

Endangered Species Act
Federal Columbia River Power System
2010 Annual ESA Progress Report: Section 3

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

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Attachment 1: Hatchery Safety Net & Conservation Programs and RME Projects Completed or in Progress in 2010

Attachment 1 - Table 1. BPA Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
Hatchery	Execute on Safety Net and Conservation Objectives	41	All	BPA	1996-043-00	Johnson Creek Artificial Propagation Enhancement Project	Continued	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	Continued	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	Continued	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	Continued	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	Continued	http://www.cbfish.org/Project.mvc/Display/2007-404-00
Hatchery	Execute on Safety Net and Conservation Objectives	42	All	BPA	2001-053-00	Reintroduction of Chum Salmon into Duncan Creek	Continued	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	Continued	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	Continued	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	Continued	http://www.cbfish.org/Project.mvc/Display/2007-401-00

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Hatchery	Execute on Safety Net and Conservation Objectives	42	All	BPA	2007-402-00	Snake River Sockeye Salmon Captive Propagation	Continued	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	Continued	http://www.cbfish.org/Project.mvc/Display/2008-458-00
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	Continued	http://www.cbfish.org/Project.mvc/Display/2008-710-00
RM&E	Monitor the Status of Selected Fish Populations	50	1	BPA	1989-024-01	Umatilla Juvenile Salmonid Outmigration and Survival	Deleted	http://www.cbfish.org/Project.mvc/Display/198902401
RM&E	Monitor the Status of Selected Fish Populations	50	1	BPA	1990-005-00	Umatilla Hatchery Monitoring and Evaluation (M&E)	Deleted	http://www.cbfish.org/Project.mvc/Display/199000500
RM&E	Monitor the Status of Selected Fish Populations	50	1	BPA	1990-080-00	Columbia Basin PIT Tag Information	Continued	http://www.cbfish.org/Project.mvc/Display/199008000
RM&E	Monitor the Status of Selected Fish Populations	50	1	BPA	1991-028-00	Pit Tagging Wild Chinook	Deleted	http://www.cbfish.org/Project.mvc/Display/199102800
RM&E	Monitor the Status of Selected Fish Populations	50	1	BPA	1996-020-00	Comparative Survival Study (CSS)	Deleted	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Monitor the Status of Selected Fish Populations	50	1	BPA	2001-003-00	Adult PIT Detector Installation	Deleted	http://www.cbfish.org/Project.mvc/Display/200100300
RM&E	Monitor the Status of Selected Fish Populations	50	1	BPA	2010-034-00	Upper Columbia Spring Chinook and Steelhead Juvenile and Adult Abundance, Productivity and Spatial Structure Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/201003400
RM&E	Monitor the Status of Selected Fish Populations	50	2	BPA	1993-029-00	Survival Estimate for Passage through Snake and Columbia River Dams and Reservoirs	Continued	http://www.cbfish.org/Project.mvc/Display/199302900

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RM&E	Monitor the Status of Selected Fish Populations	50	2	BPA	2001-003-00	Adult PIT Detector Installation	Continued	http://www.cbfish.org/Project.mvc/Display/200100300
RM&E	Monitor the Status of Selected Fish Populations	50	2	BPA	2005-002-00	Lower Granite Dam Adult Trap Operations	Continued	http://www.cbfish.org/Project.mvc/Display/200500200
RM&E	Monitor the Status of Selected Fish Populations	50	2	BPA	2010-034-00	Upper Columbia Spring Chinook and Steelhead Juvenile and Adult Abundance, Productivity and Spatial Structure Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/201003400
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	1989-024-01	Umatilla Juvenile Salmonid Outmigration and Survival	Deleted	http://www.cbfish.org/Project.mvc/Display/198902401
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Added	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	1991-028-00	Pit Tagging Wild Chinook	Deleted	http://www.cbfish.org/Project.mvc/Display/199102800
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	1991-029-00	Research, monitoring, and evaluation of emerging issues and measures to recover the Snake River fall Chinook salmon ESU	Added	http://www.cbfish.org/Project.mvc/Display/199102900
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	1994-033-00	Fish Passage Center	Continued	http://www.cbfish.org/Project.mvc/Display/199403300
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	1996-020-00	Comparative Survival Study (CSS)	Continued	http://www.cbfish.org/Project.mvc/Display/199602000

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RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	2007-083-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Added	http://www.cbfish.org/Project.mvc/Display/200708300
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	2007-132-00	NEOH Monitoring & Evaluation Implementation (Formerly a component of 1988-053-01)	Added	http://www.cbfish.org/Project.mvc/Display/200713200
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	2008-311-00	Natural Production Management and Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/200831100
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	2008-724-00	Pittag Sr Sockeye-Uc Sp.Chnook	Deleted	http://www.cbfish.org/Project.mvc/Display/200872400
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	2010-030-00	Project to provided VSP Estimates for Yakima Steelhead MPG	Deleted	http://www.cbfish.org/Project.mvc/Display/201003000
RM&E	Monitor the Status of Selected Fish Populations	50	3	BPA	2010-034-00	Upper Columbia Spring Chinook and Steelhead Juvenile and Adult Abundance, Productivity and Spatial Structure Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/201003400
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	1982-013-01	Coded Wire Tag-Pacific States Marine Fisheries Commission (PSMFC)	Deleted	http://www.cbfish.org/Project.mvc/Display/198201301
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	1988-053-03	Hood River Production Monitoring and Evaluation (M&E)-Warm Springs	Deleted	http://www.cbfish.org/Project.mvc/Display/198805303
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	1989-107-00	Statistical Support For Salmon	Deleted	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	1990-044-00	Coeur D'Alene Reservation Fisheries Habitat	Deleted	http://www.cbfish.org/Project.mvc/Display/199004400

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RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	1991-073-00	Idaho Natural Production Monitoring and Evaluation (M&E)	Continued	http://www.cbfish.org/Project.mvc/Display/199107300
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	1998-016-00	Escapement and Productivity of Spring Chinook and Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/199801600
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	2002-060-00	Nez Perce Harvest Monitoring on Snake and Clearwater Rivers	Added	http://www.cbfish.org/Project.mvc/Display/200206000
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Continued	http://www.cbfish.org/Project.mvc/Display/200301700
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	2003-022-00	Okanogan Basin Monitoring & Evaluation Program (OBMEP)	Deleted	http://www.cbfish.org/Project.mvc/Display/200302200
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	2003-039-00	Monitor and Evaluate (M&E) Reproductive Success and Survival in Wenatchee River	Deleted	http://www.cbfish.org/Project.mvc/Display/200303900
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	2009-002-00	Status and Trend Annual Reporting	Closed	http://www.cbfish.org/Project.mvc/Display/200900200
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	2010-034-00	Upper Columbia Spring Chinook and Steelhead Juvenile and Adult Abundance, Productivity and Spatial Structure Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/201003400
RM&E	Monitor the Status of Selected Fish Populations	50	4	BPA	2010-036-00	Lower Columbia Coded Wire Tag (CWT) Recovery Project	Added	http://www.cbfish.org/Project.mvc/Display/201003600
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	1982-013-01	Coded Wire Tag-Pacific States Marine Fisheries Commission (PSMFC)	Continued	http://www.cbfish.org/Project.mvc/Display/198201301
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Deleted	http://www.cbfish.org/Project.mvc/Display/198335003

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RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	1991-028-00	Pit Tagging Wild Chinook	Deleted	http://www.cbfish.org/Project.mvc/Display/199102800
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	1991-073-00	Idaho Natural Production Monitoring and Evaluation (M&E)	Continued	http://www.cbfish.org/Project.mvc/Display/199107300
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	1993-037-01	Technical Assistance for life cycle model	Continued	http://www.cbfish.org/Project.mvc/Display/199303701
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	1996-020-00	Comparative Survival Study (CSS)	Continued	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	2002-060-00	Nez Perce Harvest Monitoring on Snake and Clearwater Rivers	Added	http://www.cbfish.org/Project.mvc/Display/200206000
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Continued	http://www.cbfish.org/Project.mvc/Display/200301700
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	2005-002-00	Lower Granite Dam Adult Trap Operations	Continued	http://www.cbfish.org/Project.mvc/Display/200500200
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	2007-233-00	Distribution and Abundance Monitoring of Oncorhynchus mykiss within the Lower Clearwater Subbasin	Deleted	http://www.cbfish.org/Project.mvc/Display/200723300
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	2009-005-00	Influence of Environment and Landscape on Salmonid Genetics	Added	http://www.cbfish.org/Project.mvc/Display/200900500

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RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	2010-026-00	Chinook and Steelhead Genotyping for Genetic Stock Identification (GSI) at Lower Granite Dam	Continued	http://www.cbfish.org/Project.mvc/Display/201002600
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	2010-031-00	Snake River Chinook and Steelhead Parental Based Tagging	Continued	http://www.cbfish.org/Project.mvc/Display/201003100
RM&E	Monitor the Status of Selected Fish Populations	50	5	BPA	2010-038-00	Lolo Creek Permanent Weir Construction	Continued	http://www.cbfish.org/Project.mvc/Display/201003800
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1982-013-01	Coded Wire Tag-Pacific States Marine Fisheries Commission (PSMFC)	Continued	http://www.cbfish.org/Project.mvc/Display/198201301
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1982-013-02	Coded Wire Tag-Oregon Department of Fish and Wildlife (ODFW)	Continued	http://www.cbfish.org/Project.mvc/Display/198201302
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1982-013-03	Coded Wire Tag-US Fish and Wildlife Service (USFWS)	Continued	http://www.cbfish.org/Project.mvc/Display/198201303
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1982-013-04	Coded Wire Tag-Washington Department of Fish and Wildlife (WDFW)	Continued	http://www.cbfish.org/Project.mvc/Display/198201304
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1983-350-00	Nez Perce Tribal Hatchery Operations and Maintenance (O&M)	Deleted	http://www.cbfish.org/Project.mvc/Display/198335000
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Continued	http://www.cbfish.org/Project.mvc/Display/198335003
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1984-025-00	Blue Mountain Fish Habitat Improvement	Deleted	http://www.cbfish.org/Project.mvc/Display/198402500
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700

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RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1988-022-00	Umatilla Fish Passage Operations	Continued	http://www.cbfish.org/Project.mvc/Display/198802200
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1988-053-03	Hood River Production Monitoring and Evaluation (M&E)-Warm Springs	Continued	http://www.cbfish.org/Project.mvc/Display/198805303
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1988-053-04	Hood River Production Monitor and Evaluation (M&E)-Oregon Department of Fish and Wildlife (ODFW)	Continued	http://www.cbfish.org/Project.mvc/Display/198805304
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1988-053-08	Hood River Production Operations and Maintenance (O&M) and Powerdale	Continued	http://www.cbfish.org/Project.mvc/Display/198805308
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1989-024-01	Umatilla Juvenile Salmonid Outmigration and Survival	Continued	http://www.cbfish.org/Project.mvc/Display/198902401
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1990-005-00	Umatilla Hatchery Monitoring and Evaluation (M&E)	Added	http://www.cbfish.org/Project.mvc/Display/199000500
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1990-005-01	Umatilla Basin Natural Production Monitoring and Evaluation (M&E)	Added	http://www.cbfish.org/Project.mvc/Display/199000501
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1991-073-00	Idaho Natural Production Monitoring and Evaluation (M&E)	Continued	http://www.cbfish.org/Project.mvc/Display/199107300
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1992-026-04	Grand Ronde Early Life History of Spring Chinook and Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/199202604

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RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1995-063-25	Yakima River Monitoring and Evaluation-Yakima/Klickitat Fisheries Project (YKFP)	Continued	http://www.cbfish.org/Project.mvc/Display/199506325
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1995-063-35	Klickitat River Monitoring and Evaluation-Yakima/Klickitat Fisheries Project (YKFP)	Continued	http://www.cbfish.org/Project.mvc/Display/199506335
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1996-020-00	Comparative Survival Study (CSS)	Continued	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1996-035-01	Yakama Reservation Watershed Project	Continued	http://www.cbfish.org/Project.mvc/Display/199603501
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1996-043-00	Johnson Creek Artificial Propagation Enhancement	Continued	http://www.cbfish.org/Project.mvc/Display/199604300
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1997-015-01	Imnaha River Smolt Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/199701501
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1997-030-00	Chinook Salmon Adult Abundance Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/199703000
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1998-007-02	Grande Ronde Supplementation Operations and Maintenance (O&M) and Monitoring and Evaluation (M&E) on Lostine River	Continued	http://www.cbfish.org/Project.mvc/Display/199800702
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1998-007-03	Grande Ronde Supplementation O&M on Catherine Creek/Upper Grande Ronde River	Continued	http://www.cbfish.org/Project.mvc/Display/199800703
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1998-010-03	Spawning Distribution of Snake River Fall Chinook Salmon	Deleted	http://www.cbfish.org/Project.mvc/Display/199801003
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1998-016-00	Escapement and Productivity of Spring Chinook and Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/199801600

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RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1998-019-00	Wind River Watershed	Continued	http://www.cbfish.org/Project.mvc/Display/199801900
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1999-003-01	Evaluate Spawning of Fall Chinook and Chum Salmon Just Below the Four Lowermost Mainstem Dams	Added	http://www.cbfish.org/Project.mvc/Display/199900301
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	1999-020-00	Analyze Persistence and Dynamics in Chinook Redds	Added	http://www.cbfish.org/Project.mvc/Display/199902000
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2000-039-00	Walla Walla River Basin Monitoring and Evaluation (M&E)	Deleted	http://www.cbfish.org/Project.mvc/Display/200003900
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2002-032-00	Snake River Fall Chinook Salmon Life History Investigations	Continued	http://www.cbfish.org/Project.mvc/Display/200203200
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2002-053-00	Asotin Creek Salmon Population Assessment	Continued	http://www.cbfish.org/Project.mvc/Display/200205300
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2002-060-00	Nez Perce Harvest Monitoring on Snake and Clearwater Rivers	Added	http://www.cbfish.org/Project.mvc/Display/200206000
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Continued	http://www.cbfish.org/Project.mvc/Display/200301700
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2003-022-00	Okanogan Basin Monitoring & Evaluation Program (OBMEP)	Continued	http://www.cbfish.org/Project.mvc/Display/200302200
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2003-039-00	Monitor and Evaluate (M&E) Reproductive Success and Survival in Wenatchee River	Deleted	http://www.cbfish.org/Project.mvc/Display/200303900
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2003-054-00	Evaluate the Relative Reproductive Success of Hatchery-Origin and Wild-Origin Steelhead Spawning Naturally in the Hood River	Deleted	http://www.cbfish.org/Project.mvc/Display/200305400

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2007-083-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Continued	http://www.cbfish.org/Project.mvc/Display/200708300
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2007-233-00	Distribution and Abundance Monitoring of Oncorhynchus mykiss within the Lower Clearwater Subbasin	Continued	http://www.cbfish.org/Project.mvc/Display/200723300
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2007-337-00	Oregon Plan Monitoring of Steelhead Status, Trend, and Habitat in the Grande Ronde River Subbasin	Merged; see project 1992-026-04	http://www.cbfish.org/Project.mvc/Display/200733700
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2007-402-00	Snake River Sockeye Captive Propagation	Added	http://www.cbfish.org/Project.mvc/Display/200740200
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2007-403-00	Spring Chinook Captive Propagation-Idaho	Continued	http://www.cbfish.org/Project.mvc/Display/200740300
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2007-404-00	Spring Chinook Captive Propagation-Oregon	Deleted	http://www.cbfish.org/Project.mvc/Display/200740400
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2008-306-00	Deschutes River Fall Chinook Research and Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/200830600
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2008-311-00	Natural Production Management and Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/200831100
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2009-004-00	Monitoring Recovery Trends in Key Spring Chinook Habitat Variables and Validation of Population Viability Indicators	Added	http://www.cbfish.org/Project.mvc/Display/200900400
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2010-028-00	Estimate Adult Steelhead Abundance in Small Streams Associated with Tucannon & Asotin Populations	Continued	http://www.cbfish.org/Project.mvc/Display/201002800

Attachment 1 - Table 1. BPA Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2010-030-00	Project to provided VSP Estimates for Yakima Steelhead MPG	Continued	http://www.cbfish.org/Project.mvc/Display/201003000
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2010-032-00	Imnaha River Steelhead Status Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/201003200
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2010-034-00	Upper Columbia Spring Chinook and Steelhead Juvenile and Adult Abundance, Productivity and Spatial Structure Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/201003400
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2010-035-00	Abundance, Productivity and Life History of Fifteenmile Creek Winter Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/201003500
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2010-036-00	Lower Columbia Coded Wire Tag (CWT) Recovery Project	Added	http://www.cbfish.org/Project.mvc/Display/201003600
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2010-037-00	Toppenish Creek Steelhead Status & Trend Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/201003700
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2010-038-00	Lolo Creek Permanent Weir Construction	Added	http://www.cbfish.org/Project.mvc/Display/201003800
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2010-042-00	Tucannon Expanded Pit Tagging	Continued	http://www.cbfish.org/Project.mvc/Display/201004200
RM&E	Monitor the Status of Selected Fish Populations	50	6	BPA	2010-047-00	Tuccanon GRTS Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/201004700
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1982-013-01	Coded Wire Tag-Pacific States Marine Fisheries Commission (PSMFC)	Deleted	http://www.cbfish.org/Project.mvc/Display/198201301
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1982-013-02	Coded Wire Tag-Oregon Department of Fish and Wildlife (ODFW)	Continued	http://www.cbfish.org/Project.mvc/Display/198201302
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1982-013-03	Coded Wire Tag-US Fish and Wildlife Service (USFWS)	Continued	http://www.cbfish.org/Project.mvc/Display/198201303

Attachment 1 - Table 1. BPA Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1982-013-04	Coded Wire Tag-Washington Department of Fish and Wildlife (WDFW)	Continued	http://www.cbfish.org/Project.mvc/Display/198201304
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1983-350-00	Nez Perce Tribal Hatchery Operations and Maintenance (O&M)	Deleted	http://www.cbfish.org/Project.mvc/Display/198335000
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Continued	http://www.cbfish.org/Project.mvc/Display/198335003
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Deleted	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1988-053-03	Hood River Production Monitoring and Evaluation (M&E)-Warm Springs	Deleted	http://www.cbfish.org/Project.mvc/Display/198805303
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1988-053-04	Hood River Production Monitor and Evaluation (M&E)-Oregon Department of Fish and Wildlife (ODFW)	Deleted	http://www.cbfish.org/Project.mvc/Display/198805304
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1988-053-07	Hood River Production Operations and Maintenance (O&M)-Warm Springs	Continued	http://www.cbfish.org/Project.mvc/Display/198805307
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1988-053-08	Hood River Production Operations and Maintenance (O&M) and Powerdale	Continued	http://www.cbfish.org/Project.mvc/Display/198805308
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1990-005-00	Umatilla Hatchery Monitoring and Evaluation (M&E)	Continued	http://www.cbfish.org/Project.mvc/Display/199000500
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Deleted	http://www.cbfish.org/Project.mvc/Display/199005500

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1995-063-25	Yakima River Monitoring and Evaluation-Yakima/Klickitat Fisheries Project (YKFP)	Continued	http://www.cbfish.org/Project.mvc/Display/199506325
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1995-063-35	Klickitat River Monitoring and Evaluation-Yakima/Klickitat Fisheries Project (YKFP)	Continued	http://www.cbfish.org/Project.mvc/Display/199506335
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1996-020-00	Comparative Survival Study (CSS)	Continued	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1996-043-00	Johnson Creek Artificial Propagation Enhancement	Continued	http://www.cbfish.org/Project.mvc/Display/199604300
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1997-015-01	Imnaha River Smolt Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/199701501
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1998-007-02	Grande Ronde Supplementation Operations and Maintenance (O&M) and Monitoring and Evaluation (M&E) on Lostine River	Deleted	http://www.cbfish.org/Project.mvc/Display/199800702
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1998-007-03	Grande Ronde Supplementation O&M on Catherine Creek/Upper Grande Ronde River	Continued	http://www.cbfish.org/Project.mvc/Display/199800703
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	1998-019-00	Wind River Watershed	Deleted	http://www.cbfish.org/Project.mvc/Display/199801900
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	2007-083-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Continued	http://www.cbfish.org/Project.mvc/Display/200708300
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	2007-404-00	Spring Chinook Captive Propagation-Oregon	Continued	http://www.cbfish.org/Project.mvc/Display/200740400

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	2008-710-00	Development of an Integrated strategy for Chum Salmon Restoration in the tributaries below Bonneville Dam	Added	http://www.cbfish.org/Project.mvc/Display/200871000
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	2010-028-00	Estimate Adult Steelhead Abundance in Small Streams Associated with Tucannon & Asotin Populations	Added	http://www.cbfish.org/Project.mvc/Display/201002800
RM&E	Monitor the Status of Selected Fish Populations	50	7	BPA	2010-032-00	Imnaha River Steelhead Status Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/201003200
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	1982-013-01	Coded Wire Tag-Pacific States Marine Fisheries Commission (PSMFC)	Continued	http://www.cbfish.org/Project.mvc/Display/198201301
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	1982-013-02	Coded Wire Tag-Oregon Department of Fish and Wildlife (ODFW)	Added	http://www.cbfish.org/Project.mvc/Display/198201302
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	1982-013-04	Coded Wire Tag-Washington Department of Fish and Wildlife (WDFW)	Continued	http://www.cbfish.org/Project.mvc/Display/198201304
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	1994-033-00	Fish Passage Center	Continued	http://www.cbfish.org/Project.mvc/Display/199403300
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	1996-043-00	Johnson Creek Artificial Propagation Enhancement	Continued	http://www.cbfish.org/Project.mvc/Display/199604300
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	1997-030-00	Chinook Salmon Adult Abundance Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/199703000
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	1999-020-00	Analyze Persistence and Dynamics in Chinook Redds	Continued	http://www.cbfish.org/Project.mvc/Display/199902000

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Program (PNAMP) Coordination	Added	http://www.cbfish.org/Project.mvc/Display/200400200
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	2007-407-00	Upper Snake River Tribe (USRT) Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200740700
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	2008-505-00	Stream Net Library	Continued	http://www.cbfish.org/Project.mvc/Display/200850500
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	2008-607-00	Nutrient Enhancement Project	Continued	http://www.cbfish.org/Project.mvc/Display/200860700
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	2010-036-00	Lower Columbia Coded Wire Tag (CWT) Recovery Project	Added	http://www.cbfish.org/Project.mvc/Display/201003600
RM&E	Monitor the Status of Selected Fish Populations	51	1	BPA	1988-108-04	StreamNet – Coordinated Information System (CIS)/ Northwest Environmental Database (NED)	Continued	http://www.cbfish.org/Project.mvc/Display/198810804
RM&E	Monitor the Status of Selected Fish Populations	51	2	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Monitor the Status of Selected Fish Populations	51	2	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Program (PNAMP) Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200400200
RM&E	Monitor the Status of Selected Fish Populations	51	2	BPA	2010-026-00	Chinook and Steelhead Genotyping for Genetic Stock Identification (GSI) at Lower Granite Dam	Added	http://www.cbfish.org/Project.mvc/Display/201002600
RM&E	Monitor the Status of Selected Fish Populations	51	2	BPA	2008-733-00	Regional Strategy-Status/Trend	Continued	http://www.cbfish.org/Project.mvc/Display/200873300
RM&E	Monitor the Status of Selected Fish Populations	51	3	BPA	1982-013-01	Coded Wire Tag-Pacific States Marine Fisheries Commission (PSMFC)	Continued	http://www.cbfish.org/Project.mvc/Display/198201301

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Monitor the Status of Selected Fish Populations	51	3	BPA	1982-013-02	Coded Wire Tag-Oregon Department of Fish and Wildlife (ODFW)	Added	http://www.cbfish.org/Project.mvc/Display/198201302
RM&E	Monitor the Status of Selected Fish Populations	51	3	BPA	1988-108-04	StreamNet – Coordinated Information System (CIS)/ Northwest Environmental Database (NED)	Continued	http://www.cbfish.org/Project.mvc/Display/198810804
RM&E	Monitor the Status of Selected Fish Populations	51	3	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Monitor the Status of Selected Fish Populations	51	3	BPA	1994-033-00	Fish Passage Center	Continued	http://www.cbfish.org/Project.mvc/Display/199403300
RM&E	Monitor the Status of Selected Fish Populations	51	3	BPA	1996-043-00	Johnson Creek Artificial Propagation Enhancement	Continued	http://www.cbfish.org/Project.mvc/Display/199604300
RM&E	Monitor the Status of Selected Fish Populations	51	3	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Program (PNAMP) Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200400200
RM&E	Monitor the Status of Selected Fish Populations	51	3	BPA	2007-216-00	Pacific NW Aquatic Monitoring Program (PNAMP) Research, Monitoring and Evaluation (RM&E) Design and Protocols	Closed	http://www.cbfish.org/Project.mvc/Display/200721600
RM&E	Monitor the Status of Selected Fish Populations	51	3	BPA	2008-505-00	Stream Net Library	Continued	http://www.cbfish.org/Project.mvc/Display/200850500
RM&E	Hydrosystem RM&E	52	1	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	52	1	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Hydrosystem RM&E	52	1	BPA	1991-051-00	Modeling and Evaluation Statistical Support for Life-Cycle Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199105100
RM&E	Hydrosystem RM&E	52	1	BPA	1997-015-01	Imnaha River Smolt Monitoring	Added	http://www.cbfish.org/Project.mvc/Display/199701501

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hydrosystem RM&E	52	1	BPA	2003-041-00	Evaluate Delayed (Extra) Mortality Associated with Passage of Yearling Chinook Salmon through Snake River Dams	Continued	http://www.cbfish.org/Project.mvc/Display/200304100
RM&E	Hydrosystem RM&E	52	2	BPA	1983-319-00	New Marking and Monitoring Technologies	Continued	http://www.cbfish.org/Project.mvc/Display/198331900
RM&E	Hydrosystem RM&E	52	2	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	52	2	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hydrosystem RM&E	52	2	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Hydrosystem RM&E	52	2	BPA	1990-005-01	Umatilla Basin Natural Production Monitoring and Evaluation (M&E)	Added	http://www.cbfish.org/Project.mvc/Display/199000501
RM&E	Hydrosystem RM&E	52	2	BPA	1991-028-00	Pit Tagging Wild Chinook	Deleted	http://www.cbfish.org/Project.mvc/Display/199102800
RM&E	Hydrosystem RM&E	52	2	BPA	1993-029-00	Survival Estimate for Passage through Snake and Columbia River Dams and Reservoirs	Continued	http://www.cbfish.org/Project.mvc/Display/199302900
RM&E	Hydrosystem RM&E	52	2	BPA	1996-020-00	Comparative Survival Study (CSS)	Continued	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Hydrosystem RM&E	52	2	BPA	1997-015-01	Imnaha River Smolt Monitoring	Added	http://www.cbfish.org/Project.mvc/Display/199701501
RM&E	Hydrosystem RM&E	52	2	BPA	2003-041-00	Evaluate Delayed (Extra) Mortality Associated with Passage of Yearling Chinook Salmon through Snake River Dams	Continued	http://www.cbfish.org/Project.mvc/Display/200304100
RM&E	Hydrosystem RM&E	52	2	BPA	2003-114-00	Coastal Ocean Acoustic Salmon Tracking (COAST)	Continued	http://www.cbfish.org/Project.mvc/Display/200311400

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hydrosystem RM&E	52	2	BPA	2008-908-00	FCRPS Water Studies & Passage of Adult Salmon & Steelhead	Added	http://www.cbfish.org/Project.mvc/Display/200890800
RM&E	Hydrosystem RM&E	52	3	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	52	3	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Hydrosystem RM&E	52	3	BPA	1991-051-00	Modeling and Evaluation Statistical Support for Life-Cycle Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199105100
RM&E	Hydrosystem RM&E	52	3	BPA	2005-002-00	Lower Granite Dam Adult Trap Operations	Continued	http://www.cbfish.org/Project.mvc/Display/200500200
RM&E	Hydrosystem RM&E	52	3	BPA	2008-508-00	Power Analysis Catch Sampling Rates	Added	http://www.cbfish.org/Project.mvc/Display/200850800
RM&E	Hydrosystem RM&E	52	3	BPA	2008-908-00	FCRPS Water Studies & Passage of Adult Salmon & Steelhead	Added	http://www.cbfish.org/Project.mvc/Display/200890800
RM&E	Hydrosystem RM&E	52	4	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	52	4	BPA	2008-724-00	Pittag Sr Sockeye-Uc Sp.Chnook	Continued	http://www.cbfish.org/Project.mvc/Display/200872400
RM&E	Hydrosystem RM&E	52	5	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	52	5	BPA	2008-724-00	Pittag Sr Sockeye-Uc Sp.Chnook	Continued	http://www.cbfish.org/Project.mvc/Display/200872400
RM&E	Hydrosystem RM&E	52	6	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Hydrosystem RM&E	52	6	BPA	1994-033-00	Fish Passage Center	Continued	http://www.cbfish.org/Project.mvc/Display/199403300
RM&E	Hydrosystem RM&E	52	6	BPA	2009-020-00	UW-CBR Internal Statistical / Technical Support to BPA (Skalski)	Continued	http://www.cbfish.org/Project.mvc/Display/200902000
RM&E	Hydrosystem RM&E	52	7	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hydrosystem RM&E	52	7	BPA	2003-022-00	Okanogan Basin Monitoring & Evaluation Program (OBMEP)	Deleted	http://www.cbfish.org/Project.mvc/Display/200302200
RM&E	Hydrosystem RM&E	52	7	BPA	2005-002-00	Lower Granite Dam Adult Trap Operations	Deleted	http://www.cbfish.org/Project.mvc/Display/200500200
RM&E	Hydrosystem RM&E	52	7	BPA	2008-105-00	Selective Gear Deployment	Continued	http://www.cbfish.org/Project.mvc/Display/200810500
RM&E	Hydrosystem RM&E	52	7	BPA	2008-908-00	FCRPS Water Studies & Passage of Adult Salmon & Steelhead	Added	http://www.cbfish.org/Project.mvc/Display/200890800
RM&E	Hydrosystem RM&E	53	1	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	53	1	BPA	1991-029-00	Research, monitoring, and evaluation of emerging issues and measures to recover the Snake River fall Chinook salmon ESU	Continued	http://www.cbfish.org/Project.mvc/Display/199102900
RM&E	Hydrosystem RM&E	53	1	BPA	1991-051-00	Modeling and Evaluation Statistical Support for Life-Cycle Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199105100
RM&E	Hydrosystem RM&E	53	1	BPA	1994-033-00	Fish Passage Center	Continued	http://www.cbfish.org/Project.mvc/Display/199403300
RM&E	Hydrosystem RM&E	53	1	BPA	2008-506-00	Smolt Monitoring Video Feasibility Project	Deleted	http://www.cbfish.org/Project.mvc/Display/200850600
RM&E	Hydrosystem RM&E	53	2	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	53	2	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hydrosystem RM&E	53	2	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Hydrosystem RM&E	53	2	BPA	1991-028-00	Pit Tagging Wild Chinook	Continued	http://www.cbfish.org/Project.mvc/Display/199102800

Attachment 1 - Table 1. BPA Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hydrosystem RM&E	53	2	BPA	1991-029-00	Research, monitoring, and evaluation of emerging issues and measures to recover the Snake River fall Chinook salmon ESU	Continued	http://www.cbfish.org/Project.mvc/Display/199102900
RM&E	Hydrosystem RM&E	53	2	BPA	1991-051-00	Modeling and Evaluation Statistical Support for Life-Cycle Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199105100
RM&E	Hydrosystem RM&E	53	2	BPA	1994-033-00	Fish Passage Center	Continued	http://www.cbfish.org/Project.mvc/Display/199403300
RM&E	Hydrosystem RM&E	53	2	BPA	1996-020-00	Comparative Survival Study (CSS)	Continued	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Hydrosystem RM&E	53	2	BPA	1996-021-00	Gas Bubble Disease Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/199602100
RM&E	Hydrosystem RM&E	53	2	BPA	2003-041-00	Evaluate Delayed (Extra) Mortality Associated with Passage of Yearling Chinook Salmon through Snake River Dams	Continued	http://www.cbfish.org/Project.mvc/Display/200304100
RM&E	Hydrosystem RM&E	53	2	BPA	2008-506-00	Smolt Monitoring Video Feasibility Project	Deleted	http://www.cbfish.org/Project.mvc/Display/200850600
RM&E	Hydrosystem RM&E	53	2	BPA	2010-026-00	Chinook and Steelhead Genotyping for Genetic Stock Identification (GSI) at Lower Granite Dam	Added	http://www.cbfish.org/Project.mvc/Display/201002600
RM&E	Hydrosystem RM&E	53	3	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	53	3	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Deleted	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hydrosystem RM&E	53	3	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Deleted	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Hydrosystem RM&E	53	3	BPA	1991-028-00	Pit Tagging Wild Chinook	Deleted	http://www.cbfish.org/Project.mvc/Display/199102800

Attachment 1 - Table 1. BPA Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hydrosystem RM&E	53	3	BPA	1994-033-00	Fish Passage Center	Continued	http://www.cbfish.org/Project.mvc/Display/199403300
RM&E	Hydrosystem RM&E	53	3	BPA	1996-020-00	Comparative Survival Study (CSS)	Continued	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Hydrosystem RM&E	53	3	BPA	2003-041-00	Evaluate Delayed (Extra) Mortality Associated with Passage of Yearling Chinook Salmon through Snake River Dams	Continued	http://www.cbfish.org/Project.mvc/Display/200304100
RM&E	Hydrosystem RM&E	53	3	BPA	2008-506-00	Smolt Monitoring Video Feasibility Project	Deleted	http://www.cbfish.org/Project.mvc/Display/200850600
RM&E	Hydrosystem RM&E	53	4	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	53	5	BPA	1983-319-00	New Marking and Monitoring Technologies	Deleted	http://www.cbfish.org/Project.mvc/Display/198331900
RM&E	Hydrosystem RM&E	54	1	BPA	1983-319-00	New Marking and Monitoring Technologies	Deleted	http://www.cbfish.org/Project.mvc/Display/198331900
RM&E	Hydrosystem RM&E	54	1	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Deleted	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hydrosystem RM&E	54	1	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Hydrosystem RM&E	54	1	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Deleted	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Hydrosystem RM&E	54	1	BPA	1996-020-00	Comparative Survival Study (CSS)	Deleted	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Hydrosystem RM&E	54	1	BPA	2003-041-00	Evaluate Delayed (Extra) Mortality Associated with Passage of Yearling Chinook Salmon through Snake River Dams	Continued	http://www.cbfish.org/Project.mvc/Display/2003-041-00
RM&E	Hydrosystem RM&E	54	2	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700

Attachment 1 - Table 1. BPA Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hydrosystem RM&E	54	2	BPA	1993-029-00	Survival Estimate for Passage through Snake and Columbia River Dams and Reservoirs	Continued	http://www.cbfish.org/Project.mvc/Display/199302900
RM&E	Hydrosystem RM&E	54	2	BPA	1994-033-00	Fish Passage Center	Deleted	http://www.cbfish.org/Project.mvc/Display/199403300
RM&E	Hydrosystem RM&E	54	3	BPA	2001-003-00	Adult PIT Detector Installation	Added	http://www.cbfish.org/Project.mvc/Display/200100300
RM&E	Hydrosystem RM&E	54	4	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Hydrosystem RM&E	54	5	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	54	5	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Deleted	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hydrosystem RM&E	54	5	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Hydrosystem RM&E	54	5	BPA	1996-020-00	Comparative Survival Study (CSS)	Deleted	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Hydrosystem RM&E	54	5	BPA	2003-041-00	Evaluate Delayed (Extra) Mortality Associated with Passage of Yearling Chinook Salmon through Snake River Dams	Continued	http://www.cbfish.org/Project.mvc/Display/200304100
RM&E	Hydrosystem RM&E	54	6	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	54	6	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hydrosystem RM&E	54	6	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Hydrosystem RM&E	54	6	BPA	1991-028-00	Pit Tagging Wild Chinook	Deleted	http://www.cbfish.org/Project.mvc/Display/199102800

Attachment 1 - Table 1. BPA Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hydrosystem RM&E	54	6	BPA	1996-020-00	Comparative Survival Study (CSS)	Continued	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Hydrosystem RM&E	54	6	BPA	2001-003-00	Adult PIT Detector Installation	Added	http://www.cbfish.org/Project.mvc/Display/200100300
RM&E	Hydrosystem RM&E	54	6	BPA	2003-041-00	Evaluate Delayed (Extra) Mortality Associated with Passage of Yearling Chinook Salmon through Snake River Dams	Continued	http://www.cbfish.org/Project.mvc/Display/200304100
RM&E	Hydrosystem RM&E	54	7	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	54	7	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Deleted	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hydrosystem RM&E	54	7	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Hydrosystem RM&E	54	7	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Deleted	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Hydrosystem RM&E	54	7	BPA	19910-28-00	Pit Tagging Wild Chinook	Deleted	http://www.cbfish.org/Project.mvc/Display/199102800
RM&E	Hydrosystem RM&E	54	7	BPA	1993-029-00	Survival Estimate for Passage through Snake and Columbia River Dams and Reservoirs	Continued	http://www.cbfish.org/Project.mvc/Display/199302900
RM&E	Hydrosystem RM&E	54	7	BPA	1996-020-00	Comparative Survival Study (CSS)	Deleted	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Hydrosystem RM&E	54	7	BPA	2003-041-00	Evaluate Delayed (Extra) Mortality Associated with Passage of Yearling Chinook Salmon through Snake River Dams	Continued	http://www.cbfish.org/Project.mvc/Display/200304100
RM&E	Hydrosystem RM&E	54	8	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hydrosystem RM&E	54	8	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Deleted	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Hydrosystem RM&E	54	8	BPA	1990-077-00	Development of System wide Predator Control	Continued	http://www.cbfish.org/Project.mvc/Display/199007700
RM&E	Hydrosystem RM&E	54	8	BPA	1991-028-00	Pit Tagging Wild Chinook	Deleted	http://www.cbfish.org/Project.mvc/Display/199102800
RM&E	Hydrosystem RM&E	54	8	BPA	1996-020-00	Comparative Survival Study (CSS)	Deleted	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Hydrosystem RM&E	54	8	BPA	1997-024-00	Avian Predation on Juvenile Salmonids	Deleted	http://www.cbfish.org/Project.mvc/Display/199702400
RM&E	Hydrosystem RM&E	54	8	BPA	2003-041-00	Evaluate Delayed (Extra) Mortality Associated with Passage of Yearling Chinook Salmon through Snake River Dams	Continued	http://www.cbfish.org/Project.mvc/Display/200304100
RM&E	Hydrosystem RM&E	54	9	BPA	1983-319-00	New Marking and Monitoring Technologies	Continued	http://www.cbfish.org/Project.mvc/Display/198331900
RM&E	Hydrosystem RM&E	54	9	BPA	2007-535-00	Physical and Biological Testing of a Flow Velocity Enhancement System (FVES)	Continued	http://www.cbfish.org/Project.mvc/Display/200753500
RM&E	Hydrosystem RM&E	54	10	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Deleted	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hydrosystem RM&E	54	10	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Deleted	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Hydrosystem RM&E	54	10	BPA	1991-028-00	Pit Tagging Wild Chinook	Deleted	http://www.cbfish.org/Project.mvc/Display/199102800
RM&E	Hydrosystem RM&E	54	10	BPA	1996-020-00	Comparative Survival Study (CSS)	Deleted	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Hydrosystem RM&E	54	11	BPA	2001-003-00	Adult PIT Detector Installation	Continued	http://www.cbfish.org/Project.mvc/Display/200100300

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hydrosystem RM&E	54	12	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Deleted	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hydrosystem RM&E	54	12	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Deleted	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Hydrosystem RM&E	54	12	BPA	1991-028-00	Pit Tagging Wild Chinook	Deleted	http://www.cbfish.org/Project.mvc/Display/199102800
RM&E	Hydrosystem RM&E	54	12	BPA	1996-020-00	Comparative Survival Study (CSS)	Continued	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Hydrosystem RM&E	54	12	BPA	2003-041-00	Evaluate Delayed (Extra) Mortality Associated with Passage of Yearling Chinook Salmon through Snake River Dams	Continued	http://www.cbfish.org/Project.mvc/Display/200304100
RM&E	Hydrosystem RM&E	54	13	BPA	1983-319-00	New Marking and Monitoring Technologies	Deleted	http://www.cbfish.org/Project.mvc/Display/198331900
RM&E	Hydrosystem RM&E	54	13	BPA	1994-033-00	Fish Passage Center	Continued	http://www.cbfish.org/Project.mvc/Display/199403300
RM&E	Hydrosystem RM&E	55	1	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	55	1	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hydrosystem RM&E	55	1	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Hydrosystem RM&E	55	1	BPA	1991-028-00	Pit Tagging Wild Chinook	Continued	http://www.cbfish.org/Project.mvc/Display/199102800
RM&E	Hydrosystem RM&E	55	1	BPA	1996-020-00	Comparative Survival Study (CSS)	Continued	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Hydrosystem RM&E	55	1	BPA	2003-041-00	Evaluate Delayed (Extra) Mortality Associated with Passage of Yearling Chinook Salmon through Snake River Dams	Continued	http://www.cbfish.org/Project.mvc/Display/200304100

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hydrosystem RM&E	55	1	BPA	2003-114-00	Coastal Ocean Acoustic Salmon Tracking (COAST)	Continued	http://www.cbfish.org/Project.mvc/Display/200311400
RM&E	Hydrosystem RM&E	55	1	BPA	2005-002-00	Lower Granite Dam Adult Trap Operations	Continued	http://www.cbfish.org/Project.mvc/Display/200500200
RM&E	Hydrosystem RM&E	55	1	BPA	2008-724-00	Pittag Sr Sockeye-Uc Sp.Chnook	Continued	http://www.cbfish.org/Project.mvc/Display/200872400
RM&E	Hydrosystem RM&E	55	2	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	55	2	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hydrosystem RM&E	55	2	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Hydrosystem RM&E	55	2	BPA	1991-028-00	Pit Tagging Wild Chinook	Deleted	http://www.cbfish.org/Project.mvc/Display/199102800
RM&E	Hydrosystem RM&E	55	2	BPA	1994-033-00	Fish Passage Center	Deleted	http://www.cbfish.org/Project.mvc/Display/199403300
RM&E	Hydrosystem RM&E	55	2	BPA	1996-020-00	Comparative Survival Study (CSS)	Deleted	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Hydrosystem RM&E	55	2	BPA	2003-041-00	Evaluate Delayed (Extra) Mortality Associated with Passage of Yearling Chinook Salmon through Snake River Dams	Continued	http://www.cbfish.org/Project.mvc/Display/200304100
RM&E	Hydrosystem RM&E	55	2	BPA	2003-114-00	Coastal Ocean Acoustic Salmon Tracking (COAST)	Continued	http://www.cbfish.org/Project.mvc/Display/200311400
RM&E	Hydrosystem RM&E	55	2	BPA	2005-002-00	Lower Granite Dam Adult Trap Operations	Deleted	http://www.cbfish.org/Project.mvc/Display/200500200
RM&E	Hydrosystem RM&E	55	2	BPA	2008-724-00	Pittag Sr Sockeye-Uc Sp.Chnook	Continued	http://www.cbfish.org/Project.mvc/Display/200872400
RM&E	Hydrosystem RM&E	55	3	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hydrosystem RM&E	55	4	BPA	1983-319-00	New Marking and Monitoring Technologies	Deleted	http://www.cbfish.org/Project.mvc/Display/198331900
RM&E	Hydrosystem RM&E	55	4	BPA	1987-127-00	Smolt Monitoring by Non-Federal Entities	Continued	http://www.cbfish.org/Project.mvc/Display/198712700
RM&E	Hydrosystem RM&E	55	4	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Hydrosystem RM&E	55	4	BPA	1991-029-00	Research, monitoring, and evaluation of emerging issues and measures to recover the Snake River fall Chinook salmon ESU	Continued	http://www.cbfish.org/Project.mvc/Display/199102900
RM&E	Hydrosystem RM&E	55	4	BPA	2002-032-00	Snake River Fall Chinook Salmon Life History Investigations	Continued	http://www.cbfish.org/Project.mvc/Display/200203200
RM&E	Hydrosystem RM&E	55	5	BPA	1983-319-00	New Marking and Monitoring Technologies	Deleted	http://www.cbfish.org/Project.mvc/Display/198331900
RM&E	Hydrosystem RM&E	55	5	BPA	2008-724-00	Pittag Sr Sockeye-Uc Sp.Chnook	Continued	http://www.cbfish.org/Project.mvc/Display/200872400
RM&E	Hydrosystem RM&E	55	7	BPA	1983-319-00	New Marking and Monitoring Technologies	Continued	http://www.cbfish.org/Project.mvc/Display/198331900
RM&E	Hydrosystem RM&E	55	8	BPA	1983-319-00	New Marking and Monitoring Technologies	Continued	http://www.cbfish.org/Project.mvc/Display/198331900
RM&E	Hydrosystem RM&E	55	8	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Hydrosystem RM&E	55	8	BPA	2003-114-00	Coastal Ocean Acoustic Salmon Tracking (COAST)	Continued	http://www.cbfish.org/Project.mvc/Display/200311400
RM&E	Hydrosystem RM&E	55	9	BPA	1983-319-00	New Marking and Monitoring Technologies	Continued	http://www.cbfish.org/Project.mvc/Display/198331900
RM&E	Tributary Habitat RM&E	56	1	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Deleted	http://www.cbfish.org/Project.mvc/Display/198335003
RM&E	Tributary Habitat RM&E	56	1	BPA	1984-021-00	John Day Habitat Enhancement	Continued	http://www.cbfish.org/Project.mvc/Display/198402100

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Tributary Habitat RM&E	56	1	BPA	1984-025-00	Blue Mountain Fish Habitat Improvement	Deleted	http://www.cbfish.org/Project.mvc/Display/198402500
RM&E	Tributary Habitat RM&E	56	1	BPA	1988-053-03	Hood River Production Monitoring and Evaluation (M&E)-Warm Springs	Deleted	http://www.cbfish.org/Project.mvc/Display/198805303
RM&E	Tributary Habitat RM&E	56	1	BPA	1988-053-04	Hood River Production Monitor and Evaluation (M&E)-Oregon Department of Fish and Wildlife (ODFW)	Deleted	http://www.cbfish.org/Project.mvc/Display/198805304
RM&E	Tributary Habitat RM&E	56	1	BPA	1989-024-01	Umatilla Juvenile Salmonid Outmigration and Survival	Deleted	http://www.cbfish.org/Project.mvc/Display/198902401
RM&E	Tributary Habitat RM&E	56	1	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Tributary Habitat RM&E	56	1	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Tributary Habitat RM&E	56	1	BPA	1992-026-04	Grand Ronde Early Life History of Spring Chinook and Steelhead	Deleted	http://www.cbfish.org/Project.mvc/Display/199202604
RM&E	Tributary Habitat RM&E	56	1	BPA	1994-018-05	Asotin Creek Enhancement and Restoration	Deleted	http://www.cbfish.org/Project.mvc/Display/199401805
RM&E	Tributary Habitat RM&E	56	1	BPA	1994-018-06	Tucannon Stream and Riparian Restoration	Deleted	http://www.cbfish.org/Project.mvc/Display/199401806
RM&E	Tributary Habitat RM&E	56	1	BPA	1994-042-00	Trout Creek Operations and Maintenance (O&M)	Deleted	http://www.cbfish.org/Project.mvc/Display/199404200
RM&E	Tributary Habitat RM&E	56	1	BPA	1995-063-35	Klickitat River Monitoring and Evaluation-Yakima/Klickitat Fisheries Project (YKFP)	Deleted	http://www.cbfish.org/Project.mvc/Display/199506335
RM&E	Tributary Habitat RM&E	56	1	BPA	1996-020-00	Comparative Survival Study (CSS)	Deleted	http://www.cbfish.org/Project.mvc/Display/199602000
RM&E	Tributary Habitat RM&E	56	1	BPA	1996-035-01	Yakama Reservation Watershed Project	Deleted	http://www.cbfish.org/Project.mvc/Display/199603501

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Tributary Habitat RM&E	56	1	BPA	1997-015-01	Imnaha River Smolt Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/199701501
RM&E	Tributary Habitat RM&E	56	1	BPA	1997-015-01	Klickitat Watershed Enhancement	Deleted	http://www.cbfish.org/Project.mvc/Display/199701501
RM&E	Tributary Habitat RM&E	56	1	BPA	1998-010-03	Spawning Distribution of Snake River Fall Chinook Salmon	Deleted	http://www.cbfish.org/Project.mvc/Display/199801003
RM&E	Tributary Habitat RM&E	56	1	BPA	1998-016-00	Escapement and Productivity of Spring Chinook and Steelhead	Added	http://www.cbfish.org/Project.mvc/Display/199801600
RM&E	Tributary Habitat RM&E	56	1	BPA	1998-019-00	Wind River Watershed	Deleted	http://www.cbfish.org/Project.mvc/Display/199801900
RM&E	Tributary Habitat RM&E	56	1	BPA	2000-039-00	Walla Walla River Basin Monitoring and Evaluation (M&E)	Deleted	http://www.cbfish.org/Project.mvc/Display/200003900
RM&E	Tributary Habitat RM&E	56	1	BPA	2002-032-00	SNAKE RIVER FALL CHINOOK SALMON LIFE HISTORY INVESTIGATIONS	Deleted	http://www.cbfish.org/Project.mvc/Display/200203200
RM&E	Tributary Habitat RM&E	56	1	BPA	2002-059-00	Yankee Fork Salmon River Restoration	Deleted	http://www.cbfish.org/Project.mvc/Display/200205900
RM&E	Tributary Habitat RM&E	56	1	BPA	2002-061-00	Potlatch River Watershed Restoration	Deleted	http://www.cbfish.org/Project.mvc/Display/200206100
RM&E	Tributary Habitat RM&E	56	1	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Tributary Habitat RM&E	56	1	BPA	2003-010-00	Historic Habitat Food Web Link	Deleted	http://www.cbfish.org/Project.mvc/Display/200301000
RM&E	Tributary Habitat RM&E	56	1	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Continued	http://www.cbfish.org/Project.mvc/Display/200301700
RM&E	Tributary Habitat RM&E	56	1	BPA	2003-039-00	Monitor and Evaluate (M&E) Reproductive Success and Survival in Wenatchee River	Deleted	http://www.cbfish.org/Project.mvc/Display/200303900

Attachment 1 - Table 1. BPA Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Tributary Habitat RM&E	56	1	BPA	2007-083-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Deleted	http://www.cbfish.org/Project.mvc/Display/200708300
RM&E	Tributary Habitat RM&E	56	1	BPA	2007-127-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Deleted	http://www.cbfish.org/Project.mvc/Display/200712700
RM&E	Tributary Habitat RM&E	56	1	BPA	2007-156-00	Rock Creek Fish and Habitat Assessment	Deleted	http://www.cbfish.org/Project.mvc/Display/200715600
RM&E	Tributary Habitat RM&E	56	1	BPA	2007-233-00	Distribution and Abundance Monitoring of Oncorhynchus mykiss within the Lower Clearwater Subbasin	Deleted	http://www.cbfish.org/Project.mvc/Display/200723300
RM&E	Tributary Habitat RM&E	56	1	BPA	2007-332-00	Mitigation of Marine-Derived Nutrient Loss in Central Idaho	Deleted	http://www.cbfish.org/Project.mvc/Display/200733200
RM&E	Tributary Habitat RM&E	56	1	BPA	2008-471-00	Upper Columbia Nutrient Supple	Continued	http://www.cbfish.org/Project.mvc/Display/200847100
RM&E	Tributary Habitat RM&E	56	1	BPA	2009-003-00	Salmon River Basin Nutrient Enhancement	Continued	http://www.cbfish.org/Project.mvc/Display/200900300
RM&E	Tributary Habitat RM&E	56	1	BPA	2010-032-00	Imnaha River Steelhead Status Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/201003200
RM&E	Tributary Habitat RM&E	56	1	BPA	2010-034-00	Upper Columbia Spring Chinook and Steelhead Juvenile and Adult Abundance, Productivity and Spatial Structure Monitoring	Added	http://www.cbfish.org/Project.mvc/Display/201003400
RM&E	Tributary Habitat RM&E	56	1	BPA	2010-056-00	Umatilla Basin IMW	Deleted	http://www.cbfish.org/Project.mvc/Display/201005600
RM&E	Tributary Habitat RM&E	56	2	BPA	1984-021-00	John Day Habitat Enhancement	Deleted	http://www.cbfish.org/Project.mvc/Display/198402100
RM&E	Tributary Habitat RM&E	56	2	BPA	1984-025-00	Blue Mountain Fish Habitat Improvement	Deleted	http://www.cbfish.org/Project.mvc/Display/198402500

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Tributary Habitat RM&E	56	2	BPA	1998-016-00	Escapement and Productivity of Spring Chinook and Steelhead	Added	http://www.cbfish.org/Project.mvc/Display/199801600
RM&E	Tributary Habitat RM&E	56	2	BPA	2003-010-00	Historic Habitat Food Web Link	Deleted	http://www.cbfish.org/Project.mvc/Display/200301000
RM&E	Tributary Habitat RM&E	56	2	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Continued	http://www.cbfish.org/Project.mvc/Display/200301700
RM&E	Tributary Habitat RM&E	56	2	BPA	2005-002-00	Lower Granite Dam Adult Trap Operations	Continued	http://www.cbfish.org/Project.mvc/Display/200500200
RM&E	Tributary Habitat RM&E	56	2	BPA	2007-083-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Deleted	http://www.cbfish.org/Project.mvc/Display/200708300
RM&E	Tributary Habitat RM&E	56	2	BPA	2008-471-00	Upper Columbia Nutrient Supple	Continued	http://www.cbfish.org/Project.mvc/Display/200847100
RM&E	Tributary Habitat RM&E	56	2	BPA	2009-003-00	Salmon River Basin Nutrient Enhancement	Continued	http://www.cbfish.org/Project.mvc/Display/200900300
RM&E	Tributary Habitat RM&E	56	2	BPA	2010-051-00	Upper Columbia Water Quality and Water Quantity Gauges	Continued	http://www.cbfish.org/Project.mvc/Display/201005100
RM&E	Tributary Habitat RM&E	56	3	BPA	1984-021-00	John Day Habitat Enhancement	Added	http://www.cbfish.org/Project.mvc/Display/198402100
RM&E	Tributary Habitat RM&E	56	3	BPA	1996-035-01	Yakama Reservation Watershed Project	Deleted	http://www.cbfish.org/Project.mvc/Display/199603501
RM&E	Tributary Habitat RM&E	56	3	BPA	1998-016-00	Escapement and Productivity of Spring Chinook and Steelhead	Added	http://www.cbfish.org/Project.mvc/Display/199801600
RM&E	Tributary Habitat RM&E	56	3	BPA	2002-032-00	Snake River Fall Chinook Salmon Life History Investigations	Deleted	http://www.cbfish.org/Project.mvc/Display/200203200

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Tributary Habitat RM&E	56	3	BPA	2002-068-00	Implementation of the Columbia Habitat Monitoring Program in Lolo Creek, SF Clearwater, Lochsa, and Imnaha Rivers – NPT DFRM Watershed Division	Deleted	http://www.cbfish.org/Project.mvc/Display/200206800
RM&E	Tributary Habitat RM&E	56	3	BPA	2003-013-00	Grays River Watershed Assessment	Deleted	http://www.cbfish.org/Project.mvc/Display/200301300
RM&E	Tributary Habitat RM&E	56	3	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Added	http://www.cbfish.org/Project.mvc/Display/200301700
RM&E	Tributary Habitat RM&E	56	3	BPA	2003-022-00	Okanogan Basin Monitoring & Evaluation Program (OBMEP)	Added	http://www.cbfish.org/Project.mvc/Display/200302200
RM&E	Tributary Habitat RM&E	56	3	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Program (PNAMP) Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200400200
RM&E	Tributary Habitat RM&E	56	3	BPA	2007-402-00	Snake River Sockeye Captive Propagation	Deleted	http://www.cbfish.org/Project.mvc/Display/200740200
RM&E	Tributary Habitat RM&E	56	3	BPA	2009-004-00	Monitoring Recovery Trends in Key Spring Chinook Habitat Variables and Validation of Population Viability Indicators	Added	http://www.cbfish.org/Project.mvc/Display/200900400
RM&E	Tributary Habitat RM&E	56	3	BPA	2010-030-00	Project to provided VSP Estimates for Yakima Steelhead MPG	Deleted	http://www.cbfish.org/Project.mvc/Display/201003000
RM&E	Tributary Habitat RM&E	56	3	BPA	2010-037-00	Toppenish Creek Steelhead Status & Trend Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/201003700
RM&E	Tributary Habitat RM&E	56	3	BPA	2010-051-00	Upper Columbia Water Quality and Water Quantity Gauges	Deleted	http://www.cbfish.org/Project.mvc/Display/201005100
RM&E	Tributary Habitat RM&E	56	3	BPA	2010-055-00	Upper Grande Ronde and Catherine Creek IMW	Deleted	http://www.cbfish.org/Project.mvc/Display/201005500
RM&E	Tributary Habitat RM&E	57	1	BPA	2002-059-00	Yankee Fork Salmon River Restoration	Deleted	http://www.cbfish.org/Project.mvc/Display/200205900

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Tributary Habitat RM&E	57	1	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Continued	http://www.cbfish.org/Project.mvc/Display/200301700
RM&E	Tributary Habitat RM&E	57	1	BPA	2008-904-00	Upper Columbia Habitat Restoration	Added	http://www.cbfish.org/Project.mvc/Display/200890400
RM&E	Tributary Habitat RM&E	57	1	BPA	2008-904-00	Upper Columbia Habitat Restoration	Added	http://www.cbfish.org/Project.mvc/Display/200890400
RM&E	Tributary Habitat RM&E	57	1	BPA	2010-034-00	Upper Columbia Spring Chinook and Steelhead Juvenile and Adult Abundance, Productivity and Spatial Structure Monitoring	Added	http://www.cbfish.org/Project.mvc/Display/201003400
RM&E	Tributary Habitat RM&E	57	1	BPA	2010-051-00	Upper Columbia Water Quality and Water Quantity Gauges	Deleted	http://www.cbfish.org/Project.mvc/Display/201005100
RM&E	Tributary Habitat RM&E	57	2	BPA	2002-013-01	Water Entity – Water Transaction Program	Deleted	http://www.cbfish.org/Project.mvc/Display/200201301
RM&E	Tributary Habitat RM&E	57	2	BPA	2002-059-00	Yankee Fork Salmon River Restoration	Deleted	http://www.cbfish.org/Project.mvc/Display/200205900
RM&E	Tributary Habitat RM&E	57	2	BPA	2003-010-00	Historic Habitat Food Web Link	Deleted	http://www.cbfish.org/Project.mvc/Display/200301000
RM&E	Tributary Habitat RM&E	57	2	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Added	http://www.cbfish.org/Project.mvc/Display/200301700
RM&E	Tributary Habitat RM&E	57	3	BPA	1998-016-00	Escapement and Productivity of Spring Chinook and Steelhead	Added	http://www.cbfish.org/Project.mvc/Display/199801600
RM&E	Tributary Habitat RM&E	57	3	BPA	2002-059-00	Yankee Fork Salmon River Restoration	Deleted	http://www.cbfish.org/Project.mvc/Display/200205900
RM&E	Tributary Habitat RM&E	57	3	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Tributary Habitat RM&E	57	3	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Continued	http://www.cbfish.org/Project.mvc/Display/200301700

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Tributary Habitat RM&E	57	4	BPA	19840-21-00	John Day Habitat Enhancement	Deleted	http://www.cbfish.org/Project.mvc/Display/198402100
RM&E	Tributary Habitat RM&E	57	4	BPA	1984-025-00	Blue Mountain Fish Habitat Improvement	Deleted	http://www.cbfish.org/Project.mvc/Display/198402500
RM&E	Tributary Habitat RM&E	57	4	BPA	1994-042-00	Trout Creek Operations and Maintenance (O&M)	Deleted	http://www.cbfish.org/Project.mvc/Display/199404200
RM&E	Tributary Habitat RM&E	57	4	BPA	1996-040-00	Mid-Columbia Reintroduction Feasibility Study	Deleted	http://www.cbfish.org/Project.mvc/Display/199604000
RM&E	Tributary Habitat RM&E	57	4	BPA	2002-013-01	Water Entity – Water Transaction Program	Deleted	http://www.cbfish.org/Project.mvc/Display/200201301
RM&E	Tributary Habitat RM&E	57	4	BPA	2002-059-00	Yankee Fork Salmon River Restoration	Deleted	http://www.cbfish.org/Project.mvc/Display/200205900
RM&E	Tributary Habitat RM&E	57	4	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Continued	http://www.cbfish.org/Project.mvc/Display/200301700
RM&E	Tributary Habitat RM&E	57	4	BPA	2007-083-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Deleted	http://www.cbfish.org/Project.mvc/Display/200708300
RM&E	Tributary Habitat RM&E	57	4	BPA	2009-003-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Deleted	http://www.cbfish.org/Project.mvc/Display/200900300
RM&E	Tributary Habitat RM&E	57	4	BPA	2010-034-00	Upper Columbia Spring Chinook and Steelhead Juvenile and Adult Abundance, Productivity and Spatial Structure Monitoring	Added	http://www.cbfish.org/Project.mvc/Display/201003400
RM&E	Tributary Habitat RM&E	57	5	BPA	1998-019-00	Wind River Watershed	Deleted	http://www.cbfish.org/Project.mvc/Display/199801900
RM&E	Tributary Habitat RM&E	57	5	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Program (PNAMP) Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200400200

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Tributary Habitat RM&E	57	5	BPA	2009-004-00	Monitoring Recovery Trends in Key Spring Chinook Habitat Variables and Validation of Population Viability Indicators	Added	http://www.cbfish.org/Project.mvc/Display/200900400
RM&E	Tributary Habitat RM&E	57	5	BPA	2009-014-00	Biomonitoring of Fish Habitat Enhancement	Deleted	http://www.cbfish.org/Project.mvc/Display/200901400
RM&E	Estuary Habitat RM&E	58	1	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Added	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Estuary Habitat RM&E	58	1	BPA	2003-114-00	Coastal Ocean Acoustic Salmon Tracking (COAST)	Continued	http://www.cbfish.org/Project.mvc/Display/200311400
RM&E	Estuary Habitat RM&E	58	2	BPA	2003-010-00	Historic Habitat Food Web Link	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200301000
RM&E	Estuary Habitat RM&E	58	2	BPA	2005-001-00	Tidal Freshwater Monitoring	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200500100
RM&E	Estuary Habitat RM&E	58	3	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Estuary Habitat RM&E	58	3	BPA	1998-014-00	Ocean Survival Of Salmonids	Continued	http://www.cbfish.org/Project.mvc/Display/199801400
RM&E	Estuary Habitat RM&E	58	3	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Estuary Habitat RM&E	58	3	BPA	2003-010-00	Historic Habitat Food Web Link	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200301000
RM&E	Estuary Habitat RM&E	58	3	BPA	2005-001-00	Tidal Freshwater Monitoring	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200500100
RM&E	Estuary Habitat RM&E	58	4	BPA	1998-014-00	Ocean Survival Of Salmonids	Continued	http://www.cbfish.org/Project.mvc/Display/199801400
RM&E	Estuary Habitat RM&E	58	4	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Estuary Habitat RM&E	59	1	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/200300700

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Estuary Habitat RM&E	59	1	BPA	2003-011-00	Columbia River Estuary Habitat Restoration	Continued	http://www.cbfish.org/Project.mvc/Display/200301100
RM&E	Estuary Habitat RM&E	59	1	BPA	2005-001-00	Tidal Freshwater Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/200500100
RM&E	Estuary Habitat RM&E	59	2	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Estuary Habitat RM&E	59	2	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Added	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Estuary Habitat RM&E	59	4	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Estuary Habitat RM&E	59	4	BPA	2003-010-00	Historic Habitat Food Web Link	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200301000
RM&E	Estuary Habitat RM&E	59	4	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Partnership	Added	http://www.cbfish.org/Project.mvc/Display/200400200
RM&E	Estuary Habitat RM&E	59	4	BPA	2005-001-00	Tidal Freshwater Monitoring	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200500100
RM&E	Estuary Habitat RM&E	59	5	BPA	1998-014-00	Ocean Survival Of Salmonids	Added	http://www.cbfish.org/Project.mvc/Display/199801400
RM&E	Estuary Habitat RM&E	59	5	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Estuary Habitat RM&E	59	5	BPA	2003-011-00	Columbia River Estuary Habitat Restoration	Continued	http://www.cbfish.org/Project.mvc/Display/200301100
RM&E	Estuary Habitat RM&E	59	5	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Partnership	Added	http://www.cbfish.org/Project.mvc/Display/200400200
RM&E	Estuary Habitat RM&E	59	5	BPA	2005-001-00	Tidal Freshwater Monitoring	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200500100
RM&E	Estuary Habitat RM&E	60	1	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Estuary Habitat RM&E	60	1	BPA	2003-011-00	Columbia River Estuary Habitat Restoration	Continued	http://www.cbfish.org/Project.mvc/Display/200301100

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Estuary Habitat RM&E	60	1	BPA	2005-001-00	Tidal Freshwater Monitoring	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200500100
RM&E	Estuary Habitat RM&E	60	2	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Estuary Habitat RM&E	60	2	BPA	2003-011-00	Columbia River Estuary Habitat Restoration	Continued	http://www.cbfish.org/Project.mvc/Display/200301100
RM&E	Estuary Habitat RM&E	60	2	BPA	2003-013-00	Grays River Watershed Assessment	Deleted	http://www.cbfish.org/Project.mvc/Display/200301300
RM&E	Estuary Habitat RM&E	60	2	BPA	2005-001-00	Tidal Freshwater Monitoring	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200500100
RM&E	Estuary Habitat RM&E	60	2	BPA	2007-513-00	Eelgrass Enhancement and Restoration	Deleted	http://www.cbfish.org/Project.mvc/Display/200751300
RM&E	Estuary Habitat RM&E	60	3	BPA	2003-011-00	Columbia River Estuary Habitat Restoration	Deleted	http://www.cbfish.org/Project.mvc/Display/200301100
RM&E	Estuary Habitat RM&E	61	1	BPA	1998-014-00	Ocean Survival Of Salmonids	Continued	http://www.cbfish.org/Project.mvc/Display/199801400
RM&E	Estuary Habitat RM&E	61	1	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Estuary Habitat RM&E	61	1	BPA	2003-009-00	Canada-USA Shelf Salmon Survival Study	Continued	http://www.cbfish.org/Project.mvc/Display/200300900
RM&E	Estuary Habitat RM&E	61	1	BPA	2003-010-00	Historic Habitat Food Web Link	Deleted	http://www.cbfish.org/Project.mvc/Display/200301000
RM&E	Estuary Habitat RM&E	61	1	BPA	2003-114-00	Coastal Ocean Acoustic Salmon Tracking (COAST)	Continued	http://www.cbfish.org/Project.mvc/Display/200311400
RM&E	Estuary Habitat RM&E	61	1	BPA	2005-001-00	Tidal Freshwater Monitoring	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200500100
RM&E	Estuary Habitat RM&E	61	1	BPA	2007-275-00	Impact of American Shad in the Columbia River	Deleted	http://www.cbfish.org/Project.mvc/Display/200727500
RM&E	Estuary Habitat RM&E	61	2	BPA	1998-014-00	Ocean Survival Of Salmonids	Continued	http://www.cbfish.org/Project.mvc/Display/199801400

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Estuary Habitat RM&E	61	2	BPA	2003-009-00	Canada-USA Shelf Salmon Survival Study	Continued	http://www.cbfish.org/Project.mvc/Display/200300900
RM&E	Estuary Habitat RM&E	61	2	BPA	2003-114-00	Coastal Ocean Acoustic Salmon Tracking (COAST)	Continued	http://www.cbfish.org/Project.mvc/Display/200311400
RM&E	Estuary Habitat RM&E	61	3	BPA	1989-107-00	Statistical Support For Salmon	Added	http://www.cbfish.org/Project.mvc/Display/198910700
RM&E	Estuary Habitat RM&E	61	3	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Estuary Habitat RM&E	61	3	BPA	2003-010-00	Historic Habitat Food Web Link	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200301000
RM&E	Estuary Habitat RM&E	61	3	BPA	2003-011-00	Columbia River Estuary Habitat Restoration	Continued	http://www.cbfish.org/Project.mvc/Display/200301100
RM&E	Estuary Habitat RM&E	61	3	BPA	2005-001-00	Tidal Freshwater Monitoring	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200500100
RM&E	Estuary Habitat RM&E	61	3	BPA	2009-020-00	UW-CBR Internal Statistical / Technical Support to BPA (Skalski)	Continued	http://www.cbfish.org/Project.mvc/Display/200902000
RM&E	Estuary Habitat RM&E	61	4	BPA	1998-014-00	Ocean Survival Of Salmonids	Continued	http://www.cbfish.org/Project.mvc/Display/199801400
RM&E	Estuary Habitat RM&E	61	4	BPA	2003-010-00	Historic Habitat Food Web Link	Continued; transferred to Corps	http://www.cbfish.org/Project.mvc/Display/200301000
RM&E	Harvest RM&E	62	1	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Deleted	http://www.cbfish.org/Project.mvc/Display/198335003
RM&E	Harvest RM&E	62	1	BPA	1988-053-03	Hood River Production Monitoring and Evaluation (M&E)-Warm Springs	Deleted	http://www.cbfish.org/Project.mvc/Display/198805303
RM&E	Harvest RM&E	62	1	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Deleted	http://www.cbfish.org/Project.mvc/Display/198909800

Attachment 1 - Table 1. BPA Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Harvest RM&E	62	1	BPA	1996-043-00	Johnson Creek Artificial Propagation Enhancement	Deleted	http://www.cbfish.org/Project.mvc/Display/199604300
RM&E	Harvest RM&E	62	1	BPA	1997-015-01	Imnaha River Smolt Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/199701501
RM&E	Harvest RM&E	62	1	BPA	2007-401-00	Kelt Reconditioning and Reproductive Success Evaluation Research	Deleted	http://www.cbfish.org/Project.mvc/Display/200740100
RM&E	Harvest RM&E	62	1	BPA	2008-502-00	Expanded Tribal Catch Sampling	Continued	http://www.cbfish.org/Project.mvc/Display/200850200
RM&E	Harvest RM&E	62	1	BPA	2008-508-00	Power Analysis Catch Sampling Rates	Continued	http://www.cbfish.org/Project.mvc/Display/200850800
RM&E	Harvest RM&E	62	1	BPA	2008-908-00	FCRPS Water Studies & Passage of Adult Salmon & Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/200890800
RM&E	Harvest RM&E	62	1	BPA	2010-032-00	Imnaha River Steelhead Status Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/201003200
RM&E	Harvest RM&E	62	2	BPA	1993-060-00	Select Area Fisheries Enhancement	Continued	http://www.cbfish.org/Project.mvc/Display/199306000
RM&E	Harvest RM&E	62	2	BPA	2007-083-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Deleted	http://www.cbfish.org/Project.mvc/Display/200708300
RM&E	Harvest RM&E	62	2	BPA	2007-249-00	Evaluation of Live Capture Gear	Continued	http://www.cbfish.org/Project.mvc/Display/200724900
RM&E	Harvest RM&E	62	2	BPA	2008-105-00	Selective Gear Deployment	Continued	http://www.cbfish.org/Project.mvc/Display/200810500
RM&E	Harvest RM&E	62	3	BPA	2008-105-00	Selective Gear Deployment	Continued	http://www.cbfish.org/Project.mvc/Display/200810500
RM&E	Harvest RM&E	62	3	BPA	2008-908-00	FCRPS Water Studies & Passage of Adult Salmon & Steelhead	Deleted	http://www.cbfish.org/Project.mvc/Display/200890800

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Harvest RM&E	62	4	BPA	1982-013-01	Coded Wire Tag-Pacific States Marine Fisheries Commission (PSMFC)	Continued	http://www.cbfish.org/Project.mvc/Display/198201301
RM&E	Harvest RM&E	62	4	BPA	1982-013-02	Coded Wire Tag-Oregon Department of Fish and Wildlife (ODFW)	Continued	http://www.cbfish.org/Project.mvc/Display/198201302
RM&E	Harvest RM&E	62	4	BPA	1982-013-03	Coded Wire Tag-US Fish and Wildlife Service (USFWS)	Continued	http://www.cbfish.org/Project.mvc/Display/198201303
RM&E	Harvest RM&E	62	4	BPA	1982-013-04	Coded Wire Tag-Washington Department of Fish and Wildlife (WDFW)	Continued	http://www.cbfish.org/Project.mvc/Display/198201304
RM&E	Harvest RM&E	62	4	BPA	1983-350-00	Nez Perce Tribal Hatchery Operations and Maintenance (O&M)	Continued	http://www.cbfish.org/Project.mvc/Display/198335000
RM&E	Harvest RM&E	62	4	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Continued	http://www.cbfish.org/Project.mvc/Display/198335003
RM&E	Harvest RM&E	62	4	BPA	1988-053-03	Hood River Production Monitoring and Evaluation (M&E)-Warm Springs	Continued	http://www.cbfish.org/Project.mvc/Display/198805303
RM&E	Harvest RM&E	62	4	BPA	1988-053-07	Hood River Production Operations and Maintenance (O&M)-Warm Springs	Deleted	http://www.cbfish.org/Project.mvc/Display/198805307
RM&E	Harvest RM&E	62	4	BPA	1990-005-00	Umatilla Hatchery Monitoring and Evaluation (M&E)	Deleted	http://www.cbfish.org/Project.mvc/Display/199000500
RM&E	Harvest RM&E	62	4	BPA	1995-063-25	Yakima River Monitoring and Evaluation-Yakima/Klickitat Fisheries Project (YKFP)	Continued	http://www.cbfish.org/Project.mvc/Display/199506325
RM&E	Harvest RM&E	62	4	BPA	1997-015-01	Imnaha River Smolt Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/199701501
RM&E	Harvest RM&E	62	4	BPA	2002-060-00	Nez Perce Harvest Monitoring on Snake and Clearwater Rivers	Continued	http://www.cbfish.org/Project.mvc/Display/200206000

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Harvest RM&E	62	4	BPA	2008-105-00	Selective Gear Deployment	Deleted	http://www.cbfish.org/Project.mvc/Display/200810500
RM&E	Harvest RM&E	62	4	BPA	2008-908-00	FCRPS Water Studies & Passage of Adult Salmon & Steelhead	Deleted	http://www.cbfish.org/Project.mvc/Display/200890800
RM&E	Harvest RM&E	62	4	BPA	2010-028-00	Estimate Adult Steelhead Abundance in Small Streams Associated with Tucannon & Asotin Populations	Added	http://www.cbfish.org/Project.mvc/Display/201002800
RM&E	Harvest RM&E	62	4	BPA	2010-032-00	Imnaha River Steelhead Status Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/201003200
RM&E	Harvest RM&E	62	4	BPA	2010-036-00	Lower Columbia Coded Wire Tag (CWT) Recovery Project	Continued	http://www.cbfish.org/Project.mvc/Display/201003600
RM&E	Harvest RM&E	62	4	BPA	2010-047-00	Tuccanon GRTS Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/201004700
RM&E	Harvest RM&E	62	4	BPA	2010-048-00	Snake River steelhead annual run-reconstruction	Continued	http://www.cbfish.org/Project.mvc/Display/201004800
RM&E	Harvest RM&E	62	5	BPA	1983-350-00	Nez Perce Tribal Hatchery Operations and Maintenance (O&M)	Deleted	http://www.cbfish.org/Project.mvc/Display/198335000
RM&E	Harvest RM&E	62	5	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Continued	http://www.cbfish.org/Project.mvc/Display/198335003
RM&E	Harvest RM&E	62	5	BPA	1988-053-04	Hood River Production Monitor and Evaluation (M&E)-Oregon Department of Fish and Wildlife (ODFW)	Continued	http://www.cbfish.org/Project.mvc/Display/198805304
RM&E	Harvest RM&E	62	5	BPA	1988-053-07	Hood River Production Operations and Maintenance (O&M)-Warm Springs	Deleted	http://www.cbfish.org/Project.mvc/Display/198805307
RM&E	Harvest RM&E	62	5	BPA	1989-096-00	Genetic Monitoring and Evaluation (M&E) Program for Salmon and Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/198909600

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Harvest RM&E	62	5	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Harvest RM&E	62	5	BPA	1990-055-00	Idaho Steelhead Monitoring and Evaluation (M&E) Studies	Continued	http://www.cbfish.org/Project.mvc/Display/199005500
RM&E	Harvest RM&E	62	5	BPA	1991-073-00	Idaho Natural Production Monitoring and Evaluation (M&E)	Added	http://www.cbfish.org/Project.mvc/Display/199107300
RM&E	Harvest RM&E	62	5	BPA	1995-063-25	Yakima River Monitoring and Evaluation-Yakima/Klickitat Fisheries Project (YKFP)	Continued	http://www.cbfish.org/Project.mvc/Display/199506325
RM&E	Harvest RM&E	62	5	BPA	1995-063-35	Klickitat River Monitoring and Evaluation-Yakima/Klickitat Fisheries Project (YKFP)	Continued	http://www.cbfish.org/Project.mvc/Display/199506335
RM&E	Harvest RM&E	62	5	BPA	1996-043-00	Johnson Creek Artificial Propagation Enhancement	Continued	http://www.cbfish.org/Project.mvc/Display/199604300
RM&E	Harvest RM&E	62	5	BPA	1997-015-01	Imnaha River Smolt Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/199701501
RM&E	Harvest RM&E	62	5	BPA	1997-030-00	Chinook Salmon Adult Abundance Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/199703000
RM&E	Harvest RM&E	62	5	BPA	1997-038-00	Listed Stock Chinook Salmon Gamete Preservation	Continued	http://www.cbfish.org/Project.mvc/Display/199703800
RM&E	Harvest RM&E	62	5	BPA	1998-007-02	Grande Ronde Supplementation Operations and Maintenance (O&M) and Monitoring and Evaluation (M&E) on Lostine River	Continued	http://www.cbfish.org/Project.mvc/Display/199800702
RM&E	Harvest RM&E	62	5	BPA	1998-016-00	Escapement and Productivity of Spring Chinook and Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/199801600
RM&E	Harvest RM&E	62	5	BPA	2002-030-00	Salmonid Progeny Markers	Continued	http://www.cbfish.org/Project.mvc/Display/200203000
RM&E	Harvest RM&E	62	5	BPA	2002-053-00	Asotin Creek Salmon Population Assessment	Continued	http://www.cbfish.org/Project.mvc/Display/200205300

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Harvest RM&E	62	5	BPA	2003-039-00	Monitor and Evaluate (M&E) Reproductive Success and Survival in Wenatchee River	Continued	http://www.cbfish.org/Project.mvc/Display/200303900
RM&E	Harvest RM&E	62	5	BPA	2003-050-00	Evaluate the Reproductive Success of Wild and Hatchery Steelhead in Natural and Hatchery Environments	Continued	http://www.cbfish.org/Project.mvc/Display/200305000
RM&E	Harvest RM&E	62	5	BPA	2003-054-00	Evaluate the Relative Reproductive Success of Hatchery-Origin and Wild-Origin Steelhead Spawning Naturally in the Hood River	Continued	http://www.cbfish.org/Project.mvc/Display/200305400
RM&E	Harvest RM&E	62	5	BPA	2003-060-00	Evaluate the Relative Reproductive Success of Wild and Hatchery Origin Snake River Fall Chinook Spawners Upstream of Lower Granite Dam	Continued	http://www.cbfish.org/Project.mvc/Display/200306000
RM&E	Harvest RM&E	62	5	BPA	2003-063-00	Natural Reproductive Success and Demographic Effects of Hatchery-Origin Steelhead in Abernathy Creek, Washington	Continued	http://www.cbfish.org/Project.mvc/Display/200306300
RM&E	Harvest RM&E	62	5	BPA	2007-404-00	Spring Chinook Captive Propagation-Oregon	Continued	http://www.cbfish.org/Project.mvc/Display/200740400
RM&E	Harvest RM&E	62	5	BPA	2008-310-00	White River Supplementation	Continued	http://www.cbfish.org/Project.mvc/Display/200831000
RM&E	Harvest RM&E	62	5	BPA	2008-311-00	Natural Production Management and Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/200831100
RM&E	Harvest RM&E	62	5	BPA	2008-907-00	Genetic Assessment of Columbia River Stocks	Continued	http://www.cbfish.org/Project.mvc/Display/200890700
RM&E	Harvest RM&E	62	5	BPA	2010-026-00	Chinook and Steelhead Genotyping for Genetic Stock Identification (GSI) at Lower Granite Dam	Continued	http://www.cbfish.org/Project.mvc/Display/201002600

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Harvest RM&E	62	5	BPA	2010-028-00	Estimate Adult Steelhead Abundance in Small Streams Associated with Tucannon & Asotin Populations	Added	http://www.cbfish.org/Project.mvc/Display/201002800
RM&E	Harvest RM&E	62	5	BPA	2010-030-00	Project to provided VSP Estimates for Yakima Steelhead MPG	Continued	http://www.cbfish.org/Project.mvc/Display/201003000
RM&E	Harvest RM&E	62	5	BPA	2010-031-00	Snake River Chinook and Steelhead Parental Based Tagging	Continued	http://www.cbfish.org/Project.mvc/Display/201003100
RM&E	Harvest RM&E	62	5	BPA	2010-032-00	Imnaha River Steelhead Status Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/201003200
RM&E	Harvest RM&E	62	5	BPA	2010-048-00	Snake River steelhead annual run-reconstruction	Continued	http://www.cbfish.org/Project.mvc/Display/201004800
RM&E	Hatchery RM&E	63	1	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Continued	http://www.cbfish.org/Project.mvc/Display/198335003
RM&E	Hatchery RM&E	63	1	BPA	1989-096-00	Genetic Monitoring and Evaluation (M&E) Program for Salmon and Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/198909600
RM&E	Hatchery RM&E	63	1	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hatchery RM&E	63	1	BPA	1992-026-04	Grand Ronde Early Life History of Spring Chinook and Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/199202604
RM&E	Hatchery RM&E	63	1	BPA	1996-043-00	Johnson Creek Artificial Propagation Enhancement	Continued	http://www.cbfish.org/Project.mvc/Display/199604300
RM&E	Hatchery RM&E	63	1	BPA	1997-030-00	Chinook Salmon Adult Abundance Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/199703000
RM&E	Hatchery RM&E	63	1	BPA	1998-007-02	Grande Ronde Supplementation Operations and Maintenance (O&M) and Monitoring and Evaluation (M&E) on Lostine River	Continued	http://www.cbfish.org/Project.mvc/Display/199800702

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hatchery RM&E	63	1	BPA	1998-007-03	Grande Ronde Supplementation O&M on Catherine Creek/Upper Grande Ronde River	Continued	http://www.cbfish.org/Project.mvc/Display/199800703
RM&E	Hatchery RM&E	63	1	BPA	1998-007-04	Grande Ronde Spring Chinook on Lostine/Catherine Creek/Upper Grande Ronde Rivers	Continued	http://www.cbfish.org/Project.mvc/Display/199800704
RM&E	Hatchery RM&E	63	1	BPA	1998-016-00	Escapement and Productivity of Spring Chinook and Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/199801600
RM&E	Hatchery RM&E	63	1	BPA	2001-053-00	Reintroduction of Chum in Duncan Creek	Deleted	http://www.cbfish.org/Project.mvc/Display/200105300
RM&E	Hatchery RM&E	63	1	BPA	2007-083-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Continued	http://www.cbfish.org/Project.mvc/Display/200708300
RM&E	Hatchery RM&E	63	1	BPA	2007-132-00	NEOH Monitoring & Evaluation Implementation (Formerly a component of 198805301)	Continued	http://www.cbfish.org/Project.mvc/Display/200713200
RM&E	Hatchery RM&E	63	1	BPA	2007-402-00	Snake River Sockeye Captive Propagation	Continued	http://www.cbfish.org/Project.mvc/Display/200740200
RM&E	Hatchery RM&E	63	1	BPA	2007-403-00	Spring Chinook Captive Propagation-Idaho	Continued	http://www.cbfish.org/Project.mvc/Display/200740300
RM&E	Hatchery RM&E	63	1	BPA	2007-404-00	Spring Chinook Captive Propagation-Oregon	Continued	http://www.cbfish.org/Project.mvc/Display/200740400
RM&E	Hatchery RM&E	63	1	BPA	2008-710-00	Development of an Integrated strategy for Chum Salmon Restoration in the tributaries below Bonneville Dam	Continued	http://www.cbfish.org/Project.mvc/Display/200871000
RM&E	Hatchery RM&E	63	1	BPA	2010-030-00	Project to provided VSP Estimates for Yakima Steelhead MPG	Deleted	http://www.cbfish.org/Project.mvc/Display/201003000
RM&E	Hatchery RM&E	63	1	BPA	2010-032-00	Imnaha River Steelhead Status Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/201003200

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hatchery RM&E	63	1	BPA	2010-042-00	Tucannon Expanded Pit Tagging	Added	http://www.cbfish.org/Project.mvc/Display/201004200
RM&E	Hatchery RM&E	63	1	BPA	2010-047-00	Tuccanon GRTS Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/201004700
RM&E	Hatchery RM&E	63	1	BPA	2010-048-00	Snake River steelhead annual run-reconstruction	Deleted	http://www.cbfish.org/Project.mvc/Display/201004800
RM&E	Hatchery RM&E	63	1	BPA	2010-054-00	Tucannon spring Chinook pedigree study	Deleted	http://www.cbfish.org/Project.mvc/Display/201005400
RM&E	Hatchery RM&E	63	1	BPA	2010-057-00	B-run steelhead supplementation effectiveness research	Deleted	http://www.cbfish.org/Project.mvc/Display/201005700
RM&E	Hatchery RM&E	63	1	BPA	2010-060-00	Tucannon Spring Chinook PIT tagging	Deleted	http://www.cbfish.org/Project.mvc/Display/201006000
RM&E	Hatchery RM&E	63	2	BPA	1992-026-04	Grand Ronde Early Life History of Spring Chinook and Steelhead	Deleted	http://www.cbfish.org/Project.mvc/Display/199202604
RM&E	Hatchery RM&E	63	2	BPA	1993-056-00	Advance Hatchery Reform Research	Continued	http://www.cbfish.org/Project.mvc/Display/199305600
RM&E	Hatchery RM&E	63	2	BPA	2010-042-00	Tucannon Expanded Pit Tagging	Continued	http://www.cbfish.org/Project.mvc/Display/201004200
RM&E	Hatchery RM&E	63	2	BPA	2010-049-00	Evaluation of the Touchet endemic program	Closed	http://www.cbfish.org/Project.mvc/Display/201004900
RM&E	Hatchery RM&E	63	2	BPA	2010-050-00	Evaluation of the Tucannon endemic program	Continued	http://www.cbfish.org/Project.mvc/Display/201005000
RM&E	Hatchery RM&E	64	1	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Deleted	http://www.cbfish.org/Project.mvc/Display/198335003
RM&E	Hatchery RM&E	64	1	BPA	1988-053-03	Hood River Production Monitoring and Evaluation (M&E)-Warm Springs	Deleted	http://www.cbfish.org/Project.mvc/Display/198805303

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hatchery RM&E	64	1	BPA	1988-053-04	Hood River Production Monitor and Evaluation (M&E)-Oregon Department of Fish and Wildlife (ODFW)	Continued	http://www.cbfish.org/Project.mvc/Display/198805304
RM&E	Hatchery RM&E	64	1	BPA	1988-053-07	Hood River Production Operations and Maintenance (O&M)-Warm Springs	Deleted	http://www.cbfish.org/Project.mvc/Display/198805307
RM&E	Hatchery RM&E	64	1	BPA	1988-053-08	Hood River Production Operations and Maintenance (O&M) and Powerdale	Deleted	http://www.cbfish.org/Project.mvc/Display/198805308
RM&E	Hatchery RM&E	64	1	BPA	1989-096-00	Genetic Monitoring and Evaluation (M&E) Program for Salmon and Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/198909600
RM&E	Hatchery RM&E	64	1	BPA	1992-026-04	Grand Ronde Early Life History of Spring Chinook and Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/199202604
RM&E	Hatchery RM&E	64	1	BPA	1998-007-02	Grande Ronde Supplementation Operations and Maintenance (O&M) and Monitoring and Evaluation (M&E) on Lostine River	Continued	http://www.cbfish.org/Project.mvc/Display/199800702
RM&E	Hatchery RM&E	64	1	BPA	1998-007-03	Grande Ronde Supplementation O&M on Catherine Creek/Upper Grande Ronde River	Continued	http://www.cbfish.org/Project.mvc/Display/199800703
RM&E	Hatchery RM&E	64	1	BPA	1998-007-04	Grande Ronde Spring Chinook on Lostine/Catherine Creek/Upper Grande Ronde Rivers	Continued	http://www.cbfish.org/Project.mvc/Display/199800704
RM&E	Hatchery RM&E	64	1	BPA	2003-039-00	Monitor and Evaluate (M&E) Reproductive Success and Survival in Wenatchee River	Continued	http://www.cbfish.org/Project.mvc/Display/200303900
RM&E	Hatchery RM&E	64	1	BPA	2003-054-00	Evaluate the Relative Reproductive Success of Hatchery-Origin and Wild-Origin Steelhead Spawning Naturally in the Hood River	Continued	http://www.cbfish.org/Project.mvc/Display/200305400

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hatchery RM&E	64	1	BPA	2003-060-00	Evaluate the Relative Reproductive Success of Wild and Hatchery Origin Snake River Fall Chinook Spawners Upstream of Lower Granite Dam	Continued	http://www.cbfish.org/Project.mvc/Display/200306000
RM&E	Hatchery RM&E	64	1	BPA	2007-083-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Continued	http://www.cbfish.org/Project.mvc/Display/200708300
RM&E	Hatchery RM&E	64	1	BPA	2010-033-00	Study Reproductive Success of Hatchery and Natural Origin Steelhead in the Methow	Deleted	http://www.cbfish.org/Project.mvc/Display/201003300
RM&E	Hatchery RM&E	64	2	BPA	1983-350-00	Nez Perce Tribal Hatchery Operations and Maintenance (O&M)	Pending	http://www.cbfish.org/Project.mvc/Display/198335000
RM&E	Hatchery RM&E	64	2	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Pending	http://www.cbfish.org/Project.mvc/Display/198335003
RM&E	Hatchery RM&E	64	2	BPA	1983-435-00	Umatilla Hatchery Satellite Facilities Operations and Maintenance (O&M)	Pending	http://www.cbfish.org/Project.mvc/Display/198343500
RM&E	Hatchery RM&E	64	2	BPA	1988-053-01	Northeast Oregon Hatchery Master Plan	Pending	http://www.cbfish.org/Project.mvc/Display/198805301
RM&E	Hatchery RM&E	64	2	BPA	1988-053-03	Hood River Production Monitoring and Evaluation (M&E)-Warm Springs	Continued	http://www.cbfish.org/Project.mvc/Display/198805303
RM&E	Hatchery RM&E	64	2	BPA	1988-053-04	Hood River Production Monitor and Evaluation (M&E)-Oregon Department of Fish and Wildlife (ODFW)	Continued	http://www.cbfish.org/Project.mvc/Display/198805304
RM&E	Hatchery RM&E	64	2	BPA	1988-053-07	Hood River Production Operations and Maintenance (O&M)-Warm Springs	Pending	http://www.cbfish.org/Project.mvc/Display/198805307

Attachment 1 - Table 1. BPA Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hatchery RM&E	64	2	BPA	1988-053-08	Hood River Production Operations and Maintenance (O&M) and Powerdale	Pending	http://www.cbfish.org/Project.mvc/Display/198805308
RM&E	Hatchery RM&E	64	2	BPA	1989-096-00	Genetic Monitoring and Evaluation (M&E) Program for Salmon and Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/198909600
RM&E	Hatchery RM&E	64	2	BPA	1989-098-00	Salmon Studies in Idaho Rivers-Idaho Department of Fish and Game (IDFG)	Continued	http://www.cbfish.org/Project.mvc/Display/198909800
RM&E	Hatchery RM&E	64	2	BPA	1990-005-00	Umatilla Hatchery Monitoring and Evaluation (M&E)	Pending	http://www.cbfish.org/Project.mvc/Display/199000500
RM&E	Hatchery RM&E	64	2	BPA	1990-005-01	Umatilla Basin Natural Production Monitoring and Evaluation (M&E)	Pending	http://www.cbfish.org/Project.mvc/Display/199000501
RM&E	Hatchery RM&E	64	2	BPA	1992-026-04	Grand Ronde Early Life History of Spring Chinook and Steelhead	Continued	http://www.cbfish.org/Project.mvc/Display/199202604
RM&E	Hatchery RM&E	64	2	BPA	1993-056-00	Advance Hatchery Reform Research	Added	http://www.cbfish.org/Project.mvc/Display/199305600
RM&E	Hatchery RM&E	64	2	BPA	1995-063-25	Yakima River Monitoring and Evaluation-Yakima/Klickitat Fisheries Project (YKFP)	Continued	http://www.cbfish.org/Project.mvc/Display/199506325
RM&E	Hatchery RM&E	64	2	BPA	1996-043-00	Johnson Creek Artificial Propagation Enhancement	Continued	http://www.cbfish.org/Project.mvc/Display/199604300
RM&E	Hatchery RM&E	64	2	BPA	1997-015-01	Imnaha River Smolt Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/199701501
RM&E	Hatchery RM&E	64	2	BPA	1997-030-00	Chinook Salmon Adult Abundance Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/199703000
RM&E	Hatchery RM&E	64	2	BPA	1997-038-00	Listed Stock Chinook Salmon Gamete Preservation	Closed	http://www.cbfish.org/Project.mvc/Display/199703800

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hatchery RM&E	64	2	BPA	1998-007-02	Grande Ronde Supplementation Operations and Maintenance (O&M) and Monitoring and Evaluation (M&E) on Lostine River	Continued	http://www.cbfish.org/Project.mvc/Display/199800702
RM&E	Hatchery RM&E	64	2	BPA	1998-007-03	Grande Ronde Supplementation O&M on Catherine Creek/Upper Grande Ronde River	Continued	http://www.cbfish.org/Project.mvc/Display/199800703
RM&E	Hatchery RM&E	64	2	BPA	1998-007-04	Grande Ronde Spring Chinook on Lostine/Catherine Creek/Upper Grande Ronde Rivers	Continued	http://www.cbfish.org/Project.mvc/Display/199800704
RM&E	Hatchery RM&E	64	2	BPA	1998-010-03	Spawning Distribution of Snake River Fall Chinook Salmon	Continued	http://www.cbfish.org/Project.mvc/Display/199801003
RM&E	Hatchery RM&E	64	2	BPA	1998-010-04	Monitor and Evaluate (M&E) Performance of Juvenile Snake River Fall Chinook Salmon from Fall Chinook Acclimation Project	Continued	http://www.cbfish.org/Project.mvc/Display/199801004
RM&E	Hatchery RM&E	64	2	BPA	2000-019-00	Tucannon River Spring Chinook Captive Brood	Pending	http://www.cbfish.org/Project.mvc/Display/200001900
RM&E	Hatchery RM&E	64	2	BPA	2000-039-00	Walla Walla River Basin Monitoring and Evaluation (M&E)	Added	http://www.cbfish.org/Project.mvc/Display/200003900
RM&E	Hatchery RM&E	64	2	BPA	2002-030-00	Salmonid Progeny Markers	Pending	http://www.cbfish.org/Project.mvc/Display/200203000
RM&E	Hatchery RM&E	64	2	BPA	2002-031-00	Growth Modulation in Salmon Supplementation	Pending	http://www.cbfish.org/Project.mvc/Display/200203100
RM&E	Hatchery RM&E	64	2	BPA	2003-039-00	Monitor and Evaluate (M&E) Reproductive Success and Survival in Wenatchee River	Continued	http://www.cbfish.org/Project.mvc/Display/200303900
RM&E	Hatchery RM&E	64	2	BPA	2003-050-00	Evaluate the Reproductive Success of Wild and Hatchery Steelhead in Natural and Hatchery Environments	Continued	http://www.cbfish.org/Project.mvc/Display/200305000

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hatchery RM&E	64	2	BPA	2003-054-00	Evaluate the Relative Reproductive Success of Hatchery-Origin and Wild-Origin Steelhead Spawning Naturally in the Hood River	Continued	http://www.cbfish.org/Project.mvc/Display/200305400
RM&E	Hatchery RM&E	64	2	BPA	2003-060-00	Evaluate the Relative Reproductive Success of Wild and Hatchery Origin Snake River Fall Chinook Spawners Upstream of Lower Granite Dam	Pending	http://www.cbfish.org/Project.mvc/Display/200306000
RM&E	Hatchery RM&E	64	2	BPA	2003-063-00	Natural Reproductive Success and Demographic Effects of Hatchery-Origin Steelhead in Abernathy Creek, Washington	Continued	http://www.cbfish.org/Project.mvc/Display/200306300
RM&E	Hatchery RM&E	64	2	BPA	2007-083-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Continued	http://www.cbfish.org/Project.mvc/Display/200708300
RM&E	Hatchery RM&E	64	2	BPA	2007-132-00	NEOH Monitoring & Evaluation Implementation (Formerly a component of 198805301)	Added	http://www.cbfish.org/Project.mvc/Display/200713200
RM&E	Hatchery RM&E	64	2	BPA	2007-299-00	Investigation of Relative Reproductive Success of Stray Hatchery & Wild Steelhead & Influence of Hatchery Strays on Natural Productivity in Deschutes	Continued	http://www.cbfish.org/Project.mvc/Display/200729900
RM&E	Hatchery RM&E	64	2	BPA	2007-401-00	Kelt Reconditioning and Reproductive Success Evaluation Research	Continued	http://www.cbfish.org/Project.mvc/Display/200740100
RM&E	Hatchery RM&E	64	2	BPA	2007-402-00	Snake River Sockeye Captive Propagation	Continued	http://www.cbfish.org/Project.mvc/Display/200740200
RM&E	Hatchery RM&E	64	2	BPA	2007-403-00	Spring Chinook Captive Propagation-Idaho	Continued	http://www.cbfish.org/Project.mvc/Display/200740300

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hatchery RM&E	64	2	BPA	2007-404-00	Spring Chinook Captive Propagation-Oregon	Continued	http://www.cbfish.org/Project.mvc/Display/200740400
RM&E	Hatchery RM&E	64	2	BPA	2008-310-00	White River Supplementation	Closed	http://www.cbfish.org/Project.mvc/Display/200831000
RM&E	Hatchery RM&E	64	2	BPA	2008-311-00	Natural Production Management and Monitoring	Pending	http://www.cbfish.org/Project.mvc/Display/200831100
RM&E	Hatchery RM&E	64	2	BPA	2008-458-00	Steelhead Kelt Reconditioning	Continued	http://www.cbfish.org/Project.mvc/Display/200845800
RM&E	Hatchery RM&E	64	2	BPA	2009-001-00	Expanded Multi-Species Acclimation in the Wenatchee/Methow Basins	Continued	http://www.cbfish.org/Project.mvc/Display/200900100
RM&E	Hatchery RM&E	64	2	BPA	2010-031-00	Snake River Chinook and Steelhead Parental Based Tagging	Added	http://www.cbfish.org/Project.mvc/Display/201003100
RM&E	Hatchery RM&E	64	2	BPA	2010-032-00	Imnaha River Steelhead Status Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/201003200
RM&E	Hatchery RM&E	64	2	BPA	2010-033-00	Study Reproductive Success of Hatchery and Natural Origin Steelhead in the Methow	Continued	http://www.cbfish.org/Project.mvc/Display/201003300
RM&E	Hatchery RM&E	64	2	BPA	2010-042-00	Tucannon Expanded Pit Tagging	Continued	http://www.cbfish.org/Project.mvc/Display/201004200
RM&E	Hatchery RM&E	64	2	BPA	2010-085-00	Columbia River Hatchery Effects Evaluation Team (CRHEET)	Added	http://www.cbfish.org/Project.mvc/Display/201008500
RM&E	Hatchery RM&E	64	3	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Deleted	http://www.cbfish.org/Project.mvc/Display/198335003
RM&E	Hatchery RM&E	64	3	BPA	2003-060-00	Evaluate the Relative Reproductive Success of Wild and Hatchery Origin Snake River Fall Chinook Spawners Upstream of Lower Granite Dam	Continued	http://www.cbfish.org/Project.mvc/Display/200306000

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hatchery RM&E	64	3	BPA	2007-401-00	Kelt Reconditioning and Reproductive Success Evaluation Research	Deleted	http://www.cbfish.org/Project.mvc/Display/200740100
RM&E	Hatchery RM&E	64	3	BPA	2010-033-00	Study Reproductive Success of Hatchery and Natural Origin Steelhead in the Methow	Continued	http://www.cbfish.org/Project.mvc/Display/201003300
RM&E	Hatchery RM&E	65	1	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Added	http://www.cbfish.org/Project.mvc/Display/198335003
RM&E	Hatchery RM&E	65	1	BPA	1991-029-00	Research, monitoring, and evaluation of emerging issues and measures to recover the Snake River fall Chinook salmon ESU	Continued	http://www.cbfish.org/Project.mvc/Display/199102900
RM&E	Hatchery RM&E	65	1	BPA	1998-010-03	Spawning Distribution of Snake River Fall Chinook Salmon	Continued	http://www.cbfish.org/Project.mvc/Display/199801003
RM&E	Hatchery RM&E	65	1	BPA	1998-010-04	Monitor and Evaluate (M&E) Performance of Juvenile Snake River Fall Chinook Salmon from Fall Chinook Acclimation Project	Continued	http://www.cbfish.org/Project.mvc/Display/199801004
RM&E	Hatchery RM&E	65	1	BPA	2003-060-00	Evaluate the Relative Reproductive Success of Wild and Hatchery Origin Snake River Fall Chinook Spawners Upstream of Lower Granite Dam	Continued	http://www.cbfish.org/Project.mvc/Display/200306000
RM&E	Hatchery RM&E	65	2	BPA	1983-350-03	Nez Perce Tribal Hatchery Monitoring and Evaluation (M&E)	Added	http://www.cbfish.org/Project.mvc/Display/198335003
RM&E	Hatchery RM&E	65	2	BPA	1991-029-00	Research, monitoring, and evaluation of emerging issues and measures to recover the Snake River fall Chinook salmon ESU	Continued	http://www.cbfish.org/Project.mvc/Display/199102900
RM&E	Hatchery RM&E	65	2	BPA	1998-010-03	Spawning Distribution of Snake River Fall Chinook Salmon	Continued	http://www.cbfish.org/Project.mvc/Display/199801003

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Hatchery RM&E	65	2	BPA	1998-010-04	Monitor and Evaluate (M&E) Performance of Juvenile Snake River Fall Chinook Salmon from Fall Chinook Acclimation Project	Continued	http://www.cbfish.org/Project.mvc/Display/199801004
RM&E	Hatchery RM&E	65	2	BPA	2003-060-00	Evaluate the Relative Reproductive Success of Wild and Hatchery Origin Snake River Fall Chinook Spawners Upstream of Lower Granite Dam	Continued	http://www.cbfish.org/Project.mvc/Display/200306000
RM&E	Hatchery RM&E	65	3	BPA	1991-029-00	Research, monitoring, and evaluation of emerging issues and measures to recover the Snake River fall Chinook salmon ESU	Continued	http://www.cbfish.org/Project.mvc/Display/199102900
RM&E	Predation RM&E	66		BPA	1997-024-00	Avian Predation on Juvenile Salmonids	Continued	http://www.cbfish.org/Project.mvc/Display/199702400
RM&E	Predation RM&E	67		BPA	1997-024-00	Avian Predation on Juvenile Salmonids	Continued	http://www.cbfish.org/Project.mvc/Display/199702400
RM&E	Predation RM&E	68		BPA	1997-024-00	Avian Predation on Juvenile Salmonids	Continued	http://www.cbfish.org/Project.mvc/Display/199702400
RM&E	Predation RM&E	69	1	BPA	2008-004-00	Sea Lion Non-Lethal Hazing	Continued	http://www.cbfish.org/Project.mvc/Display/200800400
RM&E	Predation RM&E	69	2	BPA	2008-004-00	Sea Lion Non-Lethal Hazing	Continued	http://www.cbfish.org/Project.mvc/Display/200800400
RM&E	Predation RM&E	69	3	BPA	2008-004-00	Sea Lion Non-Lethal Hazing	Continued	http://www.cbfish.org/Project.mvc/Display/200800400
RM&E	Predation RM&E	70	1	BPA	1990-077-00	Development of System wide Predator Control	Continued	http://www.cbfish.org/Project.mvc/Display/199007700
RM&E	Predation RM&E	70	2	BPA	1990-077-00	Development of System wide Predator Control	Continued	http://www.cbfish.org/Project.mvc/Display/199007700
RM&E	Predation RM&E	70	3	BPA	1990-077-00	Development of System wide Predator Control	Continued	http://www.cbfish.org/Project.mvc/Display/199007700

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Predation RM&E	70	4	BPA	2008-719-00	Research Non-Indigenous Actions	Continued	http://www.cbfish.org/Project.mvc/Display/200871900
RM&E	Predation RM&E	70	4	BPA	2010-076-00	Characterizing migration and survival for juvenile Snake River sockeye salmon between the upper Salmon River basin and Lower Granite Dam	Added	http://www.cbfish.org/Project.mvc/Display/201007600
RM&E	Coordination and Data Management	71	3	BPA	1994-033-00	Fish Passage Center	Continued	http://www.cbfish.org/Project.mvc/Display/199403300
RM&E	Coordination and Data Management	71	3	BPA	1996-043-00	Johnson Creek Artificial Propagation Enhancement	Deleted	http://www.cbfish.org/Project.mvc/Display/199604300
RM&E	Coordination and Data Management	71	3	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Program (PNAMP) Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200400200
RM&E	Coordination and Data Management	71	3	BPA	2007-216-00	Pacific NW Aquatic Monitoring Program (PNAMP) Research, Monitoring and Evaluation (RM&E) Design and Protocols	Continued	http://www.cbfish.org/Project.mvc/Display/200721600
RM&E	Coordination and Data Management	71	4	BPA	1982-013-01	Coded Wire Tag-Pacific States Marine Fisheries Commission (PSMFC)	Continued	http://www.cbfish.org/Project.mvc/Display/198201301
RM&E	Coordination and Data Management	71	4	BPA	1988-108-04	StreamNet – Coordinated Information System (CIS)/ Northwest Environmental Database (NED)	Continued	http://www.cbfish.org/Project.mvc/Display/198810804
RM&E	Coordination and Data Management	71	4	BPA	1994-033-00	Fish Passage Center	Deleted	http://www.cbfish.org/Project.mvc/Display/199403300
RM&E	Coordination and Data Management	71	4	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Continued	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Coordination and Data Management	71	4	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Continued	http://www.cbfish.org/Project.mvc/Display/200301700

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Coordination and Data Management	71	4	BPA	2003-022-00	Okanogan Basin Monitoring & Evaluation Program (OBMEP)	Continued	http://www.cbfish.org/Project.mvc/Display/200302200
RM&E	Coordination and Data Management	71	4	BPA	2003-072-00	Habitat and Biodiversity Information System for Columbia River Basin	Continued	http://www.cbfish.org/Project.mvc/Display/200307200
RM&E	Coordination and Data Management	71	4	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Program (PNAMP) Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200400200
RM&E	Coordination and Data Management	71	4	BPA	2007-083-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Added	http://www.cbfish.org/Project.mvc/Display/200708300
RM&E	Coordination and Data Management	71	4	BPA	2007-403-00	Spring Chinook Captive Propagation-Idaho	Deleted	http://www.cbfish.org/Project.mvc/Display/200740300
RM&E	Coordination and Data Management	71	4	BPA	2008-505-00	Stream Net Library	Continued	http://www.cbfish.org/Project.mvc/Display/200850500
RM&E	Coordination and Data Management	71	5	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Continued	http://www.cbfish.org/Project.mvc/Display/200301700
RM&E	Coordination and Data Management	71	5	BPA	2003-072-00	Habitat and Biodiversity Information System for Columbia River Basin	Continued	http://www.cbfish.org/Project.mvc/Display/200307200
RM&E	Coordination and Data Management	71	5	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Program (PNAMP) Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200400200
RM&E	Coordination and Data Management	71	5	BPA	2005-001-00	Tidal Freshwater Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/200500100
RM&E	Coordination and Data Management	71	6	BPA	2003-072-00	Habitat and Biodiversity Information System for Columbia River Basin	Continued	http://www.cbfish.org/Project.mvc/Display/200307200

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Coordination and Data Management	71	6	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Program (PNAMP) Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200400200
RM&E	Coordination and Data Management	72	1	BPA	1982-013-01	Coded Wire Tag-Pacific States Marine Fisheries Commission (PSMFC)	Deleted	http://www.cbfish.org/Project.mvc/Display/198201301
RM&E	Coordination and Data Management	72	1	BPA	1988-108-04	StreamNet – Coordinated Information System (CIS)/ Northwest Environmental Database (NED)	Continued	http://www.cbfish.org/Project.mvc/Display/198810804
RM&E	Coordination and Data Management	72	1	BPA	1998-031-00	Coded Wire Tag-Pacific States Marine Fisheries Commission (PSMFC)	Continued	http://www.cbfish.org/Project.mvc/Display/199803100
RM&E	Coordination and Data Management	72	1	BPA	2003-017-00	Integrated Status and Effectiveness Monitoring Program (ISEMP)	Continued	http://www.cbfish.org/Project.mvc/Display/200301700
RM&E	Coordination and Data Management	72	1	BPA	2003-022-00	Okanogan Basin Monitoring & Evaluation Program (OBMEP)	Added	http://www.cbfish.org/Project.mvc/Display/200302200
RM&E	Coordination and Data Management	72	1	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Program (PNAMP) Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200400200
RM&E	Coordination and Data Management	72	1	BPA	2005-001-00	Tidal Freshwater Monitoring	Deleted	http://www.cbfish.org/Project.mvc/Display/200500100
RM&E	Coordination and Data Management	72	1	BPA	2007-083-00	Grande Ronde Supplementation Monitoring and Evaluation (M&E) on Catherine Creek/Upper Grande Ronde River	Added	http://www.cbfish.org/Project.mvc/Display/200708300
RM&E	Coordination and Data Management	72	1	BPA	2008-505-00	Stream Net Library	Continued	http://www.cbfish.org/Project.mvc/Display/200850500
RM&E	Coordination and Data Management	72	1	BPA	2008-727-00	Regional Data Management Support and Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200872700

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H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Coordination and Data Management	72	2	BPA	1988-108-04	StreamNet – Coordinated Information System (CIS)/ Northwest Environmental Database (NED)	Continued	http://www.cbfish.org/Project.mvc/Display/198810804
RM&E	Coordination and Data Management	72	2	BPA	1996-019-00	Data Access in Real Time (DART)	Continued	http://www.cbfish.org/Project.mvc/Display/199601900
RM&E	Coordination and Data Management	72	2	BPA	1997-015-01	Imnaha River Smolt Monitoring	Added	http://www.cbfish.org/Project.mvc/Display/199701501
RM&E	Coordination and Data Management	72	2	BPA	2008-727-00	Regional Data Management Support and Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200872700
RM&E	Coordination and Data Management	72	2	BPA	2011-006-00	Columbia Habitat and Monitoring Program (ChaMP)	Added	http://www.cbfish.org/Project.mvc/Display/201100600
RM&E	Coordination and Data Management	72	3	BPA	1982-013-01	Coded Wire Tag-Pacific States Marine Fisheries Commission (PSMFC)	Continued	http://www.cbfish.org/Project.mvc/Display/198201301
RM&E	Coordination and Data Management	72	3	BPA	1988-108-04	StreamNet – Coordinated Information System (CIS)/ Northwest Environmental Database (NED)	Continued	http://www.cbfish.org/Project.mvc/Display/198810804
RM&E	Coordination and Data Management	72	3	BPA	1998-031-00	Coded Wire Tag-Pacific States Marine Fisheries Commission (PSMFC)	Continued	http://www.cbfish.org/Project.mvc/Display/199803100
RM&E	Coordination and Data Management	72	3	BPA	2003-007-00	Lower Columbia River Estuary Ecosystem Monitoring	Added	http://www.cbfish.org/Project.mvc/Display/200300700
RM&E	Coordination and Data Management	72	3	BPA	2004-002-00	Pacific Northwest Aquatic Monitoring Program (PNAMP) Coordination	Continued	http://www.cbfish.org/Project.mvc/Display/200400200
RM&E	Coordination and Data Management	72	3	BPA	2008-505-00	Streamnet Library	Continued	http://www.cbfish.org/Project.mvc/Display/200850500

Attachment 1 - Table 1. BPA Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Lead Agency	Project No.	Project Title	RPA Association Status	Project Information Internet Link
RM&E	Coordination and Data Management	72	3	BPA	2011-006-00	Columbia Habitat and Monitoring Program (ChaMP)	Added	http://www.cbfish.org/Project.mvc/Display/201100600
RM&E	Implementation and Compliance Monitoring	73	1	BPA	2010-075-00	Upper Columbia Implementation and Action Effectiveness Monitoring	Added	http://www.cbfish.org/Project.mvc/Display/201007500

Attachment 1 - Table 2. Reclamation Project List

H-Section	BiOp Strategy	Action No.	Sub-action No.	Lead Agency	Project No.	Project Title	RPA Association Status
RM&E	Tributary Habitat RM&E	56, 65	All	Reclamation	4797	Fish Pop Genetics	Completed
RM&E	Tributary Habitat RM&E	56	All	Reclamation	4887	Methow Fish Prod, Food Webs	Continuing
RM&E	Tributary Habitat RM&E	56	All	Reclamation	4806	Landscape Classification	Continuing
RM&E	Tributary Habitat RM&E	57	All	Reclamation	4887	Methow Channel Restoration Fish Productivity Response	Continuing
RM&E	Tributary Habitat RM&E	57	All	Reclamation	4806	Landscape Influences on Stream Condition	Continuing
RM&E	Tributary Habitat RM&E	56, 57	All	Reclamation	4445	Methow River Basin Demonstration	New
RM&E	Coordination and Data Mgmt RM&E	71	All	Reclamation	4930	PNAMP	Continuing
RM&E	Coordination and Data Mgmt RM&E	72	All	Reclamation	4445	Integrated Data Modeling, Analyst and Management Activities	New

Attachment 1 - Table 3. Corps Project List

H-Section	BiOp Strategy	Action No.	Subaction No.	Agency	Project No.	Project Title	RPA Association Status
RM&E	Fish Population Status Monitoring RM&E	51	1	NMFS, COE, BPA		Adaptive Management Implementation Plan (AMIP) Life Cycle Modeling	
RM&E	Hydrosystem RM&E	52	1	COE	SPE-P-10-2	Passage and Survival of Juvenile Salmonids at The Dalles Dam	New
RM&E	Hydrosystem RM&E	52	1, 2,3,4,5, 9	COE	SPE-W-05-1	Multi-year analysis and synthesis of passage, behavior and survival data from McNary Dam.	Continuing
RM&E	Hydrosystem RM&E	52	2	COE	SPE-P-10-1	Passage Behavior and Survival of Juvenile Salmonids at Bonneville Dam	New
RM&E	Hydrosystem RM&E	52	2	COE	TPE-W-00-06	Analyze the benefits of transporting Lower Snake River juvenile Fall Chinook Salmon	Continuing
RM&E	Hydrosystem RM&E	52	2	COE	TPE-W-04-1	Determine the seasonal effects of transporting fish from the Snake River to optimize a transportation strategy.	Continuing
RM&E	Hydrosystem RM&E	52	2	COE	TPE-W-10-1	Determine the feasibility of conducting a sockeye transportation evaluation	New
RM&E	Hydrosystem RM&E	54	1,2,3,4	COE	SPE-P-10-1	Passage Behavior and Survival of Juvenile Salmonids at Bonneville Dam	New
RM&E	Hydrosystem RM&E	54	1, 2,3,4,5, 9	COE	SPE-W-05-1	Multi-year analysis and synthesis of passage, behavior and survival data from McNary Dam.	Continuing
RM&E	Hydrosystem RM&E	54	1, 3, 5, 8	COE	SPE-P-08-3	Studies of Surface Spill at John Day Dam	Continuing
RM&E	Hydrosystem RM&E	54	12	COE	ADS-P-00-1	Evaluation of Adult Salmon and Steelhead Delay and Fallback at Snake and Columbia River Dams	Continuing
RM&E	Hydrosystem RM&E	54	13, 14	COE	ADS-P-00-6	Evaluation of Steelhead Kelt and Overwintering Summer Steelhead Downstream	Continuing
RM&E	Hydrosystem RM&E	54	2	COE	BPS-00-10	Determine survival to adult rates for juvenile salmon in the juvenile bypass systems relative to those passing undetected	Continuing
RM&E	Hydrosystem RM&E	54	2	COE	BPS-P-08-2	Condition and Gatewell Retention Time Evaluation for Subyearling Chinook through FGE Modified Units at the Second Powerhouse Bonneville Dam	Continuing
RM&E	Hydrosystem RM&E	54	2	COE	BPS-P-10-1	Evaluation of salmonid gatewell egress using updated orifice lighting treatments at McNary Dam	New

Attachment 1 - Table 3. Corps Project List

H-Section	BiOp Strategy	Action No.	Subaction No.	Agency	Project No.	Project Title	RPA Association Status
RM&E	Hydrosystem RM&E	54	2	COE	BPS-P-10-1	Determination of Juvenile Salmonid Egress from Gatewells at Bonneville Dam 2nd Powerhouse using updated orifice lighting designs	New
RM&E	Hydrosystem RM&E	54	2	COE	TPE-W-10-1	Determine the feasibility of conducting a sockeye transportation evaluation	New
RM&E	Hydrosystem RM&E	54	4	COE	TSP-06-01	Evaluation of juvenile salmonid condition under different turbine operating conditions at McNary Dam.	Continuing
RM&E	Hydrosystem RM&E	54	5	COE	SPE-P-10-1	Passage Behavior and Survival of Juvenile Salmonids at Bonneville Dam	New
RM&E	Hydrosystem RM&E	54	6	COE	TPE-W-00-06	Analyze the benefits of transporting Lower Snake River juvenile Fall Chinook Salmon	Continuing
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.	Continuing
RM&E	Hydrosystem RM&E	54	8	COE	AVS-P-09-01	Evaluate the Impact of Avian Predation on Salmonid Smolts passing John Day Dam	Continuing
RM&E	Hydrosystem RM&E	54	8	COE	AVS-W-03-01	Electronic recovery of ISO-PIT tags from avian predators in the Columbia River Basin.	Continuing
RM&E	Hydrosystem RM&E	54	8	COE	AVS-W-03-01	Avian predation on salmonid smolts from the Columbia and Snake rivers.	Continuing
RM&E	Hydrosystem RM&E	54	9	COE	SPE-P-06-2	Evaluation of Tag Effects on Acoustic-Tagged Juvenile Salmonids	Continuing
RM&E	Hydrosystem RM&E	55	1	COE	BPS-00-10	Snake River Basin differential delayed mortality Synthesis Report: Evaluate comparative delayed mortality of transported and in-river migrating juvenile salmon and steelhead	Continuing
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.	Continuing
RM&E	Hydrosystem RM&E	55	1, 2	COE	TPE-W-00-06	Analyze the benefits of transporting Lower Snake River juvenile Fall Chinook Salmon	Continuing
RM&E	Hydrosystem RM&E	55	2	COE	TPE-W-04-1	Survival of yearling Chinook salmon during barge transport.	Completed
RM&E	Hydrosystem RM&E	55	2	COE	TPE-W-04-1	Juvenile salmon marine survival related to ocean entry time.	Continuing
RM&E	Hydrosystem RM&E	55	6	COE	TSP-05-1	Biological Index Testing of Snake and Columbia River Dam Turbines-Determining Best Powerhouse Operation for Fish Passage	Continuing

Attachment 1 - Table 3. Corps Project List

H-Section	BiOp Strategy	Action No.	Subaction No.	Agency	Project No.	Project Title	RPA Association Status
RM&E	Hydrosystem RM&E	55	6	COE	TSP-06-1	Biological Index Testing of Snake and Columbia River Dam Turbines-Determining Best Operating Point for Turbines	Continuing
RM&E	Estuary Habitat RM&E	58	1	COE	EST-P-02-1	A Study of Salmonid Survival and Behavior through the Columbia River Estuary Using Acoustic Tags	Completed
RM&E	Estuary Habitat RM&E	58	1,2	COE	EST-P-09-1	Evaluation of Life History Diversity, Habitat Connectivity, and Survival Benefits Associated with Habitat Restoration Actions in the Lower Columbia River and Estuary	Continuing
RM&E	Estuary Habitat RM&E	58	2, 3, 4	COE	EST-P-05-1	Action Effectiveness Research and Monitoring of Ecosystem Restoration Actions within the Lower Columbia River and Estuary	Continuing
RM&E	Estuary Habitat RM&E	58	all	COE	EST-P-10-1	The Contribution of Tidal Fluvial Habitats in the Columbia River Estuary to the Recovery of Diverse Salmon ESUs	New
RM&E	Estuary Habitat RM&E	59	1,3,4,5	COE	EST-P-09-1	Evaluation of Life History Diversity, Habitat Connectivity, and Survival Benefits Associated with Habitat Restoration Actions in the Lower Columbia River and Estuary	Continuing
RM&E	Estuary Habitat RM&E	59	4	COE	EST-P-02-1	A Study of Salmonid Survival and Behavior through the Columbia River Estuary Using Acoustic Tags	Completed
RM&E	Estuary Habitat RM&E	59	1,4	COE	EST-P-05-1	Action Effectiveness Research and Monitoring of Ecosystem Restoration Actions within the Lower Columbia River and Estuary	Continuing
RM&E	Estuary Habitat RM&E	59	all	COE	EST-P-10-1	The Contribution of Tidal Fluvial Habitats in the Columbia River Estuary to the Recovery of Diverse Salmon ESUs	New
RM&E	Estuary Habitat RM&E	60	1, 2, 3	COE	EST-P-02-4	Evaluating Cumulative Ecosystem Response to Habitat Restoration Projects in the Lower Columbia River Estuary	Continuing
RM&E	Estuary Habitat RM&E	60	2,3	COE	EST-P-05-1	Action Effectiveness Research and Monitoring of Ecosystem Restoration Actions within the Lower Columbia River and Estuary	Continuing
RM&E	Estuary Habitat RM&E	60	3	COE	EST-P-09-1	Evaluation of Life History Diversity, Habitat Connectivity, and Survival Benefits Associated with Habitat Restoration Actions in the Lower Columbia River and Estuary	Continuing
RM&E	Estuary Habitat RM&E	61	1,2,3	COE	EST-P-02-1	A Study of Salmonid Survival and Behavior through the Columbia River Estuary Using Acoustic Tags	Completed

Attachment 1 - Table 3. Corps Project List

H-Section	BiOp Strategy	Action No.	Subaction No.	Agency	Project No.	Project Title	RPA Association Status
RM&E	Estuary Habitat RM&E	61	3	COE	EST-P-10-1	The Contribution of Tidal Fluvial Habitats in the Columbia River Estuary to the Recovery of Diverse Salmon ESUs	New
RM&E	Predation Mgmt RM&E	68	n/a	COE	AVS-P-09-1	Evaluate the Impact of Avian Predation on Salmonid Smolts Passing John Day Dam	Continuing
RM&E	Predation Mgmt RM&E	68	n/a	COE	AVS-W-03-01	Electronic Recovery of PIT Tags from Piscivorous Bird Colonies in the Columbia River Basin	Continuing
RM&E	Predation Mgmt RM&E	68	n/a	COE	AVS-W-03-01	Evaluate the Impact of Avian Predation on Salmonid Smolts from the Columbia and Snake Rivers	Continuing
RM&E	Predation Mgmt RM&E	69	1, 2	COE	ADS-P-02-16	Assessment of Sea Lion Predation and Abundance in the Bonneville Dam Tailrace	Continuing

Attachment 2: Summary of 2010 Tributary Habitat Accomplishments, by Population

Attachment 2 summarizes metrics at the population level for tributary habitat measures implemented with funding from BPA or with technical assistance from the Bureau of Reclamation (Reclamation) in 2010. 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 4 and 5. 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.

Attachment 2 – Table 1. Summary of 2010 Tributary Habitat Accomplishments, by Population

2010 Completed Metrics			Water Quantity	Entrainment	Passage		Channel Complexity	Water Quality Riparian Protection and Enhancement			
ESU/DPS	MPG	Population	Acre-ft/yr Protected	# of screens addressed	# of barriers addressed	Stream miles with improved access	Stream miles improved	Stream miles protected	Riparian miles treated	Riparian acres protected	Riparian acres treated
Snake River Spring/Summer-run Chinook Salmon ESU	Dry Clearwater	Lapwai/Big Canyon					1.0		3.7		
		Polatch River			1	7.0			1.5		6.0
		Upper South Fork Clearwater			1	1.0		2.5	11.0	333.0	17.0
	Grande Ronde / Imnaha	Catherine Creek			3	26.5	15.7		6.6		
		Grande Ronde River upper mainstem					20.7		5.3		38.0
		Imnaha River mainstem									
		Lostine River	1188						0.7		
	Lower Snake	Asotin Creek									
		Tucannon River			1	0.9	3.5		1.0	164.0	
	Middle Fork Salmon River	Camas Creek									
		Marsh Creek									
	South Fork Salmon River	East Fork South Fork Salmon River							0.1		
		Little Salmon River			1	3.0			0.1		
	Upper Salmon River	East Fork Salmon River									
		Secesh River							7.4		
		Lemhi River	2013	2	4	17.0	0.3				0.3
		Pahsimeroi River			4	6.0					
		Salmon River lower mainstem below Redfish Lake	744								
		Salmon River upper main stem above Redfish Lake									
		Valley Creek									
	Wet Clearwater	Lochsa River			3	9.8			50.0		
		Lolo Creek							1.0		

Attachment 2 – Table 1. Summary of 2010 Tributary Habitat Accomplishments, by Population

2010 Completed Metrics			Water Quantity	Entrainment	Passage		Channel Complexity	Water Quality Riparian Protection and Enhancement				
ESU/DPS	MPG	Population	Acre-ft/yr Protected	# of screens addressed	# of barriers addressed	Stream miles with improved access	Stream miles improved	Stream miles protected	Riparian miles treated	Riparian acres protected	Riparian acres treated	
Snake River Spring/Summer-run Chinook Salmon ESU Total			3945	2	18	71.2	41.2	2.5	88.3	497.0	61.2	
Upper Columbia River Spring-run Chinook Salmon ESU	Upper Columbia / East Slope Cascades	Entiat River		2	1	1.0	0.6		0.2			
		Methow River	586		2	60.5	0.6		3.7			
		Wenatchee River			14	3.7			0.5		2.5	
Upper Columbia River Spring-run Chinook Salmon ESU Total			586	2	17	65.2	1.2		4.4		2.5	
Middle Columbia River Steelhead DPS	Cascades Eastern Slope Tributaries	Deschutes River - eastside	913	1	1	65.0			1.6			
		Deschutes River - westside										
		Fifteenmile Creek (winter run)	906					0.5		3.9		
		Klickitat River						0.3	0.3	8.4		
		Rock Creek							0.3			
		White Salmon River	166									
	John Day River	John Day River lower mainstem tributaries	1254	11				5.3	34.2	9.0	470.7	12.5
		John Day River upper mainstem	1177	13	4	13.3	0.5		10.0		150.0	
		Middle Fork John Day River	171	4	1	15.0			7.0	2.0	180.0	
		North Fork John Day River	356	2	6	115.2	1.3		5.8		183.0	
		South Fork John Day River		2	1	1.5			0.6	5.0	10.0	2.0
	Umatilla and Walla Walla River	Touchet River	768									
		Umatilla River			1	7.0	0.2		8.6	5.8	456.2	4.2
		Walla Walla River	4832	1	1	3.2						
	Yakima River Group	Naches River			1	17.0	3.0		3.0	0.5	130.0	
		Satus Creek					0.8		1.0		1.0	
		Toppenish			1	1.0	0.4		3.2		139.0	
		Yakima River upper mainstem	2646	3	7	112.0	1.7			0.1	65.0	3.0
	Middle Columbia River Steelhead DPS Total			13189	37	24	350.2	13.2	74.2	24.5	1797.2	21.7

Attachment 2 – Table 1. Summary of 2010 Tributary Habitat Accomplishments, by Population

2010 Completed Metrics			Water Quantity	Entrainment	Passage		Channel Complexity	Water Quality Riparian Protection and Enhancement			
ESU/DPS	MPG	Population	Acre-ft/yr Protected	# of screens addressed	# of barriers addressed	Stream miles with improved access	Stream miles improved	Stream miles protected	Riparian miles treated	Riparian acres protected	Riparian acres treated
Snake River Basin Steelhead DPS	Clearwater River	Clearwater River lower mainstem			1	7.0	1.0		5.2		6.0
		Lochsa River			3	9.8			50.0		
		Lolo Creek							1.0		
		South Fork Clearwater River			1	1.0		2.5	11.0	333.0	17.0
	Grande Ronde River	Grande Ronde River lower mainstem tributaries									
		Grande Ronde River upper mainstem			5	31.6	36.4		11.9		38.0
		Joseph Creek			2	21.1			8.5		10.0
		Wallowa River	1188						0.7		
	Imnaha River	Imnaha River									
	Lower Snake	Asotin Creek									
		Tucannon River			1	0.9	3.5		1.0	164.4	
	Salmon River	Big, Camas, and Loon Creek									
		East Fork Salmon River	591								
		Lemhi River	2013	2	4	17.0	0.3				0.3
		Middle Fork Salmon River upper mainstem									
		Little Salmon and Rapid River			1	3.0			0.1		
		Pahsimeroi River	153		4	6.3					
		Salmon River upper mainstem									
		Secesh River							7.4		
		South Fork Salmon River							0.1		
Snake River Basin Steelhead DPS Total			3945	2	22	97.7	41.2	2.5	96.8	497.4	71.2
Upper Columbia River Steelhead DPS	Upper Columbia / East Slope Cascades	Entiat River		2	1	1.0	0.6		0.2		
		Methow River	586		2	62.5	0.6		3.7		
		Okanogan River	1200		1	1.1	2.5	0.4	1.5	7.1	
		Wenatchee River			14	3.7			0.5		2.5
Upper Columbia River Steelhead DPS Total			1786	2	18	68.3	3.7	0.4	5.9	7.1	2.5

Attachment 3: Progress of Projects and Actions Identified for 2010-2012 Implementation in the FCRPS 2010-2013 Implementation Plan

The Action Agencies committed to provide funding and technical assistance for specific tributary habitat projects as listed in the FCRPS 2010-2013 Implementation Plan. 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 2010 implementation progress of the projects identified for implementation in the 2010-2013 Implementation Plan. Accomplishments may be reported more than once if they benefit both Chinook and steelhead.

BPA project-specific information is available at <http://www.cbfish.org/Portfolio.mvc/Index>. Additional metrics detail can be found in the Habitat Metrics Report tool available at <http://www.cbfish.org/Report.mvc/Index>.

The tables in this Attachment summarize the habitat metrics completed through BPA-funded contracts and Reclamation technical assistance in 2010 that are expected to benefit Snake and upper Columbia river spring/summer Chinook, and Snake, upper Columbia, and middle Columbia river summer/winter steelhead populations. The limiting factors, projects, and associated planned metrics identified in the 2010-2013 Implementation Plan are shown for added reference. Populations that were not identified in the Implementation Plan as having planned metrics or projects are noted where appropriate.

❖ Indicates populations with Reclamation involvement.

Attachment 3 - Table 1. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Spring/Summer Chinook Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 completed metrics
<i>Snake River Spring/Summer Chinook: Grande Ronde/Imnaha MPG</i>				
❖ Catherine Creek	<ul style="list-style-type: none"> • Passage barriers • Lack of diverse habitats • Low summer flows • Degraded riparian conditions • Poor water quality/elevated summer stream temperatures • Excess fine sediment 	<ul style="list-style-type: none"> • Improve access to ≈ 45 miles of instream habitat • Treat ≈ 90 wetland acres • Protect ≈ 1 stream mile • Treat ≈ 5.5 riparian miles • Add ≈ 0.1 mile off-channel habitat 	1992-026-01 : Grand Ronde Model Watershed 1984-025-00 : Blue Mountain Fish Habitat Improvement 1996-083-00 : Grand Ronde Watershed Restoration	<ul style="list-style-type: none"> • Treated 15.7 instream miles • Improved access to 26.5 instream miles • Treated 6.6 riparian miles • Added 2.8 miles of stream channel
❖ Lostine/Wallowa River	<ul style="list-style-type: none"> • Passage barriers • Lack of diverse habitats • Degraded riparian conditions • Floodplain connectivity • Excess fine sediment 	<ul style="list-style-type: none"> • Improve access to ≈ 37 miles of instream habitat • Treat <10 wetland acres • Treat ≈ 1.0 miles of floodplain or riparian habitat • Reconnect 0.75 miles stream channel 	1992-026-01 : Grand Ronde Model Watershed 2007-393-00 : Protect and Restore Northeast Oregon	<ul style="list-style-type: none"> • Protected 1188 acre-ft/yr and 15 cfs of water flow • Treated 0.7 riparian miles
❖ Grand Ronde River upper mainstem	<ul style="list-style-type: none"> • Lack of diverse habitats • Degraded riparian conditions 	<ul style="list-style-type: none"> • Treat 1.5 miles stream channel • Add structures to 14.7 stream 	1992-026-01 : Grand Ronde Model Watershed	<ul style="list-style-type: none"> • Treated 38 miles of floodplain habitat

Attachment 3 - Table 1. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Spring/Summer Chinook Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 completed metrics
	<ul style="list-style-type: none"> Excess fine sediment Poor water quality/elevated summer stream temperatures Low summer flows 	<ul style="list-style-type: none"> miles (complexity) Remove 0.4 miles of road along stream 	1996-083-00 : Grand Ronde Watershed Restoration	<ul style="list-style-type: none"> Treated 20.7 miles of instream habitat Treated 5.25 riparian miles Treated 8.5 road miles
Imnaha River mainstem	<ul style="list-style-type: none"> Lack of diverse habitat Passage barriers Excess fine sediment 	<ul style="list-style-type: none"> Improve access to 0.5 miles of instream habitat Treat ≈ 5 riparian/stream miles Treat ≈ 5 road miles 	1992-026-01 : Grand Ronde Model Watershed 2007-393-00 : Protect and Restore Northeast Oregon	No habitat metrics completed in 2010.
Big Sheep Creek	<ul style="list-style-type: none"> Passage barriers Excess fine sediment 	<ul style="list-style-type: none"> Improve access to 18 miles of instream habitat Treat 3.5 road miles Treat 1 riparian mile 	1992-026-01 : Grand Ronde Model Watershed 2007-393-00 : Protect and Restore Northeast Oregon	No habitat metrics completed in 2010.
<i>Snake River Spring/Summer Chinook: Middle Fork & South Fork Salmon River MPGs</i>				
Big Creek	<ul style="list-style-type: none"> Passage barriers Excess fine sediment 	<ul style="list-style-type: none"> Improve access to ≈ 22 miles of instream habitat Decommission ≈ 15 miles of road 	2007-127-00 : East Fork of South Fork Salmon River Passage Restoration	No habitat metrics completed in 2010.
East Fork South Fork Salmon River		<ul style="list-style-type: none"> None identified in 2010-12 Implementation Plan 	2007-127-00 : East Fork of South Fork Salmon River Passage Restoration	<ul style="list-style-type: none"> Treated 0.1 riparian miles
Little Salmon River		<ul style="list-style-type: none"> None identified in 2010-12 Implementation Plan 	2007-064-00: Slate Creek Watershed Restoration	<ul style="list-style-type: none"> Improved access to 3 instream miles Treated 0.05 riparian miles
Secesh River	<ul style="list-style-type: none"> Passage barriers Excess sediments 	<ul style="list-style-type: none"> Improve access to ≈ 12 miles of instream habitat Decommission ≈ 45 miles of road 	2007-127-00 : East Fork of South Fork Salmon River Passage Restoration	<ul style="list-style-type: none"> Treated 7.4 riparian miles Treated 3.8 road miles
South Fork Salmon River	<ul style="list-style-type: none"> Passage barriers Excess sediments High water temperatures 	<ul style="list-style-type: none"> Improve access to ≈ 18.6 miles of instream habitat Enhance/Restore ≈ 3 riparian miles 	2007-127-00 : East Fork of South Fork Salmon River Passage Restoration	No habitat metrics completed in 2010.
<i>Snake River Spring/Summer Chinook: Lower Snake MPG</i>				
Tucannon River	<ul style="list-style-type: none"> Habitat complexity and connectivity High water temperatures 	<ul style="list-style-type: none"> Protect ≈ 200 riparian acres Protect ≈ 5.5 miles of stream bank Install structures in ≈ 0.6 stream 	1994-018-06 : Tucannon Stream and Riparian Restoration	<ul style="list-style-type: none"> Treated 3.5 instream miles Protected 164 riparian acres Treated 1 riparian mile

Attachment 3 - Table 1. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Spring/Summer Chinook Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 completed metrics
	<ul style="list-style-type: none"> Degraded riparian conditions 	miles	1994-018-07 : Garfield County Fall Chinook and Steelhead Habitat Improvement	<ul style="list-style-type: none"> Improved access to 0.9 instream miles
<i>Snake River Spring/Summer Chinook: Upper Salmon River MPG</i>				
❖ East Fork Salmon River	<ul style="list-style-type: none"> Passage barriers Excess fine sediment Fish entrainment Low stream flow 	<ul style="list-style-type: none"> Improve access to 1.9 miles of instream habitat Install 3 fish screens Protect ≈ 0.5 riparian miles Protect/acquire 3 cfs of instream water 	1994-015-00 : Idaho Fish Screening Project 2007-268-00 : Idaho Watershed Habitat Restoration-Custer District 2007-399-00 : Upper Salmon Screen Tributary Passage	<ul style="list-style-type: none"> Fenced 0.3 stream miles
❖ Lemhi River	<ul style="list-style-type: none"> Passage barriers Fish entrainment Low stream flow Degraded riparian conditions Excess sediments High water temperature 	<ul style="list-style-type: none"> Install 12 fish screens Protect/acquire ≈ 17 cfs of instream water Improve access to ≈ 23 miles of instream habitat Protect ≈ 43 riparian miles and 68 riparian acres Reconnect ≈ 2.0 miles of stream channel Treat ≈ 8 stream miles 	1994-015-00 : Idaho Fish Screening Project 2007-394-00 : Idaho Watershed Habitat Restoration-Lemhi 2007-399-00 : Upper Salmon Screen Tributary Passage 2008-601-00 : Upper Lemhi River – Acquisition 2008-602-00 : Upper Lemhi River – Restoration 2008-605-00 : Lower Lemhi Habitat-Easements 2008-606-00 : Lower Lemhi Habitat-Restoration 2008-608-00 : Idaho MOA/Fish Accord Water Transactions	<ul style="list-style-type: none"> Protected 2013 acre-ft/yr and 23 cfs of water flow Fenced 4.4 stream miles Improved access to 12.7 instream miles Treated 0.25 riparian acres Installed 2 fish screens
❖ Lower mainstem Salmon River	<ul style="list-style-type: none"> Passage barriers Fish entrainment Low stream flow Lack of complex habitat 	<ul style="list-style-type: none"> Add 500-1000 ft side channel Improve access to ≈ 17 miles of instream habitat Protect/acquire ≈ 5.5 cfs of instream water 	1994-015-00 : Idaho Fish Screening Project 1999-019-00 : Restore 12 Mile Reach of Upper Salmon River	<ul style="list-style-type: none"> Protected 743.6 acre-ft/year and 3.23 cfs of water flow Fenced 0.5 stream miles

Attachment 3 - Table 1. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Spring/Summer Chinook Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 completed metrics
		<ul style="list-style-type: none"> Install 4 fish screens 	2002-013-01 : Water Entity - Water Transaction Program 2007-268-00 : Idaho Watershed Habitat Restoration-Custer District 2007-394-00 : Idaho Watershed Habitat Restoration-Lemhi 2007-399-00 : Upper Salmon Screen Tributary Passage 2008-602-00 : Upper Lemhi River – Restoration	
❖ Upper mainstem Salmon River	<ul style="list-style-type: none"> Passage barriers Low stream flows Excess fine sediment 	<ul style="list-style-type: none"> Treat \approx 1 stream mile Protect \approx 11 cfs of instream water 	1994-015-00 : Idaho Fish Screening Project 2007-394-00 : Idaho Watershed Habitat Restoration-Lemhi 2002-013-01 : Water Entity - Water Transaction Program 2007-268-00 : Idaho Watershed Habitat Restoration-Custer District 2007-399-00 : Upper Salmon Screen Tributary Passage 2008-602-00 : Upper Lemhi River – Restoration 2008-608-00 : Idaho MOA/Fish Accord Water Transactions	No habitat metrics completed in 2010.
❖ Pahsimeroi River	<ul style="list-style-type: none"> Passage barriers Fish entrainment Degraded riparian habitat Low stream flows 	<ul style="list-style-type: none"> Improve access to \approx 15 miles of instream habitat Install 3 fish screens Protect \approx 3.5 riparian miles Protect \approx 5 cfs instream flow Restore \approx .5 riparian miles 	1994-015-00 : Idaho Fish Screening Project 2007-394-00 : Idaho Watershed Habitat Restoration-Lemhi 2002-013-01 : Water Entity - Water Transaction Program	<ul style="list-style-type: none"> Improved access to 6 instream miles

Attachment 3 - Table 1. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Spring/Summer Chinook Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 completed metrics
			2007-268-00 : Idaho Watershed Habitat Restoration-Custer District 2007-399-00 : Upper Salmon Screen Tributary Passage 2008-603-00 : Pahsimeroi River Habitat 2008-608-00 : Idaho MOA/Fish Accord Water Transactions	
❖ Valley Creek	<ul style="list-style-type: none"> • Passage barriers • Fish entrainment • Low stream flows 	<ul style="list-style-type: none"> • Install 4 fish screens • Improve access to 4 miles of instream habitat • Protect \approx 4 cfs instream flow 	1994-015-00 : Idaho Fish Screening Project 2007-394-00 : Idaho Watershed Habitat Restoration-Lemhi 2007-399-00 : Upper Salmon Screen Tributary Passage 2008-608-00 : Idaho MOA/Fish Accord Water Transactions	No habitat metrics completed in 2010.
❖ Yankee Fork NOTE: Only assessment work was identified for 2010-12 implementation during the 2009 expert panel workshops. Subsequent to the workshops, the Yankee Fork Interdisciplinary Team is identifying actions for 2010-12 implementation while the assessments are being completed.	Expert panel identified no limiting factors to be addressed in 2010-12. Yankee Fork Interdisciplinary Team identified one limiting factor that can be addressed in 2010-12: <ul style="list-style-type: none"> • Passage barriers 	Expert panel identified no metrics for 2010-12 implementation. Yankee Fork Interdisciplinary Team will provide appropriate metrics for evaluation at the 2012 expert panel workshop for actions associated with: <ul style="list-style-type: none"> • replacing structures to improve access to existing side-channel rearing ponds during low streamflow, and • replacing culverts that inhibit access to spawning and rearing habitat 		No actions identified for 2010 implementation.

Attachment 3 - Table 1. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Spring/Summer Chinook Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 completed metrics
<i>Upper Columbia River Spring/Summer Chinook: Upper Columbia – Below Chief Joseph MPG</i>				
❖ Entiat River	<ul style="list-style-type: none"> Low stream flow Habitat complexity and connectivity 	<ul style="list-style-type: none"> Protect 6.5 cfs of instream water Reconnect \approx 0.5 miles of side channel Treat \approx 1.9 stream miles 	2002-013-01 : Water Entity - Water Transaction Program 2007-231-00 : Entiat River Riparian Restoration 2010-001-00 : Upper Columbia Programmatic Habitat	<ul style="list-style-type: none"> Treated 0.25 instream miles Treated 0.2 riparian miles Improved access to 1.0 instream miles Addressed fish entrainment at 2 locations
❖ Methow River	<ul style="list-style-type: none"> Passage barriers Low stream flow Riparian and floodplain function Habitat complexity and connectivity 	<ul style="list-style-type: none"> Protect \approx 15 cfs of instream water Improve access to \approx .8 miles of instream habitat Restore \approx 18.6 riparian miles and 70 riparian acres Reconnect \approx 2.3 miles of side channel Treat \approx 3.2 stream miles Protect 1 stream mile 	2002-013-01 : Water Entity - Water Transaction Program 2007-035-00 : Methow Basin Riparian Enhancement Program 2007-264-00 : Methow River Complexity Fisheries Enhancement 2010-001-00 : Upper Columbia Programmatic Habitat	<ul style="list-style-type: none"> Protected 586 acre-ft/year and 1.9 cfs of water flow Treated 0.6 instream miles Improved access to 2 instream miles Treated 3.7 riparian miles
❖ Wenatchee River	<ul style="list-style-type: none"> Low stream flows High stream temperature Passage barriers Riparian and floodplain function Habitat complexity and connectivity 	<ul style="list-style-type: none"> Protect \approx 7.5 cfs of instream water Improve access to \approx 7.2 miles of instream habitat Protect/enhance \approx 8.4 riparian miles Treat \approx .2 stream miles Reconnect \approx 1.2 miles side channel 	2002-013-01 : Water Entity - Water Transaction Program 2007-325-00 : Wenatchee River Complexity Fisheries Enhancement 2007-400-00 : Wenatchee River Subbasin Fish Passage Enhancement 2010-001-00 : Upper Columbia Programmatic Habitat	<ul style="list-style-type: none"> Improved access to 3.9 instream miles Treated 0.5 riparian miles Treated 2.5 riparian acres

Attachment 3 - Table 2. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Summer/Winter Steelhead Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 Completed Metrics
<i>Snake River Steelhead: Clearwater River MPG</i>				
Lochsa River	<ul style="list-style-type: none"> • Passage barriers • Lack of diverse habitats • Degraded riparian conditions • Poor water quality/elevated stream temperatures • Excess fine sediment 	<ul style="list-style-type: none"> • Improve access to 15 miles of instream habitat • Remove 75.2 road miles • Treat 7.9 road miles • Treat 170 riparian acres • Treat 1575 riparian/upland acres 	2007-395-00 : Protect and Restore Lochsa Watershed	<ul style="list-style-type: none"> • Treated 3.8 road miles • Improved access to 9.8 instream miles • Treated 50 riparian miles
Lolo Creek	<ul style="list-style-type: none"> • Passage barriers • Degraded riparian conditions • Excess fine sediment • Poor water quality/elevated stream temperatures 	<ul style="list-style-type: none"> • Improve access to 23.2 miles of instream habitat • Treat 15.1 road miles • Treat 3 riparian miles • Treat 30 riparian/upland miles 	1996-077-02 : Lolo Creek Watershed Restoration	<ul style="list-style-type: none"> • Treated 3.6 road miles • Treated 1 riparian mile
Selway River	<ul style="list-style-type: none"> • Passage barriers • Lack of diverse habitats • Excess fine sediment 	<ul style="list-style-type: none"> • Improve access to 24.1 miles of instream habitat • Treat 3 riparian miles • Treat 30 riparian/upland miles 	New 2010-12 project based on 2007-092-00 : Restore Selway River Watershed	<ul style="list-style-type: none"> • No habitat metrics completed in 2010.
South Fork Clearwater River	<ul style="list-style-type: none"> • Passage barriers • Lack of diverse habitats • Degraded riparian conditions • Excess fine sediment 	<ul style="list-style-type: none"> • Improve access to 23.6 miles of instream habitat • Add structures to 5.5 stream miles (complexity) • Remove 76.5 road miles • Treat 8.5 stream miles • Treat 34.1 riparian miles • Treat 31 riparian acres • Treat 100 upland acres • Treat 55 riparian/upland acres 	1996-077-05 : Meadow Creek Watershed Restoration 2000-035-00 : Newsome Creek Watershed Restoration 2000-036-00 : Mill Creek Watershed Restoration 2002-072-00 : Red River Watershed Restoration New 2010-12 projects based on: 2007-134-00 : Restore and Protect Crooked River Watershed, and 2007-142-00 : Restore and Protect American River	<ul style="list-style-type: none"> • Treated 3.5 road miles • Improved access to 1 instream mile • Protected 333 riparian acres and 2.5 riparian miles

Attachment 3 - Table 2. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Summer/Winter Steelhead Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 Completed Metrics
			Watershed	
<p>Clearwater River lower mainstem</p> <p>NOTE: Population not evaluated by 2009 expert panel process because it is not included in RPA 35 Table 5. Included here due to potential improvements to MPG.</p>	<ul style="list-style-type: none"> Channel morphology High summer water temperature Reduced channel complexity Riparian and channel alteration Sediment, nutrients, and flashiness from agricultural runoff Collapsed stream banks, channel incision, and channel alteration from historic railroad logging Stream bed instability - channels frequently scour to bedrock 	<ul style="list-style-type: none"> Treat \approx 14 riparian acres and 20 riparian miles Add structures to \approx 1.5 stream miles (complexity) Protect \approx 2.7 riparian miles (fencing) Treat \approx 0.2 road miles 	<p>1999-017-00: Protect and Restore Lapwai Creek Watershed</p> <p>2002-070-00: Lapwai Creek Anadromous Habitat</p> <p>2008-604-00: Lower Clearwater and Potlatch Watersheds Habitat Improvements</p>	<ul style="list-style-type: none"> Treated 6 riparian acres and 6.2 riparian miles Treated 6.2 road miles Treated 1 instream mile Improved access to 7 instream miles Fenced 0.8 riparian acres
Snake River Steelhead: Grande Ronde River and Imnaha MPGs				
Grande Ronde River lower mainstem tributaries	<ul style="list-style-type: none"> Excess fine sediment 	<ul style="list-style-type: none"> Road decommissioning 	1992-026-01 : Grand Ronde Model Watershed	No habitat metrics completed in 2010.
❖ Grande Ronde River upper mainstem	<ul style="list-style-type: none"> Passage barriers Habitat complexity and connectivity Degraded riparian conditions Excess fine sediment Low summer flows Poor water quality/low dissolved oxygen 	<ul style="list-style-type: none"> Improve access to \approx 50 miles of instream habitat Add structures to 20.2 stream miles (complexity) Remove 0.4 road miles Treat 7 riparian miles and 220 riparian acres Protect 12-80 riparian acres and 1.5 stream miles Reconnect/add 0.4 miles of channel habitat 	<p>1992-026-01: Grand Ronde Model Watershed</p> <p>1984-025-00: Blue Mountain Fish Habitat Improvement</p> <p>1996-083-00: Grand Ronde Watershed Restoration</p>	<ul style="list-style-type: none"> Treated 8.5 road miles Treated 38 floodplain acres Treated 36.4 instream miles Fenced 0.4 stream miles Improved access to 31.6 instream miles Treated 11.9 riparian miles Added 2.8 miles of stream channel
Joseph Creek	<ul style="list-style-type: none"> Habitat complexity and connectivity Excess fine sediment Poor water quality/elevated summer stream temperatures Excess nutrients 	<ul style="list-style-type: none"> Road decommissioning Treat/protect 1 riparian miles 	<p>1992-026-01: Grand Ronde Model Watershed</p> <p>2007-393-00: Protect and Restore Northeast Oregon</p>	<ul style="list-style-type: none"> Treated 19 road miles Improved access to 21.2 instream miles Treated 8.5 riparian acres
❖ Wallowa River	<ul style="list-style-type: none"> Passage barriers Habitat complexity and 	<ul style="list-style-type: none"> Improve access to instream habitat 	1992-026-01 : Grand Ronde	<ul style="list-style-type: none"> Protected 1188 acre-ft/year and 15 cfs of water

Attachment 3 - Table 2. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Summer/Winter Steelhead Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 Completed Metrics
	<ul style="list-style-type: none"> connectivity Low summer flow Degraded riparian conditions Excess fine sediment 	<ul style="list-style-type: none"> Treat 1.4 miles of floodplain or riparian habitat Treat <10 wetland acres Protect 1 cfs of instream water Reconnect .75 miles of stream channel 	Model Watershed 2007-393-00 : Protect and Restore Northeast Oregon	flow <ul style="list-style-type: none"> Treated 0.7 riparian miles
Imnaha River	<ul style="list-style-type: none"> Passage barriers Habitat complexity and connectivity Degraded riparian conditions Excess fine sediment 	<ul style="list-style-type: none"> Improve access to ≈ 23 miles of instream habitat Treat ≈ 10 riparian/stream miles Decommission ≈ 5 road miles 	1992-026-01 : Grand Ronde Model Watershed 2007-393-00 : Protect and Restore Northeast Oregon	No habitat metrics completed in 2010.
<i>Snake River Steelhead: Lower Snake MPG</i>				
Tucannon River	<ul style="list-style-type: none"> Habitat complexity and connectivity High water temperatures Degraded riparian conditions 	<ul style="list-style-type: none"> Protect ≈ 200 riparian acres Protect ≈ 5.5 miles of stream bank Install structures in ≈ 0.6 stream miles 	1994-018-06 : Tucannon Stream and Riparian Restoration 1994-018-07 : Garfield County Fall Chinook and Steelhead Habitat Improvement	<ul style="list-style-type: none"> Treated 3.5 instream miles Protected 164.4 riparian acres Treated 1.0 riparian miles Improved access to 0.9 instream miles
Asotin Creek	<ul style="list-style-type: none"> Habitat complexity and connectivity High water temperatures Degraded riparian conditions 	<ul style="list-style-type: none"> Protect ≈ 15 riparian miles Enhance ≈ 30 riparian acres 	1994-018-05 : Asotin Creek Enhancement and Restoration 2002-050-00 : Riparian Buffers on Couse and Tenmile Creeks in Asotin County	<ul style="list-style-type: none"> Fenced 0.8 stream miles
<i>Snake River steelhead: Salmon River MPG</i>				
Lower Middle Fork Salmon River (Big, Camas, and Loon Creeks)	<ul style="list-style-type: none"> Passage barriers Excess fine sediment 	<ul style="list-style-type: none"> Improve access to ≈ 2 miles of instream habitat Decommission ≈ 15 miles of road 	2007-127-00 : East Fork of South Fork Salmon River Passage Restoration	No habitat metrics completed in 2010.
❖ East Fork Salmon River	<ul style="list-style-type: none"> Passage barriers Excess fine sediment Fish entrainment Low stream flow Lack of complex habitat 	<ul style="list-style-type: none"> Improve access to 3.9 miles of instream habitat Install 3 fish screens Protect ≈ 0.5 riparian miles Protect/acquire 7.5 cfs of instream water Connect ≈ 500-1000 ft of side channels 	1994-015-00 : Idaho Fish Screening Project 2007-268-00 : Idaho Watershed Habitat Restoration-Custer District 2007-399-00 : Upper Salmon Screen Tributary Passage 2008-608-00 : Idaho MOA/Fish	<ul style="list-style-type: none"> Protected 591 acre-ft/year and 2 cfs of water flow Fenced 0.8 stream miles

Attachment 3 - Table 2. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Summer/Winter Steelhead Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 Completed Metrics
			Accord Water Transactions	
❖ Lemhi River	<ul style="list-style-type: none"> • Passage barriers • Fish entrainment • Low stream flow • Degraded riparian conditions • Excess sediments • High water temperature 	<ul style="list-style-type: none"> • Install 10 fish screens • Protect/acquire \approx 26 cfs of instream water • Improve access to \approx 25 miles of instream habitat • Protect \approx 50 riparian miles and 68 riparian acres • Reconnect \approx 2.0 miles of stream channel • Treat \approx 1 stream miles 	<p>1994-015-00: Idaho Fish Screening Project</p> <p>2007-394-00: Idaho Watershed Habitat Restoration-Lemhi</p> <p>2007-399-00: Upper Salmon Screen Tributary Passage</p> <p>2008-601-00: Upper Lemhi River – Acquisition</p> <p>2008-602-00: Upper Lemhi River – Restoration</p> <p>2008-608-00: Idaho MOA/Fish Accord Water Transactions</p>	<ul style="list-style-type: none"> • Protected 2013.2 acre-ft/year and 23.1 cfs of water flow • Fenced 4.4 stream miles • Improved access to 12.7 instream miles • Treated 0.3 riparian acres • Installed 2 fish screens
❖ Pahsimeroi River	<ul style="list-style-type: none"> • Passage barriers • Fish entrainment • Degraded riparian habitat • Excess sediment • Low stream flows 	<ul style="list-style-type: none"> • Improve access to \approx 30 miles of instream habitat • Install 4 fish screens • Protect \approx 3.5 riparian miles • Protect \approx 6 cfs instream flow • Treat \approx 0.5 riparian miles 	<p>1994-015-00: Idaho Fish Screening Project</p> <p>2007-394-00: Idaho Watershed Habitat Restoration-Lemhi</p> <p>2002-013-01: Water Entity - Water Transaction Program</p> <p>2007-268-00: Idaho Watershed Habitat Restoration-Custer District</p> <p>2007-399-00: Upper Salmon Screen Tributary Passage</p> <p>2008-603-00: Pahsimeroi River Habitat</p> <p>2008-608-00: Idaho MOA/Fish Accord Water Transactions</p>	<ul style="list-style-type: none"> • Protected 152.6 acre-ft/year and 1.2 cfs of water flow • Improved access to 6 instream miles •
❖ Upper mainstem Salmon River	<ul style="list-style-type: none"> • Passage barriers • Entrainment • Low stream flows 	<ul style="list-style-type: none"> • Improve access to \approx 4 miles of instream habitat • Treat \approx 1 stream mile 	<p>1994-015-00: Idaho Fish Screening Project</p>	<ul style="list-style-type: none"> • No habitat metrics completed in 2010.

Attachment 3 - Table 2. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Summer/Winter Steelhead Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 Completed Metrics
	<ul style="list-style-type: none"> Excess fine sediment 	<ul style="list-style-type: none"> Protect \approx 15 cfs of instream water 	2007-394-00 : Idaho Watershed Habitat Restoration-Lemhi 2002-013-01 : Water Entity - Water Transaction Program 2007-268-00 : Idaho Watershed Habitat Restoration-Custer District 2007-399-00 : Upper Salmon Screen Tributary Passage 2008-602-00 : Upper Lemhi River – Restoration 2008-608-00 : Idaho MOA/Fish Accord Water Transactions	
Secesh River	<ul style="list-style-type: none"> Passage barriers Excess sediments 	<ul style="list-style-type: none"> Improve access to \approx 12 miles of instream habitat Decommission \approx 45 miles of road 	2007-127-00 : East Fork of South Fork Salmon River Passage Restoration	<ul style="list-style-type: none"> Treated 3.8 road miles Treated 7.4 riparian miles
South Fork Salmon River	<ul style="list-style-type: none"> Passage barriers Excess sediments High water temperatures 	<ul style="list-style-type: none"> Improve access to \approx 18.6 miles of instream habitat Enhance/Restore \approx 3 riparian miles 	2007-127-00 : East Fork of South Fork Salmon River Passage Restoration	<ul style="list-style-type: none"> Treated 0.1 riparian miles
Little Salmon and Rapid River NOTE: Population not evaluated by 2009 expert panel process because it is not included in RPA 35 Table 5. Included here due to potential improvements to MPG.	<ul style="list-style-type: none"> Altered mainstem and tributaries 	<ul style="list-style-type: none"> Improve access to 3.0 miles of instream habitat 	2007-064-00 : Slate Creek Watershed Restoration	<ul style="list-style-type: none"> Improved access to 3 instream miles Treated 0.05 riparian miles
Upper Columbia Steelhead: Upper Columbia River – below Chief Joseph MPG				
❖ Entiat River	<ul style="list-style-type: none"> Low stream flow Habitat complexity and connectivity 	<ul style="list-style-type: none"> Protect 6.5 cfs of instream water Reconnect \approx 0.5 miles of side channel Treat \approx 1.9 stream miles 	2002-013-01 : Water Entity - Water Transaction Program 2007-231-00 : Entiat River	<ul style="list-style-type: none"> Treated 0.3 instream miles Treated 0.2 riparian miles Improved access to 1

Attachment 3 - Table 2. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Summer/Winter Steelhead Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 Completed Metrics
			Riparian Restoration 2010-001-00 : Upper Columbia Programmatic Habitat	instream mile <ul style="list-style-type: none"> Addressed fish entrainment at 2 locations
❖ Methow River	<ul style="list-style-type: none"> Passage barriers Low stream flow Riparian and floodplain function Habitat complexity and connectivity 	<ul style="list-style-type: none"> Protect \approx 15 cfs of instream water Improve access to \approx .8 miles of instream habitat Restore \approx 18.6 riparian miles and 70 riparian acres Reconnect \approx 2.3 miles of side channel Treat \approx 3.2 stream miles Protect 1 stream mile 	2002-013-01 : Water Entity - Water Transaction Program 2007-035-00 : Methow Basin Riparian Enhancement Program 2007-264-00 : Methow River Complexity Fisheries Enhancement 2010-001-00 : Upper Columbia Programmatic Habitat	<ul style="list-style-type: none"> Protected 586.2 acre-ft/year and 1.9 cfs of water flow Treated 0.6 instream miles Improved access to 2 instream miles Treated 3.7 riparian miles
❖ Wenatchee River	<ul style="list-style-type: none"> Low stream flows High stream temperature Passage barriers Riparian and floodplain function Habitat complexity and connectivity 	<ul style="list-style-type: none"> Protect \approx 7.5 cfs of instream water Improve access to \approx 7.2 miles of instream habitat Protect/enhance \approx 8.4 riparian miles Treat \approx .2 stream miles Reconnect \approx 1.2 miles of side channel 	2002-013-01 : Water Entity - Water Transaction Program 2007-325-00 : Wenatchee River Complexity Fisheries Enhancement 2007-400-00 : Wenatchee River Subbasin Fish Passage Enhancement 2009-003-00 : Upper Columbia Habitat Restoration 2010-001-00 : Upper Columbia Programmatic Habitat	<ul style="list-style-type: none"> Improved access to 3.9 instream miles Treated 0.5 riparian miles Added 2.5 instream (channel) acres
❖ Okanogan Okanogan	<ul style="list-style-type: none"> Low stream flows High stream temperature Habitat complexity and connectivity Passage barriers Riparian and floodplain function 	<ul style="list-style-type: none"> Protect \approx 5 cfs of instream flow Improve access to \approx 26 miles of instream habitat Reconnect \approx 2 miles of side channel Install 30 fish screens Protect/enhance \approx 17 riparian miles and \approx 246 riparian acres Protect \approx 3540 acres of land Treat 15 miles road 	1996-042-00 : Restore Salmon Creek Anadromous Fish 2000-001-00 : Omak Creek Anadromous Fish Habitat and Passage 2002-013-01 : Water Entity - Water Transaction Program 2007-034-00 : Columbia	<ul style="list-style-type: none"> Protected 1200 acre-ft/year and 29.9 cfs of water flow Treated 0.1 road miles Treated 2.5 instream miles Fenced 1 riparian mile Improved access to 1.1 instream miles Protected 6.1 riparian acres and 0.4 riparian miles

Attachment 3 - Table 2. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Summer/Winter Steelhead Tributary Habitat Projects

Population	Limiting Factors to Be Addressed in 2010-12	Summary of 2010-12 Planned Metrics	Projects Associated with Planned Metrics	2010 Completed Metrics
			<p>Cascade Pump Screen Correction</p> <p>2007-145-00: Okanogan Livestock and Water for Habitat Improvement</p> <p>2007-224-00: Okanogan Subbasin Habitat Implementation Program</p> <p>2008-102-00: Okanogan Habitat Acquisition and Restoration</p> <p>2008-104-00: Land & Water Acquisition</p> <p>2010-001-00: Upper Columbia Programmatic Habitat</p>	<ul style="list-style-type: none"> Treated 2 riparian miles

Middle Columbia Steelhead Tributary Habitat Projects

Table 3 summarizes the habitat metrics completed through BPA-funded contracts in 2010 that are expected to benefit Middle Columbia steelhead populations. The 2010 planned metrics for associated projects were identified in the 2010-2013 Implementation Plan.

❖ Indicates populations with Reclamation involvement.

Attachment 3 - Table 3. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Middle Columbia Steelhead Tributary Habitat Projects

MPG	Population	Summary of 2010 Planned Metrics	Projects Associated with Planned Metrics	2010 completed metrics
Cascade Eastern Slope Tributaries	Deschutes River – eastside	<ul style="list-style-type: none"> Protect 200 riparian acres and 20 riparian miles Treat 10.5 riparian acres and 1.6 riparian miles 	1998-028-00 : Trout Creek Watershed Restoration 2002-019-00 : Develop Riparian Buffer Systems in Lower Wasco County	<ul style="list-style-type: none"> Protected 913.2 acre-ft/year and 2.3 cfs of water flow Improved access to 65 instream miles Addressed 1 screen
	Deschutes River - westside	<ul style="list-style-type: none"> None for FY10 		<ul style="list-style-type: none"> No habitat metrics completed in 2010.
	Fifteen mile Creek (winter run)	<ul style="list-style-type: none"> Fence 1.25 riparian miles Protect 280 riparian acres and 14 riparian miles Protect 2 cfs instream water 	1993-040-00 : Fifteenmile Creek Habitat Improvement 2001-021-00 : 15 Mile Creek Riparian Buffers 2002-013-01 : Water Entity - Water Transaction Program	<ul style="list-style-type: none"> Protected 906.1 acre-ft/year and 3.8 cfs of water flow Fenced 2.3 stream miles Protected 3.9 riparian acres and 0.5 riparian miles
	Klickitat River	<ul style="list-style-type: none"> Treat ≈ 17 riparian acres and 0.75 riparian miles 	1997-056-00 : Klickitat Watershed Enhancement	<ul style="list-style-type: none"> Protected 8.4 riparian acres and 0.3 riparian miles Treated 0.3 riparian miles
John Day River	John Day River lower mainstem tributaries	<ul style="list-style-type: none"> Protect ≈ 1168 riparian acres and 141 riparian miles Treat ≈ 20 riparian acres, 345 upland acres, and 14 riparian miles Decommission ≈ 29 riparian acres and 0.2 miles of road Fence 6 riparian and stream miles Install fish screens 	1984-021-00 : John Day Habitat Enhancement 1993-066-00 : Oregon Fish Screens Project 1998-022-00 : Pine Creek Conservation Area 1999-010-00 : Pine Hollow and Jackknife Watershed Restoration 2002-015-00 : Coordination and Technical Assistance to Watershed Councils and Individuals in Sherman	<ul style="list-style-type: none"> Protected 1253.6 acre-ft/year and 3.0 cfs of water flow Treated 5.3 instream miles Fenced 2.9 stream miles Protected 470.7 riparian acres and 34.2 riparian miles Treated 12.5 riparian acres and 9 riparian miles

Attachment 3 - Table 3. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Middle Columbia Steelhead Tributary Habitat Projects

MPG	Population	Summary of 2010 Planned Metrics	Projects Associated with Planned Metrics	2010 completed metrics
			<p>County, Oregon</p> <p>2002-034-00: Riparian Buffers in Wheeler County</p> <p>2002-035-00: Riparian Buffers in Gilliam County</p> <p>2003-017-00: Integrated Status and Effectiveness Monitoring Program (ISEMP)</p> <p>2007-397-00: John Day Passage, Flow and Habitat Enhancement</p>	
	❖ John Day River upper mainstem	<ul style="list-style-type: none"> • Address 6 barriers • Treat 3 riparian acres and 2.5 riparian miles • Install fish screens 	<p>1993-066-00: Oregon Fish Screens Project</p> <p>2007-397-00: John Day Passage, Flow and Habitat Enhancement</p>	<ul style="list-style-type: none"> • Protected 1126.9 acre-ft/year and 12.8 cfs of water flow • Treated 0.5 instream miles • Fenced 0.9 stream miles • Protected 150 riparian acres and 10 riparian miles • Improved access to 13.2 instream miles • Installed 10 fish screens and addressed entrainment at 3 locations.
	❖ Middle Fork John Day River	<ul style="list-style-type: none"> • Address 3 barriers • Treat 0.01 riparian acres and 1.5 riparian miles • Install fish screens 	<p>1993-066-00: Oregon Fish Screens Project</p> <p>2001-041-01: Forrest Ranch Conservation Area</p> <p>2007-397-00: John Day Passage, Flow and Habitat Enhancement</p>	<ul style="list-style-type: none"> • Protected 170.5 acre-ft/year and 0.4 cfs of water flow • Protected 180 riparian acres and 7 riparian miles • Treated 7 riparian miles • Improved access to 15 instream miles • Installed 3 fish screens and addressed entrainment at 1 location
	❖ North Fork John Day River	<ul style="list-style-type: none"> • Protect 2 cfs of instream water • Protect 200 riparian acres and 3.8 riparian miles • Fence 10.5 riparian/stream miles 	<p>1984-021-00: John Day Habitat Enhancement</p> <p>2002-013-01: Water Entity - Water Transaction Program</p>	<ul style="list-style-type: none"> • Protected 356.4 acre-ft/year and 2 cfs of water flow • Treated 1.3 instream miles • Fenced 5.4 stream miles • Improved access to 115.2 instream miles

Attachment 3 - Table 3. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Middle Columbia Steelhead Tributary Habitat Projects

MPG	Population	Summary of 2010 Planned Metrics	Projects Associated with Planned Metrics	2010 completed metrics
				<ul style="list-style-type: none"> Protected 183 riparian acres and 5.8 riparian miles Installed 1 fish screen and addressed entrainment at 1 location
	❖ South Fork John Day River	<ul style="list-style-type: none"> Protect 10 riparian acres and 0.6 riparian miles Treat 2 riparian acres and 5 riparian miles Address 1 barrier Install fish screens 	1984-021-00 : John Day Habitat Enhancement 1993-066-00 : Oregon Fish Screens Project 2007-397-00 : John Day Passage, Flow and Habitat Enhancement	<ul style="list-style-type: none"> Fenced 0.6 stream miles Improved access to 1.5 instream miles Protected 10 riparian acres and 0.6 riparian miles Treated 2 riparian acres and 5 riparian miles
Umatilla and Walla Walla River	Touchet River	<ul style="list-style-type: none"> None for FY10 		<ul style="list-style-type: none"> Protected 768.1 acre-ft/year and 5.5 cfs of water flow
	Umatilla River	<ul style="list-style-type: none"> Treat \approx 4 riparian acres and \approx 0.3 riparian miles Protect \approx 31 riparian acres Address 1 barrier Install, operate, and maintain fish screens 	1983-436-00 : Umatilla Passage Operations and Maintenance 1987-100-01 : Umatilla Anadromous Fish Habitat-Umatilla Tribe 1987-100-02 : Umatilla Anadromous Fish Habitat-Oregon Department of Fish and Wildlife (ODFW) 1993-066-00 : Oregon Fish Screens Project 1995-060-01 : Isquulktpé Watershed Project	<ul style="list-style-type: none"> Treated 0.2 instream miles Protected 456.2 riparian acres and 8.6 riparian miles Treated 2 riparian acres and 5.8 riparian miles Improved access to 7 instream miles Treated 2.2 instream (channel) acres
	Walla Walla River	<ul style="list-style-type: none"> Protect 6.4 cfs of instream water Operate and maintain fish screens and ladder 	2007-217-00 : Walla Walla River Passage O&M 2007-396-00 : Walla Walla Basinwide Tributary Passage and Flow	<ul style="list-style-type: none"> Protected 4832 acre-ft/year and 7.4 cfs of water flow Improved access to 3.2 instream miles
Yakima River Group	Naches River	<ul style="list-style-type: none"> Protect 200 riparian acres and 4.7 riparian miles Protect 15.7 cfs of instream water Address 3 barriers Treat \approx 1 riparian mile 	1988-120-25 : Yakima River Management, Data and Habitat-Yakima/Klickitat Fisheries Project (YKFP) 1992-009-00 : Yakima Phase II Fish	<ul style="list-style-type: none"> Treated 3 instream miles Improve access to 17 instream miles Protected 130 riparian acres and 3 riparian miles

Attachment 3 - Table 3. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Middle Columbia Steelhead Tributary Habitat Projects

MPG	Population	Summary of 2010 Planned Metrics	Projects Associated with Planned Metrics	2010 completed metrics
		<ul style="list-style-type: none"> Operate and maintain fish screens 	<p>Screens O&M with WDFW</p> <p>1995-033-00: Yakima Phase II Fish Screens O&M with BOR</p> <p>1992-062-00: Lower Yakima Valley Riparian Wetlands Restoration</p> <p>2002-013-01: Water Entity - Water Transaction Program</p> <p>2007-398-00: Yakima Basinwide Tributary Passage and Flow</p>	<ul style="list-style-type: none"> Treated 0.5 riparian miles
	Satus Creek	<ul style="list-style-type: none"> Protect 5 riparian acres and 1 riparian mile 	<p>1992-062-00: Lower Yakima Valley Riparian Wetlands Restoration</p>	<ul style="list-style-type: none"> Treated 500 wetland acres Treated 0.8 instream miles Protected 1 riparian acre and 1 riparian mile
	Toppenish	<ul style="list-style-type: none"> Protect 5 riparian acres and 0.75 riparian miles Treat 300 riparian acres Operate and maintain fish screens 	<p>1992-062-00: Lower Yakima Valley Riparian Wetlands Restoration</p> <p>1995-033-00: Yakima Phase II Fish Screens O&M with BOR</p>	<ul style="list-style-type: none"> Treated 0.4 instream miles Improved access to 1 instream mile Protected 139 riparian acres and 3.2 riparian miles
	Yakima River upper mainstem	<ul style="list-style-type: none"> Treat 51 riparian acres and 5 riparian miles Protect 65 riparian acres Address 2 barriers Remove 0.9 miles of diking Operate and maintain fish screens 	<p>1988-120-25: Yakima River Management, Data and Habitat-Yakima/Klickitat Fisheries Project (YKFP)</p> <p>1992-009-00: Yakima Phase II Fish Screens O&M with WDFW</p> <p>1995-033-00: Yakima Phase II Fish Screens O&M with BOR</p> <p>2006-004-00: Wenas Wildlife Mitigation</p> <p>2007-112-00: Teanaway River Watershed Protection</p> <p>2007-398-00: Yakima Basinwide Tributary Passage and Flow</p>	<ul style="list-style-type: none"> Protected 2645.7 acre-ft/year and 11 cfs of water flow Treated 3 floodplain acres Treated 1.7 instream miles Improved access to 112 instream miles Protected 65 riparian acres Treated 0.05 riparian miles Installed 3 fish screens
	Rock Creek	<ul style="list-style-type: none"> Treat 4.5 riparian acres and 0.5 	<p>2007-156-00: Rock Creek Fish and</p>	<ul style="list-style-type: none"> Treated 0.3 riparian miles

Attachment 3 - Table 3. Completed 2010 Tributary Habitat Metrics – BPA Funded Projects – Middle Columbia Steelhead Tributary Habitat Projects

MPG	Population	Summary of 2010 Planned Metrics	Projects Associated with Planned Metrics	2010 completed metrics
		riparian miles	Habitat Assessment	

Status of Tributary Habitat Actions Completed in 2010 with Reclamation Technical Assistance

Table 4 contains metric and metric values for actions completed in 2010 with technical assistance provided by Reclamation. Actions in Table 4 *complement* some of the BPA-funded projects listed in Attachment 3, Tables 1-3. The following abbreviations apply. Streamflow: streamflow protected under state law. Stream length: stream length affected. Type (channel access): D, diversion; C, culvert. Type (channel complexity): R, restore main channel function; S, side channel reconnection. Extent of barrier: P, partial (upstream access seasonably inaccessible prior to action); F, full (absolutely no passage prior to action). Access: miles made accessible to next upstream full or partial barrier. Stream miles affected by screen: miles between action location and next diversion. Complexity miles: length of instream habitat treated after action completed.

Attachment 3 – Table 4. Status of Tributary Habitat Actions Completed in 2010 with Reclamation Technical Assistance that Complement Projects Listed in Attachment 3, Tables 1, 2, and 3

										Streamflow			Access		Entrainment				
BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Latitude	Longitude	Action Start Date	Action End Date	Stream Flow (cfs)	Stream Length (miles)	Type	Extent of Barrier	Access (Miles)	Number of Screens Replaced	Screened Discharge (cfs)	Screened Discharge (A-F/yr)	Stream Miles Affected	Complexity (Miles)
Upper Columbia River Steelhead and Spring Chinook Salmon																			
4326	Entiat	Complexity	Keystone Canyon Project	<p>This project consists of 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 Subbasin 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).</p> <p>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 complete a construction funding proposal.</p> <p>This project was completed by the Yakama Nation as part of their Fish Accord. Reclamation provided survey data.</p>	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 39 54	120 16 05	1/29/2007	9/30/2010	0	0	S		0	0	0	0	0	0.2
4420	Methow	Streamflow	Little Chewuch Streamflow Improvement	The objective of the Little Chewuch Streamflow Improvement Project is to increase flows by 0.5 cfs to enhance critical habitat for T&E Species in the Chewuch River.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	42 25 22	120 07 55	10/15/2009	6/1/2010	0.5	54			0	0	0	0	0	0
4402	Methow	Streamflow	Little Barkley Pipe	Provide design, design support, and construction observation for the conversion of the Little Barkley open canal to an enclosed pipe. Will result in a 0.5 cfs permanent reduction in diversion from the Barkley point of diversion on the	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 25 50	120 09 02	11/11/2009	6/1/2010	0.5	45			0	0	0	0	0	0

Attachment 3 – Table 4. Status of Tributary Habitat Actions Completed in 2010 with Reclamation Technical Assistance that Complement Projects Listed in Attachment 3, Tables 1, 2, and 3

										Streamflow			Access		Entrainment				
BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Latitude	Longitude	Action Start Date	Action End Date	Stream Flow (cfs)	Stream Length (miles)	Type	Extent of Barrier	Access (Miles)	Number of Screens Replaced	Screened Discharge (cfs)	Screened Discharge (A-F/yr)	Stream Miles Affected	Complexity (Miles)
				Methow River.															
4432	Methow	Streamflow	Little Chewuch Water Efficiency Improvement Project	The Methow Salmon Recovery Foundation (MSRF) is requesting supplemental funding for a water efficiency improvement project. This funding can be provided through modification of an existing cooperative agreement with Reclamation. The purpose of this project is to permanently increase stream flows in the lower 8 miles of the Chewuch River by 0.5 cfs. This streamflow increase will be realized by piping the water distribution system to unincorporated CCC water users, thereby reducing the streamflow diversion previously needed to meet these water right demands by 0.5 cfs. In a separate Diversion Reduction Agreement with the WRC, the Water Users of the Unincorporated CCC agree to reduce the amount of water they receive from CCC by a total of 0.5 cfs. The CCC agrees to permanently reduce its diversion from the Chewuch River by 0.5 cfs. The Diversion Reduction agreement assures that this water will be protected for instream purposes through the Washington State Water Trust Program. This project advances objectives of the 2005 Chewuch Diversion Reduction Agreement.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 56	120 18	10/30/2009	9/30/2010	0.5	8	A		0	0	0	0	0	0
4034	Methow	Access	MVID East Canal Diversion Dam	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	10/30/2010	0	0	D	P	60	0	0	0	0	0.5
Snake River Steelhead and Spring/Summer Chinook Salmon																			

Attachment 3 – Table 4. Status of Tributary Habitat Actions Completed in 2010 with Reclamation Technical Assistance that Complement Projects Listed in Attachment 3, Tables 1, 2, and 3

										Streamflow			Access		Entrainment				
BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Latitude	Longitude	Action Start Date	Action End Date	Stream Flow (cfs)	Stream Length (miles)	Type	Extent of Barrier	Access (Miles)	Number of Screens Replaced	Screened Discharge (cfs)	Screened Discharge (A-F/yr)	Stream Miles Affected	Complexity (Miles)
4461	Lemhi	Access	Lemhi Little Springs SH-28 Culvert Replacements	Lemhi Little Springs Creek is a spring-fed tributary to the Lemhi River. It enters the Lemhi at RM 39.5. The tributary is considered by Idaho Department of Fish and Game (IDFG) to be high value habitat for juvenile Chinook salmon and steelhead. Two culverts that conveyed Little Springs Creek under State Highway 28 were identified by IDFG as potential fish migration barriers and were replaced with larger squash CMP culverts. Reclamation assisted by providing a cultural resource survey and State Historic Preservation Office (SHPO) clearance. Lidar flown in 2008 was also made available to the Upper Salmon Basin Watershed Program (USBWP) for use in design and permitting for this project.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 46 12	113 31 21	7/31/2007	10/29/2010				F	4					
4324	Pahsimeroi	Access	Big springs Creek 7-8 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	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 56 28	113 88 87	8/1/2007	8/30/2010	0	0	D		2.9	0	0	0	0	0
4400	Pahsimeroi	Access	Big Springs Creek 3 Diversion Enhancement	Salmon and steelhead utilize Big Springs Creek for spawning and rearing habitat, as do bull trout. Big Springs 3 diversion is a wooden structure that utilizes horizontal boards to check up the water in the creek for diversion into the ditch, which restricts fish passage. 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 still allowing the irrigators to continue diverting water.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 36 69	113 56 24	7/2/2008	8/30/2010	0	0	D	P	2.5	0	0	0	0	0
4410	Pahsimeroi	Access	Big Springs Creek 1 Diversion Enhancement	Big Springs Creek (also referred to as Patterson Creek) is a tributary to the Pahsimeroi River. Salmon and steelhead utilize Big Springs Creek for spawning and rearing habitat, as do bull trout. Big Springs 3 diversion is a wooden structure that utilizes horizontal boards to check up the water in the creek for diversion into the ditch. Fish passage is restricted when these check boards are in place. 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 water.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 36 55	113 57 54	7/2/2008	8/30/2010	0	0	D	P	2.5	0	0	0	0	0

Attachment 3 – Table 4. Status of Tributary Habitat Actions Completed in 2010 with Reclamation Technical Assistance that Complement Projects Listed in Attachment 3, Tables 1, 2, and 3

										Streamflow			Access		Entrainment				
BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Latitude	Longitude	Action Start Date	Action End Date	Stream Flow (cfs)	Stream Length (miles)	Type	Extent of Barrier	Access (Miles)	Number of Screens Replaced	Screened Discharge (cfs)	Screened Discharge (A-F/yr)	Stream Miles Affected	Complexity (Miles)
4426	Pahsimeroi	Access	Big Springs Creek 4 Diversion Enhancement	Big Springs Creek (also referred to as Patterson Creek) is a tributary to the Pahsimeroi River. Salmon and steelhead utilize Big Springs Creek for spawning and rearing habitat, as do bull trout. Big Springs 4 diversion is a canvas dam stretching across the creek. Fish passage is restricted when the canvas dam is in place. This project proposes to remove the existing check structure and replace it with a small in-stream rock structure that would allow fish passage while also allowing diversion for irrigation. The in-stream construction window in Big Springs Creek is the 2nd week of July through the 3rd week of August. Construction will take place during this period in 2010.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 34 15	113 54 38	8/1/2009	8/30/2010	0	0	D	P	1.7	0	0	0	0	0
4427	Pahsimeroi	Access	Big Springs Creek 6 Diversion Enhancement	This project removed the existing check structure and replaced it with a structure that allows fish passage at all times.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 35 51	113 53 55	8/1/2009	8/30/2010	0	0	D	P	0.25	0	0	0	0	0
Mid-Columbia River Steelhead																			
4416	John Day Upper Main	Complexity	UJD Forrest Property RM 264.7 Enhancement	The Confederated Tribes of Warm Spring Reservation of Oregon owns the Forrest Conservation Area on the Upper John Day River. Past management activities have simplified the river system by blocking off side channels, straightening sections, and hardening bends with rip rap. This project would add complexity back into the system with addition of a few large wood structures, opening access to historic flood plains and side channels, and removing riprap on a .3 mile reach of the river.	Middle Columbia River Steelhead	44 27 09	118 40 32	5/18/2009	7/27/2010	0	0	R		0	0	0	0	0	0.3
4345	John Day Middle Fork	Access	Boulder Creek Ranch Diversion	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	8/20/2010	0	0	D	P	13	0	0	0	0	0
4348	John Day Upper Main	Access	Cummings Creek Pump	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 26 47	119 22 19	6/28/2008	8/20/2010	0.54	1.5	D	P	3.5	1	0.54	0	3.5	0

Attachment 3 – Table 4. Status of Tributary Habitat Actions Completed in 2010 with Reclamation Technical Assistance that Complement Projects Listed in Attachment 3, Tables 1, 2, and 3

										Streamflow			Access		Entrainment				
BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Latitude	Longitude	Action Start Date	Action End Date	Stream Flow (cfs)	Stream Length (miles)	Type	Extent of Barrier	Access (Miles)	Number of Screens Replaced	Screened Discharge (cfs)	Screened Discharge (A-F/yr)	Stream Miles Affected	Complexity (Miles)
4388	John Day Upper Main	Complexity	Blanchette Habitat Project	The Blanchette property is 7 miles west of Mt. Vernon, Oregon, and is bisected by the Upper John Day River. Oregon Department of Fish and Wildlife (ODFW) biologists have indicated that salmonids move to this section of river for overwintering but there is currently a lack of pool and cover habitat in any season. Also, two sections of river bank on the property are actively eroding, causing losses in bank vegetation and fine sediment issues downstream. The Grant Soil and Water Conservation District (SWCD) will assist the landowner in using constructed log jam or rootwad structure placements to add pool and cover needed to improve fish habitat conditions and reduce sediment loads associated with bank erosion on the mainstem John day River. Vegetative plantings and fencing will be used along with the woody materials to rehabilitate the banks and improve fish habitat.	Middle Columbia River Steelhead	44 25 39	119 15 10	12/15/2009	8/20/2010	0	0	R		0	0	0	0	0	0.28
4350	John Day Upper Main	Access	Oliver Ditch # 47 (UPJD RM 253.3) Diversion (combined with Oliver #48 in 2008)	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	8/30/2010	0	0	D	F	1	0	0	0	0	0
4351	John Day Upper Main	Access	Oliver Ditch # 48 (UPJD RM 253.2) Diversion (combined with Oliver # 47 in 2008)	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	8/30/2010	0	0	D	P	0.1	0	0	0	0	0
4353	John Day Upper Main	Access	Oliver Ditch # 49 Diversion (UPJD RM 252.3)	The Oliver Ditch # 49 Diversion project is located 4 miles east of John Day on 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 flow to all life stages but at higher flows, when the dam is partially washed out, it is a partial barrier.	Middle Columbia River Steelhead	44 25 14	118 52 36	7/28/2008	8/30/2010	0	0	D	F	1	0	0	0	0	0

Status Of Tributary Habitat Actions Completed in 2010 with Reclamation Technical Assistance

Table 5 contains metric and metric values for actions completed in 2010 with technical assistance provided by Reclamation. Actions in Table 5 *supplement* the BPA-funded projects listed in Attachment 3, Tables 1-3. The following abbreviations apply. Streamflow: streamflow protected under State law. Stream length: stream length affected. Type (channel access): D, diversion; C, culvert. Type (channel complexity): R, restore main channel function; S, side channel reconnection. Extent of barrier: P, partial (upstream access seasonably inaccessible prior to action); F, full (absolutely no passage prior to action). Access: miles made accessible to next upstream full or partial barrier. Stream miles affected by screen: miles between action location and next diversion. Complexity miles: length of instream habitat treated after action completed.

Attachment 3 – Table 5. Status of Tributary Habitat Actions Completed in 2010 with Reclamation Technical Assistance that Supplement Projects Listed in Attachment 3, Tables 1, 2, and 3

										Streamflow			Access		Entrainment				
BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Latitude	Longitude	Action Start Date	Action End Date	Stream Flow (cfs)	Stream Length (miles)	Type	Extent of Barrier	Access (Miles)	Number of Screens Replaced	Screened Discharge (cfs)	Screened Discharge (A-F/yr)	Stream Miles Affected	Complexity (Miles)
Upper Columbia River Steelhead and Spring Chinook Salmon																			
4357	Entiat	Complexity	Entiat National Fish Hatchery (ENFH) Habitat Channel (Bridge to Bridge Restoration, Phase 5)	The US Fish and Wildlife Service (USFWS) and Reclamation are collaborating on a multi-faceted project at the ENFH that incorporates existing infrastructure into a new project to provide off-channel spawning and rearing habitat for ESA-listed species	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	47 41 51	120 19 18	1/14/2008	9/30/2010	0	0	S		0	0	0	0	0	0.3
4396	Methow	Access	Heath Middle Pond Fish Passage	Replace three impassable culverts with bridges to restore fish access in and out of the middle pond on the Heath property in the Big Valley Reach.	Upper Columbia River Spring Chinook Salmon Upper Columbia River Steelhead	48 30 23	120 15 32	1/23/2009	9/30/2010	0	0	C	F	0.5	0	0	0	0	0
Snake River Steelhead and Spring/Summer Chinook Salmon																			
4463	Lemhi	Access	Lower Iron Creek Culvert Replacement	Iron Creek is a tributary to the Salmon River. A culvert that conveyed Iron Creek under a county road was identified by IDFG as a fish passage barrier and was replaced with a pre-fabricated steel bridge to provide improved fish passage under the county road. Reclamation assisted by providing an archeologist to conduct a cultural resource survey/report used to obtain SHPO clearance.	SNAKE RIVER Spring/Summer Chinook Salmon Snake River Steelhead	44 53 24	113 58 26	8/15/2007	8/16/2010			C	F	4					
4462	Lemhi	Access	Little Springs Creek Rehabilitation	IDFG obtained Pacific Coastal Salmon Recovery Fund (PCSRF) funding to re-direct an off channel spring source and establish a new channel and physical connection with a tributary of the Lemhi River (Little Springs Creek) to enhance flows, reduce water temperatures, and create additional habitat for Chinook and steelhead. The project entailed developing the spring source, re-directing flow around a pond, and rehabilitating and constructing additional stream channel to connect the spring source with Little Springs Creek.	SNAKE RIVER Spring/Summer Chinook Salmon Snake River Steelhead	44 45 41	113 30 50	1/3/2007	10/29/2010					0.3					

Attachment 3 – Table 5. Status of Tributary Habitat Actions Completed in 2010 with Reclamation Technical Assistance that Supplement Projects Listed in Attachment 3, Tables 1, 2, and 3

										Streamflow			Access		Entrainment				
BiOp ID	Subbasin	Limiting Factor	Project Title	Short Description	ESU/DPS	Latitude	Longitude	Action Start Date	Action End Date	Stream Flow (cfs)	Stream Length (miles)	Type	Extent of Barrier	Access (Miles)	Number of Screens Replaced	Screened Discharge (cfs)	Screened Discharge (A-F/yr)	Stream Miles Affected	Complexity (Miles)
4462	Lemhi	Complexity	Little Springs Creek Rehabilitation	IDFG obtained PCSRF funding to re-direct an off channel spring source and establish a new channel and physical connection with a tributary of the Lemhi River (Little Springs Creek) to enhance flows, reduce water temperatures. and create additional habitat for Chinook and steelhead. The project entailed developing the spring source, re-directing flow around a pond, and rehabilitating and constructing additional stream channel to connect the spring source with Little Springs Creek.	Snake River Spring/Summer Chinook Salmon Snake River Steelhead	44 45 41	113 30 50	1/3/2007	10/29/2010										0.3
Mid-Columbia River Steelhead																			
4319	John Day Middle Fork	Complexity	CTWSRO Oxbow Reach Assessment (MCA)	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.	Middle Columbia River Steelhead			9/5/2007	3/19/2010	0	0			0	0	0	0	0	0
4318	John Day Middle Fork	Complexity	CTWSRO (MCA) 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 a 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 effort will serve as a foundation for subsequent project design packages.	CTWSRO			9/18/2007	8/19/2010	0	0			0	0	0	0	0	0

Attachment 4: Tributary Habitat Reports by the Bureau Of Reclamation

Attachment 4 – Table 1. Tributary Habitat Reports by the Bureau of Reclamation

Report Name	Internet Address	Date
Reclamation's 2009 Annual Report of Tributary Habitat Projects Completed for the 2008 Federal Columbia River Power System Biological Opinion	http://www.usbr.gov/pn/programs/fcrps/thp/other/2009habitatannualreport.pdf	Dec-10
<u>Washington</u>		
<u>Entiat</u>		
Entiat Tributary Assessment	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/entiat/tribassmt/index.html	Jan-09
Preston Reach Assessment	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/entiat/prestonreach/index.html	Jul-09
Stormy Reach Assessment	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/entiat/stormyreach/stormy-assmt.pdf	Nov-09
<u>Methow</u>		
Middle Methow Reach Assessment	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/index.html	Aug-10
Middle Methow Reach Assessments – Technical Appendices	http://www.usbr.gov/pn/programs/fcrps/thp/ucao/methow/m2reachassmt/app.pdf	Aug-10
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/geomorphicasessment/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
<u>Wenatchee</u>		
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

Attachment 4 – Table 1. Tributary Habitat Reports by the Bureau of Reclamation

Report Name	Internet Address	Date
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
<u>Oregon</u>		
<u>General Documents</u>		
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
<u>Middle Fork John Day</u>		
Forrest Conservation Area Reach Assessment Middle Fork John Day River	http://www.usbr.gov/pn/programs/fcrps/thp/lcao/middlefork/forestreachasmt.pdf	Aug-10
Oxbow Conservation Area Reach Assessment Middle Fork John Day River	http://www.usbr.gov/pn/programs/fcrps/thp/lcao/oxbowreach.pdf	March-10
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
Geomorphology and Hydraulic Model Analysis of the Oxbow Conservation Area	http://www.usbr.gov/pn/programs/fcrps/thp/lcao/oxbow/index.html	Jun-09
<u>Idaho</u>		
<u>Lemhi</u>		
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

Attachment 4 – Table 1. Tributary Habitat Reports by the Bureau of Reclamation

Report Name	Internet Address	Date
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/L3AO/L3AO-inspection.pdf	Apr-07
<u>Little Salmon</u>		
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
<u>Upper Salmon</u>		
Completion Report: East Fork Salmon River EF/10 and EF/11 Irrigation Diversion Consolidation Project	http://www.usbr.gov/pn/programs/fcrps/thp/srao/upper-salmon/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/upper-salmon/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/upper-salmon/completion/s1314/inspection/S11-12-inspection.pdf	Jun-07

Attachment 5: Action Agency 2010 Estuary Habitat Projects

Attachment 5 – Table 1. Projects Shown in the 2010-2013 Implementation Plan as "Under Contract"

Project Number	Project Name	Lead Agency/ Sponsor	Location (Reach A-H)	Limiting Factors	Type of Action Planned	Actions Taken in 2010	Status	2010 completed metrics
2003-011-00	Mirror Lake	BPA /Oregon Dept. of Parks (Parametrix)	H	Water temperature Reduced macrodetrital inputs Exotic plants	Riparian Plantings	Placed 75 conifers with root balls in stream improving channel complexity.	Complete	1 linear mile stream/channel improved
2003-011-00 1999-025-00	Sandy River Delta	BPA / USFS (Ash Creek Forestry)	E	Water temperature Reduced macrodetrital inputs Exotic plants	Riparian Plantings	Apply herbicides to non-native species on 397 acres; maintain native vegetation on 152 acres; and plant native vegetation species on 355 acres.	Complete	Plant/maintain native vegetation and remove invasive species in riparian wetlands on 687 acres
2003-011-00	Tryon Creek	BPA / City of Portland	E	Water temperature Reduced macrodetrital inputs Exotic plants	Riparian Plantings		Project was implemented by City of Portland without assistance from BPA	
	Oaks Bottom Section 536	Corps / City of Portland	E	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants Water temperature	Culvert Replacement Riparian plantings	Initiated feasibility study	Feasibility study ongoing	
2010-004-00 2003-011-00	Megler Creek	BPA / CREST	B	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Culvert Replacement		Project will not be implemented and replacement project will be identified	
2003-011-00	Deer Island Restoration	BPA / Columbia SWCD	E	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidegate Retro		Project will not be implemented and replacement project will be identified	
2003-011-00	Mudd Lake Restoration	BPA /Clark County	E	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Land Acquisition and floodplain restoration	BPA worked with CLT and Clark County on the proposed acquisition and pre-planning phase of this project including getting an appraisal in place, working with LCREP and Clark County to write a restoration/management plan and negotiations with landowner.	Continue acquisition negotiations with landowner in cooperation with CLT and Clark County	

Attachment 5 – Table 1. Projects Shown in the 2010-2013 Implementation Plan as "Under Contract"

Project Number	Project Name	Lead Agency/ Sponsor	Location (Reach A-H)	Limiting Factors	Type of Action Planned	Actions Taken in 2010	Status	2010 completed metrics
2003-011-00	Mill Road (Grays River)	BPA / Columbia Land Trust	B	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Dike Breach	Design phase completed in 2010 and continued ongoing landowner negotiations.	Construction in 2011	
2010-004-00 2003-011-00	Fort Columbia	BPA / CREST	A	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Culvert Replacement	Complete final design and permitting .	Construction in 2011	
2010-004-00 2003-011-00	Otter Point	BPA / CREST	A	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Dike Breach	Excavate tidal channels, construct a crossdike, remove invasive species and seediand replant disturbed wetland areas.	Phase 1 complete in 2010; Phase II will be completed in 2011	Phase 1 completed including 1 linear mile stream/channel improved and plant/maintain native vegetation and remove invasive species in riparian wetlands on 28 acres
P2#145653	Dairy Creek / Sturgeon Lake	Corps / WMSWCD	F	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidal Reconnection in multiple locations	Section 1135 feasibility study	Section 1135 feasibility study on-going	
P2#142455	Vancouver Water Resources Wetland	Corps / City of Vancouver	E	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidal Reconnection	Pilot channel completed. Monitored site for channel stability	Pilot project complete.	
P2#1173986	Julia Butler Hansen	Corps / USFWS	B	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidegate replacement-fish friendly		Completed	
P2#142456	Sandy River Dike Breach	Corps / USFS	G	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Dike Removal	Section 536 study initiated	Feasibility study on-going	

Attachment 5 – Table 1. Projects Shown in the 2010-2013 Implementation Plan as "Under Contract"

Project Number	Project Name	Lead Agency/ Sponsor	Location (Reach A-H)	Limiting Factors	Type of Action Planned	Actions Taken in 2010	Status	2010 completed metrics
P2#323863 2009-016-00	Abernathy Creek Tidal Restoration	Corps / WDFW BPA / WDFW	C	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidal Reconnection to wetlands-stream complexity	Section 536 study initiated	Feasibility study on-going	
P2#323863 2009-016-00	Cotton-wood Island	Corps / WDFW BPA / WDFW	D	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidal Reconnection		Section 536 study on hold pending additional information	
P2#323863 2009-016-00	Hump-Fisher Shallow Water	Corps / WDFW BPA / WDFW	C	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidal Reconnection		Section 536 study on hold pending additional information	
P2# 331430	Post Office Lake	Corps / USFWS	F	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidal Reconnection levee breach	Initiated	Section 536 in pre-feasibility study stage.	
P2# 323863 2009-016-00	Shillapoo Wildlife Area	Corps / WDFW BPA / WDFW	F	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidal Reconnection	Conducted pre-feasibility study scoping	Feasibility study ongoing	
1991-078-00	John R Palensky	Corps / BPA	F	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidal Reconnection levee breach	Completed feasibility process -	Project will not be implemented and replacement project will be identified	

Attachment 5 – Table 1. Projects Shown in the 2010-2013 Implementation Plan as "Under Contract"

Project Number	Project Name	Lead Agency/ Sponsor	Location (Reach A-H)	Limiting Factors	Type of Action Planned	Actions Taken in 2010	Status	2010 completed metrics
2003-011-00	Pile Structure Removal	BPA / Estuary Partnership	TBD	Sediment-nutrient-related estuary changes Sediment/nutrient-related plume changes Exotic fish Native birds Bioaccumulation toxicity	Piling Removal	Carried out field work for structural, hydraulic and environmental analysis of pile dikes, and began analysis.	Structural, hydraulic and environmental analysis of pile dikes underway. Completion expected for 2011. Feasibility, design and Implementation can begin after Corps studies are concluded.	
2003-011-00	Pile Structure Removal	BPA / Estuary Partnership	TBD	Sediment-nutrient-related estuary changes Sediment/nutrient-related plume changes Exotic fish Native birds Bioaccumulation toxicity	Piling Removal	Carried out field work for structural, hydraulic and environmental analysis of pile dikes, and began analysis.	Structural, hydraulic and environmental analysis of pile dikes underway. Completion expected for 2011. Feasibility, design and Implementation can begin after Corps studies are concluded.	
2003-011-00	Pile Structure Removal	BPA / Estuary Partnership	TBD	Sediment-nutrient-related estuary changes Sediment/nutrient-related plume changes Exotic fish Native birds Bioaccumulation toxicity	Piling Removal	Carried out field work for structural, hydraulic and environmental analysis of pile dikes, and began analysis.	Structural, hydraulic and environmental analysis of pile dikes underway. Completion expected for 2011. Feasibility, design and Implementation can begin after Corps studies are concluded.	
2003-011-00	Lower Chinook River Acquisition	BPA / Columbia Land Trust	A	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidal Reconnection		Project will not be implemented and replacement project will be identified	

Attachment 5 – Table 2. Projects Shown in the 2010 – 2013 Implementation Plan as “Under Development”

Project Number	Project Name	Lead Agency/ Sponsor	Location (Reach A-H)	Limiting Factors	Type of Action Planned	Actions Taken in 2010	Status	2010 completed metrics
2010-073-00	Reach A-H Acquisition/ Restoration	BPA / Columbia Land Trust	TBD	Reduced macrodetrital inputs Sediment/nutrient- related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Acquisition/ Restoration		Under Development	
2010-073-00	Reach A-H Acquisition/ Restoration	BPA / Columbia Land Trust	TBD	Reduced macrodetrital inputs Sediment/nutrient- related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Acquisition/ Restoration		Under Development	
2010-073-00	Reach A-H Acquisition/ Restoration	BPA / Columbia Land Trust	TBD	Reduced macrodetrital inputs Sediment/nutrient- related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Acquisition/ Restoration		Under Development	
2010-073-00	Reach A-H Acquisition/ Restoration	BPA / Columbia Land Trust	TBD	Reduced macrodetrital inputs Sediment/nutrient- related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Acquisition/ Restoration		Under Development	
2010-073-00	Reach A-H Acquisition/ Restoration	BPA / Columbia Land Trust	TBD	Reduced macrodetrital inputs Sediment/nutrient- related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Acquisition/ Restoration		Under Development	
2010-073-00	Reach A-H Acquisition/ Restoration	BPA / Columbia Land Trust	TBD	Reduced macrodetrital inputs Sediment/nutrient- related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Acquisition/ Restoration		Under Development	
2010-073-00	Reach A-H Acquisition/ Restoration	BPA / Columbia Land Trust	TBD	Reduced macrodetrital inputs Sediment/nutrient- related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Acquisition/ Restoration		Under Development	
2003-011-00	Reach A-H Restoration	BPA / TBD	TBD	Water temperature Reduced macrodetrital inputs Exotic plants	Riparian Plantings		Under Development	
2003-011-00	Reach A-H Restoration	BPA / TBD	TBD	Water temperature Reduced macrodetrital inputs Exotic plants	Riparian Plantings		Under Development	
2003-011-00	Reach A-H Restoration	BPA / TBD	TBD	Reduced macrodetrital inputs Sediment/nutrient- related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Restore Degraded Off- Channel Habitats		Under Development	
2003-011-00	Reach A-H Restoration	BPA / TBD	TBD	Reduced macrodetrital inputs Sediment/nutrient- related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Restore Degraded Off- Channel Habitats		Under Development	

Attachment 5 – Table 2. Projects Shown in the 2010 – 2013 Implementation Plan as “Under Development”

Project Number	Project Name	Lead Agency/ Sponsor	Location (Reach A-H)	Limiting Factors	Type of Action Planned	Actions Taken in 2010	Status	2010 completed metrics
2003-011-00	Reach A-H Restoration	BPA / TBD	TBD	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidegate replacement-fish friendly		Under Development	
2003-011-00	Reach A-H Restoration	BPA / TBD	TBD	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidegate replacement-fish friendly		Under Development	
2003-011-00	Reach A-H Restoration	BPA / TBD	TBD	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Culvert Replacement		Under Development	
2003-011-00	Reach A-H Restoration	BPA / TBD	TBD	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Culvert Replacement		Under Development	
2010-004-00	Reach A-H Restoration	BPA / CREST	TBD	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidal Reconnection		Under Development	
2010-004-00	Reach A-H Restoration	BPA / CREST	TBD	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Tidal Reconnection		Under Development	
2010-004-00	Reach A-H Restoration	BPA / CREST	TBD	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Culvert Replacement		Under Development	
2010-004-00	Reach A-H Restoration	BPA / CREST	TBD	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Culvert Replacement		Under Development	
2010-004-00	Reach A-H Restoration	BPA / CREST	TBD	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Dike Breach		Under Development	
2010-004-00	Reach A-H Restoration	BPA / CREST	TBD	Reduced macrodetrital inputs Sediment/nutrient-related estuary changes Bankfull elevation changes Sediment/nutrient-related plume changes Exotic plants	Dike Breach		Under Development	

Attachment 5 – Table 3. New Projects Not Listed in the 2010-2013 Implementation Plan

Project Number	Project Name	Lead Agency/ Sponsor	Location (Reach A-H)	Limiting Factors	Type of Action Planned	Actions Taken in 2010	Status	2010 completed metrics
2010-004-00	Chinook River Diversion Habitat Re-connection	BPA / WDFW	A	Temperature Flow-related changes in access to off-channel habitats Reduced macrodetrital inputs	Diversion Habitat Reconnection	Project scoping including data collection and pre-feasibility	Implementation scheduled for 2012	
2010-017-00	Duncan Creek Chum Channel Restoration Phase 2	BPA / WDFW	H	Reduced off-channel habitat opportunity Reduced macrodetrital inputs	Channel Restoration	Project scoping including data collection and pre-feasibility	Implementation scheduled for 2012	
2010-004-00	Fort Columbia	BPA / CREST	A	Flow-related changes in access to off-channel habitat Sediment/nutrient-related estuary habitat changes Reduced macrodetrital inputs Water temperature	Culvert Replacement	Completed final design	Complete - project constructed 2010-2011	
2010-073-00	Germany Creek Restoration	BPA / CLT	C	Reduced off-channel habitat opportunity Bankfull elevation changes Water temperature Reduced macrodetrital inputs	Floodplain restoration	Initiate preliminary design work at restoration site and perform elevation surveys to aid in restoration approaches.	Implementation scheduled for in 2012	
2010-073-00	Haven Island	BPA / CLT	A	Reduced off-channel habitat opportunity Bankfull elevation changes Water temperature Reduced macrodetrital inputs	Levee Breach	Reconnected 700 feet of historical tidal channels to the estuary by removing 500 feet of existing levee, and opened 800 feet of historical tidal channels by removing a tidegate. Removed yellow-flagged iris, purple loosestrife, holly and non-native blackberries on 80 acres and replanted one acre with native plants (4750 plants).	Complete	Reconnected 700 feet of historical tidal channels to the estuary by removing 500 feet of existing levee, and opened 800 feet of historical tidal channels. Removed non-native species on 80 acres and replanted one acre with native plants
2010-073-00	Elochoman Slough Restoration	BPA / CLT	B	Reduced off-channel habitat opportunity Bankfull elevation changes Water temperature Reduced macrodetrital inputs	Restore tidal hydrology (tide-gate removal/replacement and culvert removal)	Initiate preliminary design work at restoration site and perform elevation surveys to aid in restoration approaches	Feasibility Phase	
	Westmore-land	Corps	F	Reduced off-channel habitat opportunity Bankfull elevation changes Water temperature Reduced macrodetrital inputs	Culvert Removals	Awarded contract for construction of phase I. Awarded contract for plans and specs for phase 2.	Ongoing. Construction scheduled for 2012.	

* 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.