpose is to provide fish passage. There is not a functioning headgate and the instream part of the structure is composed of large rocks, tarps, steel posts, and logs. The diversion will be replaced by a lay-flat stanchion dam by the GSWCD.	Middle Columbia River Steelhead	44 25 01	118 32 40	1/19/2007	8/15/2007			F	11					
4299	John Day Upper Main	Channel Access	Blue Mountain Diversion	Project purpose is to provide fish passage. The structure consists of concrete wing walls and a concrete sill about 15 feet wide and 80-100 feet long, with a total vertical drop 6-7 at low flow. The GSWCD is proposing to rebuild the channel grade using a series of weirs to raise the water level to the sill of the dam and then creating a passageway over or through the flash board part of the dam.	Middle Columbia River Steelhead	44 24 39	119 07 42	10/11/2006	8/15/2007			F	0.5					

BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Lat. (north)i	Long. (west)	Action Start	Action End	Stream flow (cfs)	Stream Length (mi.)	Extent of Barrier	Access miles	# of screens	Screen dis-charge (cfs)	Screen dis-charge (A-F/yr)	Stream Miles affected	Complexity (Miles)
4303	John Day Upper Main	Channel Access	Morgan Ditch Diversion (Reynold's Creek)	Project purpose is to provide fish passage. There is a functioning slide headgate and the instream part of the structure is composed of large rocks and logs. The diversion will be replaced by a lay-flat stanchion dam by the GSWCD.	Middle Columbia River Steelhead	44 24 42	118 33 34	10/11/2006	8/15/2007			P	0.85					
4301	John Day Upper Main	Channel Access	Hufstader Pump Station	Project purpose is to provide fish passage. The pump station will serve lands at the far end of the Eddington Ditch. Eddington Ditch diverts water from the John Day River 4.3 river miles upstream from the site of the proposed pump station. The Grant SWCD anticipates installing a pump station and associated delivery piping. Construction is targeted for 2008.	Middle Columbia River Steelhead	44 43 24	119 27 37	10/18/2006	4/15/2008			P						
4298	John Day Upper Main	Channel Access	Beech Creek Crossing	Project purpose is to provide fish passage. A dam in Beech Creek allows the water in Panama Ditch to flow into and back out of Beech Creek. The Grant SWCD anticipates installing an inverted siphon to carry the Panama Ditch water under Beech Creek and modifications to the dam in Beech Creek to divert Beech Creek water and allow passage. Construction is targeted for 2008.	Middle Columbia River Steelhead	44 25 32	119 06 35	10/18/2006	8/15/2008			F	6					

BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Lat. (north)i	Long. (west)	Action Start	Action End	Stream flow (cfs)	Stream Length (mi.)	Extent of Barrier	Access miles	# of screens	Screen dis-charge (cfs)	Screen dis-charge (A-F/yr)	Stream Miles affected	Complexity (Miles)
4300	John Day Upper Main	Channel Access	Bower's/Lemon's Ditch Diversion	Project purpose is to provide fish passage. The diversion structure is a typical gravel pushup dam which has to be constructed and maintained with heavy equipment. The Grant SWCD anticipates installing a typical lay-flat stanchion dam at this site with fish passage. Construction is targeted for 2008	Middle Columbia River Steelhead	44 24 40	119 07 02	10/18/2006	8/15/2008			F	10.5					
4302	John Day Upper Main	Channel Access	Long Box Diversion	Project purpose is to provide fish passage. The diversion structure is a gravel and large rock pushup dam. The Grant SWCD anticipates installing a typical lay-flat stanchion dam at this site with fish passage. Construction is targeted for 2008.	Middle Columbia River Steelhead	44 27 18	119 25 33	10/18/2006	8/15/2008			P	1					
4304	John Day Upper Main	Channel Access	Panama Ditch Diversion	Project purpose is to provide fish passage. The diversion structure is a typical gravel pushup dam which has to be constructed and maintained with heavy equipment. The Grant SWCD anticipates installing a typical lay-flat stanchion dam at this site with fish passage. Construction is targeted for 2008.	Middle Columbia River Steelhead	44 25 00	119 03 18	10/18/2006	8/15/2008			F	7					
4314	John Day Upper Main	Channel Access	Grant SWCD-Stout Diversion (UPJD RM 214.3)	Project purpose is to provide fish passage.	Middle Columbia River Steelhead	44 27 54	119 29 32	3/31/2008				F	1					

BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Lat. (north)i	Long. (west)	Action Start	Action End	Stream flow (cfs)	Stream Length (mi.)	Extent of Barrier	Access miles	# of screens	Screen dis-charge (cfs)	Screen dis-charge (A-F/yr)	Stream Miles affected	Complexity (Miles)
4323	John Day Upper Main	Channel Access	Kennedy (UPJD RM 209) and Murray (UPJD RM 210.2) Ditch Diversion s	Project purpose is to provide fish passage.	Middle Columbia River Steelhead	44 29 13	119 33 21	1/24/2008				F	1					
4349	John Day Upper Main	Channel Access	Eddington Ditch Diversion (Page Pump Station-UPJD RM 231.7)	Project purpose is to provide fish passage. The Eddington Ditch Diversion project is located 6 miles west of Mt. Vernon on the John Day River at river mile 233. The diversion structure is a typical gravel pushup dam which has to be constructed and maintain with heavy equipment. One partially functioning slide headgate controls flow into the ditch.	Middle Columbia River Steelhead	44 25 44	119 12 44	7/28/2008				F	1					
4350	John Day Upper Main	Channel Access	Oliver Ditch # 47 (UPJD RM 253.3) Diversion (combine d with Oliver #48 in 2008)	Project purpose is to provide fish passage. The Oliver Ditch # 47 Diversion project is located 4.5 miles east of John Day on the John Day River at river mile 253.3	Middle Columbia River Steelhead	44 25 25	118 51 50	7/28/2008				F	1					
4351	John Day Upper Main	Channel Access	Oliver Ditch # 48 (UPJD RM 253.2) Diversion (combine d with Oliver # 47 in 2008)	Project purpose is to provide fish passage. The Oliver Ditch # 48 Diversion project is located 4.5 miles east of John Day on the John Day River at river mile 253.2	Middle Columbia River Steelhead	44 25 19	118 51 50	7/28/2008				P	0.1					

BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Lat. (north)i	Long. (west)	Action Start	Action End	Stream flow (cfs)	Stream Length (mi.)	Extent of Barrier	Access miles	# of screens	Screen dis-charge (cfs)	Screen dis-charge (A-F/yr)	Stream Miles affected	Complexity (Miles)
4353	John Day Upper Main	Channel Access	Oliver Ditch # 49 Diversion (UPJD RM 252.2)	Project purpose is to provide fish passage. The Oliver Ditch # 49 Diversion project is located 4 miles east of John Day the John Day River at river mile 252.3. Preliminary review of the water rights indicates this diversion has a water right for diversion of 2.3 cfs. This structure is a full barrier at low floe to all life stages but at higher flows when the dam is partially washed out , it is partially barrier.	Middle Columbia River Steelhead	44 25 14	118 52 36	7/28/2008				F	1					
4369	John Day Upper Main	Channel Access	Grant SWCD-Cumming s River Ditch Diversion (UPJD RM 222.5)	Project purpose is to provide fish passage. The Cummings River Diversion project is located 12 miles west of Mt.Vermon on the John Day River at river mile 226. The diversion structure is a typical gravel and large rock pushup dam which has to be constructed and maintain with heavy equipment.	Middle Columbia River Steelhead	44 26 07	119 18 56	2/4/2008				F	1					
4272	John Day Middle Fork	Channel Complexi ty	TNC MF John Day Habitat Improve ment Project-Phase I	The Nature Conservancy has asked Reclamation for technical assistance in design and planning for a variety of habitat improvements on their Dunstan Homestead Preserve property on the Middle Fork John Day. Phase I of the project will be to determine the feasibility and then the ultimate design and planning for three side channel projects.	Middle Columbia River Steelhead	44 40 00	118 42 34	5/23/2005	8/15/2007	0.64								0.2

BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Lat. (north)i	Long. (west)	Action Start	Action End	Stream flow (cfs)	Stream Length (mi.)	Extent of Barrier	Access miles	# of screens	Screen dis-charge (cfs)	Screen dis-charge (A-F/yr)	Stream Miles affected	Complexity (Miles)
4273	John Day Middle Fork	Channel Complexi ty	Dead Cow Gulch Access and Habitat Improve ment Project	Dead Cow Gulch is currently blocked to fish passage near its mouth by two culverts. The channel has also been moved to a different path which further limits access and available habitat. This project would reroute the stream into a more natural alignment and eliminate the culverts as a barrier.	Middle Columbia River Steelhead	44 36 27	118 32 50	2/14/2005	10/30/2007	0.2								1.25
4368	John Day Middle Fork	Channel Complexi ty	TNC MF John Day Habitat Imporve ment Project - Phase II	TNC has asked Reclamation for technical assistance for design of a subset of projects proposed in the Aquatic and Flood Restoration Plan for Dustan Homestead Preserve (Claire Fields, 2004) in order to build partnerships and refine designs, permitting process, construction techniques, construction costs, and monitoring protocols for these restoration elements. Each element ahs future applicati0on elsewhere on the Dustan Preserve , as well as elsewhere in the upper Middle Fork John Day watershed.	Middle Columbia River Steelhead	44 40 00	118 42 34	5/20/2005	10/30/2007	1.25								0.83
4283	John Day Middle Fork	Channel Complexi ty	Big Boulder Habitat Improve ment Project	The Nature Conservancy and the Oregon Department of Fish and Wildlife has asked Reclamation for technical assistance in design and planning for channel reconfiguration and large wood placements on Big Boulder Creek.	Middle Columbia River Steelhead	44 40 22	118 42 59	9/6/2005	7/15/2008	0.83								0.15

BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Lat. (north)i	Long. (west)	Action Start	Action End	Stream flow (cfs)	Stream Length (mi.)	Extent of Barrier	Access miles	# of screens	Screen dis-charge (cfs)	Screen dis-charge (A-F/yr)	Stream Miles affected	Complexity (Miles)
4305	John Day Upper Main	Channel Complexity	CTWSRO Reach 8 Habitat Design	The work will involve design of features to improve habitat. The river is partially constrained by levees resulting in a fairly straight, wide, and shallow cross section. The proposed project is to remove the levees and strategically place large wood to increase channel complexity, narrow the channel, and stimulate natural increases in sinuosity.	Middle Columbia River Steelhead	44 27 33	118 41 52	10/13/2006	8/1/2007	0.15								1
4298	John Day Upper Main	Entrainment	Beech Creek Crossing	A dam in Beech Creek allows the water in Panama Ditch to flow into and back out of Beech Creek. The Grant SWCD anticipates installing an inverted siphon to carry the Panama Ditch water under Beech Creek and modifications to the dam in Beech Creek to divert Beech Creek water and allow passage. Construction is targeted for 2008.	Middle Columbia River Steelhead	44 25 32	119 06 35	10/18/2006		1				1				
4209	Lemhi	Channel Access	Lemhi River-L-44 Diversion Consolidation	The L-44 and 45 irrigation diversions on the upper Lemhi River are typical rock, push up diversion structures. Elimination of one diversion berm (l-44) and replacement of the other (L-45) with a single, consolidated structure will ensure fish passage during variable flows.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 49 46	113 36 37	5/13/2004	8/13/2007			P	0.5					

BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Lat. (north)i	Long. (west)	Action Start	Action End	Stream flow (cfs)	Stream Length (mi.)	Extent of Barrier	Access miles	# of screens	Screen dis-charge (cfs)	Screen dis-charge (A-F/yr)	Stream Miles affected	Complexity (Miles)
4328	Lemhi	Channel Access	L-1 Diversion	Project purpose is to provide fish passage. Evaluation of alternatives and development of conceptual design for a pump system and/or diversion weir is requested.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	45 10 69	113 53 15	4/1/2008				P	1					
4335	Pahsimeroi	Channel Access	Big Springs Creek 1 Diversion Enhancement	This project proposes to remove the existing wooden check structure and replace it with a structure that would allow fish passage at all times , while allowing the irrigators to continue diverting the water.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 36 33	113 57 33	7/1/2008										
4239	Upper Salmon	Channel Access	East Fork Salmon River-EF 13 Diversion	This project would construct a permanent diversion structure. Fish passage around the site will be provided.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 08 45	114 23 26	3/9/2004				P	1					
4247	Upper Salmon	Channel Access	East Fork Salmon River-EF 14 Diversion	Project purpose is to provide fish passage. EF 14 is an irrigation diversion with a gravel push-up dame. The diversion is unstable and must be re-built several times each year. This project would construct a more permanent rock diversion structure, along with a fish screen that meets NOAA criteria.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 08 33	114 24 07	2/16/2006				P	1.2					

BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Lat. (north)i	Long. (west)	Action Start	Action End	Stream flow (cfs)	Stream Length (mi.)	Extent of Barrier	Access miles	# of screens	Screen dis-charge (cfs)	Screen dis-charge (A-F/yr)	Stream Miles affected	Complexity (Miles)
4249	Upper Salmon	Channel Access	East Fork Salmon River EF 16 Diversion	Project purpose is to provide fish passage. EF 16 is an irrigation diversion with a gravel push-up dam. The diversion is unstable and must be rebuilt several times each year. This project would consolidate three diversions by building a more permanent rock diversion structure, building a new fish screen and new headgate structure.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 07 31	114 25 39	2/16/2006				P	1.9					
4342	Upper Salmon	Channel Access	Pole Creek Diversion Enhancement	Project purpose is to provide fish passage. Pole Creek diversion is a wooden structure check board to raise the level of the creek for diversion into an irrigation ditch. There is a fish ladder associated with the diversion that local biologists feel is a barrier to fish movement.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	43 54 35	114 45 26	9/10/2008										
4034	Methow	Channel Access	MVID East Canal Diversion Dam	Project purpose is to provide fish passage. Will replace the structure with a new one located at the original point of diversion. The upstream location will allow a much less obtrusive structure that will not require a constructed fishway for passage.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 25 08	120 08 25	9/13/2002				P	246.3					
4035	Methow	Channel Access	MVID West Canal Diversion Dam	Project purpose is to provide fish passage. Design and construct a new diversion structure and headgate that would prevent entry and minimize the effects of MVID's operations on listed salmonids.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 22 13	120 11 38	9/13/2002				P	120.3					

BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Lat. (north)i	Long. (west)	Action Start	Action End	Stream flow (cfs)	Stream Length (mi.)	Extent of Barrier	Access miles	# of screens	Screen dis-charge (cfs)	Screen dis-charge (A-F/yr)	Stream Miles affected	Complexity (Miles)
4260	Methow	Channel Complexity	Jennings Habitat Complexity Project	The purpose of the project is to reconnect the floodplain to the river and establish off-channel habitat.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 22 03	120 18 39	1/23/2006	10/11/2006	1								0.5
4261	Methow	Channel Complexity	Elbow Coulee Side Channel Restoration	The objective of this geomorphology project is to restore off-channel rearing habitat in a side channel off the mainstem Twisp River.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 22 47	120 14 20	5/4/2005	9/29/2008	0.5								0.5
4263	Methow	Channel Complexity	Upper Beaver Creek Side Channel Reconnection	This geomorphology project involves re-connecting a former beaver pond area and channel to the existing Beaver Creek channel in the Methow subbasin, with the objective of providing off-channel rearing habitat and floodplain connectivity.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 23 45	120 02 45	5/3/2005		0.5								0.3

Table 5.2. Status of Completed and Ongoing 2007 FCRPS Biological Assessment Table 5b Tributary Habitat Actions Performed with Reclamation Technical Assistance

Table 5.2 contains metric and metric values for actions completed in 2007-2008 and ongoing actions that will continue into 2009 and later with technical assistance provided by Reclamation. Ongoing actions are those with no date in the "Action End" column. Actions in Table 5.2 *supplement* the projects funded by BPA in 2007-2009. The following abbreviations apply. Streamflow: streamflow protected under state law. Stream length: stream length affected. Extent of barrier: P, partial (upstream access seasonably inaccessible prior to action); F (absolutely no passage prior to action), full. Access: miles made accessible to next upstream full or partial barrier. Stream length affected by screen: miles between action location and next diversion. Complexity miles: length of instream habitat treated after action completed. Status of Completed and Ongoing 2007 FCRPS Biological Assessment Table 5b Tributary Habitat Actions Performed with Reclamation Technical Assistance.

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4318	John Day Middle Fork	Channel Complexity	CTWSRO Middle Fork Forrest Reach Assessment	Channel Reconfiguration. The ultimate goal of this reach assessment is a diagnostic investigation of the main processes that transport and store water, wood, and sediment at the habitat reach scale of the river system; and an integration of hydrologic, hydraulic, geomorphic, and biologic conditions of the system to establish an environmental baseline through a matrix of pathways of effects and indicators of those effects. The proximate goal is to formulate a multiple working hypothesis for guiding restoration and protection activities at the reach scale based on an established baseline of environmental conditions quantified through channel conditions and dynamics indicators and the reach sequencing of restoration and preservation project areas. This assessment	Middle Columbia River Steelhead			9/18/2007											

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
				effort will serve as a foundation for subsequent project design packages.														
4319	John Day Middle Fork	Channel Complexity	CTWSRO Oxbow Reach Assessment	Channel Reconfiguration.The ultimate goal of this reach assessment is a diagnostic investigation of the main processes that transport and store water, wood, and sediment at the habitat reach scale of the river system; and an integration of hydrologic, hydraulic, geomorphic, and biologic conditions of the system to establish an environmental baseline through a matrix of pathways of effects and indicators of those effects. The proximate goal is to formulate a multiple working hypothesis for guiding restoration and protection activities at the reach scale based on an established baseline environmental conditions quantified through channel conditions and dynamics indicators and the reach sequencing of restoration and preservation project areas	Middle Columbia River Steelhead			9/5/2007										

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4331	Methow	Channel Access	Redshirt Project	Project purpose is to provide fish passage. This project will address an irrigation related barrier on Beaver Creek by constructing a rock weir structure.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 23 01	120 02 58	7/20/2006	10/26/2007			P	4					
4330	Methow	Channel Access	Poorman Cutoff Road Culvert	Replacement of culvert. Project purpose is to provide fish passage.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 21 50	120 20 19	2/15/2008				F	3					
4284	Wenatchee	Channel Access	Three Mission Creek Projects: Miller, Turnbull and Jurgins	Project purpose is to provide fish passage. Miller and Turnbull- Repair and installation of low stage log weirs to re-establish plunge pool habitat and thalweg, and increase complexity. Jurgins- Install a low stage rock weir with large woody debris to provide plunge pool habitat, control bank erosion, increase complexity, and re-establish thalweg.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 27 58	120 29 30	6/26/2006	10/15/2006			P						
4308	Wenatchee	Channel Access	WPP Alder Creek 2 & 3	This project proposes to replace a culvert on Alder Creek that doesn't meet cjrrent WDFW and NOAA passage criteria. It carries a paved county road over Alder Creek, and will be analyzed as both a retrofit and replacement.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 50 56	120 39 27	1/18/2007	7/23/2007			P	1					

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4255	Wenatchee	Channel Access	Alder Creek Culvert Passage Project # 1	This culvert is a barrier to fish passage because of the outfall velocities associated with it. This project will consist of a detailed analysis of the culvert using WDFW protocol and replacing it as necessary.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 51 09	120 39 36	2/17/2006	8/23/2007			P	4.3					
4306	Wenatchee	Channel Access	WPP Beaver Creek 3 Culvert Replacements	This project will address 3 barrier culverts on Beaver Creek by replacing the existing culverts with modular bridges with a span less than 30 feet.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 49 24	120 37 22	1/19/2007	10/15/2008			P	2					
4340	Entiat	Channel Complexity	Milne Diversion Project (Bridge to Bridge and Beyond Project # 1)	This is the first project in the Lower Entiat resulting from TSC's Reach Study. It will be multiple instream habitat structures including one that also replaces an irrigation push-up dam.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 39 57	120 16 36	8/25/2006	10/15/2007	0.3								0.5
4329	Entiat	Channel Complexity	Harrison Side Channel	The purpose of this project is to connect secondary channels at about 3 locations at varying elevations along the main channel.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 40 12	120 17 29	6/26/2007	11/15/2008	0.5								0.3
4288	Entiat	Channel Complexity	Stillwater Complexity Project	The intended impacts of this measure are to increase LWD density and habitat diversity, as well as the amount of backwater pool and tool tail-out habitat.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 57 43	120 25 13	7/21/2006		0.3								0.2
4326	Entiat	Channel	Keystone	This project consists of	Upper Columbia	47 39 54	120 16 05	1/29/2007		0.2								

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
		Complexity	Canyon Project	an existing push-up diversion structure replacement and habitat improvement/floodplain connectivity features.The goal of this project is to meet the BiOp Metric requirement for adding habitat complexity to the Entiat to improve spawning and rearing habitat quantity and quality for native endangered fish species. The habitat need identified in the Sub-basin plan and by local biologists for the lower Entiat is deep, slow water habitat (pools), localized pockets of depth, velocity and substrate diversity leading to increased habitat diversity, and retention of spawning size gravels on the channel edges for steelhead (Water Resource Inventory Area (WRIA) 46 Management Plan). The objective of the work under this scope of work is to provide an evaluation of a selected alternative through an Alternative Evaluation Report (AER) for floodplain reconnection and/or in-channel restoration structures, which will provide sufficient analysis results to	River Spring Chinook Salmon Upper Columbia River Steelhead													

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
				complete a construction funding proposal.														
4325	Methow	Channel Complexity	Big Valley Reach Assessment	This study will address cumulative project impacts,, river stability and habitat assessment for a 6 to 10 mile reach of the mainstem Methow River.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead			10/2/2006	3/31/2008									1
4333	Methow	Channel Complexity	Big Valley Light Heath	This project will provide better connection and access from the Methow River to a spring creek and pond on the Heath Property. The project will create a crossing point, probably culverts, for an access road that crosses two springs creeks just downstream of a 4 to 5 foot earth dam that creates a springfed pond. The access road currently drives through the creeks and has caused widening of the creeks creating a fish barrier. Fish passage will also be installed at the earth dam to provide access to the pong for salmonids , primary juveniles.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 30 28	120 15 33	1/19/2007	8/29/2008	1								0.25

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4262	Methow	Channel Complexity	Rockview-Fender Mills Phase I Side Channel Reconnection	The objective of this side channel restoration project is to provide approximately 1/4 mile of off-channel rearing habitat and restore floodplain connectivity.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 32 34	120 19 20	5/12/2005		0.25								0.2
4265	Wenatchee	Channel Complexity	Gagnon CMZ Project	This project proposes to create (excavate) a backchannel feature (along the floodplain of the Gagnon CMZ Site) to link the existing pond to the main stream, thus providing high flow salmonid refuge habitat.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 32 00	120 30 19	11/14/2005	11/15/2007	0.2								0.2
4193	Wenatchee	Channel Complexity	Jones Shotwell Ditch	This project would bring the Jones Shotwell Ditch Company's fish screen into compliance with NOAA Fisheries criteria.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 29 36	120 25 27	2/2/2004	2/15/2008	0.2								
4258	Wenatchee	Channel Complexity	Wenatchee Watershed Fluvial Habitat Resoration Plan (WWFHRP)	The deliverable of this RFP will be a Wenatchee Watershed Fluvial Habitat Restoration Plan Scope of Work . A draft of the plan will be required by May 31, 2007	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead			9/26/2005										0.2

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4284	Wenatchee	Entrainment	Three Mission Creek Projects: Miller, Turnbull and Jurgins	Miller and Turnbull- Repair and installation of low stage log weirs to re-establish plunge pool habitat and thalweg, and increase complexity. Jurgins- Install a low stage rock weir with large woody debris to provide plunge pool habitat, control bank erosion, increase complexity, and re-establish thalweg.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 29 13	120 29 00	6/26/2006	10/15/2006	2				2				
4193	Wenatchee	Entrainment	Jones Shotwell Ditch	This project would bring the Jones Shotwell Ditch Company's fish screen into compliance with NOAA Fisheries criteria.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 29 36	120 25 27	2/2/2004	2/15/2008	1				1				

Table 5.3. Status of Completed and Ongoing 2007 FCRPS Biological Assessment Table 5a and 5b Replacement and Additional Actions Performed with Reclamation Technical Assistance

The actions listed in Table 5.3 are *in addition* to those identified in the 2007 FCRPA BA. The following abbreviations apply. Streamflow: streamflow protected under state law. Stream length: stream length affected. Extent of barrier: P, partial (upstream access seasonably inaccessible prior to action); F (absolutely no passage prior to action), full. Access: miles made accessible to next upstream full or partial barrier. Stream length affected by screen: miles between action location and next diversion. Complexity miles: length of instream habitat treated after action completed. Status of Completed and Ongoing 2007 FCRPS Biological Assessment Table 5a and 5b Replacement and Additional Actions Performed with Reclamation Technical Assistance.

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4273	John Day Middle Fork	Channel Access	Dead Cow Gulch Access and Habitat Improvement Project	Dead Cow Gulch is currently blocked to fish passage near its mouth by two culverts. The channel has also been moved to a different path which further limits access and available habitat. This project would reroute the stream into a more natural alignment and eliminate the culverts as a barrier.	Middle Columbia River Steelhead	44 36 27	118 32 50	2/11/2005	10/30/2007			F	1.5					
4347	John Day Upper Main	Channel Access	Fry-Ingle Diversion	Project purpose is to provide fish passage. The Fry-Ingle Diversion is about 6 miles west of John Day, Oregon on the John Day River near river mile 241.5. Large boulders appear to say in place year around with additional gravels pushed up to complete the dam at lower flows. This structure is a full barrier at low flows to all life stages but at higher flows when the dam is partially washed out , it is partial barrier.	Middle Columbia River Steelhead	44 24 54	119 04 05	7/28/2008				F	1					

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4348	John Day Upper Main	Channel Access	Cummings Creek Pump	Project purpose is to provide fish passage. Cummings Creek is a small tributary entering the Upper John Day River near river mile 224.This project facilitates the transfer of a point of diversion from Cummings Creek to the John Day River.	Middle Columbia River Steelhead	44 66 47	119 22 19	6/28/2008				P	3.5					
4317	John Day Middle Fork	Channel Complexity	Middle Fork Rock Replacement Projects	Channel Reconfiguration	Middle Columbia River Steelhead	44 35 43	118 31 28	9/17/2007	7/25/2008	0.95								5.75
4271	John Day Upper Main	Channel Complexity	CTWSRO John Day Habitat Improvement Project-Phase 1	The John Day Basin Office of the Confederated Tribes Warm Spring Reservation of Oregon has asked Reclamation for technical assistance to restore instream habitat for anadromous and resident fisheries on the Oxbow and Forest conservation areas on the Middle Fork and Forrest Conservation Area on the Upper John Day River.	Middle Columbia River Steelhead	44 27 31	118 41 31	6/15/2005	7/15/2007	5.75								1.15
4320	John Day Upper Main	Channel Complexity	Forrest-Emmel Habitat Improvement Program	Channel Reconfiguration	Middle Columbia River Steelhead	44 27 12	118 40 18	8/27/2007	8/15/2008	1.15								1

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4367	John Day Middle Fork	Streamflow	Austin Ranch Permanent Diminishment of Water Rights	The Oregon Water Trust (OWT) has acquired a split season water use agreement for selected Austin Ranch water rights, which are served by the Middle Fork of the John Day River and tributaries. Transfer of the water rights from irrigation use to instream flow would support important salmon and steelhead spawning areas in the Middle Fork, Vinegar Creek, and Clear Creek. This project resulted in the permanent diminishment of the season of use of approximately 11.29 cubic feet per second (cfs) of natural flow water rights.	Middle Columbia River Steelhead	44 35 31	118 30 41	6/30/2006	12/31/2100	11.3	30							
4198	John Day Upper Main	Streamflow	Pauls Upper John Day Water Lease	Landowner located East of Dayville OR has water rights to divert water from the Upper John Day River to irrigate a total of 86.9 acres under two separate certificates. He has expressed an interest in no longer farming the majority of his irrigable land is interested in leasing the water rights to the land currently under sprinkler irrigation, for a period of 5 to 10 years. This sprinkler irrigated land amounts to about 54 acres. The result would be a lease of diversions rights of 1.36 cfs with	Middle Columbia River Steelhead	44 27 18	119 25 28	10/1/2006	9/30/2007	1.36	195							

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
				priority dates of 1902, 1906 and 1973.														
4198	John Day Upper Main	Streamflow	Pauls Upper John Day Water Lease	Landowner located East of Dayville OR has water rights to divert water from the Upper John Day River to irrigate a total of 86.9 acres under two separate certificates. He has expressed an interest in no longer farming the majority of his irrigable land is interested in leasing the water rights to the land currently under sprinkler irrigation, for a period of 5 to 10 years. This sprinkler irrigated land amounts to about 54 acres. The result would be a lease of diversions rights of 1.36 cfs with priority dates of 1902, 1906 and 1973.	Middle Columbia River Steelhead	44 27 18	119 25 28	10/1/2007	9/30/2008	1.36	195							
4327	Grande Ronde	Channel Access	Orodell Diversion Fish Passage Enhancement Project	Project purpose is to provide fish passage. This project proposes to replace an existing irrigation diversion structure that is currently being used by two ditch companies.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	45 20 31	118 06 59	9/24/2007				P	50					

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4343	Lemhi	Channel Access	Lemhi River-L-44 Diversion Repair	Project purpose is to provide fish passage. This project was constructed on the upper Lemhi River in fall 2005. Shortly after completion of the new diversion structure, IDFG raised concerns about the ability of juvenile salmonids to negotiate upstream over the structure.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead			2/28/2007	9/28/2007									
4378	Lemhi	Channel Access	Upper Lemhi River Flow Enhancement / Eighteenmile Creek Reconnect	In September 2008, a formerly disconnected Lemhi River Tributary was seasonally re-connected to the mainstem Lemhi River by placement of an earthen berm that now blocks diversion of Eighteenmile Creek flow into an irrigation conveyance canal referred to locally as the "Whitefish Ditch". Eighteenmile Creek stream flow and spring flow water rights that were formerly conveyed to irrigated lands via the Whitefish Ditch were re-directed to now flow into the Lemhi River. Spring flow water rights out of Eighteenmile creek were transferred by IDWR to a withdrawal location out of the Lemhi River at the L-62 point of diversion. Whitefish Ditch irrigation water is now conveyed via the Lemhi River down to L-62 where the transferred Whitefish	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 41 26	113 21 43	10/16/2006	9/15/2008			P	144					

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
				Ditch water rights are now diverted / pumped onto agricultural land. This project was funded by the Pacific Coast Salmon Recovery Fund which is provided by the National Marine Fisheries Service and is administered in Idaho by the Office of Species Conservation. Additional cost share funding was provided by the Natural Resources Conservation Service.														
4237	Little Salmon	Channel Access	Squaw Creek Culvert	A culvert passage barrier is located on the Squaw Creek Road (no. 517). This road is maintained by the Idaho County Road Department. Pre-design should investigate the feasibility of replacing the culvert or modifying it to allow for fish passage. Modification could include backwatering the culvert and installing baffles to reduce velocities in the culvert.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	45 25 06	116 21 34	6/1/2005	9/21/2007			P	4.5					

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4233	Lemhi	Streamflow	Lemhi Basin 06 PHABSIM Studies (TSC)	Objectives of this study are to identify a range of stream flow needed to sustain various life-history stages of salmon, steelhead, and bull trout in Hawley and Eighteenmile Creeks in the upper Lemhi River basin. Results can be used by State and Federal regulatory agencies to identify stream flow targets which Reclamation can help meet by implementing other Habitat Program measures.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead			10/1/2005	7/17/2007									
4241	Lemhi	Streamflow	Lemhi River-L44 Headgate Replacement	Headgate replacement is necessary to allow for better control of water diverted by the proposed new diversion structure.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 49 51	113 26 37	5/12/2005	8/13/2007									
4378	Lemhi	Streamflow	Upper Lemhi River Flow Enhancement / Eighteenmile Creek Reconnect	In September 2008, a formerly disconnected Lemhi River Tributary was seasonally re-connected to the mainstem Lemhi River by placement of an earthen berm that now blocks diversion of Eighteenmile Creek flow into an irrigation conveyance canal referred to locally as the "Whitefish Ditch". Eighteenmile Creek stream flow and spring flow water rights that were formerly conveyed to irrigated lands via the Whitefish Ditch were re-directed to now flow into	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 41 26	113 21 43	10/16/2006	9/15/2008									

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
				the Lemhi River. Spring flow water rights out of Eighteenmile Creek were transferred by IDWR to a withdrawal location out of the Lemhi River at the L-62 point of diversion. Whitefish Ditch irrigation water is now conveyed via the Lemhi River down to L-62 where the transferred Whitefish Ditch water rights are now diverted / pumped onto agricultural land. This project was funded by the Pacific Coast Salmon Recovery Fund which is provided by the National Marine Fisheries Service and is administered in Idaho by the Office of Species Conservation. Additional cost share funding was provided by the Natural Resources Conservation Service.															
4180	Upper Salmon	Streamflow	IDWR Upper Salmon Water Budget Model	Contract with IDWR for development of subbasin water models in the Upper Salmon will allow Reclamation to help market irrigation diversion management related projects and monitor cumulative effects of those projects.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead			7/21/2003	6/15/2007									
4194	Entiat	Channel Access	Knapp-Wham/Hannon Detweiler Ditch Consolidation	Consolidation of two ditches with diversions that constitute barriers with one diversion reconfigured to better pass ESA listed anadromous species.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 41 11	120 18 55	10/31/2003	10/15/2007			P						

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4009	Methow	Channel Access	Fulton Diversion	Project purpose is to provide fish passage. The diversion structure is adequate but the fishway will be redesigned and replaced with a more effective version.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 29 13	120 10 54	11/1/2002	2/23/2007			P	30.1					
4365	Methow	Channel Access	Methow In-Channel Habitat Restoration Plan	This investigation will provide data on the fluvial geomorphologic characteristics of the Methow subbasin. The resulting plan will be used as a basis for implementing complex and large restoration projects that can reliably improve habitat, be sustainable over the long term, and not create undue liability for Reclamation.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead			5/16/2005	9/30/2007									
4257	Wenatchee	Channel Access	Mill Creek Culvert Passage Project	This project will consist of either adding passage to the existing culvert or replacing it.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 30 39	120 37 56	2/23/2006	5/1/2007			F	2.3					
4379	Wenatchee	Channel Access	Two Mission Creek Projects-2007	Two culvert projects to improve passage in Mission Creek	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 29 18	120 29 05	6/26/2007	10/15/2007			P						
4214	Wenatchee	Channel Access	Pioneer Ditch	This project proposes to eliminate seasonal instream disturbances associated with rebuilding a diversion dam, improving fish passage, and habitat improvements.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 29 42	120 25 17	7/26/2004	6/15/2008									

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4380	Wenatchee	Channel Access	Two Mission Creek Projects-2008	Two culvert projects to improve passage in Mission Creek	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 29 07	120 28 55	6/26/2008	10/15/2008			P						
4285	Entiat	Channel Complexity	Bridge to Bridge Phase 1	Phase 1 will entail the installation of instream structures, maintenance of flow to existing irrigation canal and changes to canal water velocities,, installation of a water-tight slide gate on irrigation intake pipe, improvements to the irrigation canal outfall and planting riparian vegetation.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 40 09	120 17 05	6/27/2006	11/15/2007	0.2								0.95
4268	Methow	Channel Complexity	Methow Salmon Recovery Foundation Twisp Side Channel Reconnection (MSRF)	The purpose of this project is to design an intake structure with headgate that functions throughout the year, to provide a channel to act as a return from the ponds, and to increase the habitat value of the existing channels.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 34 24	120 10 24	1/27/2005	9/1/2006	1								0.4
4315	Wenatchee	Channel Complexity	CMZ 12/13	Channel Reconfiguration	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 32 01	120 32 55	2/26/2008	10/15/2008	0.4								0.3
4316	Wenatchee	Channel Complexity	CMZ 11	Channel Reconfiguration	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 32 04	120 31 25	2/26/2008	10/15/2008	0.3								

															Screen Discharge			
BiOp ID	**Subbasin**	**Limiting Factor**	**Project Title**	**Short Description**	**ESU/DPS**	**Lat. (north)**	**Long. (west)**	**Action Start**	**Action End**	**Stream flow (cfs)**	**Stream Length (mi.)**	**Extent of Barrier**	**Access miles**	**# of screens**	**cfs**	**Ac-ft/yr**	**Stream Miles affected**	**Complexity (Miles)**
4379	Wenatchee	Entrainment	Two Mission Creek Projects-2007	Two culvert projects to improve passage in Mission Creek	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 29 18	120 29 05	6/26/2007	10/15/2007	2				2				
4162	Methow	Streamflow	Chewuch Basin Water Acquisition	Compensation for curtailed irrigation water uses from the Chewuch River is a critical component of any agreement that would allow limited irrigation to continue while meeting NOAA Fisheries "ESA flows" in the Chewuch in dry years from RM 7.9 to 0.7.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 34 13	120 10 28	10/1/2006	9/30/2007	16.1	7.2							
4162	Methow	Streamflow	Chewuch Basin Water Acquisition	Compensation for curtailed irrigation water uses from the Chewuch River is a critical component of any agreement that would allow limited irrigation to continue while meeting NOAA Fisheries "ESA flows" in the Chewuch in dry years from RM 7.9 to 0.7.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 34 13	120 10 28	10/1/2007	9/30/2008	18	7.2							
4214	Wenatchee	Streamflow	Pioneer Ditch	This project proposes to eliminate seasonal instream disturbances associated with rebuilding a diversion dam, improving fish passage, and habitat improvements.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 29 42	120 25 17	7/26/2004	11/15/2007									

Table 6. Actions Identified for 2007-2009 Implementation in FCRPS BA, Attachment B.2.2-2, Table 6: Lower Columbia ESUs/DPSs

ESU/Population	Project #	Project Title & Short Description	2007-09 Action Description	FY07-08 Progress
Lower Columbia River coho/Lower Gorge tributaries Lower Columbia River steelhead (summer & winter)/Hood Lower Columbia River Spring Chinook/Hood	199802100	Hood River Fish Habitat Implement habitat improvement actions in the Hood River subbasin that will support wild fish and supplementation efforts of the Hood River Production Program (HRPP).	Increase Instream Habitat Complexity	Installed pipeline to conserve instream water and improve 7 stream miles, placed large woody debris and added 1.68 stream miles of complexity.
			Install Fence	
			Plant Vegetation	
			Install Fish Passage Structure	
			Install Fish Screen	
			Remove/Modify Dam	
			Install Pipeline	
			Plant Vegetation	
			Realign, Connect, and/or Create Channel	
			Remove/Modify Dam	
Lower Columbia River steelhead (summer & winter)/Wind	200707700	Hemlock Dam Removal This project will remove a 26-ft high dam on Trout Creek, a tributary to the Wind River. Trout Creek provides spawning and rearing habitat for LCR steelhead. The project will restore unimpeded fish passage and improve water quality and habitat.	Plant Vegetation	Developed and finalized plans for Hemlock Dam removal. Implementation/removal planned for 2009.
			Realign, Connect, and/or Create Channel	
			Remove/Modify Dam	

Attachment 4: Tributary Habitat Reports by the Bureau of Reclamation

Report Name	Internet address	Date
Washington		
Entiat		
Entiat Tributary Assessment	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/entiat/tribassmt/index.html	Jan-09
Methow		
Completion Report: Wolf Creek Diversion Dam	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/methow/completion/wolfcreekdiversion.pdf	Mar-09
Methow Subbasin Geomorphic Assessment	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/methow/geomorphicassessment/index.html	May-08
Memorandum: Fulton Diversion Dam Investigations	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/methow/fulton/geo-investigation-091807.pdf	Jul-06
Wenatchee		
Kahler Reach Assessment	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/wenatchee/kahler/index.html	Mar-09
Upper White Pine Reach Assessment	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/wenatchee/upperwhitepine/index.html	Mar-09
Lower White Pine Reach Assessment	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/wenatchee/lowerwhitepine/index.html	Feb-09
Nason Creek Tributary Assessment . Technical Appendices	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/wenatchee/nasoncreek/tributary-assmt.pdf http://www.usbr.gov/pn/programs/fcrps/thp/ucao/wenatchee/nasoncreek/app.pdf	Jul-08
Oregon		
General Documents		
Middle Fork and Upper Fork John Day River Tributary Assessments	http://www.usbr.gov/pn/programs/fcrps/thp/lcao/tributary-assmt/index.html	May-08
Middle Fork John Day		

Report Name	Internet address	Date
Rock Removal and Large Woody Debris Installation –Beaver to Ragged Specifications and Drawings	http://www.usbr.gov/pn/programs/fcrps/thp/lcao/middlefork/drawings/index.html	Jun-08
Idaho		
Lemhi		
Completion Report: Lemhi River L-3 Wasteway Diversion Fish Barrier	http://www.usbr.gov/pn/programs/fcrps/thp/srao/lemhi/completion/L-3.pdf	Feb-08
Completion Report: Lemhi River L-9 Diversion Replacement	http://www.usbr.gov/pn/programs/fcrps/thp/srao/lemhi/completion/L9.pdf	Dec-07
Completion Report: Lemhi River L-13 Irrigation Fish Screen Replacement	http://www.usbr.gov/pn/programs/fcrps/thp/srao/lemhi/completion/L-13.pdf	Oct-07
Completion Report: Lemhi River L-44 Irrigation Diversion Replacement	http://www.usbr.gov/pn/programs/fcrps/thp/srao/lemhi/completion/L44.pdf	Oct-07
Completion Report: Lemhi River L-35A Fish Screen and Headgate Replacement	http://www.usbr.gov/pn/programs/fcrps/thp/srao/lemhi/completion/L35A.pdf	Oct-07
Flow Characterization Study: Instream Flow Assessment, Hawley Creek and Eighteenmile Creek, Idaho	http://www.usbr.gov/pn/programs/fcrps/thp/srao/lemhi/phabsim/2006/hawley-flowassessment.pdf	Jun-07
Completion Report: L-3 and L-3A Irrigation Diversion Replacement	http://www.usbr.gov/pn/programs/fcrps/thp/srao/lemhi/completion/L3-L3A.pdf	May-07
Memorandum: L3AO River Control Structure Survey, April 13, 2007, Columbia/Upper Salmon Recovery Project, Lemhi River Subbasin, Idaho	http://www.usbr.gov/pn/programs/fcrps/thp/srao/lemhi/L3A0/L3AO-inspection.pdf	Apr-07
Little Salmon		
Completion Report: Squaw Creek Culvert Fish Passage Improvement Project	http://www.usbr.gov/pn/programs/fcrps/thp/srao/littlesalmon/completion/sqawcrk-culvert.pdf	Feb-08

Report Name	Internet address	Date
Upper Salmon		
Completion Report: East Fork Salmon River EF/10 and EF/11 Irrigation Diversion Consolidation Project	http://www.usbr.gov/pn/programs/fcrps/thp/srao/uppersalmon/completion/ef1011/ef10-11.pdf	Jul-07
Completion Report: Garden Creek and Gini Canal Crossing Project	http://www.usbr.gov/pn/programs/fcrps/thp/srao/uppersalmon/completion/ginicanal/gini-garden.pdf	Jul-07
Memorandum: S11-12 Canal Consolidation, Diversion Berm Underwater Inspection, 04/13/2007, Upper Salmon River Water Optimization Project, Idaho	http://www.usbr.gov/pn/programs/fcrps/thp/srao/uppersalmon/completion/s1314/inspection/S11-12-inspection.pdf	Jun-07

Attachment 5: Action Agency 2008 Estuary Habitat Projects

Project	Description	*Stream-Type or **Ocean-Type	River Reach	Status
Willow Grove Acquisition & Restoration Project (BPA)	Permanently protect important intertidal wetland habitat located at River Mile 60 of the Columbia River. The wetlands provide important habitat for migrating and juvenile salmonids. Coho, chum, Chinook, and steelhead all use this habitat complex. This property has been altered by past land uses but represents an example of critical intertidal wetlands within this reach of the Columbia River. Future actions will include restoration efforts such as vegetation enhancement, control of invasive species, placement of large wood material, and enhancing fish access to the wetland complex from the mainstem Columbia River. (Acquisition D in 2008 BiOp)	Stream-Type and Ocean-Type	Reach C	Protected 304 acres
Skamokawa Creek Restoration (BPA)	Re-establish tidal-fluvial hydrology to historical Skamokawa Creek through interior culvert retrofits and channel enhancements. When complete the project will restore 2.2 miles of meandering channel that historically was tide water. Phase 2 of this project is in design phase. (Funds were reallocated to this project from Knappton Cove, Project #4 in 2008 BiOp.)	Ocean-Type	Reach B	Phase 1 completed; when Phase 2 has been completed, 2.2 miles of channel will be restored.
Walluski River Tidal Restoration Project (BPA)	The Walluski River Tidal Restoration Project was completed in August 2008 (native plantings occurred in November 2008). This was the second phase of the project and was designed to restore and enhance previously acquired floodplain and side channel habitat along the Walluski River. This was accomplished by maintaining a natural dike breach, removing an additional 100 feet of the dike, and adding large wood to the tidal channels and floodplain. The project will increase habitat complexity, enhance the hydrologic connection to the Walluski River, and improve juvenile salmonid rearing habitat. (Funds were reallocated to this project from Knappton Cove, Project #4.)	Stream-Type and Ocean-Type	Reach A	Restored 55 acres

Project	Description	*Stream-Type or **Ocean-Type	River Reach	Status
Sandy River (BPA)	The Sandy River Project is part of a larger 1,500-acre long-term restoration project. The focus of this phase of the overall project is to plant native vegetation on 5 acres of riparian areas and on 1.2 riparian stream miles; plant 35 acres of riparian shrubs; and maintain native vegetation on 45 acres. Sandy River Delta historically was a wooded, riparian wetland with components of ponds, sloughs, bottomland woodland, oak woodland, prairie, and low- and high-elevation floodplain. Restoration of historical landscape components is a primary goal for this land, with current focus on restoration of riparian forest and wetlands.	Stream-Type and Ocean-Type	Reach G	2008 phase completed; ongoing restoration efforts in 2009 and beyond (multi-phase project).
Scappoose Bottomlands 2008 (BPA)	This project was designed to remove riparian/wetland invasive plant species on 303 acres, plant riparian/wetland native species on 200 acres of the total 303 acres, and install fence on 5 miles in riparian area adjacent to Scappoose Creek to exclude cattle.	Stream-Type and Ocean-Type	Reach F	Restored a minimum of 303 acres and 5 linear miles
Stephens Creek (BPA)	Project to restore 5 acres/1 stream mile on Stephens Creek. The Stephens Creek confluence is an important off-channel habitat area for salmon within the City of Portland. It provides critical rearing and refuge habitat for native, ESA-listed Chinook and coho salmon and steelhead trout; rainbow and cutthroat trout; and Pacific and brook lamprey. This project will improve instream, streambank, and floodplain wetland habitat for the benefit of native fish and wildlife species, with an emphasis on rearing and refuge habitat for juvenile steelhead, coho, and Chinook.	Stream-Type and Ocean-Type	Reach F	Restored 5 acres and 1 linear stream mile
Mirror Lake Restoration (BPA)	Project to restore 57 acres/1.6 stream miles at Mirror Lake. This project was designed to increase salmonids' access to potential spawning areas, lower water temperatures, and establish native streamside vegetation. Actions include removing riprap in a newly replaced culvert, installing baffles to improve a fish passage structure through the culvert by removing angular rock, and providing hydrologic refugia in an otherwise uniform channel. Large wood with root balls will be placed along approximately 1,500 feet of Young Creek. The design will mimic historical instream habitat	Stream-Type and Ocean-Type	Reach H	Restored 57 acres and 1.6 linear miles

Project	Description	*Stream-Type or **Ocean-Type	River Reach	Status
	conditions when riparian large woody debris recruitment and beaver activity provided holding pools, rearing habitat, and cover for salmonids. The project also involves planting and protecting native vegetation, including ash, cottonwood, red-osier dogwood, and salmonberry, along Youngs Creek.			
Wolf Bay (BPA)	Purchase of 76 acres. The purpose of this land acquisition is to place this property into permanent conservation protection and implement future restoration actions with the goal of providing critical feeding, acclimatization, and off-channel refugia for juvenile salmon. The property is located adjacent to the Columbia River and is part of the Wolf Bay wetland system. The proximity of the property to the mainstem of the Columbia River ensures that the property provides important low-velocity off-channel habitat for estuary-rearing juvenile salmonids. This fairly intact marsh and tidal wetland complex provides opportunities for future restoration activities such as providing tidal influence to portions of the property where tidal influence currently is restricted.	Stream-Type and Ocean-Type	Reach B	Purchased 76 acres
Pile Structure Program (BPA)	The purpose of this initial stage was to produce a draft Pile Program Plan and begin to inventory and assess pile structures, develop draft criteria for establishing project priorities, and identify future possible project implementation sites.	NA	NA (when implemented projects will be spread throughout the estuary)	Draft program plan completed, pre-implementation planning/design ongoing; on-the-ground implementation will begin in 2010.

Project	Description	*Stream-Type or **Ocean-Type	River Reach	Status
Deer Island (BPA)	Design and Landowner Outreach and 4.1 acres/0.60 linear mile of riparian plantings. The overall long-term restoration project on Deer Island seeks to partially restore historical estuarine habitat on the 4,500-acre Deer Island complex. The slough historically was a natural backwater of the Columbia River that provided salmonid rearing and foraging opportunities. Loss of connectivity has reduced access opportunities by salmonids and led to degraded water quality conditions in the form of high temperatures, low dissolved oxygen, and excessive channel aggradation. The bulk of this project is landowner outreach and project design for future projects. The restoration component of this project is an early action that includes site preparation and materials acquisition for planting that will be completed during 2009-2010. A total of 3,000 feet of riparian habitat on Tide Creek will be planted with native species. Planting will consist of red osier dogwood, Columbia willow, cottonwood, spirea, and other native riparian species found on site.	NA	Reach E	In progress
Julia Butler Hansen (CORPS)	Restoration project planning Phase 2 of the Julia Butler Hansen restoration project.	NA	Reach B	In progress

* Stream-type life histories include Snake River sockeye salmon, Lower Columbia River coho salmon, Upper Columbia River steelhead, Snake River steelhead, Lower Columbia River steelhead, Middle Columbia River steelhead, Upper Willamette River steelhead, Upper Columbia River spring Chinook salmon and Snake River spring/summer Chinook salmon.

** Ocean-type life histories include Columbia River chum, Snake River Fall Chinook, Upper Willamette Chinook, and Lower Columbia fall Chinook.