Endangered Species Act
Federal Columbia River Power System
2014 Annual 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 Completed or in Progress in 2014

Attachment 1 - Table 1. BPA Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Project No.	Agency	Project Title	RPA Association Status	Project Information Internet Link
Hydro	Develop and Implement a Kelt Management Plan	33	All	2007-401-00	BPA	Kelt Reconditioning and Reproductive Success Evaluation Research	Continuing	http://www.cbfish.org/Project.mvc/Display/2007-401-00
Hatchery	Execute on Safety Net and Conservation Objectives	41	All	1997-038-00	BPA	Listed Stock Chinook Salmon Gamete Preservation	Continuing	http://www.cbfish.org/Project.mvc/Display/1997-038-00
Hatchery	Execute on Safety Net and Conservation Objectives	41	1	2007-402-00	BPA	Snake River Sockeye Captive Propagation	Continuing	http://www.cbfish.org/Project.mvc/Display/2007-402-00
Hatchery	Execute on Safety Net and Conservation Objectives	41	5	2007-403-00	BPA	Spring Chinook Captive Propagation-Idaho	Continuing	http://www.cbfish.org/Project.mvc/Display/2007-403-00
Hatchery	Execute on Safety Net and Conservation Objectives	41	3	2007-404-00	BPA	Spring Chinook Captive Propagation-Oregon	Continuing	http://www.cbfish.org/Project.mvc/Display/2007-404-00
Hatchery	Execute on Safety Net and Conservation Objectives	41	4	1996-043-00	BPA	Johnson Creek Artificial Propagation Enhancement Project	Continuing	http://www.cbfish.org/Project.mvc/Display/1996-043-00
Hatchery	Execute on Safety Net and Conservation Objectives	41	2	2000-019-00	BPA	Tucannon River Spring Chinook Captive Brood	Continuing	http://www.cbfish.org/Project.mvc/Display/2000-019-00
Hatchery	Execute on Safety Net and Conservation Objectives	42	6	1988-053-01	BPA	Northeast Oregon Hatchery Master Plan	Continuing	http://www.cbfish.org/Project.mvc/Display/1988-053-01
Hatchery	Execute on Safety Net and Conservation Objectives	42	9,10	2008-710-00	BPA	Development of an Integrated strategy for Chum Salmon Restoration in the tributaries below Bonneville Dam	Continuing	http://www.cbfish.org/Project.mvc/Display/2008-710-00
Hatchery	Execute on Safety Net and Conservation Objectives	42	1	2003-023-00	BPA	Chief Joseph Hatchery Program	Continuing	http://www.cbfish.org/Project.mvc/Display/2003-023-00
Hatchery	Execute on Safety Net and Conservation Objectives	42	3	2007-212-00	BPA	Okanogan Basin Locally Adapted Steelhead Broodstock Step 1 and 2 (Casimer Bar)	Continuing	http://www.cbfish.org/Project.mvc/Display/2007-212-00
Hatchery	Execute on Safety Net and Conservation Objectives	42	4	2007-401-00	BPA	Kelt Reconditioning and Reproductive Success Evaluation Research	Continuing	http://www.cbfish.org/Project.mvc/Display/2007-401-00
Hatchery	Execute on Safety Net and Conservation Objectives	42	7, 8	2007-402-00	BPA	Snake River Sockeye Captive Propagation	Continuing	http://www.cbfish.org/Project.mvc/Display/2007-402-00

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Project No.	Agency	Project Title	RPA Association Status	Project Information Internet Link
Hatchery	Execute on Safety Net and Conservation Objectives	42	2	2008-458-00	BPA	Steelhead Kelt Reconditioning	Continuing	http://www.cbfish.org/Project.mvc/Display/2008-458-00
Predation	Implement Piscivorous Predation Control Measures	43	All	1990-077-00	BPA	Development of System-wide Predator Control	Continuing	http://www.cbfish.org/Project.mvc/Display/1990-077-00
Predation	Implement Piscivorous Predation Control Measures	44	All	2008-718-00	BPA	Non-Native Fish Hot Spots	Completed in 2013 but not reported until 2014	https://pisces.bpa.gov/release/documents/DocumentViewer.aspx?doc=P135999
Predation	Implement Piscivorous Predation Control Measures	44	All	2008-719-00	BPA	Research Non-Indigenous Actions	Completed in 2013 but not reported until 2014	https://pisces.bpa.gov/release/documents/DocumentViewer.aspx?doc=P136245
Predation	Implement Marine Mammal Control Measures	49	All	2008-004-00	BPA	Sea Lion Non-Lethal Hazing	Continuing	http://www.cbfish.org/Project.mvc/Display/2008-004-00

Attachment 1 - Table 2. Reclamation Project List

H-Section	BiOp Strategy	Action No.	Sub-Action No.	Project No.	Agency	Project Title	RPA Association Status
Hatchery	Ensure Funded Hatchery Programs are not Impeding Recovery	40	4	N/A	Reclamation USFWS	Implementation of PASS Proposals for Addressing Steelhead Management Concerns at Winthrop National Fish Hatchery (via USFWS)	Continuing
Predation	Implement Avian Predation Control Measures	47	All	1811	Reclamation Corps	Avian Predation Management at Potholes Reservoir (Implement Inland Avian Predation Management Plan, if appropriate)	Continuing

Attachment 2: Summary of 2014 Tributary Habitat Accomplishments by Population

Attachment 2 - Table 1. Summary of 2014 Tributary Habitat Accomplishments by Population

This table summarizes metrics at the population level for tributary habitat measures implemented with funding from BPA and/or with technical assistance from the Bureau of Reclamation (Reclamation) in 2014. BPA uses Pisces, a contract management system, to track and record planned and actual work accomplishments. Details for BPA projects can be found in Pisces via the links provided. Details of Reclamation projects are in Attachment 2, Table 2, accessible by the links provided. 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: Projects and metrics may be reported twice in this attachment (once under each ESU/DPS) if they improve habitat for both Chinook salmon ESU and steelhead DPS.
Metric definitions: Metrics planned are from the 2014-2018 Implementation Plan. Metrics completed were reported from projects and standardized into categories and units as much as possible. Definitions and units are listed below.

Flow: Water protected by efficiency improvements and water purchase/lease projects, reported as either volume in acre-feet per year (af) or as river flow in cubic feet per second (cfs).

Entrainment: Number of screens addressed can include new screens installed, existing screens improved for compliance with criteria, or entrainment issues addressed by elimination/consolidation of diversions.

Passage: Number of barriers addressed by providing passage or removing the barrier, reported to include number of miles of access improved by addressing the barriers.

Complexity: Miles of Instream channel improved by adding habitat features via wood or boulder structures, or reconnecting existing habitat such as side channels.

WQ/Riparian: Projects undertaken to improve water quality by enhancing or protecting instream habitat or riparian function are reported in four different ways as described below.
Stream Miles Protected: Miles of stream habitat protected, typically by land purchases or conservation easements that improve land use practices such as excluding cattle from the stream.
Stream Miles Improved: Miles of stream habitat improved, typically by projects that enhance the function of the streambank such as planting native vegetation on the streambanks.
Riparian Acres Protected: Acres of riparian habitat protected by purchases or conservation easements that improve land use practices, allowing natural processes to reestablish riparian habitat.
Riparian Acres Improved: Acres of riparian habitat improved by projects to improve riparian habitat such as planting native vegetation or control of noxious weeds. Includes wetland acres.

» *These populations are not in the 2008 Biological Opinion for the FCRPS RPA Action 35 Table 5 and therefore expert panels have not been established to evaluate habitat conditions, limiting factors, actions and planned metrics.*

** These populations, also displayed in bold, are listed as "Priority Populations" in the 2008 Biological Opinion for the FCRPS RPA Action 35, Table 5.*

			Limiting Factors Identified	Metric Category	2013 - 2018 Planned Metrics	2014 Completed Metrics (Annual Report Requirement)	Projects Associated with 2014 Completed Metrics (See Attachment 2 Table 2 for Reclamation Projects)
Snake River Spring/Summer-run Chinook Salmon ESU	Dry Clearwater	Lapwai/Big Canyon	»Not listed in RPA Action 35 Table 5	**Entrainment:**			1999-017-00: Protect and Restore Lapwai Creek Watershed 2002-070-00: Lapwai Creek Anadromous Habitat
				Passage:		1 Barrier improved 5 mi.	
				Complexity:			
				WQ/Riparian:		0.4 Stream mile protected 20.41 Stream miles improved 2 Riparian acres protected 620.05 Riparian acres improved	
		Potlatch River	»Not listed in RPA Action 35 Table 5	**Passage:**			2002-061-00: Potlatch River Watershed Restoration 2008-604-00: Lower Clearwater and Potlatch Watersheds Habitat Improvements 2002-072-00: Red River Watershed Restoration
				Complexity:			
				WQ/Riparian:		6.8 Stream miles improved 102.5 Riparian acres improved	
		Upper South Fork Clearwater	»Not listed in RPA Action 35 Table 5	**Passage:**		7 Barriers improved 10.5 miles	
				Complexity:			
				WQ/Riparian:		13 Stream miles improved 16.4 Riparian acres improved	
	Grande Ronde/Imnaha	*** Catherine Creek**	9.2: Decreased Water Quantity	**Flow:**	Protect 3,230 AF, 3 cfs	457.4 af, 2.8 cfs protected	1984-025-00: Blue Mountain Fish Habitat Improvement 1992-026-01: Grand Ronde Model Watershed 2008-206-00: Instream Flow Restoration 1996-083-00: Grand Ronde Watershed Restoration Reclamation Project 4565
				Entrainment:	Address 1 screen		
			1.1 Anthropogenic Barriers	**Passage:**	Improve 14 barriers, 30.8 miles	3 Barriers improved 6.1 mi.	
			6.1: Bed and Channel Form, 6.2 Instream Structural Complexity	**Complexity:**	Improve 19.2 instream miles	0.34 Instream mile improved	
			4.1: Riparian Condition, 4.2: LWD Recruitment, 5.1: Side Channel and Wetland Conditions, 5.2: Floodplain Condition, 7.2: Increased Sediment Quantity, 8.1: Temperature, 8.2: Oxygen, 8.4: Turbidity	**WQ/Riparian:**	Protect 1 riparian mile Improve 1.5 riparian miles Improve 1,618 riparian acres	1.52 Stream miles protected 1.53 Stream miles improved 24.55 Riparian acres protected 50.9 Riparian acres improved	
		Big Sheep Creek	1.1: Anthropogenic Barriers	**Passage:**	Improve 4 barriers, 20.7 miles		-
		*** Grande Ronde River Upper Mainstem**	9.2: Decreased Water Quantity	**Flow:**	Protect 1,782 AF, 6.5 cfs	87.6 AF, 0.33 cfs protected	1992-026-01: Grand Ronde Model Watershed
			1.1: Anthropogenic Barriers	**Passage:**	Improve 3 barriers, 5 miles	2 Barriers improved 3 miles	
			6.1: Bed and Channel Form, 6.2 Instream Structural Complexity	**Complexity:**	Improve 43.8 instream miles	3.25 Instream miles improved	
			4.1: Riparian Condition 4.2: LWD Recruitment 7.2: Increased Sediment Quantity 8.1 Temperature	**WQ/Riparian:**	Improve 31 riparian miles Protect 24 riparian acres	1.14 Stream miles protected 22.85 Stream miles improved 1 Riparian acre protected 180.5 Riparian acres improved	
		Imnaha River Mainstem	1.1: Anthropogenic Barriers	**Passage:**	Improve 3 barriers, 16 miles		
				Complexity:			
				WQ/Riparian:			

			Limiting Factors Identified	Metric Category	2013 - 2018 Planned Metrics	2014 Completed Metrics (Annual Report Requirement)	Projects Associated with 2014 Completed Metrics (See Attachment 2 Table 2 for Reclamation Projects)
Snake River Spring/Summer-run Chinook Salmon ESU	Grande Ronde/Imnaha	Lostine River	9.1: Increased Water Quantity, 9.2: Decreased Water Quantity	**Flow:**	Protect 30 cfs	1188 AF, 15 cfs protected	1992-026-01: Grand Ronde Model Watershed 2002-013-01: Water Entity - Water Transaction Program
			1.1: Anthropogenic Barriers	**Passage:**	Improve 6 barriers, 41.3 miles	2 Barriers improved 12 mi.	
			6.1: Bed and Channel Form, 6.2 Instream Structural Complexity	**Complexity:**	Improve 1.6 instream miles	0.06 Instream mile improved	
			4.1: Riparian Condition	**WQ/Riparian:**		1.28 Stream miles protected	
			5.2: Floodplain Condition		Protect 257 riparian acres	21 Riparian acres protected	
			7.2: Increased Sediment Quantity, 8.1: Temperature, 8.2: Oxygen				
	Lower Snake	Asotin Creek	1.1: Anthropogenic Barriers	**Passage:**	Improve 1 barrier, 50 miles		1994-018-05 Asotin Creek Enhancement and Restoration
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity:**	Improve 5.2 instream miles	1 Instream mile improved	
				WQ/Riparian:		3.04 Stream miles protected	
						7 Stream miles improved	
						35 Riparian acres protected	
						30 Riparian acres improved	
		*** Tucannon River**	9.2: Decreased Water Quantity	**Flow:**	Protect 23.4 AF		1994-018-06: Tucannon Stream and Riparian Restoration 2008-202-00: Protect and Restore Tucannon Watershed
				Passage:		2 Barriers improved 1.8 miles	
			6.1: Bed and Channel Form, 6.2 Instream Structural Complexity	**Complexity:**	Improve 21.7 instream miles	1.6 Instream miles improved	
			4.1: Riparian Condition	**WQ/Riparian:**	Protect 1.3 riparian miles	1.19 Stream miles protected	
			5.2: Floodplain Condition		Improve 3.9 riparian miles	1.55 Stream miles improved	
			7.2: Increased Sediment Quantity			39.9 Riparian acres protected	
			8.1: Temperature		Improve 149.9 riparian acres	30.3 Riparian acres improved	
			8.4: Turbidity				
	Lower Salmon River	Big Creek	1.1: Anthropogenic Barriers	**Passage:**	Improve 3 barriers, 8 miles		
			7.2: Increased Sediment Quantity	**WQ/Riparian:**	Improve 102.6 riparian acres		
			8.7: Toxic Contaminants				
		Chamberlain Creek	»Not listed in RPA Action 35 Table 5	**Passage:**		1 Barrier improved 2.5 miles	2002-072-00 Red River Watershed Restoration
		East Fork South Fork Salmon River	1.1: Anthropogenic Barriers	**Passage:**		2 Barriers improved 0.6 miles	2007-127-00: East Fork of South Fork Salmon River Passage Restoration
			7.2: Increased Sediment Quantity	**WQ/Riparian:**		0.2 Stream mile protected	
			8.1: Temperature			5 Stream miles improved	
			8.7: Toxic Contaminants			1 Riparian acre protected	
		Little Salmon River	»Not listed in RPA Action 35 Table 5	**Passage:**		1 Barrier improved 3 mi.	2007-064-00: Slate Creek Watershed Restoration
				WQ/Riparian:			
		Secesh River	1.1: Anthropogenic Barriers	**Passage:**	Improve 2 barriers, 1.9 miles		
			7.2: Increased Sediment Quantity	**WQ/Riparian:**			
		South Fork Salmon River	1.1: Anthropogenic Barriers	**Passage:**	Improve 5 barriers, 8.7 miles		
			7.2: Increased Sediment Quantity	**WQ/Riparian:**	Improve 2 riparian acres		
			8.1: Temperature, 8.7: Toxic Contaminants				

			Limiting Factors Identified	Metric Category	2013 - 2018 Planned Metrics	2014 Completed Metrics (Annual Report Requirement)	Projects Associated with 2014 Completed Metrics (See Attachment 2 Table 2 for Reclamation Projects)
Snake River Spring/Summer-run Chinook Salmon ESU	Upper Salmon River	East Fork Salmon River	9.2: Decreased a	**Flow:**	Protect 6 cfs		2007-268-00: Idaho Watershed Habitat Restoration-Custer District
			2.3: Mechanical Injury	**Entrainment:**	Address 7 screens		
			1.1: Anthropogenic Barriers	**Passage:**	Improve 5 barriers, 6.9 miles		
			6.1: Bed and Channel Form	**Complexity:**	Improve 0.1 instream mile		
				WQ/Riparian:		1.3 Stream miles protected	
						5 Riparian acres protected	
		Lemhi	9.2: Decreased Water Quantity	**Flow:**	Protect 36.8 cfs	3281.1 AF, 37.81 cfs protected	1994-015-00: Idaho Fish Screening Project
			2.3: Mechanical Injury	**Entrainment:**	Address 26 screens	5 Screens addressed	2008-608-00: Idaho MOA/Fish Accord Water Transactions
			1.1: Anthropogenic Barriers	**Passage:**	Improve 34 barriers, 61.3 miles	12 Barriers improved 25 mi.	2007-399-00: Upper Salmon Screen Tributary Passage
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity:**	Improve 11.7 instream miles	0.59 Instream mile improved	2008-608-00: Idaho MOA/Fish Accord Water Transactions
			4.1: Riparian Condition	**WQ/Riparian:**	Protect 11.5 riparian miles	0.92 Stream mile protected	2010-072-00: Lemhi River Restoration
			5.2: Floodplain Condition		Improve 11.8 riparian miles	0.86 Stream mile improved	
			8.1: Temperature			3.55 Riparian acres protected	Reclamation Projects 4561, 4328, 4562, 4468
					Improve 15 riparian acres	3.18 Riparian acres improved	
		Pashimeroi	9.2: Decreased Water Quantity	**Flow:**	Protect 14 cfs		2007-268-00: Idaho Watershed Habitat Restoration-Custer
			2.3: Mechanical Injury	**Entrainment:**	Address 5 screens	1 Screen addressed	2008-603-00: Pahsimeroi River Habitat
			1.1: Anthropogenic Barriers	**Passage:**	Improve 17 barriers, 73.4 miles	1 Barrier improved 1.2 mi.	
			6.1: Bed and Channel Form	**Complexity:**	Improve 17.8 instream miles		
			4.1: Riparian Condition	**WQ/Riparian:**	Improve 9 riparian miles		
			7.2: Increased Sediment Quantity				
		Panther Creek	»Not listed in RPA Action 35 Table 5	**WQ/Riparian:**		0.46 Stream mile protected	2008-903-00: ESA Habitat Restoration
						3.81 Riparian acres protected	
		Lower Mainstem Salmon River Below Redfish Lake	9.2: Decreased Water Quantity	**Flow:**	Protect 2.5 cfs	241.2 AF, 2 cfs protected	2002-013-01: Water Entity - Water Transaction Program
			2.3: Mechanical Injury	**Entrainment:**	Address 1 screen		2007-399-00: Upper Salmon Screen Tributary Passage
			1.1: Anthropogenic Barriers	**Passage:**	Improve 5 barriers, 18 miles	1 Barrier improved 1 mile	Reclamation Projects 4535, 4563
				Complexity:			
		Upper Mainstem Salmon River above Redfish Lake	9.2: Decreased Water Quantity	**Flow:**	Protect 14 cfs	893 AF, 6 cfs protected	2008-903-00 ESA Habitat Restoration
				Entrainment:			2002-013-01 Water Entity - Water Transaction Program
			1.1: Anthropogenic Barriers	**Passage:**	Improve 5 barriers, 18.5 miles		
			4.1: Riparian Condition	**WQ/Riparian:**	Improve 2 stream miles		Reclamation Project 4342
			7.2: Increased Sediment Quantity		Improve 6.4 riparian acres	3.34 Stream miles protected	
			8.1: Temperature			18.3 Riparian acres protected	
		Valley Creek	9.2: Decreased Water Quantity	**Flow:**	Protect 4 cfs		
			2.3: Mechanical Injury	**Entrainment:**	Address 10 screens		
		*** Yankee Fork**		**Passage:**		3 Barriers improved 1.19 miles	2002-059-00 Yankee Fork Salmon River Restoration
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity:**	Improve 6.1 instream miles	0.69 Instream mile improved	
			4.2: LWD Recruitment	**WQ/Riparian:**			Reclamation Projects 4564, 4545
			5.2: Floodplain Condition			0.34 Stream mile improved	
			7.1: Decreased Sediment Quantity		Improve 34 riparian acres	12.25 Riparian acres improved	

			Limiting Factors Identified	Metric Category	2013 - 2018 Planned Metrics	2014 Completed Metrics (Annual Report Requirement)	Projects Associated with 2014 Completed Metrics (See Attachment 2 Table 2 for Reclamation Projects)
Upper Columbia River Spring-run Chinook Salmon ESU	Upper Salmon River	Lochsa River (Chinook)	»Not listed in RPA Action 35 Table 5	**Passage:**		1 Barrier improved 12.65 miles	2007-395-00 Protect and Restore Lochsa Watershed
				WQ/Riparian:		10.5 Riparian acres improved	
		Meadow Creek (Chinook)	»Not listed in RPA Action 35 Table 5	**Passage:**		1 Barrier improved 8.5 mi.	2007-092-00 Restore Selway River Watershed
		Lolo Creek (Chinook)	»Not listed in RPA Action 35 Table 5	**Passage:**		1 Barrier improved 15 miles	1996-077-02: Lolo Creek Watershed Restoration
				WQ/Riparian:		0.5 Stream mile improved 37 Riparian acres improved	
	Upper Columbia/East Slope Cascades	*** Entiat**		**Flow:**	Protect 6.5 cfs water	180 AF, 1 cfs protected	2002-013-01: Water Entity - Water Transaction Program 2010-001-00: Upper Columbia Programmatic Habitat Reclamation Projects 4567, 4504, 4568, 4569, 4570
			2.3: Mechanical Injury	**Entrainment:**	Address 8 screens		
			1.1: Anthropogenic Barriers	**Passage:**	Improve 3 barriers, 3.5 miles	1 Barrier improved	
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity:**	Improve 6.2 instream miles	0.29 Instream mile improved	
			4.1: Riparian Condition 5.1: Side Channel and Wetland Conditions 5.2: Floodplain Condition 7.2: Increased Sediment Quantity	**WQ/Riparian:**	 Improve 2.65 stream miles Improve 123.8 riparian acres	0.84 Stream mile protected 1.37 Stream miles improved 5.6 Riparian acres improved	
		*** Methow**	9.1: Increased Water Quantity, 9.2: Decreased Water Quantity	**Flow:**	Protect 7,351 AF, 14 cfs	3,088 AF, 24 cfs protected	2002-013-01: Water Entity - Water Transaction Program 2009-003-00: Upper Columbia Habitat Restoration 2010-001-00: Upper Columbia Programmatic Habitat Reclamation Projects 4571, 4572, 4573
			2.3: Mechanical Injury	**Entrainment:**	Address 7 screens	1 Screen addressed	
			1.1: Anthropogenic Barriers	**Passage:**	Improve 8 barriers, 42 miles	3 Barriers improved; 1.3 miles	
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity:**	Improve 23.2 instream miles	2.4 Instream miles improved	
			4.1: Riparian Condition 5.1: Side Channel and Wetland Conditions 5.2: Floodplain Condition 7.2: Increased Sediment Quantity 8.1: Temperature	**WQ/Riparian:**	 Improve 4.6 stream miles Protect 0.3 riparian acres Improve 322.1 riparian acres	1.23 Stream miles protected 1.61 Stream miles improved 44.7 Riparian acres protected 3.3 Riparian acres improved	
		*** Wenatchee**	9.2: Decreased Water Quantity	**Flow:**	Protect 15 cfs	7,943.5 AF, 38.8 cfs protected	2002-013-01: Water Entity- Water Transaction Program 2010-001-00: Upper Columbia Programmatic Habitat Reclamation Projects 4518, 4574, 4575
			1.1: Anthropogenic Barriers	**Passage:**	Improve 6 barriers, 24.5 miles	4 Barriers improved 3.65 miles	
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity:**	Improve 11.95 instream miles	0.1 Instream mile improved	
			4.1: Riparian Condition 5.1: Side Channel and Wetland Conditions, 5.2: Floodplain Condition	**WQ/Riparian:**	Improve 2 stream miles Improve 23.9 riparian acres	0.2 Stream mile improved 2.2 Riparian acres improved	
Middle Columbia River Steelhead DPS	Cascades Eastern Slope Tributaries	Deschutes River Eastside	9.2: Decreased Water Quantity	**Flow:**	Protect 144.6 AF, 0.6 cfs	1075.4 AF, 3.23 cfs protected	2002-019-00: Develop Riparian Buffer Systems in Lower Wasco County 1998-028-00: Trout Creek Watershed Restoration 2002-013-01: Water Entity - Water Transaction Program
				Entrainment:			
			1.1: Anthropogenic barriers	**Passage:**	Address 1 barrier	1 Barrier addressed	
			5.2: Floodplain condition, 6.1: Bed and Channel Form	**Complexity:**	Improve 3.7 instream miles	0.04 Instream mile improved	
			4.1: Riparian Condition	**WQ/Riparian:**	Protect 333 stream miles Improve 161.4 stream miles Protect 815 riparian acres Improve 1,027.3 riparian acres	0.54 Stream mile protected 43.55 Stream miles improved 22.7 Riparian acres protected 89.6 Riparian acres improved	

			Limiting Factors Identified	Metric Category	2013 - 2018 Planned Metrics	2014 Completed Metrics (Annual Report Requirement)	Projects Associated with 2014 Completed Metrics (See Attachment 2 Table 2 for Reclamation Projects)
Middle Columbia River Steelhead DPS	Cascades Eastern Slope Tributaries	Deschutes River Westside		**Complexity:**		0.1 Instream mile improved	2008-301-00: Habitat Restoration Planning/Design/Implementation Warm Springs Reservation
			4.1 Riparian Condition	**WQ/Riparian:**	Protect 3.5 stream miles Protect 70 riparian acres		
		Fifteenmile Creek (Winter Run)	9.2: Decreased Water Quantity	**Flow:**	Protect 407.6 AF, 4.1 cfs	737.3 AF, 3.23 cfs protected	2002-013-01: Water Entity - Water Transaction Program 2001-021-00: 15 Mile Creek Riparian Buffers
				Passage:		1 Barrier improved	
			4.1: Riparian Condition	**WQ/Riparian:**	Protect 3.5 stream miles Protect 70 riparian acres	23.5 Stream miles protected 237.3 Riparian acres protected	
		Klickitat River		**Passage:**			1997-056-00: Klickitat Watershed Enhancement
			5.2: Floodplain condition, 6.1: Bed and Channel Form	**Complexity:**	Improve 2.6 miles		
			4.1: Riparian Condition	**WQ/Riparian:**	Improve 7.4 stream miles Improve 99.3 riparian acres	4.21 Stream miles protected 72.3 Riparian acres improved	
		Rock Creek	4.1: Riparian Condition	**WQ/Riparian:**	Improve 3 stream miles Improve 12 riparian acres	3 Stream miles improved 8 Riparian acres improved	2007-156-00: Rock Creek Fish and Habitat Assessment
		Crooked River		**Flow:**		12,608 AF, 29.7 cfs protected	2007-397-00: John Day Watershed Restoration
				Entrainment:		1 Screen addressed	2002-013-01: Water Entity - Water Transaction Program
				Passage:		1 Barrier improved 5.3 miles	
	John Day River	John Day River Lower Mainstem Tributaries	9.2: Decreased Water Quantity	**Flow:**	Protect 0.5 AF, 0.5 cfs		1984-021-00: John Day Habitat Enhancement
			2.3: Mechanical injury	**Entrainment:**	Address 8 screens	7 Screens addressed	1998-022-00: Pine Creek Conservation Area
			1.1 Anthropogenic Barriers	**Passage:**	Improve 22 barriers, 114.5 miles	4 Barriers improved 14 mi.	2002-019-00: Develop Riparian Buffer Systems in Lower Wasco County
			5.2: Floodplain condition, 6.1: Bed and Channel Form	**Complexity:**	Improve 20.5 instream miles	2.5 Instream miles improved	2002-034-00: Riparian Buffers in Wheeler County
			4.1: Riparian Condition	**WQ/Riparian:**	Protect 189.2 stream miles	108.1 Stream miles protected	2007-397-00: John Day Passage, Flow and Habitat Enhancement
			8.1: Temperature		Improve 161.4 stream miles Protect 1379.3 riparian acres Improve 78.9 riparian acres	37.5 Stream miles improved 1,912.7 Riparian acres protected 40 Riparian acres improved	
		John Day River Upper Mainstem	9.2: Decreased Water Quantity	**Flow:**	Protect 953.8 AF, 7.88 cfs	187.2 AF, 1.6 cfs protected	1984-021-00: John Day Habitat Enhancement
			2.3: Mechanical injury	**Entrainment:**	Address 120 fish screens	12 Screens addressed	2001-041-01: Forrest Ranch Conservation Area
				Passage:		4 Barriers improved 18.2 miles	2007-397-00: John Day Passage, Flow and Habitat Enhancement
			5.2: Floodplain condition, 6.1: Bed and Channel Form	**Complexity:**	Improve 1.6 instream miles	0.31 Instream mile improved	1993-066-00: Oregon Fish Screens Project
			4.1 Riparian Condition	**WQ/Riparian:**	Protect 44.6 stream miles Improve 6 stream miles Protect 4893.5 riparian acres Improve 125 riparian acres	12.14 Stream miles protected 11 Stream miles improved 50 Riparian acres protected 154.4 Riparian acres improved	Reclamation Project 4566

			Limiting Factors Identified	Metric Category	2013 - 2018 Planned Metrics	2014 Completed Metrics (Annual Report Requirement)	Projects Associated with 2014 Completed Metrics (See Attachment 2 Table 2 for Reclamation Projects)
Middle Columbia River Steelhead DPS	John Day River	Middle Fork John Day River		**Flow:**			2000-015-00: Oxbow Conservation Area 2001-041-01: Forrest Ranch Conservation Area 2007-397-00: John Day Passage, Flow and Habitat Enhancement Reclamation Project 4465
				Entrainment:		1 Screen addressed	
				Passage:		1 Barrier improved 8.1 mi.	
			5.2: Floodplain condition, 6.1: Bed and Channel Form	**Complexity:**	Improve 1.9 instream miles	0.25 Instream mile improved	
			4.1: Riparian Condition	**WQ/Riparian:**	Protect 57.1 stream miles Improve 4.7 stream miles Protect 810 riparian acres Improve 127.2 riparian acres	5.4 Stream miles protected 25.2 Stream miles improved 193 Riparian acres protected 289.2 Riparian acres improved	
		North Fork John Day River	9.2: Decreased Water Quantity	**Flow:**			1984-021-00: John Day Habitat Enhancement 2000-031-00: Enhance Habitat in the North Fork John Day River
				Entrainment:		1 Screen addressed	
			1.1: Anthropogenic barriers	**Passage:**	Improve 2 barriers, 6 miles		
			5.2: Floodplain condition, 6.1: Bed and Channel Form	**Complexity:**	Improve 1.8 instream miles	2.35 Instream miles improved	
			4.1: Riparian Condition	**WQ/Riparian:**	Protect 100.5 stream miles Improve 22.8 stream miles Protect 659.7 riparian acres Improve 790 riparian acres	3.29 Stream miles protected 7.4 Stream miles improved 104.3 Riparian acres protected 374.35 Riparian acres improved	
		South Fork John Day River		**Entrainment:**		1 Screen addressed	1984-021-00: John Day Habitat Enhancement
				Passage:			
				Complexity:			
			4.1 Riparian Condition	**WQ/Riparian:**	Protect 3.8 stream miles Protect 55 riparian acres	5 Stream miles protected 85 Riparian acres protected	
	Umatilla and Walla Walla Rivers	Touchet River		**Flow:**		312.5 af, 9.04 cfs protected	1996-046-01: Walla Walla River Basin Fish Habitat Enhancement 2000-026-00: Rainwater Wildlife Area Operations 2008-206-00: Instream Flow Restoration
			1.1: Anthropogenic barriers	**Passage:**	Improve 3 barriers, 34.5 miles	1 Barrier improved 0.5 miles	
			5.2: Floodplain condition, 6.1: Bed and Channel Form	**Complexity:**	Improve 1.5 instream miles		
			4.1 Riparian Condition	**WQ/Riparian:**	Protect 9 stream miles Improve 27.2 stream miles Improve 352.4 riparian acres	 3 Stream miles improved 60 Riparian acres protected 	
		Umatilla River	9.2: Decreased Water Quantity	**Flow:**	Protect 326 AF, 6.2 cfs	1716.2 AF, 36 cfs protected	1987-100-01: Umatilla Anadromous Fish Habitat-Umatilla Tribe 2008-206-00: Instream Flow Restoration 1987-100-02: Umatilla Anadromous Fish Habitat-Oregon Department of Fish and Wildlife (ODFW)
			2.3: Mechanical injury	**Entrainment:**	Address 120 screens	4 Screens addressed	
			1.1: Anthropogenic barriers	**Passage:**	Improve 2 barriers, 7.5 miles	2 Barriers improved 20.5 mi.	
			5.2: Floodplain condition, 6.1: Bed and Channel Form	**Complexity:**	Improve 2.5 instream miles	2.54 Instream miles improved	
			4.1 Riparian Condition	**WQ/Riparian:**	Protect 76.64 stream miles Improve 51.9 stream miles Protect 442 riparian acres Improve 727.8 riparian acres	 34.3 Stream miles improved 425 Riparian acres protected 455.8 Riparian acres improved	

			Limiting Factors Identified	Metric Category	2013 - 2018 Planned Metrics	2014 Completed Metrics (Annual Report Requirement)	Projects Associated with 2014 Completed Metrics (See Attachment 2 Table 2 for Reclamation Projects)
	Umatilla and Walla Walla Rivers	Walla Walla River	9.2: Decreased Water Quantity	**Flow:**	Protect 8,165.8 AF, 38.9 cfs	1,128 AF, 2.8 cfs protected	2007-396-00: Walla Walla Basinwide Tributary Passage and Flow 2008-206-00: Instream Flow Restoration 1996-046-01: Walla Walla River Basin Fish Habitat Enhancement
			2.3: Mechanical injury	**Entrainment:**	Address 120 screens	1 Screen addressed	
			1.1: Anthropogenic barriers	**Passage:**	Improve 1 barrier	5 Barriers improved 34 miles	
				Complexity:		1.5 Instream miles improved	
				WQ/Riparian:		4.7 Stream miles improved 48.4 Riparian acres improved	
		Willow Creek		**Entrainment:**			
	Yakima River Group	Naches River	9.2: Decreased Water Quantity	**Flow:**	Protect 757.8 AF, 11.3 cfs	1,555.8 AF, 7.92 cfs protected	2002-013-01: Water Entity - Water Transaction Program 2007-398-00 Yakima Basinwide Tributary Passage and Flow
			2.3: Mechanical injury	**Entrainment:**	Address 1 screen	6 Screens addressed	
				Passage:		1 Barrier improved 0.5 miles	
			4.1 Riparian Condition	**WQ/Riparian:**	Protect 24.5 stream miles	1.1 Stream miles improved 62 Riparian acres improved	
		Satus Creek	4.1 Riparian Condition	**WQ/Riparian:**	Improve 808.5 riparian acres	20 Riparian acres improved	2002-014-00 Sunnyside Wildlife Mitigation
		Toppenish	9.2: Decreased Water Quantity	**Flow:**	Protect 5,820 AF, 307.9 cfs		1992-062-00: Lower Yakima Valley Riparian Wetlands Restoration 1996-035-01: Yakama Reservation Watershed Project
				Entrainment:		1 Screen addressed	
			1.1 Anthropogenic Barriers	**Passage:**	Improve 1 barrier, 0.2 miles		
			5.2: Floodplain condition, 6.1: Bed and Channel Form	**Complexity:**	Improve 0.1 instream miles		
			4.1 Riparian Condition	**WQ/Riparian:**	Protect 64.3 stream miles Improve 9 stream miles Protect 2,784.4 riparian acres Improve 423.3 riparian acres	9 Stream miles improved 29.75 Riparian acres improved	
		Yakima River Upper Mainstem	9.2: Decreased Water Quantity	**Flow:**	Protect 7,852.7 AF, 11.75 cfs	5,900 af, 21.4 cfs protected	1988-120-25: Yakima River Management, Data and Habitat-Yakima/Klickitat Fisheries Project (YKFP) 2002-013-01: Water Entity - Water Transaction Program 2007-398-00: Yakima Basinwide Tributary Passage and Flow
			2.3: Mechanical injury	**Entrainment:**	Address 3 screens	2 Screens addressed	
			1.1 Anthropogenic Barriers	**Passage:**	Address 6 barriers		
				Complexity:		3 Instream miles improved	
			4.1 Riparian Condition	**WQ/Riparian:**	Protect 16 stream miles Improve 4 stream miles Improve 85 riparian acres	30 Stream miles protected 6.2 Stream miles improved 140 Riparian acres protected 65.8 Riparian acres improved	

			Limiting Factors Identified	Metric Category	2013 - 2018 Planned Metrics	2014 Completed Metrics (Annual Report Requirement)	Projects Associated with 2014 Completed Metrics (See Attachment 2 Table 2 for Reclamation Projects)
Snake River Steelhead DPS	Dry Clearwater	Clearwater River Lower Mainstem		**Entrainment:**			1999-017-00: Protect and Restore Lapwai Creek Watershed
			9.1: Increased Water Quantity, 9.2: Decreased Water Quantity	**Flow:**			
			1.1: Anthropogenic Barriers	**Passage:**	Improve 4 barriers, 71 miles	1 Barrier improved 5 miles	
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity**	Improve 8.61 instream miles		2002-061-00: Potlatch River Watershed Restoration
			4.1: Riparian Condition 7.2: Increased Sediment Quantity 8.1: Temperature 8.7: Toxic Contaminants	**WQ/Riparian:**	Protect 6.7 riparian miles Improve 36.8 riparian acres	0.4 Stream mile protected 27.2 Stream miles improved 2 Riparian acres protected 722.6 Riparian acres improved	2002-070-00: Lapwai Creek Anadromous Habitat Improvements
		*** Lochsa River**	1.1: Anthropogenic Barriers	**Passage:**	Improve 13 barriers, 56.5 miles	1 Barrier improved 12.7 miles	2007-395-00: Protect and Restore Lochsa Watershed
			6.2: Instream Structural Complexity	**Complexity:**	Improve 35 instream miles		
			4.1: Riparian Condition 4.2: LWD Recruitment 7.2: Increased Sediment Quantity 8.1: Temperature	**WQ/Riparian:**	Protect 75 stream miles Improve 1,549 riparian acres	 10.5 Riparian acres improved	
		*** Lolo Creek**	1.1: Anthropogenic Barriers, 1.2: Natural Barriers	**Passage:**	Improve 5 barriers, 27.4 miles	1 Barrier improved 15 miles	1996-077-02: Lolo Creek Watershed Restoration
			6.2: Instream Structural Complexity	**Complexity:**	Improve 0.4 instream mile		
			4.1: Riparian Condition 7.2: Increased Sediment Quantity 8.1: Temperature 8.2: Oxygen	**WQ/Riparian:**	Improve 1 stream mile Protect 16 stream miles Improve 10 riparian acres	0.5 Stream mile improved 37 Riparian acres improved	
		*** Selway River**	1.1: Anthropogenic Barriers	**Passage:**	Improve 3 barriers, 34.1 miles	1 Barrier improved 8.5 mi.	2007-092-00: Restore Selway River Watershed
			4.1: Riparian Condition 7.2: Increased Sediment Quantity 8.1: Temperature		Improve 1 stream mile		
		*** South Fork Clearwater River**	1.1: Anthropogenic Barriers	**Passage:**	Improve 23 barriers, 71.7 miles	7 Barriers improved 10.5 miles	2010-003-00: Lower South Fork Clearwater River Watershed Restoration
			6.2: Instream Structural Complexity	**Complexity:**	Improve 8.1 instream miles		2002-072-00: Red River Watershed Restoration
			4.1: Riparian Condition, 4.2: LWD Recruitment 5.1: Side Channel and Wetland Conditions, 5.2: Floodplain Condition 7.2: Increased Sediment Quantity 8.1: Temperature	**WQ/Riparian:**	Improve 15 stream miles Improve 314.5 riparian acres	13 Stream miles improved 16.4 Riparian acres improved	
Snake River Steelhead DPS	Grande Ronde River	Grande Ronde River Lower Mainstem Tributaries	9.1: Increased Water Quantity, 9.2: Decreased Water Quantity	**Flow:**			
			1.1: Anthropogenic Barriers	**Passage:**	Improve 1 barrier, 8 miles		
			6.2: Instream Structural Complexity	**Complexity:**			
			4.1: Riparian Condition 7.2: Increased Sediment Quantity 8.1: Temperature	**WQ/Riparian:**			

			Limiting Factors Identified	Metric Category	2013 - 2018 Planned Metrics	2014 Completed Metrics (Annual Report Requirement)	Projects Associated with 2014 Completed Metrics (See Attachment 2 Table 2 for Reclamation Projects)
Snake River Steelhead DPS	Grande Ronde River	Grande Ronde River Upper Mainstem	9.2: Decreased Water Quantity	**Flow:**	Protect 1,782 AF, 15.5 cfs	545 AF, 3.1 cfs protected	1992-026-01: Grand Ronde Model Watershed 2008-206-00: Instream Flow Restoration 1984-025-00: Blue Mountain Fish Habitat Improvement 1996-083-00: Grand Ronde Watershed Restoration Reclamation Project 4565
				Entrainment:	Address 2 barriers		
			1.1: Anthropogenic Barriers	**Passage:**	Improve 28 barriers, 75.6 miles	5 Barriers improved 9.1 miles	
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity:**	Improve 108.6 instream miles	14.18 Instream miles improved	
			4.1: Riparian Condition	**WQ/Riparian:**	Protect 15 riparian miles	2.66 Stream miles protected	
			4.2: LWD Recruitment		Improve 45.5 stream miles	29.8 Stream miles improved	
			5.1: Side Channel and Wetland Conditions		Protect 1,000 riparian acres	25.6 Riparian acres protected	
			5.2: Floodplain Condition		Improve 1,916.5 riparian acres	647.8 Riparian acres improved	
			7.2: Increased Sediment Quantity				
			8.1: Temperature, 8.2: Oxygen, 8.4: Turbidity				
		Joseph Creek	9.2: Decreased Water Quantity	**Flow:**	Protect 0.8 cfs		1996-080-00: Northeast Oregon Wildlife Project
			4.1: Riparian Condition	**WQ/Riparian:**	Improve 0.5 stream miles	2.3 Stream miles improved	
			5.2: Floodplain Condition			53.5 Riparian acres improved	
			7.2: Increased Sediment Quantity				
			8.1: Temperature, 8.2: Oxygen				
		Wallowa River	9.1: Increased Water Quantity, 9.2: Decreased Water Quantity	**Flow:**	Protect 30 cfs	1,188 AF, 15 cfs protected	1992-026-01: Grand Ronde Model Watershed 2002-013-01: Water Entity - Water Transaction Program
			1.1: Anthropogenic Barriers	**Passage:**	Improve 7 barriers, 54.3 miles	2 Barriers improved 12 miles	
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity:**	Improve 2 instream miles	0.06 Instream mile improved	
			4.1: Riparian Condition, 5.2: Floodplain Condition	**WQ/Riparian:**		1.28 Stream miles protected	
			7.2: Increased Sediment Quantity, 8.1: Temperature, 8.2: Oxygen		Protect 257 riparian acres	21 Riparian acres protected	
	Imnaha River	Imnaha River	9.1: Increased Water Quantity, 9.2: Decreased Water Quantity	**Flow:**	Protect 1.2 cfs		
			1.1: Anthropogenic Barriers	**Passage:**	Improve 9 barriers, 74 miles		
			4.1: Riparian Condition	**WQ/Riparian:**	Improve 2 stream miles		
			7.2: Increased Sediment Quantity, 8.1: Temperature, 8.2: Oxygen				
	Lower Snake	Asotin Creek	1.1: Anthropogenic Barriers	**Passage:**	Improve 1 barrier, 8 miles	1 Instream mile improved	1994-018-05: Asotin Creek Enhancement and Restoration 2002-050-00: Riparian Buffers on Couse and Tenmile Creeks in Asotin County
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity:**	Improve 6.5 instream miles	4.1 Stream miles protected	
			4.1: Riparian Condition	**WQ/Riparian:**	Improve 4 stream miles	8 Stream miles improved	
			5.2: Floodplain Condition			66 Riparian acres protected	
			7.2: Increased Sediment Quantity, 8.1: Temperature, 8.4: Turbidity			96.3 Riparian acres improved	
		Tucannon	9.2: Decreased Water Quantity	**Flow:**	Protect 23.4 AF		1994-018-06: Tucannon Stream and Riparian Restoration 2008-202-00: Protect and Restore Tucannon Watershed
			1.1: Anthropogenic Barriers	**Passage:**	Improve 1 barrier, 30 miles	2 Barriers improved 1.8 miles	
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity:**	Improve 26.4 instream miles	1.6 Instream miles improved	
			4.1: Riparian Condition	**WQ/Riparian:**	Protect 1.3 stream miles	1.19 Stream miles protected	
			5.2: Floodplain Condition		Improve 13.9 stream miles	1.55 Stream miles improved	
			7.2: Increased Sediment Quantity			39.9 Riparian acres protected	
			8.1: Temperature, 8.4: Turbidity		Improve 143 riparian acres	30.3 Riparian acres improved	

			Limiting Factors Identified	Metric Category	2013 - 2018 Planned Metrics	2014 Completed Metrics (Annual Report Requirement)	Projects Associated with 2014 Completed Metrics (See Attachment 2 Table 2 for Reclamation Projects)
Snake River Steelhead DPS	Salmon River	*** Lower Middle Fork Salmon River (Big, Camas, & Loon Creeks)**	1.1: Anthropogenic Barriers	**Passage:**	Improve 3 barriers, 8 miles		
			7.2: Increased Sediment Quantity 8.7: Toxic Contaminants	**WQ/Riparian:**	Improve 102.6 riparian acres		
		East Fork Salmon River	9.2: Decreased Water Quantity	**Flow:**	Protect 15.5 cfs	241.2 AF, 2 cfs protected	2007-268-00: Idaho Watershed Habitat Restoration-Custer District
			2.3: Mechanical Injury	**Entrainment:**	Address 3 screens		2002-013-01: Water Entity - Water Transaction Program
			1.1: Anthropogenic Barriers	**Passage:**	Improve 3 barriers, 7.9 miles		
				Complexity:			Reclamation Project 4535
				WQ/Riparian:		1.3 Stream miles protected 5 Riparian acres protected	
		Chamberlain Creek	»Not listed in RPA Action 35 Table 5	**Passage:**		1 Barrier improved 2.5 miles	2002-072-00: Red River Watershed Restoration
		Lemhi	9.2: Decreased Water Quantity	**Flow:**	Protect 36.8 cfs	3,281.1 AF, 37.8 cfs protected	1994-015-00: Idaho Fish Screening Project
			2.3: Mechanical Injury	**Entrainment:**	Address 35 screens	5 Screens addressed	2008-903-00: ESA Habitat Restoration
			1.1: Anthropogenic Barriers	**Passage:**	Improve 34 barriers, 63.2 miles	12 Barriers improved 25 mi.	2010-072-00: Lemhi River Restoration
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity:**	Improve 10.87 instream miles	0.59 Instream mile improved	2007-399-00: Upper Salmon Screen Tributary Passage
			4.1: Riparian Condition	**WQ/Riparian:**	Protect 11.5 stream miles	0.92 Stream mile protected	2008-608-00: Idaho MOA/Fish Accord Water Transactions
			5.2: Floodplain Condition		Improve 10.75 stream miles	0.86 Stream mile improved	
			7.2: Increased Sediment Quantity			3.55 Riparian acres protected	Reclamation Projects 4561, 4328, 4562, 4468
			8.1: Temperature		Improve 5 riparian acres	3.18 Riparian acres improved	
		Middle Fork Salmon River Upper Mainstem	»Not listed in RPA Action 35 Table 5	**Entrainment:**			
		Little Salmon and Rapid River	»Not listed in RPA Action 35 Table 5	**Passage:**		1 Barrier improved 3 mi.	2007-064-00: Slate Creek Watershed Restoration
				WQ/Riparian:			
		Pahsimeroi River	9.2: Decreased Water Quantity	**Flow:**	Protect 14 cfs		2007-399-00: Upper Salmon Screen Tributary Passage
			2.3: Mechanical Injury	**Entrainment:**	Address 5 screens	1 Screen addressed	
			1.1: Anthropogenic Barriers	**Passage:**	Improve 17 barriers, 72.4 miles	2 Barriers improved 2.2 miles	Reclamation Project 4563
			6.1: Bed and Channel Form	**Complexity:**	Improve 17.8 instream miles		
			4.1: Riparian Condition 7.1: Decreased Sediment Quantity, 7.2: Increased Sediment Quantity 8.1: Temperature		Protect 2 stream miles Improve 7 stream miles		
		Panther Creek	»Not listed in RPA Action 35 Table 5	**WQ/Riparian:**		0.46 Stream mile protected	2008-903-00: ESA Habitat Restoration
Snake River Steelhead DPS	Salmon River	Upper Mainstem Salmon River	9.2: Decreased Water Quantity	**Flow:**	Protect 22 cfs	893 AF, 6 cfs protected	2007-268-00: Idaho Watershed Habitat
			2.3: Mechanical Injury	**Entrainment:**			2002-013-01: Water Entity - Water Transaction Program
			1.1: Anthropogenic Barriers	**Passage:**	Improve 6 barriers, 9.9 miles	3 Barriers improved 1.2 miles	2007-399-00: Upper Salmon Screen Tributary Passage
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	**Complexity:**	Improve 7.92 instream miles	0.69 Instream mile improved	
			4.1: Riparian Condition, 4.2: LWD Recruitment 5.2: Floodplain Condition 7.1: Decreased Sediment Quantity, 7.2: Increased Sediment Quantity	**WQ/Riparian:**		3.34 Stream miles protected 0.34 Stream mile improved 18.3 Riparian acres protected	Reclamation Projects 4342, 4564, 4545
			8.1: Temperature		Improve 20 riparian acres	12.25 Riparian acres improved	

			Limiting Factors Identified	Metric Category	2013 - 2018 Planned Metrics	2014 Completed Metrics (Annual Report Requirement)	Projects Associated with 2014 Completed Metrics (See Attachment 2 Table 2 for Reclamation Projects)
		* Secesh River	1.1: Anthropogenic Barriers	Passage:	Improve 2 barriers, 1.9 miles		
			7.2: Increased Sediment Quantity	WQ/Riparian:			
		* South Fork Salmon River	1.1: Anthropogenic Barriers	Passage:	Improve 6 barriers, 12.2 miles	2 Barriers improved 0.6 miles	2007-127-00: East Fork of South Fork Salmon River Passage Restoration
			7.2: Increased Sediment Quantity 8.1: Temperature 8.7: Toxic Contaminants	WQ/Riparian:	Improve 2 riparian acres	0.2 Stream mile protected 5 Stream miles improved 1 Riparian acre protected	
Upper Columbia River Steelhead DPS	Upper Columbia/East Slope Cascades	* Entiat	9.1: Increased Water Quantity, 9.2: Decreased Water Quantity	Flow:			2010-001-00: Upper Columbia Programmatic Habitat
			2.3: Mechanical Injury	Entrainment:	Address 8 screens		
			1.1: Anthropogenic Barriers	Passage:	Improve 3 barriers, 3.5 miles	2 Barriers improved 0.6 miles	Reclamation Projects 4567, 4504, 4568, 4569, 4570
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	Complexity:	Improve 6.2 instream miles		
			4.1: Riparian Condition 5.1: Side Channel and Wetland Conditions 5.2: Floodplain Condition	WQ/Riparian:	 Improve 2.6 stream miles Improve 125.8 riparian acres	0.84 Stream mile protected 1.37 Stream miles improved 5.6 Riparian acres improved	
		* Methow	9.1: Increased Water Quantity, 9.2: Decreased Water Quantity	Flow:	Protect 7,351 AF, 14 cfs	3,088.8 AF, 24 cfs protected	2002-013-01: Water Entity - Water Transaction Program
			2.3: Mechanical Injury	Entrainment:	Address 7 screens	1 Screen addressed	2009-003-00: Upper Columbia Habitat Restoration
			1.1: Anthropogenic Barriers	Passage:	Improve 8 barriers, 42 miles	3 Barriers improved; 1.3 miles	
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	Complexity:	Improve 23.2 instream miles	2.41 Instream miles improved	Reclamation Project s 4571, 4572, 4573
			4.1: Riparian Condition 5.1: Side Channel and Wetland Conditions 5.2: Floodplain Condition 7.2: Increased Sediment Quantity 8.1: Temperature	WQ/Riparian:	 Improve 4.6 stream miles Protect 0.3 riparian acre Improve 320.6 riparian acres	1.23 Stream miles protected 1.61 Stream miles improved 44.7 Riparian acres protected 3.3 Riparian acres improved	
		* Okanogan	9.2: Decreased Water Quantity	Flow:	Protect 4,630 AF, 7.5 cfs	1731.6 AF, 514.6 cfs protected	2007-224-00: Okanogan Subbasin Habitat Implementation Program 2008-104-00: Land & Water Acquisition
			2.3: Mechanical Injury	Entrainment:	Address 55 screens	20 Screens addressed	
			1.1: Anthropogenic Barriers	Passage:	Improve 3 barriers, 26.6 miles	1 Barrier improved	
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	Complexity:	Improve 2.4 instream miles	0.29 Instream mile improved	
				WQ/Riparian:	Improve 4.6 stream miles Improve.4 riparian acre	0.84 Stream mile protected 5 Stream miles improved 7.5 Riparian acres protected 67.3 Riparian acres improved	
Upper Columbia River Steelhead DPS	Upper Columbia/East Slope Cascades	* Wenatchee	9.2: Decreased Water Quantity	Flow:	Protect 15 cfs	15,766.5 AF, 73.78 cfs protected	2010-001-00: Upper Columbia Programmatic Habitat 2009-003-00: Upper Columbia Habitat Restoration
			1.1: Anthropogenic Barriers	Passage:	Improve 2 barriers, 26.5 miles	4 Barriers improved 3.65 miles	
			6.1: Bed and Channel Form, 6.2: Instream Structural Complexity	Complexity:	Improve 20.1 instream miles	0.1 Instream mile improved	Reclamation Projects 4518, 4574, 4575
			4.1: Riparian Condition 5.1: Side Channel and Wetland Conditions, 5.2: Floodplain Condition 7.1: Decreased Sediment Quantity, 7.2: Increased Sediment Quantity 8.1: Temperature, 8.3: Gas Saturation, 8.5: pH	WQ/Riparian:	Improve 2 stream miles Improve 23.9 riparian acres	0.2 Stream mile improved 2.2 Riparian acres improved	
		Crab Creek	»Not listed in RPA Action 35 Table 5	WQ/Riparian:		116.9 Riparian acres improved	2006-003-00: Desert Wildlife Mitigation

Attachment 2 – Table 2. Status of Tributary Habitat Actions Completed in 2014 with Reclamation Technical Assistance

Table 2 contains metric values for actions completed in 2014 with technical assistance provided by Reclamation. These actions complement BPA-funded projects (meaning both agencies participate in the same project).

Project ID with ** indicates Reclamation and partners OTHER THAN BPA.

The following descriptions apply. Streamflow: streamflow protected under State law. Stream length: stream length affected. Type (channel access): D, diversion; C, culvert. 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 length affected (Miles): miles between action location and next diversion. Complexity Miles: length of instream habitat treated after action completed.

								STREAMFLOW		ACCESS			ENTRAINMENT		COMPLEXITY
Project ID	**Subbasin**	**Metric Type**	**Project Title**	**ESU/DPS**	**Major Sponsor / Partner**	**Lat Long**	**Construction Completion Date**	**Instream Volume (cfs)**	**Stream Length Miles**	**Type**	**Extent of Barrier**	**Access Miles**	**Screens Replaced**	**Stream Length Affected (Miles)**	**Complexity Miles/Type**
4328**	Lemhi	Streamflow	L-1 Diversion Dam Removal and Access Flow Enhancement Project	Chinook salmon, steelhead, bull trout	TU, Private Landowner, NRCS	45 10 53.48	09/30/2014	2.23	1						
	Action Description	A rock push up dam was eliminated, the point of diversion moved downstream, and a pump station and fish screen installed to allow withdrawal of irrigation water from the Lemhi River.				-113 53 20.76									
4487	Lemhi	Channel Complexity	Upper Lemhi River (Amonson Ranch) Side Channel, Phase II	Chinook salmon, steelhead, bull trout	IDFG, BPA, OSC, NMFS	44 46 05.55	10/31/2014								0.14 mile Side Channel
	Action Description	Phase II actions include 300 ft of side channel construction, installation of rock weirs, root wads and engineered log jams, and riparian vegetation plantings on 750 ft of side channel.				-113 30 44.70									
4561	Lemhi	Channel Access	Hawley Creek Culvert to Bridge Access Enhancement Project	Chinook salmon, steelhead, bull trout	LSWCD, Lemhi County, OSC, USBWP, BPA	44 40 19.31	9/9/2014			C	P	0.8			
	Action Description	Replaced barrier culvert with a bridge to improve fish passage in Hawley Creek, a tributary to the Lemhi River. Rehabilitation of the stream channel to a more natural condition.				-113 18 06.11									
4468	Lemhi	Streamflow and Entrainment and Channel Access	Lee Creek, Big Eightmile Creek Reconnects Habitat Enhancement and Reconnection	Chinook salmon, steelhead, bull trout	Landowners, TNC, OSC, BPA, NMFS, ITD, Formation Capital, IDFG, ShoBan Tribes	44 44 32.02	10/31/2014	14.5		C	P	3	1		4.5 miles Main Channel
	Action Description	Three barrier removals - an inverted siphon on Big Eightmile Creek, highway culvert replacement on Lee Creek, and stream channel reconstruction on Lee Creek. Reduced irrigation water withdrawal, utilizing improved pump station/sprinklers/pivot systems on both Lee Creek and Big Eightmile Creek. Water right transfers and improvements in irrigation efficiency on Lemhi River and Big Springs Creek.				-113 28 43.31									

								STREAMFLOW		ACCESS			ENTRAINMENT		COMPLEXITY
Project ID	**Subbasin**	**Metric Type**	**Project Title**	**ESU/DPS**	**Major Sponsor / Partner**	**Lat Long**	**Construction Completion Date**	**Instream Volume (cfs)**	**Stream Length Miles**	**Type**	**Extent of Barrier**	**Access Miles**	**Screens Replaced**	**Stream Length Affected (Miles)**	**Complexity Miles/Type**
4562**	Lemhi	Streamflow	L-6 Diversion Stream Flow Optimization Project	Spr/Su Chinook, steelhead, bull trout	Reclamation	45 07 43.49	9/11/2014	20-35	6.5						
	Action Description	Installed a digital data logger, radio control, digital cell modem and secondary drive system to automate the L-6 head gate. The system is set up to keep the flows in the Lemhi River as first priority and flows to the L-6 Diversion as a second priority.				-113 47 39.99									
4342	Upper Salmon	Channel Access and Channel Complexity	Pole Creek Culvert to Bridge Access Enhancement Project	Chinook salmon and steelhead	Sho-Ban Tribes, Custer SWCD, USFS-SNRA, BPA	43 55 28	10/31/2014			C	P	3.6			0.06 mile Main Channel
	Action Description	Removed an existing culvert that did not meet fish passage criteria, and replaced it with a bridge. Reconstructed a historic river channel (300') and closed off a straightened section of stream channel.				-114 47 40									
4535	Upper Salmon	Streamflow and Channel Access	Garden Creek City of Challis Diversion Access Improvement Project	Steelhead and Chinook	Custer SWCD, City of Challis, IDFG, BPA	44 30 20	10/31/2014	1.58	3.4	D	F	1.4			
	Action Description	Removal of diversion structures that was impassible for fish, established a new diversion structure upstream that is fish passable. Groundwater wells drilled to provide water to the city of Challis.				-114 15 12									
4545	Upper Salmon	Channel Complexity	Yankee Fork - Preacher's Cove Channel Complexity Project	Chinook, Steelhead, bull trout	TU, Simplot, BPA, Sho-Ban Tribes, USFS, BPA	44 22 02.66	9/10/2014								0.85 mile Main Channel
	Action Description	Placement of engineered rock and wood structures in the channel.				-114 43 31.67									
4563	Upper Salmon	Streamflow and Channel Access	Poison Creek Diversion Consolidation, Access, and Flow Enhancement Project	Spr/Su Chinook, steelhead, bull trout	LSWCD, IDFG, NRCS, USBWP, OSC, Landowner, BPA	44 52 36.34	05/30/2014	9.2	1.6	D	F	1.6			
	Action Description	In Poison Creek - consolidation of three diversion into a single point of diversion, installation of a fish screen, improving efficiency of water delivery/use by installation of 15,358 ft of pipeline and installation of three pivots and six inline pod systems. In Smith Gulch, a tributary of Poison Creek, a diversion was replaced and 4,622 ft of pipeline and six inline pod systems were installed.				-113 58 11.86									
4564	Upper Salmon	Channel Complexity	Yankee Fork - Forest Service Large Wood Enhancement Project	Chinook, Steelhead, bull trout	USFS, Sho-Ban Tribes, TU, BPA	44 24 54.10	8/13/2014								3.15 miles Side Channel
	Action Description	Placement of 340 trees and 70 yards of rock and gravel in the reach between Jordan and Eightmile Creeks.				-114 38 31.67									

								STREAMFLOW		ACCESS			ENTRAINMENT		COMPLEXITY
Project ID	**Subbasin**	**Metric Type**	**Project Title**	**ESU/DPS**	**Major Sponsor / Partner**	**Lat Long**	**Construction Completion Date**	**Instream Volume (cfs)**	**Stream Length Miles**	**Type**	**Extent of Barrier**	**Access Miles**	**Screens Replaced**	**Stream Length Affected (Miles)**	**Complexity Miles/Type**
4565	Grande Ronde	Streamflow, Channel Access, and Channel Complexity	Catherine Creek - CC - 44 Phase 2 Habitat and Flow Enhancement Project	Spr Chinook salmon, steelhead, and bull trout	USWCD, CTUIR, ODFW, BPA	45 09 53	8/26/2014	1.6	7.2	D	F	7.2			1 mile Main Channel, 0.1 mile Side Channel
	Action Description	Installed a consolidated diversion structure, added large wood structures and an irrigation piping network.				-117 47 39									
4465	Middle Fork John Day	Channel Complexity	Middle Fork - Oxbow Conservation Area Phase 3 Complexity Project	Steelhead, Chinook Salmon, Lamprey, bull trout	CTWSRO, BPA, USFWS, ODFW	44 39 3.14	9/30/2014								0.34 mile Main Channel
	Action Description	Construction of 0.34 miles of channel, added engineered log jams, construction of side channels and back water alcoves, wetland creation and enhancement, and extensive vegetative planting/transplanting and browse protection measures.				-118 40 26.76									
4566**	John Day Upper Main	Channel Access	Meredith Beech Creek Diversion #5 Access Enhancement Project	Steelhead, Chinook	GSWCD, OWEB, Landowner	44 27 30.81	8/15/2014			D	P	9.5			
	Action Description	Removal of a diversion structure.				-119 2 13.32									
4504	Entiat	Channel Complexity	Harrison Side Channel and Main Stem Habitat Enhancement	Spr Chinook, Steelhead	CCNRD, BPA, WDFW	47 40 9.99	11/21/2014								0.24 mile Side Channel 0.13 mile Main Channel
	Action Description	Reconnected Harrison side channel and added Engineered Log Jams to enhance channel complexity.				-120 17 41.01									
4567	Entiat	Channel Complexity	Entiat Fish Hatchery Complexity Phase III	Spr Chinook, Steelhead, bull trout	CCD, USFWS, NRCS, BPA	47 41 53.39	9/15/2014								0.1 mile Side Channel
	Action Description	Split flow channel inlet excavation to connect at lower flows near RM 6.8, one boulder cluster at RM 6.8 to direct flow into the split channel, one Engineered Log Jam (ELJ) at the head of the split channel island, 15 habitat logs with boulders along channel margin, connection of off-channel alcove at RM 6.73, and install pedestrian footbridge over reconnected alcove.				-120 19 17.69									
4568	Entiat	Channel Complexity	Keystone to Kiosk RM 0.8 to 2.3 Habitat Enhancement Project	Spr Chinook, Steelhead, bull trout	CCD, USFWS, NRCS, WDFW, BPA	47 39 47.91	9/1/2014								0.25 mile Side Channel 0.1 mile Main Channel
	Action Description	Side channel connection at RM 0.8, 7 boulder clusters at RM 1.1, 2 boulder clusters at RM 2.2, 23 habitat logs with boulders at RM 1.6 side channel, side channel excavation to allow connection at lower flows at RM 1.6, and 3 habitat log structures along main stem channel margin.				-120 15 2.34									

								STREAMFLOW		ACCESS			ENTRAINMENT		COMPLEXITY
Project ID	**Subbasin**	**Metric Type**	**Project Title**	**ESU/DPS**	**Major Sponsor / Partner**	**Lat Long**	**Construction Completion Date**	**Instream Volume (cfs)**	**Stream Length Miles**	**Type**	**Extent of Barrier**	**Access Miles**	**Screens Replaced**	**Stream Length Affected (Miles)**	**Complexity Miles/Type**
4569	Entiat	Channel Complexity	Lower Entiat River Side Channel Enhancement RM 1.9 to 2.3 Project	Steelhead and Spr Chinook	Landowners, CCNRD, BPA	47 39 53.67	8/9/2014								0.1 mile Side Channel
	Action Description	Excavation in the main channel to allow access to off-channel rearing and refuge habitat. Excavation in the side channel to inundate the downstream end during 2 year events.				-120 15 43.52									
4570**	Entiat	Channel Complexity	Entiat River RM 2.6-3.5 Habitat Enhancement Project	Chinook, Steelhead	Yakima Nation	47 39 48.03	8/1/2014								0.9 mile Main Channel
	Action Description	Added in-stream complexity and diversity through the creation of 22 margin wood structures and 43 boulder clusters.				-120 16 46.16									
4571**	Methow	Channel Access	Beaver Creek Weirs Access Enhancement Project	UCR Spr Chinook salmon, UCR steelhead trout, CR bull trout	WDFW, Reclamation, Methow Conservancy	Marracci: 48 24 5.9 Fort Thurlow: 48 20 34.45	Marracci: 11/7/2014 Fort Thurlow: 9/23/2014			D	P	7.5			
	Action Description	Established fish passage at two irrigation diversion complexes (Marracci and Fort Thurlow) on Beaver Creek.				Marracci: -120 2 29.76 Fort Thurlow: -120 2 53.7									
4572	Methow	Streamflow	Chewuch River Permanent Instream Flow Enhancement Project	UCR Spr Chinook, UCR steelhead and Columbia River bull trout	TU-WWP, Washington Parks, Methow Conservancy, Washington State Recreation and Conservation Office-Salmon Recovery Funding Board, WDFW, WDOE, NMFS, BPA	48 34 0.72	5/1/2014	9	32						
	Action Description	Improved infrastructure and entered into a permanent flow and operation agreement with Chewuch Canal Company. Converted 9,000 feet of open earthen ditch to enclosed pipe and implemented a new Perrygin Lake outlet works/inflow structure.				-120 10 32.78									

								STREAMFLOW		ACCESS			ENTRAINMENT		COMPLEXITY
Project ID	**Subbasin**	**Metric Type**	**Project Title**	**ESU/DPS**	**Major Sponsor / Partner**	**Lat Long**	**Construction Completion Date**	**Instream Volume (cfs)**	**Stream Length Miles**	**Type**	**Extent of Barrier**	**Access Miles**	**Screens Replaced**	**Stream Length Affected (Miles)**	**Complexity Miles/Type**
4573	Methow	Channel Complexity	Middle Methow River Rock Reach (M2-3R) Floodplain and Side Channel Enhancement Project	UCR spring Chinook, UCR steelhead, CR Bull trout	Methow Salmon Recovery Foundation, BPA, UCSRB, Methow Conservancy	48 25 58.9	9/29/2014								0.24 mile Main Channel
	Action Description	Enhanced complexity of 1250 feet of Middle Methow River, including 250 feet of spring fed backwater alcove habitat by excavating, placing 20 logs in two structures and replanting with native plants; Constructed 3 ELJs along 1000 feet of mainstem Methow River. Riparian revegetation on 1000 feet of river bank.				-120 9 29.1									
4518**	Wenatchee	Streamflow and Channel Access	Beaver Creek Diversion Access Enhancement	Spring Chinook, Steelhead, Bull Trout, and Coho	TUWWP, CCD, WDFW	47 46 28.62	10/1/2014	0.5	0.5	D	P	2.5			
	Action Description	0.5 CFS for one-half mile, one screen removed, one barrier removed, 2.5 miles of increased access, 1 acre riparian enhanced.				-120 37 57.25									
4574**	Wenatchee	Channel Access	Coulter Creek Barrier Removal Access Enhancement Project	Steelhead	CCNRD, Reclamation	47 45 57.87	11/21/2014			C	F	1.6			
	Action Description	Replaced an existing fish passage barrier culver with a bottomless arch structure.				-120 48 5.49									
4575**	Wenatchee		Lower Nason RM 3.7-4.7 (N1) Habitat Enhancement Project	Steelhead and spring Chinook	CCNRD, landowners	47 46 57.2	10/31/2014								0.1 mile Side Channel
	Action Description	Removal of 0.75 acres of floodplain fill and placement of 28 logs to enhance 0.7 acre of oxbow side channel habitat for 0.1 miles of side channel.				-120 43 33.3									

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Attachment 3 – Table 1. 2014 Tributary Habitat Reports by the Bureau of Reclamation

Report Name	Internet address	Date
Reclamation's 2014 Annual Report of Tributary Habitat Projects Completed for the 2010 FCRPS Biological Opinion	http://www.usbr.gov/pn/fcrps/habitat/projects/annualreports/2014annrpt.pdf	Jun-15
Oregon		
Grande Ronde River Basin		
Upper Grande Ronde Tributary Assessment	http://www.usbr.gov/pn/fcrps/habitat/projects/granderonde/reports/upgrta2014.pdf	Jan-14

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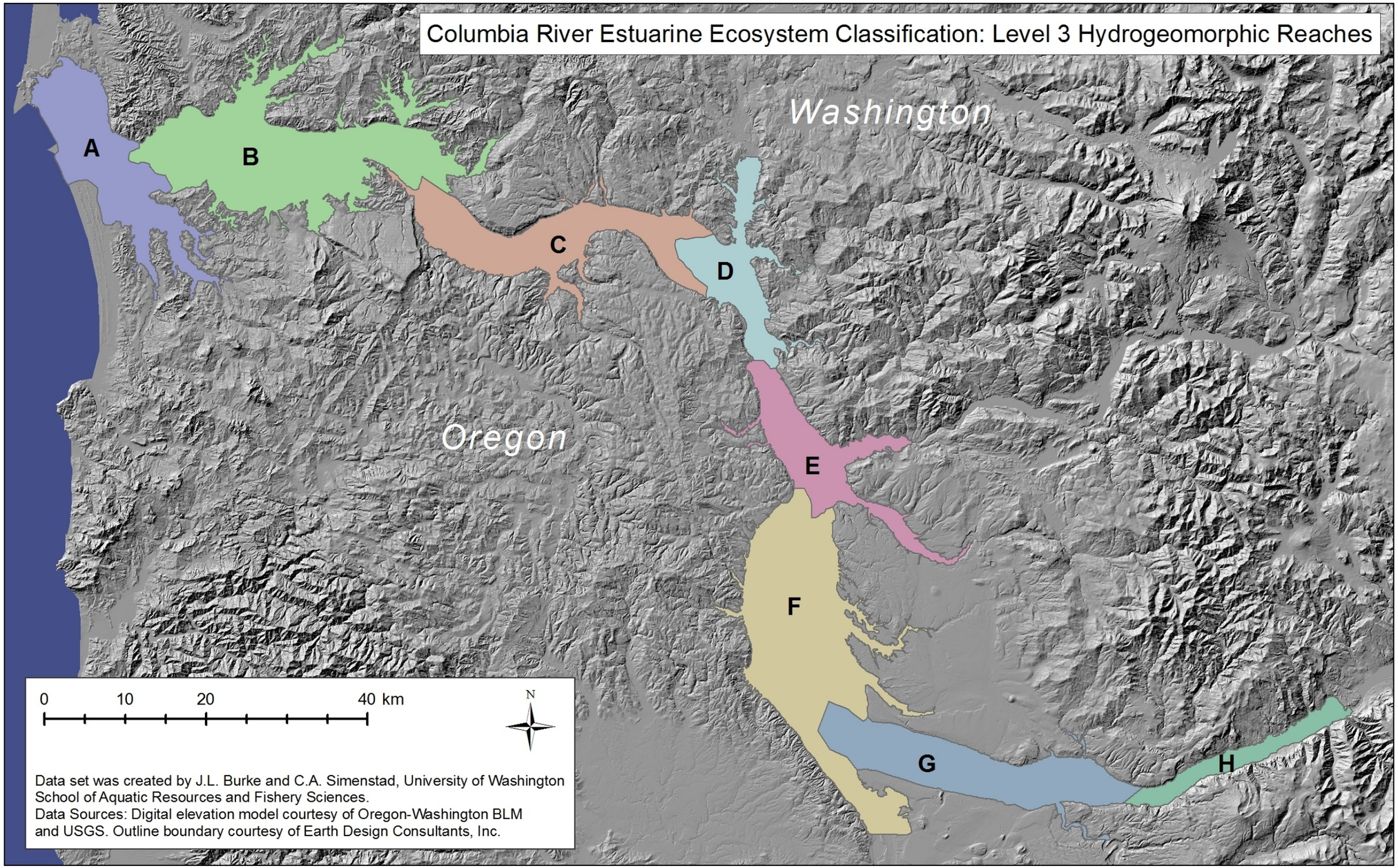
Attachment 4: Action Agency 2014 Estuary Habitat Projects



Attachment 4 – Table 1. Action Agency 2014 Estuary Habitat Projects

Location (Reach A–H)	Project Name	Project Number	Lead Agency / Sponsor	Estuary Module Action (Project Subactions Addressing Identified Limiting Factors)	Linear Miles of Riparian Stream / Channel Improved	Acres Restored	Ocean SBUs	Stream SBUs	[1]SBU Type	Status
Projects Completed in 2014										
A	Chinook River	2010-070-00	BPA / WDFW	CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality		41	0.694	0.358	ERTG Final	Completed in 2014
				CRE 10.3 Upgrade tide gates where (1) no other options exist, (2) upgraded structures can provide appropriate access for juveniles, and (3) ecosystem function would be improved over current conditions		310				
				CRE 15.3 Implement projects to address infestations on public and private lands		3				
A	Sharnelle Fee	2010-004-00	BPA / CREST	CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels		50	0.250	0.100	BA Final	Completed in 2014
B	Brix Bay Deep River Confluence – Phase 2	2010-073-00	BPA / Columbia Land Trust	CRE 9.3 Actively purchase off-channel habitats in urban and rural settings that (1) cannot be effectively protected through regulation, (2) are degraded but have good restoration potential, or (3) are highly degraded but could benefit from long-term restoration solutions (5 properties: #1 (55 acres) purchased in 2012; #2 (22 Acres) purchased in 2014, additional properties pursued 2015+		22	0.019	0.007	AA Final	Completed in 2014
B	Julia Butler Hansen NWR – Steamboat Slough	n/a	COE / USFWS	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia	1.6		0.384	0.135	ERTG Final	Completed in 2014
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality		7.7				
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels		67.6				

[1] **Preliminary SBU Score**: The AA's used the Expert Regional Technical Group's (ERTG) scoring criteria, scoring spreadsheet, and the SBU calculator to provide preliminary SBU scores of project concepts. The concepts consisted of a project goal map showing the 2-year flood inundation and all CRE restoration activities. .

BA Final SBU Score: Final scores that were included in the Biological Assessment were scores completed prior to the formation of the ERTG and were scored by the BPA contractor that developed the original SBU scoring mechanism. All BA final SBU scores were incorporated by NOAA as part of the Biological Opinion (BiOp).

ERTG Preliminary SBU Scores: If a project includes a type of restoration that has not been previously reviewed by the ERTG or if a project requires significant funding early in process the AAs ask the ERTG for a preliminary score. These scores are not considered final but rather provide the AA with some level of assurance that the project is still worth pursuing. Once the project gets far enough along in the design phase then the projects are taken to the ERTG for a final SBU score.

ERTG Final SBU Scores: Most if not all projects have either an AA or ERTG preliminary score to insure that the project meets selection criteria (see Preliminary SBU scores above). Once a project reaches approximately 60% design, an ERTG template is completed and then sent to the ERTG for their review. In almost all cases the ERTG is then taken on a site visit to better evaluate the potential of each project. After The ERTG scoring is documented by the ERTG facilitator and then an ERTG Project SBU Report is developed. All scores are considered final unless the project constructed deviates in any significant way from the project presented to the ERTG. To date no project has been constructed in a manner deemed different enough to require re-scoring.

AA Final Scores: AA final scores are only used to calculate the benefit of passive restoration associated with land acquisitions. The AAs use a similar approach to the ERTG, incorporating CRE subaction information from the Estuary Module of the Lower Columbia River Recovery Plan. The AAs provide scores for certainty of success, habitat capacity and quality, and access using the same criteria as the ERTG.

Attachment 4 – Table 1. Action Agency 2014 Estuary Habitat Projects

Location (Reach A–H)	Project Name	Project Number	Lead Agency / Sponsor	Estuary Module Action (Project Subactions Addressing Identified Limiting Factors)	Linear Miles of Riparian Stream / Channel Improved	Acres Restored	Ocean SBUs	Stream SBUs	[1]SBU Type	Status
				CRE 15.3 Implement projects to address infestations on public and private lands		67.6				
B	Karlson Island	2010-004-00	BPA / CREST	CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels		313.5	0.511	0.157	ERTG Final	Completed in 2014
				CRE 15.3 Implement projects to address infestations on public and private lands		6				
F	Sauvie Island, North Unit Phase 2	2010-004-00	BPA / CREST	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia	1.7		1.062	0.337	ERTG Final	Completed in 2014
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality		3.3				
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels		137.9				
				CRE 15.3 Implement projects to address infestations on public and private lands		20.1				
G	Thousand Acres, Sandy River Delta	2003-011-00	BPA / Estuary Partner-ship	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia	3.9		0.137	0.053	ERTG Final	Completed in 2014
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality		3.5				
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels		28				
				CRE 15.3 Implement projects to address infestations on public and private lands		75				
H	Multnomah & Wahkeena Creeks-Benson Lake Site	2003-011-00	BPA / Estuary Partner-ship	CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality		3.5	0.038	0.019	AA Preliminary	Completed in 2014
				CRE 10.3 Upgrade tide gates where (1) no other options exist, (2) upgraded structures can provide appropriate access for juveniles, and (3) ecosystem function would be improved over current conditions		23				
				Total completed 2014	**7.2**	**1182.7**	**3.1**	**1.2**		

Attachment 4 – Table 1. Action Agency 2014 Estuary Habitat Projects

Location (Reach A–H)	Project Name	Project Number	Lead Agency / Sponsor	Estuary Module Action (Project Subactions Addressing Identified Limiting Factors)	Linear Miles of Riparian Stream / Channel Improved	Acres Restored	Ocean SBUs	Stream SBUs	[1]SBU Type	Status
Projects initiated or continued development in 2014, completion anticipated in 2015 & beyond (metrics are included within Estuary Module Action)										
A	Skipanon Slough, 8th St. Dam	2010-004-00	BPA / CREST	CRE 10.2 Remove tide gates to improve the hydrology between wetlands and the channel and to provide juveniles with physical access to off-channel habitat; use a habitat connectivity index to prioritize projects (299.3 Acres)			0.908	0.363	ERTG Final	Final design continued in 2014; anticipate restoration completion in 2016
A	Wallacut River – Phase 2	2010-073-00 2003-011-00	BPA / Columbia Land Trust	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (3.4 miles)			0.290	0.100	ERTG Final	Acquisition complete in 2012, final design continued in 2014; anticipate restoration completion in 2016
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (3 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (45.6 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (80 Acres)						
A	Youngs Bay/River Tidal Floodplain Recon-nection	2012-015-00	BPA / COE / Cowlitz Tribe	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (0.5 Miles)			3.323	1.219	ERTG Preliminary	Feasibility continued in 2014; anticipate restoration completion in 2018
				CRE 9.3 Actively purchase off-channel habitats in urban and rural settings that (1) cannot be effectively protected through regulation, (2) are degraded but have good restoration potential, or (3) are highly degraded but could benefit from long-term restoration solutions (251 Acres)						
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (67 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (375 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (66 Acres)						

Attachment 4 – Table 1. Action Agency 2014 Estuary Habitat Projects

Location (Reach A–H)	Project Name	Project Number	Lead Agency / Sponsor	Estuary Module Action (Project Subactions Addressing Identified Limiting Factors)	Linear Miles of Riparian Stream / Channel Improved	Acres Restored	Ocean SBUs	Stream SBUs	[1]SBU Type	Status
A	Lewis & Clark River Upper #1	2010-004-00	BPA / CREST	CRE 9.3 Actively purchase off-channel habitats in urban and rural settings that (1) cannot be effectively protected through regulation, (2) are degraded but have good restoration potential, or (3) are highly degraded but could benefit from long-term restoration solutions (37 Acres)			0.211	0.069	Preliminary	Feasibility initiated in 2014; anticipate restoration completion in 2017
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (1 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (34 Acres)						
A	Trestle Bay Jetty Breach	N/A	Corps / CREST	CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (628 Acres)			1.603	0.493	ERTG Final	Final design continued in 2014; anticipate restoration completion in 2016
A	Wallooskee-Young's Bay Confluence	2012-015-00	BPA / Cowlitz Tribe	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (0.75 Miles)			2.132	0.764	ERTG Final	Acquisition complete in 2013, final design continued in 2014; anticipate restoration completion in 2016
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (23.45 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (168.61 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (193.11 Acres)						
B	Brix Bay Deep River Confluence – Phase 3	2010-073-00	BPA / Columbia Land Trust	CRE 9.3 Actively purchase off-channel habitats in urban and rural settings that (1) cannot be effectively protected through regulation, (2) are degraded but have good restoration potential, or (3) are highly degraded but could benefit from long-term restoration solutions (5 properties: #1 (55 acres) purchased in 2012; #2 (22 Acres) purchased in 2014, additional properties (51 Acres) pursued 2015+			0.874	0.379	Preliminary	Acquisition #1 complete in 2012; #2 complete in 2014; continue to negotiate remaining parcels; anticipate restoration completion in 2018
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (12 Acres)						
				CRE 10.2 Remove tide gates to improve the hydrology between wetlands and the channel and to provide juveniles with physical access to off-channel habitat; use a habitat connectivity index to prioritize projects (159 Acres)						

Attachment 4 – Table 1. Action Agency 2014 Estuary Habitat Projects

Location (Reach A–H)	Project Name	Project Number	Lead Agency / Sponsor	Estuary Module Action (Project Subactions Addressing Identified Limiting Factors)	Linear Miles of Riparian Stream / Channel Improved	Acres Restored	Ocean SBUs	Stream SBUs	[1]SBU Type	Status
B	Crooked Creek Upstream	2010-073-00	BPA / Columbia Land Trust	CRE 9.3 Actively purchase off-channel habitats in urban and rural settings that (1) cannot be effectively protected through regulation, (2) are degraded but have good restoration potential, or (3) are highly degraded but could benefit from long-term restoration solutions (3 properties, 139 Acres)			1.062	0.344	Preliminary	Engaged in Acquisitions; anticipate restoration completion in 2018
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (3.5 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (114 Acres)						
B	Elochoman Slough – Phase 3	2010-073-00 2010-070-00	BPA / WDFW / Columbia Land Trust	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (0.9 miles)			0.727	0.312	ERTG Final	Completed acquisition #1 in 2009, acquisition #2 in 2012, final design continued in 2014; anticipate restoration completion in 2015 & 2016
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (12.6 Acres)						
				CRE 10.2 Remove tide gates to improve the hydrology between wetlands and the channel and to provide juveniles with physical access to off-channel habitat; use a habitat connectivity index to prioritize projects (255.4 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (296.5 Acres)						
B	Svensen Island, Cathlamet Bay	2010-073-00	BPA / COE / Columbia Land Trust	CRE 9.3 Actively purchase off-channel habitats in urban and rural settings that (1) cannot be effectively protected through regulation, (2) are degraded but have good restoration potential, or (3) are highly degraded but could benefit from long-term restoration solutions (306 Acres)			2.749	0.938	ERTG Preliminary	Engage in acquisition negotiations; anticipate restoration completion in 2018
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (36.4 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (275.7 Acres)						

Attachment 4 – Table 1. Action Agency 2014 Estuary Habitat Projects

Location (Reach A–H)	Project Name	Project Number	Lead Agency / Sponsor	Estuary Module Action (Project Subactions Addressing Identified Limiting Factors)	Linear Miles of Riparian Stream / Channel Improved	Acres Restored	Ocean SBUs	Stream SBUs	[1]SBU Type	Status
B	Grays River Confluence	2010-073-00	BPA / Columbia Land Trust	CRE 9.3 Actively purchase off-channel habitats in urban and rural settings that (1) cannot be effectively protected through regulation, (2) are degraded but have good restoration potential, or (3) are highly degraded but could benefit from long-term restoration solutions (7 properties: #1 (123 acres) purchased in 2013; #2-#7 (255 acres) anticipated in 2014+)			3.646	1.208	Preliminary	Acquisition #1 complete in 2013, continue to negotiate parcels #2-#7; anticipate restoration completion in 2018
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (16 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (282 Acres)						
C	Kerry Island	2010-073-00	BPA / Columbia Land Trust	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (2 miles)			1.109	0.375	ERTG Final	Acquisition complete in 2013; initiated design in 2014; anticipate restoration completion in 2016
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (5.6 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (95.5 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (110 Acres)						
C	Clatskanie River / Beaver Slough Confluence	2003-011-00 2010-073-00	BPA / Estuary Partner-ship	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (2.5 miles)			0.995	0.343	ERTG Preliminary	Engage in acquisition negotiations; anticipate restoration completion in 2018
				CRE 9.3 Actively purchase off-channel habitats in urban and rural settings that (1) cannot be effectively protected through regulation, (2) are degraded but have good restoration potential, or (3) are highly degraded but could benefit from long-term restoration solutions (4 properties 294 Acres)						
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (21.6 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (293.2 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (293.2 Acres)						

Attachment 4 – Table 1. Action Agency 2014 Estuary Habitat Projects

Location (Reach A–H)	Project Name	Project Number	Lead Agency / Sponsor	Estuary Module Action (Project Subactions Addressing Identified Limiting Factors)	Linear Miles of Riparian Stream / Channel Improved	Acres Restored	Ocean SBUs	Stream SBUs	[1]SBU Type	Status
C	Batwater Station	2003-011-00	BPA / Estuary Partner-ship	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (0.2 miles)			0.258	0.083	ERTG Final	Design Continued in 2014; anticipate restoration completion in 2015
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (1 Acre)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (25.6 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (25.6 Acres)						
C	Erickson Dike Slough	2010-004-00	BPA / CREST	CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (1 Mile)			0.673	0.21	Preliminary	Design continued in 2014; anticipate restoration completion in 2016
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (74 Acres)						
D	Carr Slough	2003-011-00	BPA / Estuary Partner-ship	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (0.1 miles)			0.257	0.117	Preliminary	Initiated feasibility in 2013; anticipate restoration completion in 2017
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (10.8 Acre)						
				CRE 10.2 Remove tide gates to improve the hydrology between wetlands and the channel and to provide juveniles with physical access to off-channel habitat; use a habitat connectivity index to prioritize projects (98.7 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (98.7 Acres)						

Attachment 4 – Table 1. Action Agency 2014 Estuary Habitat Projects

Location (Reach A–H)	Project Name	Project Number	Lead Agency / Sponsor	Estuary Module Action (Project Subactions Addressing Identified Limiting Factors)	Linear Miles of Riparian Stream / Channel Improved	Acres Restored	Ocean SBUs	Stream SBUs	[1]SBU Type	Status
E	Columbia Stock Ranch – Phase 2	2010-073-00	BPA / COE / Columbia Land Trust	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (7 Miles)			4.441	1.432	ERTG Preliminary	Acquisition completed in 2012, anticipate restoration completion in 2017
				CRE 6.2 Identify and implement dredged material beneficial use demonstration projects, including the notching and scrape-down of previously disposed materials and placement of new materials for habitat enhancement and/or creation (16 Acres)						
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (3 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (360 Acres)						
				CRE 10.2 Remove tide gates to improve the hydrology between wetlands and the channel and to provide juveniles with physical access to off-channel habitat; use a habitat connectivity index to prioritize projects (9 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (746 Acres)						
E	Large Dike Breach-Reach E	n/a	BPA	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (38 miles)			35.2	12.7	ERTG Preliminary	Feasibility continued in 2014
				CRE 9.3 Actively purchase off-channel habitats in urban and rural settings that (1) cannot be effectively protected through regulation, (2) are degraded but have good restoration potential, or (3) are highly degraded but could benefit from long-term restoration solutions (3,275 Acres)						
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (272.8 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (2063 Acres)						

Attachment 4 – Table 1. Action Agency 2014 Estuary Habitat Projects

Location (Reach A–H)	Project Name	Project Number	Lead Agency / Sponsor	Estuary Module Action (Project Subactions Addressing Identified Limiting Factors)	Linear Miles of Riparian Stream / Channel Improved	Acres Restored	Ocean SBUs	Stream SBUs	[1]SBU Type	Status
E	LaCenter Wetlands, Lewis River East Fork	2003-011-00	BPA / Estuary Partner-ship	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (1.6 Miles)			1.49	0.468	ERTG Final	Design initiated in 2014; anticipate restoration completion in 2015
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (6.5 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (453 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (14 Acres)						
F	Dairy Creek – Sturgeon Lake	N/A	Corps / BPA/ West Multno-mah Soil & Water Conserva-tion District	CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (7.7 Acres)			0.337	0.139	ERTG Final	Feasibility completed in 2014; anticipate restoration completion in 2017
				CRE 10.2 Remove tide gates to improve the hydrology between wetlands and the channel and to provide juveniles with physical access to off-channel habitat; use a habitat connectivity index to prioritize projects (4100 Acres)						
F	Sauvie Island, North Unit Phase 3	2010-004-00	BPA / CREST	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (0.4 Miles)			0.34	0.1	ERTG Final	Design continued in 2014; anticipate restoration completion in 2015
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (2.1 Acres)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (43.3 Acres)						
				CRE 10.2 Remove tide gates to improve the hydrology between wetlands and the channel and to provide juveniles with physical access to off-channel habitat; use a habitat connectivity index to prioritize projects (24.9 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (1.4 Acres)						

Attachment 4 – Table 1. Action Agency 2014 Estuary Habitat Projects

Location (Reach A–H)	Project Name	Project Number	Lead Agency / Sponsor	Estuary Module Action (Project Subactions Addressing Identified Limiting Factors)	Linear Miles of Riparian Stream / Channel Improved	Acres Restored	Ocean SBUs	Stream SBUs	[1]SBU Type	Status
F	Buckmire Slough	2010-070-00 2010-004-00	BPA / WDFW / CREST	CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (100 Acres)			3.299	1.208	ERTG Preliminary	Feasibility initiated in 2013; anticipate restoration completion in 2015 & 2018
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (456.1 Acres)						
F	Duck Lake	2003-011-00	BPA / Estuary Partner-ship	CRE 1.4 Restore and maintain ecological benefits in riparian areas; this includes managing vegetation on dikes and levees to enhance ecological function and adding shoreline/instream complexity for juvenile salmonid refugia (1 Mile)			0.182	0.061	Preliminary	Feasibility continued in 2014; anticipate restoration completion in 2016
				CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (1.9 Acre)						
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (49 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (29 Acres)						
F	Crane Slough	2010-004-00	BPA / CREST	CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (1 Acre)			0.191	0.062	Preliminary	Initiated feasibility in 2013; anticipate restoration completion in 2016
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (24 Acres)						
F	Domeyer Wetland	2010-004-00	BPA / CREST	CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (1 Acre)			0.317	0.101	Preliminary	Initiated feasibility in 2013; anticipate restoration completion in 2016
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (50 Acres)						
F	John R. Palensky	2010-004-00	BPA / CREST	CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (71 Acres)			0.477	0.147	Preliminary	Initiated feasibility in 2013; anticipate restoration completion in 2017
F	Willow Bar	2010-004-00	BPA / CREST	CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (0.3 Acre)			0.208	0.064	Preliminary	Initiated feasibility in 2013; anticipate restoration completion in 2016
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (42 Acres)						

Attachment 4 – Table 1. Action Agency 2014 Estuary Habitat Projects

Location (Reach A–H)	Project Name	Project Number	Lead Agency / Sponsor	Estuary Module Action (Project Subactions Addressing Identified Limiting Factors)	Linear Miles of Riparian Stream / Channel Improved	Acres Restored	Ocean SBUs	Stream SBUs	[1]SBU Type	Status
G	Steigerwald NWR	TBD	BPA / Estuary Partner-ship	CRE 9.4 restore degraded off-channel habitats with high intrinsic potential for increasing habitat quality (84 Acres)			4.310	1.579	ERTG Preliminary	Feasibility continued in 2014; anticipate restoration completion 2018
				CRE 10.1 Breach or lower the elevation of dikes and levees; create and/or restore tidal marshes, shallow-water habitats, and tide channels (510 Acres)						
				CRE 15.3 Implement projects to address infestations on public and private lands (1060 Acres)						
Projects no longer pursued										
B	Jim Crow Creek	N/A	BPA	No metrics to report						Project is not cost effective to implement
B	Rangila South	N/A	BPA	No metrics to report						Project is not cost effective to implement
C	Reach C /D Rinearson Tidegate Upgrade	N/A	BPA / Cowlitz Tribe	No metrics to report						Project is not cost effective to implement
C	Westport Levee Setback	N/A	BPA / Columbia Land Trust	No metrics to report						Project is not cost effective to implement
E	RM 81 Island	N/A	BPA / Columbia Land Trust	No metrics to report						Project is not feasible to implement
E	Lewis River, Willamette Meridian (Mud Lake)	N/A	BPA / Cowlitz Tribe	No metrics to report						Project is not feasible to implement
F	Large Dike Breach Reach F	N/A	BPA / Columbia Land Trust	No metrics to report						Project is not feasible to implement
F	Shillapoo Wildlife Area	N/A	BPA / WDFW	No metrics to report						Project is not feasible to implement

Attachment 4 – Table 1. Action Agency 2014 Estuary Habitat Projects

Location (Reach A–H)	Project Name	Project Number	Lead Agency / Sponsor	Estuary Module Action (Project Subactions Addressing Identified Limiting Factors)	Linear Miles of Riparian Stream / Channel Improved	Acres Restored	Ocean SBUs	Stream SBUs	[1]SBU Type	Status
F	Smith & Bybee	N/A	BPA / Estuary Partner-ship	No metrics to report						Project is not cost effective to implement
G	Sandy Delta – Sun Dial Island	N/A	BPA / Estuary Partner-ship	No metrics to report						Project is not feasible to implement

Preliminary SBU Score: The AA's used the Expert Regional Technical Group's (ERTG) scoring criteria, scoring spreadsheet, and the SBU calculator to provide preliminary SBU scores of project concepts. The concepts consisted of a project goal map showing the 2-year flood inundation and all CRE restoration activities.

BA Final SBU Score: Final scores that were included in the Biological Assessment were scores completed prior to the formation of the ERTG and were scored by the BPA contractor that developed the original SBU scoring mechanism. All BA final SBU scores were incorporated by NOAA as part of the Biological Opinion (BiOp).

ERTG Preliminary SBU Scores: If a project includes a type of restoration that has not been previously reviewed by the ERTG or if a project requires significant funding early in process the AAs ask the ERTG for a preliminary score. These scores are not considered final but rather provide the AA with some level of assurance that the project is still worth pursuing. Once the project gets far enough along in the design phase then the projects are taken to the ERTG for a final SBU score.

ERTG Final SBU Scores: Most if not all projects have either an AA or ERTG preliminary score to insure that the project meets selection criteria (see Preliminary SBU scores above). Once a project reaches approximately 60% design, an ERTG template is completed and then sent to the ERTG for their review. In almost all cases the ERTG is then taken on a site visit to better evaluate the potential of each project. After The ERTG scoring is documented by the ERTG facilitator and then an ERTG Project SBU Report is developed. All scores are considered final unless the project constructed deviates in any significant way from the project presented to the ERTG. To date no project has been constructed in a manner deemed different enough to require re-scoring.

AA Final Scores: AA final scores are only used to calculate the benefit of passive restoration associated with land acquisitions. The AAs use a similar approach to the ERTG, incorporating CRE subaction information from the Estuary Module of the Lower Columbia River Recovery Plan. The AAs provide scores for certainty of success, habitat capacity and quality, and access using the same criteria as the ERTG.

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