

# *Endangered Species Act*

## **2003 Progress Report for the Federal Columbia River Power System**

### **Appendix**

#### *List of Projects by H-category for each ESU*

US Army Corps of Engineers  
Bureau of Reclamation  
Bonneville Power Administration

June 2004

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# **2003 Progress Report Appendix**

## **List of Projects by H-category for each ESU**

The tables in this Appendix identify Action Agency projects that are expected to benefit jeopardized ESUs, bull trout and Kootenai River white sturgeon and had accomplishments in FY 2003. The tables are sorted by strategy and/or substrategy.

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## 2003 Hydro Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sitld</i>	<i>SR Sitld</i>	<i>LCR Sitld</i>	<i>UWR Sitld</i>	<i>MCR Sitld</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Hydro</b>															
<b>1. Configure Dam Facilities to Enhance Juvenile &amp; Adult Fish Passage &amp; Survival</b>															
<b>1.1 Mainstem juvenile passage enhancement</b>															
133 - 1996-021-00 Gas Bubble Disease Research and Monitoring of Juvenile Salmonids	BPA	X	X			X	X	X	X	X	X		X	X	
134 - 1997-024-00 Avian Predation on Juvenile Salmonids	BPA		X	X	X	X	X	X	X	X	X	X	X		
247 - 1989-107-00 Statistical Support for Salmonid Survival Studies	BPA	X	X	X	X	X	X	X	X	X	X	X	X		
253 - 1994-033-00 Fish Passage Center	BPA														X
322 - 1990-077-00 Northern Pikeminnow Management Program	BPA														X
2026 - CENWW CRFM Ice Harbor Survival/Efficiency Study	CORPS									X					
2048 - CENWW CRFM Lower Monumental Flow Deflectors	CORPS														X
2055 - CENWW CRFM McNary Flow Deflectors and Divider Wall Evaluations	CORPS												X		
2056 - CENWW CRFM McNary Forebay Temperature Improvements	CORPS	X													
2082 - Bonneville 2nd PH surface bypass (corner collector)	CORPS						X								
2084 - Bonneville 2nd PH FGE improvements	CORPS						X								
2087 - Bonneville flat plate detector	CORPS		X	X		X									
2089 - Bonneville 2nd PH gatewell debris removal	CORPS	X	X	X		X	X	X	X	X	X			X	
2095 - John Day Screens	CORPS	X	X					X	X	X				X	
2098 - The Dalles sluiceway outfall relocation and emergency AWS	CORPS	X	X			X		X	X	X				X	
2100 - Turbine passage studies	CORPS	X	X	X		X	X	X	X	X	X			X	X
2103 - Bonneville 1st PH FGE	CORPS	X	X	X		X	X	X	X	X	X			X	
2104 - Bonneville 1st PH Surface Bypass	CORPS	X	X	X		X	X	X	X	X	X			X	
2105 - Bonneville 1st PH JBS improvements	CORPS	X	X	X		X	X	X	X	X	X			X	
2106 - Bonneville 2nd PH JBS improvements	CORPS	X	X	X		X	X	X	X	X	X			X	
2109 - The Dalles surface bypass and forebay passage improvements	CORPS	X	X			X		X	X	X				X	
2111 - GENWP Operation and Maintenance of Bonneville Lock and Dam Fish Passage Facilities	CORPS	X	X	X		X	X	X	X	X	X			X	X
2151 - John Day Adult PIT tag	CORPS	X	X	X	X	X	X	X	X	X	X	X	X	X	
2152 - High Q PIT tag	CORPS	X	X	X	X	X	X	X	X	X	X	X	X	X	
2153 - The Dalles Decision Framework	CORPS	X	X	X	X	X	X	X	X	X	X	X	X	X	

## 2003 Hydro Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Stlhd</i>	<i>SR Stlhd</i>	<i>LCR Stlhd</i>	<i>UWR Stlhd</i>	<i>MCR Stlhd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Hydro</b>															
<b>1. Configure Dam Facilities to Enhance Juvenile &amp; Adult Fish Passage &amp; Survival</b>															
<b>1.2 Mainstem adult passage enhancement</b>															
247 - 1989-107-00 Statistical Support for Salmonid Survival Studies	BPA	X	X	X	X	X	X	X	X	X	X	X	X		
253 - 1994-033-00 Fish Passage Center	BPA		X	X		X									X
2022 - CENWW CRFM Ice Harbor Adult Pit	CORPS	X	X					X		X					
2023 - CENWW CRFM Ice Harbor Emergency Auxiliary Water Supply	CORPS	X	X					X		X					
2033 - CENWW CRFM Little Goose Auxiliary Water Supply	CORPS	X	X					X		X					
2039 - CENWW CRFM Lower Granite Emergency Auxiliary Water Supply	CORPS	X	X					X		X					
2046 - CENWW CRFM Lower Monumental Auxiliary Water Supply	CORPS	X	X					X		X					
2083 - Bonneville 2nd PH fish unit trash rake	CORPS	X	X	X		X	X	X	X	X	X			X	
2085 - Bonneville 2nd PH emergency AWS	CORPS	X	X	X		X	X	X	X	X	X			X	
2092 - John Day Ladder Temperature	CORPS	X	X			X		X	X	X				X	
2093 - John Day N. Shore AWS	CORPS	X	X			X		X	X	X				X	
2102 - Adult PIT tag program (Bonneville Dam)	CORPS	X	X	X		X	X	X	X	X	X			X	
2108 - The Dalles adult entrance channel dewatering mods	CORPS	X	X			X		X	X	X				X	
2111 - GENWP Operation and Maintenance of Bonneville Lock and Dam Fish Passage Facilities	CORPS	X	X	X		X	X	X	X	X	X			X	X
<b>1.3 Measures that address temperature/dissolve gas</b>															
2003 - CENWW CRFM System - Adult Temperature Evaluation	CORPS	X	X					X		X					
2014 - CENWW OM Modify Dworshak National Fish Hatchery System 1 Reuse System	CORPS	X	X					X		X					
2048 - CENWW CRFM Lower Monumental Flow Deflectors	CORPS	X	X					X		X					X
2055 - CENWW CRFM McNary Flow Deflectors and Divider Wall Evaluations	CORPS	X	X			X		X	X	X				X	
2056 - CENWW CRFM McNary Forebay Temperature Improvements	CORPS	X													
2080 - Water Quality Plan	CORPS		X	X		X									
2081 - Bonneville Spillway Flow Deflectors	CORPS	X	X	X		X	X	X	X	X	X			X	
2092 - John Day Ladder Temperature	CORPS	X	X			X		X	X	X				X	
2094 - John Day surface bypassspillway improvements	CORPS	X	X			X		X	X	X				X	
2107 - The Dalles spillway survival improvement	CORPS	X	X			X		X	X	X					

## 2003 Hydro Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Stlhd</i>	<i>SR Stlhd</i>	<i>LCR Stlhd</i>	<i>UWR Stlhd</i>	<i>MCR Stlhd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Hydro</b>															
<b>1. Configure Dam Facilities to Enhance Juvenile &amp; Adult Fish Passage &amp; Survival</b>															
<b>1.3 Measures that address temperature/dissolve gas</b>															
2126 - CENWW OM Redundant TDG Monitors - Dworshak to McNary Dam	CORPS	X	X			X		X	X	X				X	
2127 - CENWW OM Review of Forebay Monitors Lower Granite to McNary	CORPS	X	X			X		X	X	X				X	
6003 - 11.A.1.3.C Evaluate TDG below Albeni Falls Dam	CORPS													X	
6014 - 131 Fixed TDG Monitoring Stations, Chief Joseph Dam	CORPS					X			X						
6017 - 132 Review TDG Monitoring Stations, Chief Joseph Dam	CORPS					X			X						
6019 - 143 System Water Temperature Modeling, Chief Joseph Dam [Snake River]	CORPS	X	X					X		X					
6024 - 131 Total Dissolved Gas Monitoring, Libby Dam	CORPS														X
<b>1.4 Project configuration RME</b>															
127 - 2000-017-00 Kelt Reconditioning Research	BPA									X				X	
130 - 1983-319-00 New Marking and Monitoring Techniques	BPA	X	X	X		X		X	X	X	X			X	
131 - 2001-003-00 Installation of Adult PIT-tag Detection Systems	BPA	X	X	X		X		X	X	X	X			X	
2003 - CENWW CRFM System - Adult Temperature Evaluation	CORPS	X	X					X		X					
2026 - CENWW CRFM Ice Harbor Survival/Efficiency Study	CORPS	X	X					X		X					
2086 - Bonneville adult fallback	CORPS	X	X	X		X	X	X	X	X	X			X	
2096 - John Day survival and passage efficiency studies	CORPS	X	X			X		X	X	X				X	
2099 - The Dalles project survival study	CORPS	X	X			X		X	X	X				X	
2100 - Turbine passage studies	CORPS	X	X	X		X	X	X	X	X	X			X	X
2101 - Adult migration studies	CORPS	X	X	X		X			X	X	X			X	
2120 - CENWW OM Juvenile salmon transportation evaluations	CORPS	X	X			X		X	X	X				X	

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<b>Hydro</b>															
<b>2. Manage Water to Enhance Juvenile &amp; Adult Fish Survival</b>															
<b>2.1 Reservoir operations to enhance fish survival</b>															
2004 - Albeni Falls Operation	CORPS						X							X	
2009 - Chum Flows Below Bonneville Dam	CORPS						X								
2015 - Dworshak Operations	CORPS	X	X	X		X	X	X	X	X	X			X	
2030 - John Day Minimum Pool Operation	CORPS	X	X			X		X	X	X				X	
2032 - Libby Operations Anadromous	CORPS	X	X	X		X	X	X	X	X	X			X	
2052 - Lower Snake projects Minimum Operating Pool operation	CORPS	X	X					X		X					
2064 - Operate Turbine units at 1% efficiency range	CORPS	X	X	X		X	X	X	X	X	X			X	
2068 - Shift Flood Control to Maximize Snake River Water Storage	CORPS	X	X	X		X		X	X	X	X			X	
2080 - Water Quality Plan	CORPS		X	X		X									
2124 - Revise Storage Diagrams for Libby	CORPS	X	X	X		X		X	X	X	X			X	
4081 - Hy14.HGH.01.000.00 Hungry Horse Operations--VARQ operations	USBR	X	X			X		X	X	X				X	X
6003 - 11.A.1.3.C Evaluate TDG below Albeni Falls Dam	CORPS														X
6017 - 132 Review TDG Monitoring Stations, Chief Joseph Dam	CORPS					X			X						
6019 - 143 System Water Temperature Modeling, Chief Joseph Dam [Snake River]	CORPS	X	X					X		X					
6023 - 8.3.h Water Temperature Profile Project, Libby Dam	CORPS														X
6024 - 131 Total Dissolved Gas Monitoring, Libby Dam	CORPS														X
<b>2.2 System flow mgmt to enhance fish survival</b>															
2014 - CENWW OM Modify Dworshak National Fish Hatchery System 1 Reuse System	CORPS	X	X					X		X					
2020 - Flow Objectives at McNary	CORPS	X	X	X		X		X	X	X	X			X	
2021 - Flow Objectives at Lower Granite	CORPS	X	X	X		X		X	X	X	X			X	
2065 - Priest Rapids Flow Objective	CORPS		X	X		X		X	X	X	X			X	
2109 - The Dalles surface bypass and forebay passage improvements	CORPS	X	X			X		X	X	X				X	
2127 - CENWW OM Review of Forebay Monitors Lower Granite to McNary	CORPS	X	X			X		X	X	X				X	
4077 - Hy14.GCL.01.000.00 Grand Coulee Operations	USBR	X	X			X	X	X	X	X				X	
4080 - Hy23.BNK.01.000.00 Banks Lake Operations	USBR	X				X			X						

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<b>Hydro</b>															
<b>2. Manage Water to Enhance Juvenile &amp; Adult Fish Survival</b>															
<b>2.2 System flow mgmt to enhance fish survival</b>															
4081 - Hy14.HGH.01.000.00 Hungry Horse Operations--VARQ operations	USBR	X	X			X		X	X	X			X	X	
4111 - HY30.YKM.01.000.00 Yakima Project Consultation	USBR												X	X	
6002 - 8.2.a.4; 8.2.a.5; 8.2.a.6; 8.2.a.7; 8.2.d Preliminary Evaluation of the Feasibility of Commissioning One or Two Additional Generating Units at Libby Dam	CORPS														X
6012 - 22; 137; 8.1.b; 8.2.a.1; 8.2.a.3; 8.2.a.4 Spill Test at Libby Dam on Total Dissolved Gas Impacts	CORPS														X
6014 - 131 Fixed TDG Monitoring Stations, Chief Joseph Dam	CORPS					X			X						
6023 - 8.3.h Water Temperature Profile Project, Libby Dam	CORPS														X
<b>2.3 Spill operations for project passage</b>															
133 - 1996-021-00 Gas Bubble Disease Research and Monitoring of Juvenile Salmonids	BPA	X	X			X	X	X	X	X	X		X	X	
2132 - Spill for Juvenile Fish Passage	CORPS	X	X	X		X		X	X	X	X		X		
<b>2.5 Other actions to enhance water management</b>															
191 - Report on use of Additional Canadian Storage To support mainstream flow objectives	BPA	X	X	X		X		X							
2010 - Coordinate Water Management Decisions with TMT	CORPS	X	X	X		X	X	X	X	X	X		X	X	X
2073 - Water Management Plan	CORPS		X	X		X									X
2117 - Evaluate Flood Control Operations to Reduce River Ecosystem Effects	CORPS	X	X	X		X	X	X	X	X	X		X	X	X
2122 - Request/Negotiate 1 MAF of Treaty storage with BC Hydro	CORPS	X	X	X		X		X	X	X	X		X	X	X
2123 - Up to 3.5 MAF flow augmentation from Canadian storage in July and August	CORPS	X	X	X		X		X	X	X	X		X		
4061 - Hy30.DES.01.000.00 Deschutes Project ESA Consultation with NMFS	USBR												X	X	
4063 - Hy30.TUL.01.000.00 Tualatin Project ESA Consultation with NMFS	USBR						X							X	
4064 - Hy30.UMA.01.000.00 Umatilla Project ESA Consultation with NMFS	USBR												X	X	
4066 - Hy31.CBP.01.100.00 Banks Lake Drawdown EIS	USBR	X				X			X						
4067 - Hy32.USN.01.100.00 Water Acquisition from Reclamation's Snake River Projects	USBR	X	X			X		X	X	X			X	X	
4068 - Hy37.CBP.01.200.00 Columbia Basin Project Wasteway and Drain Investigation	USBR												X		
4113 - Hy39.CBP.01.300.00 Columbia R. Return Flow WQ Monitoring Study	USBR					X			X				X		
4115 - Hy38.CBP.01.001.00 Burbank #2&#3Pumps	USBR					X			X				X		



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<b>Hydro</b>															
<b>3. Operate &amp; Maintain Fish Passage Facilities to Enhance Fish Survival</b>															
<b>3.1 Operations of FCRPS fish facilities</b>															
2005 - CENWW OM Adult Fish Counting at Mainstem Columbia and Snake River Projects	CORPS	X	X	X		X	X	X	X	X	X		X	X	
2006 - CENWW OM Avian Predation Measures at Mainstem Columbia and Snake River Projects	CORPS	X	X			X		X	X	X			X		
2019 - CENWW OM Fish Passage Plan Development and Implementation	CORPS	X	X	X		X	X	X	X	X	X		X	X	
2025 - CENWW OM Operation and Maintenance of Ice Harbor Lock and Dam Fish Passage Facilities	CORPS	X	X					X		X				X	
2028 - CENWP Non-Routine Maintenance of John Day Lock and Dam Fish Passage Facilities	CORPS	X	X			X		X	X	X			X	X	
2029 - CENWP Operation and Maintenance of John Day Lock and Dam Fish Passage Facilities	CORPS	X	X			X		X	X	X			X	X	
2037 - CENWW OM Operation and Maintenance of Little Goose Lock and Dam Fish Passage Facilities	CORPS	X	X					X		X				X	
2044 - CENWW OM Operation and Maintenance of Lower Granite Lock and Dam Fish Passage Facilities	CORPS	X	X					X		X				X	
2051 - CENWW OM Operation and Maintenance of Lower Monumental Lock and Dam Fish Passage Facilities	CORPS	X	X					X		X				X	
2060 - CENWW OM Operation and Maintenance of McNary Lock and Dam Fish Passage Facilities	CORPS	X	X			X		X	X	X			X		
2062 - CENWW OM Monitoring of Bull Trout at Mainstem Projects	CORPS													X	
2064 - Operate Turbine units at 1% efficiency range	CORPS	X	X	X		X	X	X	X	X	X		X		
2071 - CENWP Operation and Maintenance of The Dalles Lock and Dam Fish Passage Facilities	CORPS	X	X			X		X	X	X			X	X	
2072 - CENWW OM Improve Operations of Adult Fishway Main Entrances	CORPS	X	X	X		X	X	X	X	X	X		X		
2132 - Spill for Juvenile Fish Passage	CORPS	X	X	X		X		X	X	X	X		X		
2134 - CENWP SW Washington Streams Section 206	CORPS						X				X				
<b>3.2 Routine maintenance on fish/wildlife facility</b>															
253 - 1994-033-00 Fish Passage Center	BPA		X	X		X								X	
2025 - CENWW OM Operation and Maintenance of Ice Harbor Lock and Dam Fish Passage Facilities	CORPS	X	X					X		X				X	
2029 - CENWP Operation and Maintenance of John Day Lock and Dam Fish Passage Facilities	CORPS	X	X			X		X	X	X			X	X	
2037 - CENWW OM Operation and Maintenance of Little Goose Lock and Dam Fish Passage Facilities	CORPS	X	X					X		X				X	

## 2003 Hydro Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sithd</i>	<i>SR Sithd</i>	<i>LCR Sithd</i>	<i>UWR Sithd</i>	<i>MCR Sithd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Hydro</b>															
<b>3. Operate &amp; Maintain Fish Passage Facilities to Enhance Fish Survival</b>															
<b>3.2 Routine maintenance on fish/wildlife facility</b>															
2044 - CENWW OM Operation and Maintenance of Lower Granite Lock and Dam Fish Passage Facilities	CORPS	X	X					X		X					X
2051 - CENWW OM Operation and Maintenance of Lower Monumental Lock and Dam Fish Passage Facilities	CORPS	X	X					X		X					X
2060 - CENWW OM Operation and Maintenance of McNary Lock and Dam Fish Passage Facilities	CORPS	X	X			X		X	X	X			X		
2062 - CENWW OM Monitoring of Bull Trout at Mainstem Projects	CORPS														X
2069 - CENWW OM Spare Parts for Fish Passage Facilities	CORPS	X	X	X		X	X	X	X	X	X		X	X	
2071 - CENWP Operation and Maintenance of The Dalles Lock and Dam Fish Passage Facilities	CORPS	X	X			X		X	X	X			X	X	
<b>3.3 Non-routine maintenance-fish &amp; wildlife facility</b>															
2007 - CENWP Non-Routine Maintenance of Bonneville Lock and Dam Fish Passage Facilities	CORPS	X	X	X		X	X	X	X	X	X		X	X	
2013 - CENWW OM Automated Alarm System for Adult Collection Channel Diffuser Systems	CORPS	X	X	X		X	X	X	X	X	X		X	X	
2024 - CENWW OM Non-Routine Maintenance of Ice Harbor Lock and Dam Fish Passage Facilities	CORPS	X	X					X		X					X
2036 - CENWW OM Non-Routine Maintenance of Little Goose Lock and Dam Fish Passage Facilities	CORPS	X	X					X		X					X
2043 - CENWW OM Non-Routine Maintenance of Lower Granite Lock and Dam Fish Passage Facilities	CORPS	X	X					X		X					X
2050 - CENWW OM Non-Routine Maintenance of Lower Monumental Lock and Dam Fish Passage Facilities	CORPS	X	X					X		X					X
2059 - CENWW OM Non-Routine Maintenance of McNary Lock and Dam Fish Passage Facilities	CORPS	X	X			X		X	X	X			X		
2066 - CENWW OM Remove Obstructions from Turbine Environments	CORPS	X	X	X		X	X	X	X	X	X		X		
2070 - CENWP Non-Routine Maintenance of The Dalles Lock and Dam Fish Passage Facilities	CORPS	X	X			X		X	X	X			X	X	
<b>3.4 Juvenile fish transport actions/enhance fish</b>															
2031 - CENWW OM Corps of Engineers' Juvenile Fish Transportation Program	CORPS	X	X			X		X	X	X					
2083 - Bonneville 2nd PH fish unit trash rake	CORPS	X	X	X		X	X	X	X	X	X		X		
2084 - Bonneville 2nd PH FGE improvements	CORPS	X	X	X		X	X	X	X	X	X		X		
2085 - Bonneville 2nd PH emergency AWS	CORPS	X	X	X		X	X	X	X	X	X		X		
2086 - Bonneville adult fallback	CORPS	X	X	X		X	X	X	X	X	X		X		

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<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sitld</i>	<i>SR Sitld</i>	<i>LCR Sitld</i>	<i>UWR Sitld</i>	<i>MCR Sitld</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Hydro</b>															
<b>3. Operate &amp; Maintain Fish Passage Facilities to Enhance Fish Survival</b>															
<b>3.4 Juvenile fish transport actions/enhance fish</b>															
2087 - Bonneville flat plate detector	CORPS		X	X		X									
2089 - Bonneville 2nd PH gatewell debris removal	CORPS	X	X	X		X	X	X	X	X	X			X	
2120 - CENWW OM Juvenile salmon transportation evaluations	CORPS	X	X			X		X	X	X				X	
<b>3.5 Operations RME</b>															
127 - 2000-017-00 Kelt Reconditioning Research	BPA									X				X	
2072 - CENWW OM Improve Operations of Adult Fishway Main Entrances	CORPS	X	X	X		X	X	X	X	X	X			X	

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sithd</i>	<i>SR Sithd</i>	<i>LCR Sithd</i>	<i>UWR Sithd</i>	<i>MCR Sithd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Tributary</b>															
<b>1. Protect and Enhance Tributary Habitat</b>															
<b>1.1 Tributary Water Quantity</b>															
14 - 1997-053-00 Toppenish-Simcoe Instream Flow Restoration and Assessment	BPA													X	X
33 - 1989-027-00 Repay Power for Umatilla Basin Project	BPA													X	X
44 - 2001-075-00 Increase Instream Flows to Dewatered Stream Reaches in the Walla Walla Basin	BPA													X	X
45 - 2002-036-00 Walla Walla River Flow Restoration	BPA													X	X
91 - 2001-052-00 Restoration of Anadromous Fish Access to Hawley Creek	BPA		X							X					X
96 - 1996-042-00 Restore and Enhance Anadromous Fish Populations and Habitat in Salmon Creek	BPA					X			X						
119 - 2000-015-00 Oxbow Ranch Acquisition	BPA													X	X
121 - 2001-023-00 15 Mile Water Rights Acquisition	BPA													X	
122 - 2001-040-00 Wagner Ranch Acquisition	BPA													X	
123 - 2001-041-00 Forrest Ranch Acquisition	BPA													X	X
125 - 1999-008-00 Columbia Plateau Water Rights Acquisition	BPA													X	
138 - 2002-021-00 Reduce Water Temperatures in Teanaway	BPA					X								X	X
187 - 2001-054-00 Emergency Flow Augmentation for Buck Hollow	BPA										X				
278 - 2001-061-00 Touchet River Flow Acquisition	BPA													X	X
397 - 2002-013-01 Water Entity Project (RPA 151/ A-8) Columbia Basin Water Transactions Program (2002-013-01)	BPA	X	X	X		X	X	X	X	X	X			X	X
404 - 2002-013-00 Columbia Basin Water Transactions Program (RPA 151-Water Entity) (2002-013-00)	BPA	X	X	X	X	X	X	X	X	X	X	X		X	
4001 - 1998-018-00 John Day Watershed Restoration Program	BPA													X	
4007 - Ha149.Ent.02.120.01 Entiat IFIM Study	USBR					X			X						X
4014 - Ha149.LEM.02.120.01 Lemhi Budget Water Model Development-IDWR	USBR		X							X					X
4018 - Ha149.LEM.02.200.04b L-35A Headgate	USBR		X							X					X
4023 - Ha149.LEM.01.200.01 L-6/S14 Water Exchange	USBR		X							X					X
4027 - Ha149.MET.02.120.01 USGS Hydrologic Model Upgrades	USBR					X			X						X

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sithd</i>	<i>SR Sithd</i>	<i>LCR Sithd</i>	<i>UWR Sithd</i>	<i>MCR Sithd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Tributary</b>															
<b>1. Protect and Enhance Tributary Habitat</b>															
<b>1.1 Tributary Water Quantity</b>															
4031 - Ha149.MJD.03.120.01 Middle Fork John Day Gaging Stations	USBR													X	X
4032 - Ha149.MJD.03.120.02 Middle Fork John Day Flow Characterization Studies	USBR													X	X
4037 - Ha149.MET.03.120.01 Methow Instream Flows Monitoring & Simulation	USBR					X			X						X
4040 - Ha149.UJD.03.120.01 Upper John Day River Gaging stations	USBR													X	X
4041 - Ha149.UJD.03.120.02 Upper John Day Flow Characterization Studies	USBR													X	X
4042 - Ha149.ENT.02.100.00 USBR Entiat Subbasin Program Management	USBR					X			X						X
4043 - Ha149.LEM.01.100.00 USBR Lemhi program management	USBR		X							X					X
4044 - Ha149.LSA.03.100.00 USBR Little Salmon Subbasin Program Management	USBR		X							X					X
4045 - Ha149.MET.01.100.00 USBR Methow Subbasin Program Management	USBR					X			X						X
4047 - Ha149.UJD.01.100.00 USBR Upper John Day Program Management	USBR												X		X
4048 - Ha149.NJD.03.100.00 USBR North Fork John Day Program Management	USBR												X		X
4050 - Ha149.USA.02.100.00 USBR Upper Salmon program management	USBR		X					X		X					X
4051 - Ha149.WEN.02.100.00 USBR Wenatchee Subbasin Program Management	USBR					X			X						X
4091 - Ha149.JDB.01.110.00 John Day River Basin Programmatic Environmental Assessment	USBR												X		X
4097 - Ha149.LEM.02.120.00 L5 Streamflow Gaging Station	USBR		X							X					X
4098 - Ha149.LEM.02.120.02 Lemhi River Flow Characterization Study	USBR		X							X					X
4099 - Ha149.USA.02.120.01 Upper Salmon Basin Flow Characterization Study	USBR		X					X		X					X
4101 - Ha149.LEM.02.120.01 Lemhi Water Budget Model	USBR		X							X					X
4108 - n/a Lemhi Water Rental	USBR		X							X					X
4109 - Ha149.USN.01.100.00 Upper Snake River Basin Programmatic Environmental Assessment	USBR		X							X					X
4119 - Ha149.MJD.03.200.01 Vidondo Middle Fork Water Lease	USBR												X		X
4125 - Ha149.USA.03.120.02 Idaho Streamflow Procurement Methods-IDWR	USBR		X					X		X					X
4129 - Ha149.MJD.01.100.00 USBR Middle John Day Action 149 Program Management	USBR												X		X
4131 - Ha149.PNW.03.100.01 Subbasin Water Acquisition Guidebook and Training	USBR	X	X	X	X	X	X	X	X	X	X	X	X		
4133 - Ha149.USA.03.400.04a HC-3 Irrigation diversion replacement	USBR		X							X					X

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sithd</i>	<i>SR Sithd</i>	<i>LCR Sithd</i>	<i>UWR Sithd</i>	<i>MCR Sithd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Tributary</b>															
<b>1. Protect and Enhance Tributary Habitat</b>															
<b>1.1 Tributary Water Quantity</b>															
4170 - Ha149.USA.03.120.03 Upper Salmon River, Valley, and Elk Creek PHABSIM Studies	USBR		X							X					X
4172 - Ha149.USA.03.200.03 Sink Creek Flow and Screen Improvement	USBR		X					X		X					X
4174 - Ha149.PNW.03.100.03 USBR Programmatic Biological Assessment to implement Action 149 Construction Program	USBR	X	X	X	X	X	X	X	X	X	X	X	X		
4176 - Ha149.USA.03.400.01a East Fork-Herd Creek-1 Diversion Modification	USBR		X							X					X
4177 - Ha149.USA.03.400.01b East Fork-Herd Creek 2 Diversion Replacement	USBR		X							X					X
4179 - Ha149.USA.03.400.01c EF-12 Diversion Replacement	USBR		X							X					X
4180 - Ha149.USA.03.120.04 IDWR Upper Salmon Water Budget Model	USBR		X							X					X
4181 - Ha149.LEM.03.120.04 IDWR Lemhi Water Budget Model Update	USBR		X							X					X
4189 - Ha149.LEM.03.120.03 Big Timber Creek PHABSIM Study	USBR		X							X					X
4190 - Ha149.PNW.03.100.02 Client Project Information CD	USBR					X			X						X
4191 - Ha149.UJD.03.200.01 Cummings Creek Flow Restoration	USBR												X		X
6005 - 8.3.j (8.3.d; 8.3.i) Lower Kootenai River Substrate Improvement Preliminary Feasibility Study	CORPS														X
<b>1.2 Tributary Water Quality</b>															
397 - 2002-013-01 Water Entity Project (RPA 151/ A-8) Columbia Basin Water Transactions Program (2002-013-01)	BPA	X	X	X		X	X	X	X	X	X			X	X
404 - 2002-013-00 Columbia Basin Water Transactions Program (RPA 151-Water Entity) (2002-013-00)	BPA	X	X	X	X	X	X	X	X	X	X	X	X		
6005 - 8.3.j (8.3.d; 8.3.i) Lower Kootenai River Substrate Improvement Preliminary Feasibility Study	CORPS														X
6023 - 8.3.h Water Temperature Profile Project, Libby Dam	CORPS														X
8003 - CENWW CRFM Ice Harbor North Shore Auxiliary Water Supply – Bearing Replacement	CORPS	X	X					X		X					
8004 - CENWW CRFM Ice Harbor North Shore Auxiliary Water Supply – Sump Modifications	CORPS	X	X					X		X					
<b>1.3 Tributary Passage and Diversion Improvements</b>															
1 - 1985-062-00 Yakima Phase II Screens Passage Improvement Evaluation	BPA													X	X
4 - 1991-057-00 Fabricate and Install Yakima Basin Phase II Fish Screens	BPA													X	X

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>	<i>SR</i>	<i>SR</i>	<i>LCR</i>	<i>UWR</i>	<i>UCR</i>	<i>CR</i>	<i>SR</i>	<i>UCR</i>	<i>SR</i>	<i>LCR</i>	<i>UWR</i>	<i>MCR</i>	<i>CR</i>	<i>KRWS</i>
	<i>Fall</i>	<i>Spri/Sum</i>	<i>Chinook</i>	<i>Chinook</i>	<i>Spri</i>	<i>Chum</i>	<i>Sockeye</i>	<i>Sitld</i>	<i>Sitld</i>	<i>Sitld</i>	<i>Sitld</i>	<i>Sitld</i>	<i>Bull</i>	<i>Trout</i>
	<i>Chinook</i>	<i>Chinook</i>			<i>Chinook</i>									
<b>Habitat - Tributary</b>														
<b>1. Protect and Enhance Tributary Habitat</b>														
<b>1.3 Tributary Passage and Diversion Improvements</b>														
5 - 1991-075-00 Yakima Phase II Screens - Construction													X	X
6 - 1992-009-00 Yakima Phase II Fish Screen Facilities O & M (WDFW)													X	X
8 - 1995-033-00 Yakima Phase II Fish Screen Facilities O&M (BOR)													X	X
16 - 1998-034-00 Yakama Nation Yakima/Klickitat Fisheries Project (YKFP) Reestablish Safe Access into Tributaries of the Yakima Subbasin													X	X
19 - 2002-022-00 YKFP Big Creek Passage & Screening													X	X
21 - 2002-025-01 Yakima Tributary Access and Habitat Program (Objective 1: Early Actions)													X	
25 - 1995-068-00 Preliminary Design for Passage & Habitat Improvement													X	
29 - 1983-436-00 Umatilla Passage O&M													X	X
30 - 1988-022-00 Umatilla River Fish Passage Operations													X	X
35 - 1996-011-00 Walla Walla River Juvenile and Adult Passage Improvements													X	X
41 - 2000-033-00 Walla Walla River Fish Passage Operations													X	X
43 - 2001-039-00 Install Fish Screens to Protect ESA-listed Steelhead and Bull Trout in the Walla Walla Basin													X	X
68 - 1993-062-00 Custer Soil & Water Conservation District Salmon River Fish Passage Enhancement										X				X
69 - 1994-015-00 Idaho Fish Screen Improvement										X				X
70 - 1994-017-00 Idaho Model Watershed Habitat Improvement Project										X				X
73 - 1996-077-02 Protect and Restore Lolo Creek Watershed										X				X
74 - 1996-077-03 Protecting and Restoring the Waw'aatamnia (Fishing)(Squaw) Creek to 'Imnaamatnoon (Legendary Bear)(Papoose) Creek Watersheds Analysis Area										X				X
75 - 1996-077-05 Restore McComas Meadows/Meadow Creek Watershed										X				X
78 - 1999-014-00 Little Canyon Creek Subwatershed-Steelhead Trout Habitat Improvement Project										X				
80 - 1999-016-00 Protect and Restore Big Canyon Creek Watershed		X								X				
81 - 1999-017-00 Protect and Restore Lapwai Creek Watershed		X								X				
83 - 1999-019-00 Holistic Restoration of the Twelvemile Reach of the Salmon River near Challis, Idaho										X				X

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Stlhd</i>	<i>SR Stlhd</i>	<i>LCR Stlhd</i>	<i>UWR Stlhd</i>	<i>MCR Stlhd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Tributary</b>															
<b>1. Protect and Enhance Tributary Habitat</b>															
<b>1.3 Tributary Passage and Diversion Improvements</b>															
87 - 2000-036-00 Protect & Restore Mill Creek	BPA		X							X					X
90 - 2001-051-00 Reconnect Little Morgan Creek to the Main-stem Pahsimeroi River	BPA		X							X					X
91 - 2001-052-00 Restoration of Anadromous Fish Access to Hawley Creek	BPA		X							X					X
99 - 1998-031-00 Implementation of Wy-Kan-Ush-Mi Wa-Kish-Wit Watershed Assessment and Restoration Plan	BPA	X	X			X		X	X	X			X		
100 - 2000-001-00 Anadromous Fish Habitat & Passage in Omak Creek	BPA								X						
103 - 2001-065-00 Hancock Springs Passage and Habitat Restoration Improvements	BPA					X			X						
113 - 1993-066-00 NE Oregon Pump Screening	BPA													X	
114 - 1998-017-00 Eliminate Gravel Push-up Dams in Lower North Fork John Day	BPA													X	
184 - 1998-028-00 Trout Creek Watershed Improvement Project	BPA										X				
210 - 1992-026-01 Grande Ronde Model Watershed - Little Sheep Creek Large Wood Placement and Culvert Replacement	BPA		X							X					X
228 - 1999-061-00 Mill Creek Fish Passage/Grande Ronde/Union County SWCD Channel Road	BPA		X							X					X
233 - 1992-026-01 Beaver Creek Fish Passage	BPA		X							X					X
235 - 1992-026-01 USFS Marr Flat Allotment and Big Sheep/Imnaha Fisheries Enhancement	BPA		X							X					X
242 - 1992-026-01 Grande Ronde River Basin - Culvert Replacements	BPA		X							X					X
270 - 1994-018-06 Implement Tucannon River Model Watershed Plan to Restore Salmonid Habitat (Work contracted under 1999-001-00, 1999-057-00)	BPA	X	X							X					X
279 - 2001-064-00 Improve Stream Flow and Passage for Simcoe Creek Steelhead	BPA												X		X
280 - 2002-020-00 Fabricate and Install New Huntsville Mill Fish Screen	BPA												X		X
306 - 2001-036-00 Ames Creek Restoration	BPA											X			
320 - 2003-001-00 Yakima-Klickitat Fisheries Project - Manastash Creek Fish Passage and Screening	BPA													X	X
327 - 2002-055-00 Oregon Plan Blue Mountain Province Fish Screening/Fish Passage	BPA		X							X					X
445 - 1991-078-00 Burlington Bottoms Wildlife Mitigation Project	BPA	X	X	X	X	X	X	X	X	X	X	X	X		
462 - 2002-040-00 Return Spawning/Rearing Habitat to Anadromous/Resident Fish within the Squaw Creek to Papoose Creek Analysis Area Watersheds	BPA					X			X						X



## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Stlhd</i>	<i>SR Stlhd</i>	<i>LCR Stlhd</i>	<i>UWR Stlhd</i>	<i>MCR Stlhd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Tributary</b>															
<b>1. Protect and Enhance Tributary Habitat</b>															
<b>1.3 Tributary Passage and Diversion Improvements</b>															
2134 - CENWP SW Washington Streams Section 206	CORPS						X				X				
4003 - Ha149.MET.02.400.02 Campbell Diversion Reconstructions	USBR					X			X						X
4005 - Ha149.MET.03.400.09 Chewuch Ditch Diversion Structure	USBR					X			X						X
4009 - Ha149.MET.03.400.08 Fulton Diversion Structure	USBR					X			X						X
4011 - n/a L-13 Diversion Replacement	USBR		X							X					X
4013 - Ha149.LEM.02.300.01 L-13 Screen Replacement	USBR		X							X					X
4016 - Ha149.LEM.01.400.02a L-3 Diversion Replacement	USBR		X							X					X
4017 - Ha149.LEM.01.400.04a L-35A Diversion Replacement	USBR		X							X					X
4019 - Ha149.LEM.02.300.04c L-35A Screen Replacement	USBR		X							X					X
4020 - Ha149.LEM.01.400.03a L-3A Diversion Replacement	USBR		X							X					X
4021 - Ha149.LEM.02.400.01 L-3A0 Diversion Replacement	USBR		X							X					X
4024 - Ha149.LEM.04.400.05a L-9 Diversion Replacement	USBR		X							X					X
4026 - Ha149.MET.02.400.01 Marracci/Washington Department of Fish and Wildlife Diversion Reconstruction	USBR					X			X						X
4034 - Ha149.MET.02.400.04 Methow Valley Irrigation District East Canal Diversion	USBR					X			X						X
4035 - Ha149.MET.02.400.05 Methow Valley Irrigation District West Canal Diversion	USBR					X			X						X
4038 - Ha149.UJD.03.300.01 Panama Ditch / Beech Creek Crossing	USBR												X		X
4042 - Ha149.ENT.02.100.00 USBR Entiat Subbasin Program Management	USBR					X			X						X
4043 - Ha149.LEM.01.100.00 USBR Lemhi program management	USBR		X							X					X
4044 - Ha149.LSA.03.100.00 USBR Little Salmon Subbasin Program Management	USBR		X							X					X
4045 - Ha149.MET.01.100.00 USBR Methow Subbasin Program Management	USBR					X			X						X
4047 - Ha149.UJD.01.100.00 USBR Upper John Day Program Management	USBR												X		X
4048 - Ha149.NJD.03.100.00 USBR North Fork John Day Program Management	USBR												X		X
4050 - Ha149.USA.02.100.00 USBR Upper Salmon program management	USBR		X					X		X					X
4051 - Ha149.WEN.02.100.00 USBR Wenatchee Subbasin Program Management	USBR					X			X						X

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sithd</i>	<i>SR Sithd</i>	<i>LCR Sithd</i>	<i>UWR Sithd</i>	<i>MCR Sithd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Tributary</b>															
<b>1. Protect and Enhance Tributary Habitat</b>															
<b>1.3 Tributary Passage and Diversion Improvements</b>															
4089 - Ha149.MJD.02.120.10 Middle Fork John Day Habitat Implementation Activities- Grant Soil and Water Conservation District	USBR													X	X
4091 - Ha149.JDB.01.110.00 John Day River Basin Programmatic Environmental Assessment	USBR													X	X
4093 - Ha149.MET.02.300.01 Methow Valley Irrigation District West Canal Fish Screens	USBR					X			X						X
4095 - Ha149.MET.02.300.02 Methow Valley Irrigation District East Canal Fish Screens	USBR					X			X						X
4096 - Ha149.MET.02.400.06 Twisp Valley Power and Irrigation Diversion	USBR					X			X						X
4100 - Ha149.LEM.01.200.03b L3A Headgate Replacement	USBR		X							X					X
4103 - Ha149.USA.03.300.11b East Fork Salmon10-11 Screen	USBR		X							X					X
4106 - Ha149.USA.03.300.11c East Fork Salmon 10-11 Headgate	USBR		X							X					X
4109 - Ha149.USN.01.100.00 Upper Snake River Basin Programmatic Environmental Assessment	USBR		X							X					X
4116 - Ha149.UJD.02.120.10 Upper John Day Habiitat Implementation Activities - Grant County Soil and Water Conservation District	USBR												X		X
4118 - Ha149.UJD.03.400.01 RM 234-05 Diversion Design	USBR												X		X
4120 - Ha149.MET.02.400.03a Lower Stokes Diversion	USBR					X			X						X
4121 - Ha149.WEN.03.400.02 Peshastin Irrigation District Lower Diversion	USBR					X									X
4122 - Ha149.MET.03.400.07 Black Canyon Diversion Dam and Screen	USBR								X						X
4123 - Ha149.WEN.03.400.01 Mill Creek Ditch Project	USBR								X						X
4124 - Ha149.ENT.03.400.01 Entiat 4 Mile Push-up Dam Replacement and Screen	USBR					X			X						X
4127 - Ha149.UJD.02.100.00 John Day River Basin Habitat Restoration Warm Springs Tribe	USBR												X		X
4129 - Ha149.MJD.01.100.00 USBR Middle John Day Action 149 Program Management	USBR												X		X
4130 - Ha149.ENT.03.300.01 Whitehall Unscreened Surface Pump Elimination	USBR								X						X
4132 - Ha149.USA.03.200.04b HC-3 Headgate	USBR		X							X					X
4133 - Ha149.USA.03.400.04a HC-3 Irrigation diversion replacement	USBR		X							X					X
4142 - Ha149.USA.03.200.01a Upper and Lower Beaver Creek Diversion Replacement	USBR		X							X					X
4143 - Ha149.USA.03.200.01b Upper and Lower Beaver Creek Screen Replacement	USBR		X							X					X
4144 - Ha149.USA.03.200.02a S-23 Flow and Screen Improvement	USBR		X					X		X					X

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sithd</i>	<i>SR Sithd</i>	<i>LCR Sithd</i>	<i>UWR Sithd</i>	<i>MCR Sithd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Tributary</b>															
<b>1. Protect and Enhance Tributary Habitat</b>															
<b>1.3 Tributary Passage and Diversion Improvements</b>															
4147 - n/a Challis Creek Diversion Consolidations	USBR		X							X					X
4148 - Ha149.MET.03.120.02 Okanogan Conservation District Habitat Improvement Project	USBR					X			X						X
4151 - 4 South Fork RM 5.7-05 Flow Enhancement	USBR												X		X
4160 - Ha149.MET.03.400.11 Aspen Meadows Diversion Dam Reconstruction	USBR					X			X						X
4163 - Ha149.MET.03.120.03 Okanogan County Gaging Stations	USBR					X			X						X
4165 - Ha149.MET.03.400.10 Wolf Creek Diversion Renovation	USBR					X			X						X
4166 - Ha149.MET.02.400.03b Upper Stokes Diversion	USBR					X			X						X
4167 - Ha149.MET.02.400.03c Thurlow Transfer Ditch Diversion	USBR					X			X						X
4168 - Ha149.MET.02.400.03d Fort-Thurlow Diversion	USBR					X			X						X
4169 - Ha149.USA.03.300.01 Salmon River - Squaw Creek Screen Improvement	USBR		X							X					X
4172 - Ha149.USA.03.200.03 Sink Creek Flow and Screen Improvement	USBR		X					X		X					X
4173 - Ha149.USA.03.400.11a East Fork 10-11 Diversion Consolidation	USBR		X							X					X
4176 - Ha149.USA.03.400.01a East Fork-Herd Creek-1 Diversion Modification	USBR		X							X					X
4177 - Ha149.USA.03.400.01b East Fork-Herd Creek 2 Diversion Replacement	USBR		X							X					X
4179 - Ha149.USA.03.400.01c EF-12 Diversion Replacement	USBR		X							X					X
4186 - Ha149.USA.03.300.02 Gini Canal Siphon	USBR		X							X					X
4187 - Ha149.LEM.03.300.02 L3 Wasteway Fish Screen	USBR		X							X					X
4191 - Ha149.UJD.03.200.01 Cummings Creek Flow Restoration	USBR												X		X
4192 - Ha149.LEM.04.400.06 L-1 Diversion Replacement	USBR		X							X					X
4194 - Ha149.ENT.04.400.02 Knapp-Wham/Hannon Detweiler Ditch Consolidation	USBR					X			X						X
<b>1.4 Tributary Subbasin Planning and Assessment</b>															
17 - 1999-013-00 Ahtanum Creek Watershed Assessment	BPA												X		X
18 - 2000-011-00 Rock Creek Watershed Assessment and Restoration project.	BPA												X		
26 - 1997-056-00 Lower Klickitat Riparian and In-Channel Habitat Enhancement Project	BPA												X		X
66 - 1992-026-03 Upper Salmon Basin Watershed Project Administration/Implementation Support	BPA		X							X					X

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Stlhd</i>	<i>SR Stlhd</i>	<i>LCR Stlhd</i>	<i>UWR Stlhd</i>	<i>MCR Stlhd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>	
<b>Habitat - Tributary</b>																
<b>1. Protect and Enhance Tributary Habitat</b>																
<b>1.4 Tributary Subbasin Planning and Assessment</b>																
74 - 1996-077-03 Protecting and Restoring the Waw'aatamnima (Fishing)(Squaw) Creek to 'Imnaamatnoon (Legendary Bear)(Papoose) Creek Watersheds Analysis Area	BPA		X							X					X	
76 - 1996-086-00 Clearwater Focus Program	BPA		X							X					X	
77 - 1997-060-00 Clearwater Subbasin Focus Watershed Program - NPT	BPA		X							X					X	
81 - 1999-017-00 Protect and Restore Lapwai Creek Watershed	BPA	X								X						
117 - 1998-022-00 Pine Creek Ranch Acquisition	BPA												X			
168 - 2002-070-00 Restoring anadromous fish habitat in the Lapwai Creek watershed	BPA	X								X						
178 - 1987-100-02 Umatilla Subbasin Fish Habitat Improvement	BPA												X			
181 - 1993-040-00 Fifteenmile Creek Habitat Restoration Project	BPA			X							X					
182 - 1994-042-00 Trout Creek Habitat Restoration Project	BPA										X					
183 - 1998-021-00 Hood River Fish Habitat Project	BPA										X			X		
184 - 1998-028-00 Trout Creek Watershed Improvement Project	BPA										X					
185 - 2001-020-00 Fifteenmile Creek Riparian Fencing / Physical stream Survey Project	BPA			X							X			X		
186 - 2001-021-00 Fifteenmile Creek Riparian Buffers - Wasco County	BPA			X							X					
188 - 2002-015-00 Provide Coordination and Technical Assistance to Watershed Councils and Individuals in Sherman County, Oregon	BPA												X			
200 - 2002-051-00 Subbasin Planning, Regional Level	BPA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
201 - 2002-051-00 Subbasin Planning, Statewide/Provincial/Tribal Level	BPA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
202 - 2002-051-00 Subbasin Planning, Subbasin Level	BPA	X	X	X		X	X	X	X	X	X	X	X	X	X	X
203 - 1987-100-01 Umatilla River Anadromous Fish Habitat Enhancement Project	BPA												X	X		
209 - 1992-026-01 Grande Ronde Model Watershed - Planning	BPA		X							X						
213 - 1992-026-01 Grande Ronde Model Watershed - LaGrande Ranger District FY01 Projects	BPA		X							X				X		
214 - 1992-026-01 Grande Ronde Model Watershed - Wallowa Valley Ranger District FY01 Projects	BPA		X							X				X		
217 - 1992-026-01 Grande Ronde Model Watershed - Lostine Watershed Assessment	BPA		X							X				X		

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sithd</i>	<i>SR Sithd</i>	<i>LCR Sithd</i>	<i>UWR Sithd</i>	<i>MCR Sithd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Tributary</b>															
<b>1. Protect and Enhance Tributary Habitat</b>															
<b>1.4 Tributary Subbasin Planning and Assessment</b>															
270 - 1994-018-06 Implement Tucannon River Model Watershed Plan to Restore Salmonid Habitat (Work contracted under 1999-001-00, 1999-057-00)	BPA	X	X							X					X
271 - 1994-018-07 Garfield County Sediment Reduction and Riparian Improvement Program - (proposal) - funded under: 1999-021-00, 1999-059-00, 1997-088-00 (closed, but some 088 activities carried into 021 and 059 contracts)	BPA									X					
272 - 1996-046-01 Walla Walla River Basin Fish Habitat Enhancement	BPA												X	X	
291 - 1994-018-05 Asotin Watershed Project Implementation	BPA		X							X					X
295 - 2000-047-00 GIS Mapping of Asotin Creek Watershed Habitat Projects	BPA		X							X					
333 - 2002-061-00 Potlatch River Watershed Restoration	BPA	X	X							X					X
<b>1.5 Tributary Watershed Health</b>															
7 - 1992-062-00 Yakama Nation - Riparian/Wetlands Restoration	BPA												X		
11 - 1996-035-01 Status Watershed Restoration	BPA												X		
13 - 1997-051-00 Yakama Nation Yakima/Klickitat Fisheries Project (YKFP) Yakima Side Channels	BPA												X	X	
15 - 1998-033-00 Restore Upper Toppenish Watershed	BPA												X	X	
16 - 1998-034-00 Yakama Nation Yakima/Klickitat Fisheries Project (YKFP) Reestablish Safe Access into Tributaries of the Yakima Subbasin	BPA												X	X	
18 - 2000-011-00 Rock Creek Watershed Assessment and Restoration project.	BPA												X		
21 - 2002-025-01 Yakima Tributary Access and Habitat Program (Objective 1: Early Actions)	BPA												X		
22 - 2002-038-00 Protect Normative Structure and Function of Critical Aquatic and Terrestrial Habitat	BPA												X		
26 - 1997-056-00 Lower Klickitat Riparian and In-Channel Habitat Enhancement Project	BPA												X	X	
44 - 2001-075-00 Increase Instream Flows to Dewatered Stream Reaches in the Walla Walla Basin	BPA												X	X	
67 - 1993-035-01 Enhance Fish, Riparian, and Wildlife Habitat Within the Red River Watershed	BPA		X							X					X
68 - 1993-062-00 Custer Soil & Water Conservation District Salmon River Fish Passage Enhancement	BPA		X							X					X
70 - 1994-017-00 Idaho Model Watershed Habitat Improvement Project	BPA		X							X					X

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sithd</i>	<i>SR Sithd</i>	<i>LCR Sithd</i>	<i>UWR Sithd</i>	<i>MCR Sithd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Tributary</b>															
<b>1. Protect and Enhance Tributary Habitat</b>															
<b>1.5 Tributary Watershed Health</b>															
71 - 1994-050-00 Salmon River Habitat Enhancement M & E	BPA		X							X					X
73 - 1996-077-02 Protect and Restore Lolo Creek Watershed	BPA									X					X
75 - 1996-077-05 Restore McComas Meadows/Meadow Creek Watershed	BPA									X					X
78 - 1999-014-00 Little Canyon Creek Subwatershed-Steelhead Trout Habitat Improvement Project	BPA		X							X					
79 - 1999-015-00 Restoring Anadromous Fish Habitat in Big Canyon Watershed	BPA		X							X					
80 - 1999-016-00 Protect and Restore Big Canyon Creek Watershed	BPA	X								X					
81 - 1999-017-00 Protect and Restore Lapwai Creek Watershed	BPA	X								X					
83 - 1999-019-00 Holistic Restoration of the Twelvemile Reach of the Salmon River near Challis, Idaho	BPA		X							X					X
86 - 2000-035-00 Rehabilitate Newsome Creek Watershed - South Fork Clearwater River	BPA		X							X					X
87 - 2000-036-00 Protect & Restore Mill Creek	BPA		X							X					X
96 - 1996-042-00 Restore and Enhance Anadromous Fish Populations and Habitat in Salmon Creek	BPA					X			X						
100 - 2000-001-00 Anadromous Fish Habitat & Passage in Omak Creek	BPA								X						
103 - 2001-065-00 Hancock Springs Passage and Habitat Restoration Improvements	BPA					X			X						
112 - 1984-021-00 Protect and Enhance John Day Anadromous Fish	BPA												X	X	
117 - 1998-022-00 Pine Creek Ranch Acquisition	BPA												X		
118 - 1999-010-00 Mitigate Effects Of Runoff & Erosion On Salmonid Habitat In Pine Hollow and Jackknife	BPA												X		
119 - 2000-015-00 Oxbow Ranch Acquisition	BPA												X	X	
120 - 2000-031-00 North Fork John Day River Subbasin Anadromous Fish Habitat Enhancement Project	BPA												X		
122 - 2001-040-00 Wagner Ranch Acquisition	BPA												X		
123 - 2001-041-00 Forrest Ranch Acquisition	BPA												X	X	
135 - 1998-035-01 Watershed Scale Response of Habitat to Abandoned Mine Waste	BPA					X			X						
138 - 2002-021-00 Reduce Water Temperatures in Teanaway	BPA					X							X	X	

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Stlhd</i>	<i>SR Stlhd</i>	<i>LCR Stlhd</i>	<i>UWR Stlhd</i>	<i>MCR Stlhd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Tributary</b>															
<b>1. Protect and Enhance Tributary Habitat</b>															
<b>1.5 Tributary Watershed Health</b>															
178 - 1987-100-02 Umatilla Subbasin Fish Habitat Improvement	BPA													X	
181 - 1993-040-00 Fifteenmile Creek Habitat Restoration Project	BPA			X							X				
182 - 1994-042-00 Trout Creek Habitat Restoration Project	BPA										X				
183 - 1998-021-00 Hood River Fish Habitat Project	BPA										X			X	
184 - 1998-028-00 Trout Creek Watershed Improvement Project	BPA										X				
185 - 2001-020-00 Fifteenmile Creek Riparian Fencing / Physical stream Survey Project	BPA			X							X			X	
186 - 2001-021-00 Fifteenmile Creek Riparian Buffers - Wasco County	BPA			X							X				
187 - 2001-054-00 Emergency Flow Augmentation for Buck Hollow	BPA										X				
188 - 2002-015-00 Provide Coordination and Technical Assistance to Watershed Councils and Individuals in Sherman County, Oregon	BPA													X	
189 - 2002-019-00 Establish Riparian Buffer Systems	BPA													X	
190 - 2002-026-00 Morrow County Buffer Initiative	BPA													X	
198 - 2001-053-00 Re-Introduction of Lower Columbia River Chum Salmon into Duncan Creek	BPA						X								
203 - 1987-100-01 Umatilla River Anadromous Fish Habitat Enhancement Project	BPA													X	X
206 - 2002-034-00 Wheeler SWCD Riparian Buffer Planning and Implementation	BPA													X	
207 - 2002-035-00 Gilliam SWCD Riparian Buffers	BPA													X	
208 - 1984-025-00 Joseph Creek, Grande Ronde River	BPA		X							X					
212 - 1992-026-01 Grande Ronde Model Watershed - Grouse Creek Restoration	BPA		X							X				X	
213 - 1992-026-01 Grande Ronde Model Watershed - LaGrande Ranger District FY01 Projects	BPA		X							X				X	
214 - 1992-026-01 Grande Ronde Model Watershed - Wallowa Valley Ranger District FY01 Projects	BPA		X							X				X	
227 - 1992-026-01 Grand Ronde Model Watershed - Upper Grande Ronde and Catherine Creek Watershed Restoration	BPA		X							X				X	
233 - 1992-026-01 Beaver Creek Fish Passage	BPA		X							X				X	
235 - 1992-026-01 USFS Marr Flat Allotment and Big Sheep/Imnaha Fisheries Enhancement	BPA		X							X				X	
238 - 1992-026-01 Meadow Creek Riparian Pasure Fence	BPA		X							X				X	

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Stlhd</i>	<i>SR Stlhd</i>	<i>LCR Stlhd</i>	<i>UWR Stlhd</i>	<i>MCR Stlhd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Tributary</b>															
<b>1. Protect and Enhance Tributary Habitat</b>															
<b>1.5 Tributary Watershed Health</b>															
239 - 2000-064-00 Conservation Reserve Enhancement Program Incentive	BPA		X							X					X
241 - 1992-026-01 McCoy Creek-Alta Cunha Rances Riparian Restoration	BPA		X							X					X
244 - 1992-026-01 Little Catherine and Lick Creek Restoration	BPA		X							X					X
270 - 1994-018-06 Implement Tucannon River Model Watershed Plan to Restore Salmonid Habitat (Work contracted under 1999-001-00, 1999-057-00)	BPA	X	X							X					X
271 - 1994-018-07 Garfield County Sediment Reduction and Riparian Improvement Program - (proposal) - funded under: 1999-021-00, 1999-059-00, 1997-088-00 (closed, but some 088 activities carried into 021 and 059 contracts)	BPA									X					
272 - 1996-046-01 Walla Walla River Basin Fish Habitat Enhancement	BPA												X	X	
289 - 1997-080-00 Asotin Creek Upland Sedimentation Reduction	BPA									X					
290 - 1994-018-05 Asotin Watershed Upland BMP's	BPA									X					
291 - 1994-018-05 Asotin Watershed Project Implementation	BPA		X							X					X
292 - 1999-052-00 Asotin Creek Five Year Minimum Till Program	BPA									X					
293 - 1999-060-00 Asotin Watershed Upland BMP Implementation	BPA									X					
296 - 1994-018-05 Asotin Creek Riparian Planting	BPA									X					
297 - 1994-018-05 Asotin Creek Riparian Fencing Projects	BPA									X					
298 - 1994-018-05 Asotin Creek Channel, Floodplain and Riparian Restoration	BPA									X					
306 - 2001-036-00 Ames Creek Restoration	BPA											X			
324 - 2002-050-00 Asotin County Riparian Buffer and Couse and Tenmile Creeks Protection and Implementation Project	BPA									X					
326 - 2002-054-00 Protect and Restore the Asotin Creek Watershed	BPA		X							X					X
330 - 2002-058-00 Riparian Conservation Easement Purchase of Scarrow Property on Lake Creek a Tributary to the Secesh River, Idaho	BPA		X							X					X
331 - 2002-059-00 Restoration of the Yankee Fork Salmon River	BPA		X							X					X
397 - 2002-013-01 Water Entity Project (RPA 151/ A-8) Columbia Basin Water Transactions Program (2002-013-01)	BPA	X	X	X		X	X	X	X	X	X		X		X



## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sitld</i>	<i>SR Sitld</i>	<i>LCR Sitld</i>	<i>UWR Sitld</i>	<i>MCR Sitld</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Tributary</b>															
<b>1. Protect and Enhance Tributary Habitat</b>															
<b>1.5 Tributary Watershed Health</b>															
404 - 2002-013-00 Columbia Basin Water Transactions Program (RPA 151-Water Entity) (2002-013-00)	BPA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
445 - 1991-078-00 Burlington Bottoms Wildlife Mitigation Project	BPA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2112 - CENWP Brownsmead, Estuary, Section 1135	CORPS		X	X		X									
2130 - CENWW CAP Salmon River Aquatic Ecosystem Restoration	CORPS		X					X		X					
2134 - CENWP SW Washington Streams Section 206	CORPS						X				X				
2136 - CENWW Walla Walla GI Feasibility Study	CORPS													X	
4001 - 1998-018-00 John Day Watershed Restoration Program	BPA													X	

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sithd</i>	<i>SR Sithd</i>	<i>LCR Sithd</i>	<i>UWR Sithd</i>	<i>MCR Sithd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Habitat - Estuary</b>															
<b>3. Protect and Enhance Estuary Habitat</b>															
<b>3.1 Estuary Water Quantity</b>															
393 - 2002-076-00 Habitat Monitoring and Restoration Program for the Lower Columbia River and Columbia River Estuary	BPA	X	X	X	X	X	X	X	X	X	X	X	X		
413 - 2003-006-00 Effectiveness Monitoring of the Chinook River Estuary Restoration Project	BPA	X	X	X	X	X	X	X	X	X	X	X	X		
<b>3.2 Estuary Water Quality</b>															
393 - 2002-076-00 Habitat Monitoring and Restoration Program for the Lower Columbia River and Columbia River Estuary	BPA						X								
413 - 2003-006-00 Effectiveness Monitoring of the Chinook River Estuary Restoration Project	BPA						X								
2113 - CENWP Estuary Restoration 536 Program	CORPS						X								
2143 - CENWP Crims Island Restoration	CORPS	X	X	X		X	X	X		X					
<b>3.3 Estuary Passage and Diversion Improvements</b>															
393 - 2002-076-00 Habitat Monitoring and Restoration Program for the Lower Columbia River and Columbia River Estuary	BPA	X	X	X	X	X	X	X	X	X	X	X	X		
413 - 2003-006-00 Effectiveness Monitoring of the Chinook River Estuary Restoration Project	BPA	X	X	X	X	X	X	X	X	X	X	X	X		
2163 - Chinook River Estuary Restoration, Section 536	CORPS			X			X				X				
2164 - CENWP Julia Butler Hansen, NWR, Section 536	CORPS	X		X			X				X				
<b>3.4 Estuary Subbasin Planning and Assessment</b>															
199 - 2002-012-00 Lower Columbia River Habitat Assessment and Mapping	BPA	X	X	X	X	X	X	X	X	X	X	X	X		
200 - 2002-051-00 Subbasin Planning, Regional Level	BPA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
201 - 2002-051-00 Subbasin Planning, Statewide/Provincial/Tribal Level	BPA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
202 - 2002-051-00 Subbasin Planning, Subbasin Level	BPA	X	X	X		X	X	X	X	X	X	X	X	X	X
393 - 2002-076-00 Habitat Monitoring and Restoration Program for the Lower Columbia River and Columbia River Estuary	BPA	X	X	X	X	X	X	X	X	X	X	X	X		
413 - 2003-006-00 Effectiveness Monitoring of the Chinook River Estuary Restoration Project	BPA	X	X	X	X	X	X	X	X	X	X	X	X		
<b>3.5 Estuary Watershed Health</b>															
198 - 2001-053-00 Re-Introduction of Lower Columbia River Chum Salmon into Duncan Creek	BPA						X								
199 - 2002-012-00 Lower Columbia River Habitat Assessment and Mapping	BPA	X	X	X	X	X	X	X	X	X	X	X	X		

## 2003 Habitat Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Stlhd</i>	<i>SR Stlhd</i>	<i>LCR Stlhd</i>	<i>UWR Stlhd</i>	<i>MCR Stlhd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>	
<b>Habitat - Estuary</b>																
<b>3. Protect and Enhance Estuary Habitat</b>																
<b>3.5 Estuary Watershed Health</b>																
393 - 2002-076-00 Habitat Monitoring and Restoration Program for the Lower Columbia River and Columbia River Estuary	BPA	X	X	X	X	X	X	X	X	X	X	X	X			
413 - 2003-006-00 Effectiveness Monitoring of the Chinook River Estuary Restoration Project	BPA	X	X		X	X		X	X	X			X	X		
413 - 2003-006-00 Effectiveness Monitoring of the Chinook River Estuary Restoration Project	BPA						X									
415 - 2003-008-00 Preserve and Restore Columbia River Estuary Islands to Enhance Juvenile Salmonid and Columbian White-tailed Deer Habitat.	BPA								X							
415 - 2003-008-00 Preserve and Restore Columbia River Estuary Islands to Enhance Juvenile Salmonid and Columbian White-tailed Deer Habitat.	BPA			X			X				X		X			
2111 - CENWP Operation and Maintenance of Bonneville Lock and Dam Fish Passage Facilities	CORPS													X		
2113 - CENWP Estuary Restoration 536 Program	CORPS						X									
2115 - cenwp Estuary Mapping	CORPS			X												
2143 - CENWP Crims Island Restoration	CORPS						X									
<b>Habitat - Mainstem</b>																
<b>2. Improve Mainstem Habitat on an Experimental Basis</b>																
<b>2.3 Mainstem Passage and Diversion Improvements</b>																
198 - 2001-053-00 Re-Introduction of Lower Columbia River Chum Salmon into Duncan Creek	BPA						X									
2162 - Lena's Lake, Pierce NWR, Section 536	CORPS						X									
<b>2.4 Mainstem Subbasin Planning and Assessment</b>																
200 - 2002-051-00 Subbasin Planning, Regional Level	BPA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
201 - 2002-051-00 Subbasin Planning, Statewide/Provincial/Tribal Level	BPA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
202 - 2002-051-00 Subbasin Planning, Subbasin Level	BPA	X	X	X		X	X	X	X	X	X	X	X	X	X	
323 - 2000-012-00 Evaluate Factors Limiting Columbia River Gorge Chum Salmon Populations	BPA						X									
<b>2.5 Mainstem Watershed Health</b>																
323 - 2000-012-00 Evaluate Factors Limiting Columbia River Gorge Chum Salmon Populations	BPA						X									
2113 - CENWP Estuary Restoration 536 Program	CORPS	X	X	X	X	X	X	X	X	X	X	X	X			
2115 - cenwp Estuary Mapping	CORPS		X	X		X										

## 2003 Hatchery Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Stlhd</i>	<i>SR Stlhd</i>	<i>LCR Stlhd</i>	<i>UWR Stlhd</i>	<i>MCR Stlhd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Hatchery</b>															
<b>1. Implement a Safety-Net Program as an Interim Measure to Avoid Extinction</b>															
<b>1.1 Safety Net</b>															
31 - 1988-053-01 Northeast Oregon Hatchery Master Plan	BPA		X							X					
32 - 1988-053-05 Northeast Oregon Hatchery Planning & Implementation, Facilities Master Plan ODFW	BPA		X					X		X					
38 - 1998-007-03 Facility O&M and Program M&E for Grande Ronde Spring Chinook Salmon	BPA		X							X					
40 - 1998-007-04 Grande Ronde Spring Chinook Supplementation Program	BPA		X												
46 - 1988-053-01 Northeast Oregon Hatchery Project	BPA		X							X					
70 - 1994-017-00 Idaho Model Watershed Habitat Improvement Project	BPA		X							X				X	
142 - 1990-093-00 Genetic Analysis of Onchorhynchus nerka (Modified to Include Chinook Salmon)	BPA		X					X							
144 - 1991-072-00 Redfish Lake Sockeye Salmon Captive Broodstock Program	BPA							X							
145 - 1992-040-00 Redfish Lake Sockeye Salmon Captive Broodstock Rearing and Research	BPA							X							
148 - 2001-049-00 Safety-Net Coordinator	BPA		X							X					
149 - 2002-004-00 Safety-Net Artificial Propagation Program - WDFW	BPA		X							X					
150 - 2002-004-00 Safety-Net Artificial Propagation Program - CRITFC	BPA		X							X					
151 - 2002-004-00 Safety-Net Artificial Propagation Program - NPT	BPA		X							X					
152 - 2002-004-00 Safety-Net Artificial Propagation Program (SNAP) - IDFG	BPA		X							X					
153 - 2002-004-00 Safety-Net Artificial Propagation Program - SBT	BPA		X							X					
155 - 1996-043-00 Johnson Creek Artificial Propagation & Enhancement	BPA		X												
156 - 1997-038-00 Listed Stock Chinook Salmon Gamete Preservation	BPA		X							X					
158 - 1998-010-06 Captive Broodstock Artificial Propagation	BPA		X												
159 - 1998-010-07 Captain John Rapid's Fall Chinook Acclimation Facility	BPA	X													
174 - 1998-010-08 Big Canyon Fall Chinook Acclimation Facility	BPA	X													
274 - 2000-019-00 Tucannon River Spring Chinook Captive Broodstock Program	BPA		X												
284 - 1998-010-01 Grande Ronde Basin Spring Chinook Salmon Captive Broodstock Program	BPA		X												
285 - 1997-001-00 Idaho Chinook Salmon Captive Rearing	BPA		X												
287 - 1996-067-00 Manchester Spring Chinook Broodstock Project	BPA		X												

## 2003 Hatchery Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sithd</i>	<i>SR Sithd</i>	<i>LCR Sithd</i>	<i>UWR Sithd</i>	<i>MCR Sithd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Hatchery</b>															
<b>1. Implement a Safety-Net Program as an Interim Measure to Avoid Extinction</b>															
<b>1.1 Safety Net</b>															
326 - 2002-054-00 Protect and Restore the Asotin Creek Watershed	BPA		X							X					X
329 - 2002-049-00 Evaluate Factors Influencing Bias and Precision of Chinook Salmon Redd Counts	BPA		X												
330 - 2002-058-00 Riparian Conservation Easement Purchase of Scarrow Property on Lake Creek a Tributary to the Secesh River, Idaho	BPA		X							X					X
331 - 2002-059-00 Restoration of the Yankee Fork Salmon River	BPA		X							X					X
375 - 1983-350-00 Nez Perce Tribal Hatchery	BPA	X													
377 - 1988-053-08 Hood River Production Program: Powerdale, Parkdale, Oak Springs O&M	BPA			X		X			X		X			X	
379 - 1989-035-00 Umatilla Hatchery Operation and Maintenance	BPA													X	
384 - 1998-007-02 Grande Ronde Supplementation: Lostine River O&M and M&E	BPA		X												
409 - 1998-010-05 Pittsburg Landing Acclimation Facility - Snake River	BPA	X													
2120 - CENWW OM Juvenile salmon transportation evaluations	CORPS	X	X			X		X	X	X				X	
2124 - Revise Storage Diagrams for Libby	CORPS	X	X	X		X		X	X	X	X			X	
2126 - CENWW OM Redundant TDG Monitors - Dworshak to McNary Dam	CORPS	X	X			X		X	X	X				X	
<b>2. Reduce Potential Harmful Effects of Artificial Production to Aid Recovery Through Hatch</b>															
<b>2.1 Develop HGMPs/Reform</b>															
60 - 2000-072-00 Phenotypic Correlations between Prevalence of Renibacterium salmoninarum among Spring Chinook Salmon and Resistance/Susceptibility of their Progeny to Infectious Bacteria and Bacterial Kidney Disease (BKD)	BPA		X	X	X	X									
282 - 2002-047-00 Artificial Production Review Evaluation (APRE)	BPA	X	X	X	X	X		X	X	X	X	X	X	X	X
396 - 2003-005-00 Hatchery and Genetics Management Plan	BPA	X	X	X	X	X	X	X	X	X	X	X	X	X	
4055 - Ht169.CBP.01.100.00 HGMP Funding & Development-Leavenworth	USBR					X									
4056 - Ht171.CBP.03.200.00 HGMPs Implementation - Leavenworth	USBR					X									

## 2003 Harvest Projects

<i>Strategy / Substrategy</i>		<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Sitld</i>	<i>SR Sitld</i>	<i>LCR Sitld</i>	<i>UWR Sitld</i>	<i>MCR Sitld</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
<b>Harvest</b>															
<b>1. Develop Fishing Techniques to Enable Fisheries to Target Non-listed Fish While Reducin</b>															
<b>1.1 Gear efficacy testing and fishery integration on the</b>															
302 - 1998-056-00 NMFS Net Exchange Program	BPA	X				X		X	X	X	X			X	
304 - 2001-007-00 Evaluate Live Capture Selective Harvest Methods	BPA		X		X	X				X	X			X	
<b>2. Improve Harvest Management Assessments, Decisions, and Evaluations</b>															
<b>2.1 Improved escapement assessments and other crit</b>															
175 - 1982-013-01 Coded-Wire Tag Recovery Program	BPA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
307 - 2001-058-00 Removal of Ghost Fishing Nets - Feasibility	BPA	X	X			X		X	X	X				X	
<b>2.2 Alternative modeling systems that work in the con</b>															
304 - 2001-007-00 Evaluate Live Capture Selective Harvest Methods	BPA		X		X	X				X	X			X	
<b>2.3 Identify sources of unaccounted harvest-related m</b>															
307 - 2001-058-00 Removal of Ghost Fishing Nets - Feasibility	BPA	X	X			X		X	X	X				X	
<b>3. Support Sustainable Fisheries for the Meaningful Exercise of Tribal Fishing Rights and N</b>															
<b>3.2 Potential alternative/terminal fishing locations</b>															
300 - 1993-060-00 Select Area Fishery Evaluation	BPA		X	X		X									

## 2003 Resident Fish Projects

<i>SR Fall Chinook</i>	<i>SR Spri/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spri Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Stlhd</i>	<i>SR Stlhd</i>	<i>LCR Stlhd</i>	<i>UWR Stlhd</i>	<i>MCR Stlhd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
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### Resident Fish

30 - 1988-022-00 Umatilla River Fish Passage Operations (BPA)												X	X	
128 - 2002-006-00 Evaluate Bull Trout Movements in the Tucannon and Lower Snake Rivers (BPA)														X
173 - 1991-019-03 Hungry Horse Mitigation - Habitat (BPA)														X
214 - 1992-026-01 Grande Ronde Model Watershed - Wallowa Valley Ranger District FY01 Projects (BPA)		X						X						X
245 - 1987-127-00 Smolt Monitoring by Federal and Non-Federal Agencies (BPA)	X	X				X		X						X
253 - 1994-033-00 Fish Passage Center (BPA)		X	X		X									X
257 - 1988-064-00 Kootenai River White Sturgeon Study and Experimental Aquaculture (BPA)														X
258 - 1988-065-00 Kootenai River Fisheries Recovery Investigations (BPA)														X
259 - 1994-047-00 Lake Pend Oreille Fishery Recovery Project (BPA)													X	
260 - 1994-049-00 Improving the Kootenai River Ecosystem (BPA)														X
262 - 2002-002-00 Assess Feasibility of Enhancing White Sturgeon Spawning Substrate Habitat, Kootenai R., Idaho (BPA)														X
263 - 2002-009-00 Lake Pend Oreille Predation Research (BPA)													X	
265 - 2002-011-00 Implement Floodplain Operational Loss Assessment, Protection, Mitigation and Rehabilitation on the Lower Kootenai River Watershed Ecosystem (BPA)														X
314 - 2002-008-00 Reconnection of floodplain slough habitat to the Kootenai River (BPA)													X	X
325 - 2002-053-00 Assess Salmonids in the Asotin Creek Watershed (BPA)		X							X					X
352 - 1988-053-08 Hood River Powerdale/Oak Springs - Operations & Maintenance (BPA)			X									X	X	
410 - 1999-024-00 Bull Trout Assessment in The Columbia River Gorge (BPA)														X
436 - 2003-113-00 Protocols for Counting Salmonids, Resident Fish, and Lampreys in the Pacific Northwest (BPA)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2005 - CENWW OM Adult Fish Counting at Mainstem Columbia and Snake River Projects (CORPS)	X	X	X		X	X	X	X	X	X		X	X	
2062 - CENWW OM Monitoring of Bull Trout at Mainstem Projects (CORPS)														X
2075 - Libby Operations Bull Trout (CORPS)														X
2076 - Libby Operations Sturgeon (CORPS)														X

## 2003 Resident Fish Projects

<i>SR Fall Chinook</i>	<i>SR Spr/Sum Chinook</i>	<i>LCR Chinook</i>	<i>UWR Chinook</i>	<i>UCR Spr Chinook</i>	<i>CR Chum</i>	<i>SR Sockeye</i>	<i>UCR Stlhd</i>	<i>SR Stlhd</i>	<i>LCR Stlhd</i>	<i>UWR Stlhd</i>	<i>MCR Stlhd</i>	<i>CR Bull Trout</i>	<i>KRWS</i>
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### Resident Fish

2077 - Seek USFWS concurrence on water storage (CORPS)												X	X
4081 - Hy14.HGH.01.000.00 Hungry Horse Operations--VARQ operations (USBR)	X	X					X	X	X			X	X
6000 - 8.1.b; 8.1.d; NMFS 22; 8.2.a.6 Upper Columbia Alternative Flood Control and Fisheries Operations EIS Preparation (CORPS)	X	X	X			X	X	X	X			X	X
6001 - 10.A.1.3; 11.A.1.3.a Bull Trout Radio-Telemetry Study in the Pend Oreille Basin (CORPS)												X	
6002 - 8.2.a.4; 8.2.a.5; 8.2.a.6; 8.2.a.7; 8.2.d Preliminary Evaluation of the Feasibility of Commissioning One or Two Additional Generating Units at Libby Dam (CORPS)													X
6003 - 11.A.1.3.C Evaluate TDG below Albeni Falls Dam (CORPS)												X	
6004 - 8.3.c Kootenai River Valley Seepage Study for the Upper Columbia River Alternative Flood Control and Fisheries Operations EIS Preparation. (CORPS)	X	X				X	X					X	X
6005 - 8.3.j (8.3.d; 8.3.i) Lower Kootenai River Substrate Improvement Preliminary Feasibility Study (CORPS)													X
6006 - 10.A.1.4; 11.A.1.4.a; b; c; and d Kokanee Project Coordination Meetings (CORPS)												X	
6008 - 8.2.a.2; 8.2.a.3; 8.2.a.6 Kootenai River Channel Capacity Study for the Upper Columbia Alternative Flood Control and Fish Operations EIS. (CORPS)													X
6009 - 11.A.1.4.a; 11.A.1.4.b; 11.A.1.4.c; 11.A.1.4.d Lake Pend Oreille Elevation Study (CORPS)												X	
6012 - 22; 137; 8.1.b; 8.2.a.1; 8.2.a.3; 8.2.a.4 Spill Test at Libby Dam on Total Dissolved Gas Impacts (CORPS)													X
6023 - 8.3.h Water Temperature Profile Project, Libby Dam (CORPS)													X
6025 - ESA Coordination--Libby Dam (CORPS)													X
6026 - 8.2.b Annual Monitoring Reports, Libby Dam (CORPS)													X
6030 - ESA Coordination--Albeni Falls Dam (CORPS)							X					X	
6031 - ESA Coordination--Chief Joseph Dam (CORPS)							X				X	X	
6033 - 8.3.e; 8.3.f Load Following Effects Evaluation and Report (CORPS)													X
6034 - 36; 8.1.h; 8.1.l Variable December 31 flood control target at Libby Dam; new volume forecast procedure (CORPS)	X	X	X				X	X	X			X	X
6036 - 8.3.g; 8.3.h Water level and temperature monitoring in Kootenai River basin and Libby Dam. (CORPS)													X