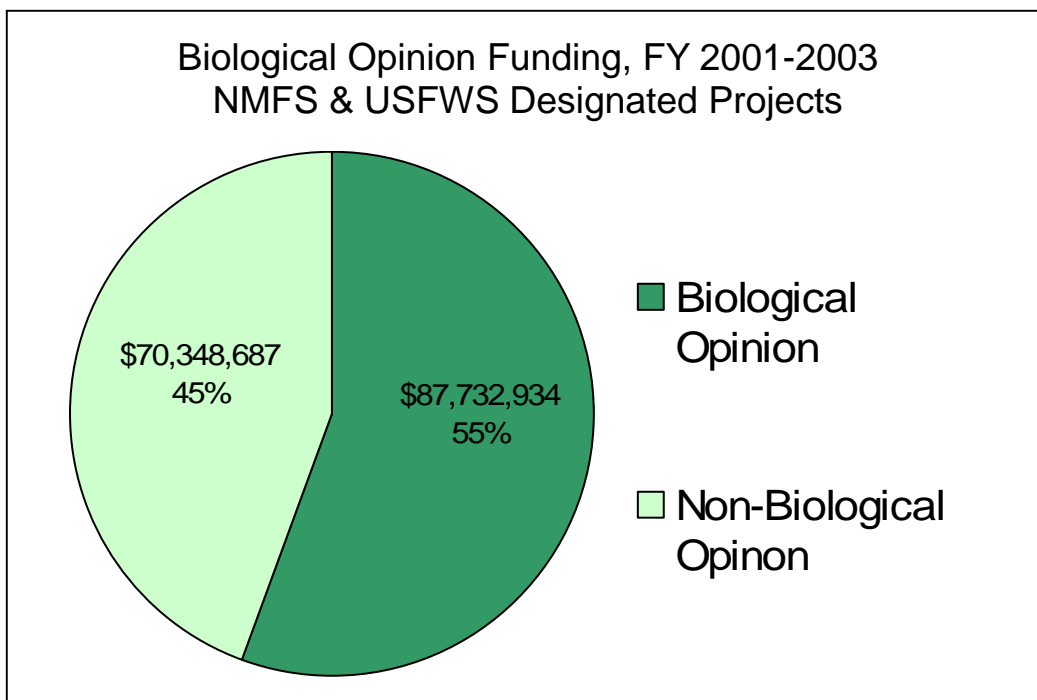


# Systemwide Projects

The Systemwide category includes projects from the Mainstem/Systemwide review cycle, as well as systemwide projects from other review cycles or funding originations.

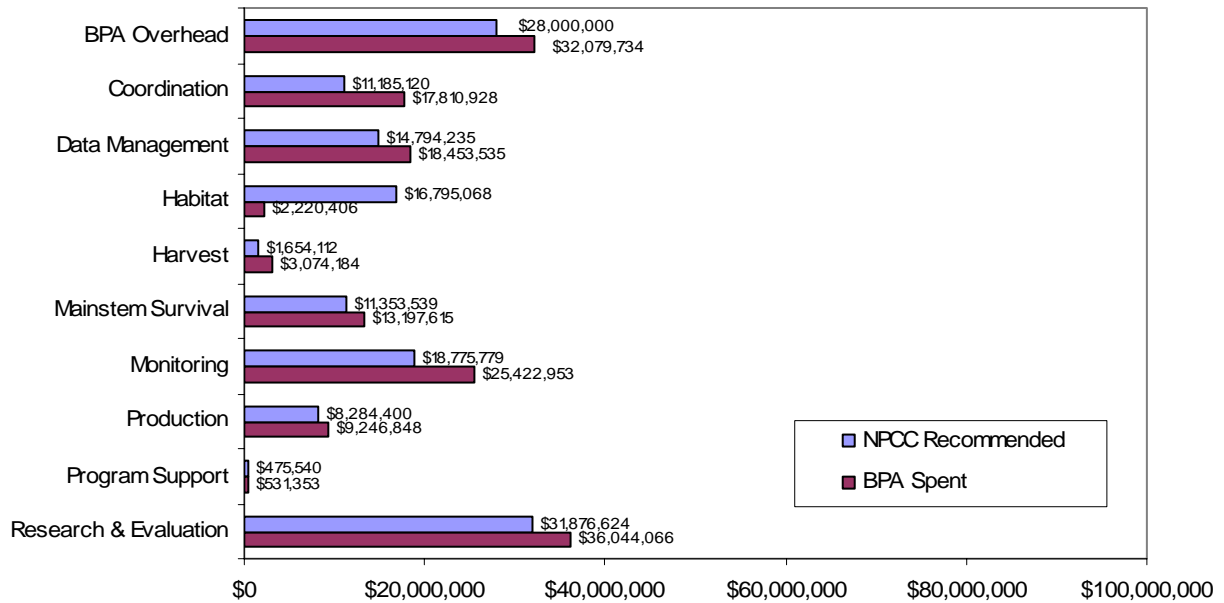
## BPA Spending, FY 2001-2003

FY 2001	\$47,173,630
FY 2002	\$53,168,198
FY 2003	\$57,739,793
<hr/>	
Total Spending	\$158,081,621

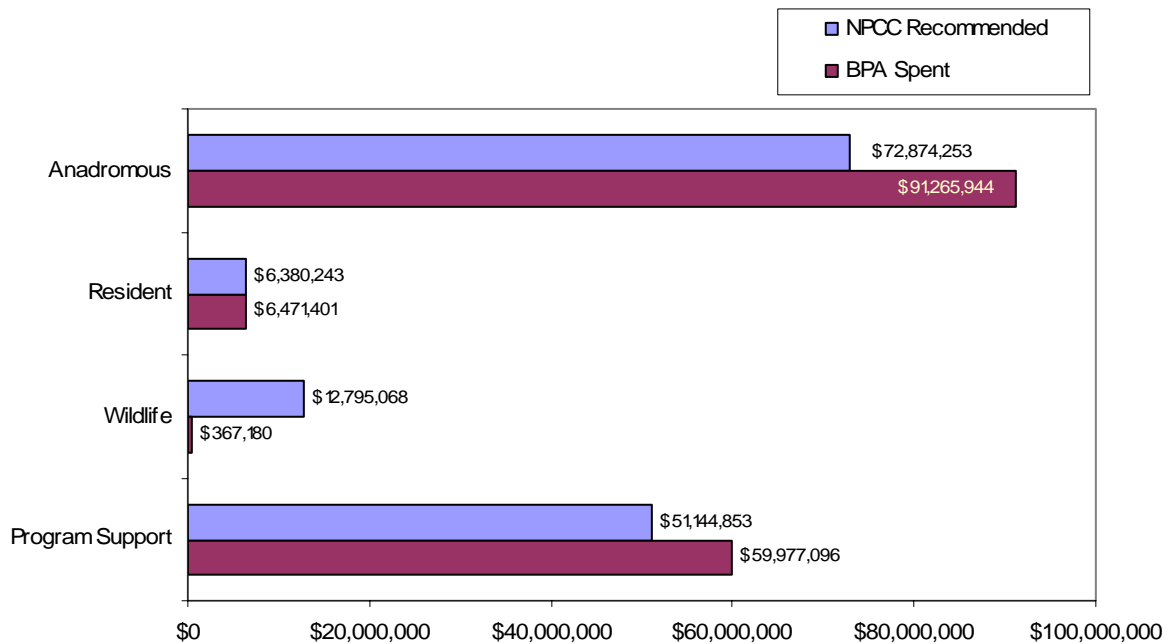


# Systemwide FY 2001-2003 Spending Summaries

## NPCC Recommendations and BPA Spending by Project Category, FY01-03



## NPCC Recommendations and BPA Spending by Project Type, FY01-03



## Systemwide Projects

<b>Project ID</b>	<b>Project Title</b>				<b>Review Cycle</b>		<b>BiOp?</b>
198201300	Coded-Wire Tag Recovery				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$2,000,000	\$2,068,000	\$2,068,000	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$1,652,305	\$3,291,624	\$3,151,889	Anadromous	Monitoring
198331900	New Marking and Monitoring Techniques for Fish				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$1,836,855	\$1,899,308	\$1,899,308	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$1,819,911	\$1,578,635	\$1,692,038	Anadromous	Research & Evaluation
<b>198605000</b>	<b>White Sturgeon Mitigation and Restoration in the Columbia and Snake Rivers Upstream from Bonneville Dam</b>				<b>Mainstem/Systemwide</b>		<b>no</b>
	<i>Rec 00-03</i>	\$1,990,925	\$2,058,616	\$2,058,616	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$2,109,372	\$2,240,103	\$1,990,545	Resident	Research & Evaluation
198712700	Smolt Monitoring by Federal and Non-Federal Agencies				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$2,295,433	\$2,373,477	\$2,373,477	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$2,158,844	\$2,217,268	\$2,443,906	Anadromous	Monitoring
198740100	Assessment of Smolt Condition: Biological and Environmental Interactions				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$206,000	\$213,004	\$213,004	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$189,478	\$380,833	\$193,498	Anadromous	Research & Evaluation
198810804	StreamNet				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$2,047,500	\$2,117,115	\$2,117,115	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$2,171,612	\$2,936,489	\$2,273,819	Program Support	Data Management
198906201	Fish and Wildlife Program Implementation				Mainstem/Systemwide		no
	<i>Rec 00-03</i>	\$2,000,000	\$2,068,000	\$2,068,000	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$4,619,480	\$4,683,969	\$3,987,637	Program Support	Coordination
198907201	Independent Scientific Advisory Board Support				Mainstem/Systemwide		no
	<i>Rec 00-03</i>	\$100,027	\$103,427	\$103,427	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$95,298	\$83,343	\$122,073	Program Support	Coordination

Projects in **bold** have preliminary results data included in this report.

## Systemwide Projects, continued...

<i>Project ID</i>	<i>Project Title</i>					<i>Review Cycle</i>	<i>BiOp?</i>
198909600	Monitor and evaluate genetic characteristics of supplemented salmon and steelhead					Mainstem/Systemwide	yes
	<i>Rec 00-03</i>	\$254,510	\$263,163	\$263,163	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$268,125	\$237,898	\$374,362	Anadromous	Research & Evaluation
198910700	Statistical Support for Salmonid Survival Studies					Mainstem/Systemwide	yes
	<i>Rec 00-03</i>	\$246,560	\$254,943	\$254,943	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$132,466	\$422,103	\$341,604	Anadromous	Monitoring
198910800	Monitor and Evaluate Modeling Support/CRISP					FY 2001	no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$438,854	\$619,963	\$501,354	Anadromous	BPA Overhead
199005200	Performance/Stock Productivity Impacts of Hatchery Supplementation					FY 2001	no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$337,903	\$541,324	\$323,185	Anadromous	Monitoring
199007700	Northern Pikeminnow Management Program					Mainstem/Systemwide	yes
	<i>Rec 00-03</i>	\$2,505,933	\$2,591,134	\$2,591,134	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$4,461,778	\$2,000,000	\$2,893,822	Anadromous	Mainstem Survival
199007800	Pikeminnow Management Support					FY 2001	no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$76,743	\$12,959	\$73,643	Anadromous	Mainstem Survival
199008000	Columbia Basin PIT Tag Information System					Mainstem/Systemwide	yes
	<i>Rec 00-03</i>	\$1,450,000	\$1,499,300	\$1,499,300	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$1,819,627	\$1,473,392	\$3,107,703	Anadromous	Data Management
199008001	PIT TAG Purchases					Mainstem/Systemwide	no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$1,701,721	\$2,455,775	\$1,136,250	Anadromous	Monitoring
199009300	Genetic Analysis of <i>Oncorhynchus nerka</i> (modified to include chinook salmon)					Mainstem/Systemwide	yes
	<i>Rec 00-03</i>	\$130,564	\$135,003	\$135,003	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$226,577	\$110,576	\$153,319	Anadromous	Monitoring

## Systemwide Projects, continued...

<i>Project ID</i>	<i>Project Title</i>				<i>Review Cycle</i>		<i>BiOp?</i>
199105100	Monitoring and Evaluation Statistical Support				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$340,357	\$351,929	\$351,929	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$342,635	\$407,586	\$405,974	Program Support	Monitoring
199105500	Natural Rearing Enhancement Systems (NATURES)				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$500,000	\$517,000	\$517,000	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$1,551,847	\$352,200	Anadromous	Research & Evaluation
199203200	Life-Cycle Model Development and Application to System Planning				FY 1999		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$39,599	\$ 8,771	\$ 0	Anadromous	Research & Evaluation
199207300	Develop Laser Marking Salmonid				FY 1998		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$338,662	\$250,114	\$ 0	Anadromous	Research & Evaluation
199302900	Estimate Survival for the Passage of Juvenile Salmonids Through Dams and Reservoirs of the Lower Snake and Columbia Rivers				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$1,194,700	\$1,235,319	\$1,235,319	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$1,058,079	\$1,361,177	\$1,259,415	Anadromous	Mainstem Survival
199303701	Technical Assistance with Life Cycle Modeling				FY 2001		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$185,721	\$180,786	\$203,705	Program Support	BPA Over-head
199305600	Assessment of Captive Broodstock Technologies				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$1,300,000	\$1,344,200	\$1,344,200	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$1,585,541	\$2,210,243	\$1,784,507	Anadromous	Production
199403300	The Fish Passage Center				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$1,100,000	\$1,137,400	\$1,137,400	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$1,377,198	\$1,138,637	\$1,285,052	Anadromous	Data Management
199600500	Independent Scientific Advisory Board				Mainstem/Systemwide		no
	<i>Rec 00-03</i>	\$704,124	\$728,064	\$728,064	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$488,309	\$290,137	\$370,819	Program Support	Coordination

## Systemwide Projects, continued...

<i>Project ID</i>	<i>Project Title</i>				<i>Review Cycle</i>		<i>BiOp?</i>
199600800	PATH - State & Tribal Agencies				FY 2000		no
	<i>Rec 00-03</i>	\$29,000	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$29,279	\$ 0	\$ 0	Program Support	Monitoring
199601700	Tech Support Bio Analyst Inc				FY 2001		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$103,991	\$281,657	\$302,505	Program Support	BPA Overhead
199601900	Second-Tier Database Support				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$170,000	\$175,780	\$175,780	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$169,206	\$209,278	\$323,977	Anadromous	Data Management
199602000	Comparative Survival Rate Study (CSS) of Hatchery Pit Tagged Chinook & Comparative Survival Study Oversight Committee				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$851,979	\$941,184	\$941,184	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$354,050	\$272,710	\$300,226	Anadromous	Monitoring
199602100	Gas Bubble Disease Research and Monitoring of Juvenile Salmonids				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$23,269	\$16,688	\$16,688	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$87,372	\$ 4,029	\$46,786	Anadromous	Monitoring
199606700	Manchester Spring Chinook Broodstock Project				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$500,000	\$517,000	\$517,000	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$933,118	\$657,858	\$524,966	Anadromous	Production
199702300	Independent Scientific Review				Not Reviewed		no
	<i>Rec 00-03</i>	\$500,000	\$500,000	\$500,000	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$792,699	\$782,458	\$356,474	Program Support	Coordination
199702400	Avian Predation on Juvenile Salmonids in the Lower Columbia River				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$642,000	\$642,000	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$584,088	\$642,483	\$816,894	Anadromous	Research & Evaluation
199704400	Hydro Regulator Model Development				FY 1998		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$40,928	\$40,717	\$ 0	Anadromous	Research & Evaluation

## Systemwide Projects, continued...

Project ID	Project Title				Review Cycle		BiOp?
199705900	Securing Habitat Mitigation Sites - Oregon				Mainstem/Systemwide		yes
	Rec 00-03	\$6,195,068	\$3,300,000	\$3,300,000	Type	Category	Accuracy
	Spent 01-03	--	\$160,609	\$136,594	\$28,128	Wildlife	Habitat
199705901	OR Wildlife Planning & Coordination USFWS				FY 2001		no
	Rec 00-03	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	Spent 01-03	--	\$34,594	\$ 0	\$ 0	Wildlife	Habitat
199705902	Oregon Wildlife Planning/Coordination				FY 2001		no
	Rec 00-03	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	Spent 01-03	--	\$ 2,452	\$ 3,270	\$ 1,532	Wildlife	Habitat
199800100	PATH/ESA Bio Assessment HES				FY 2001		no
	Rec 00-03	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	Spent 01-03	--	\$136,198	\$116,615	\$148,024	Program Support	BPA Overhead
199800401	Electronic Fish and Wildlife Newsletter				Mainstem/Systemwide		no
	Rec 00-03	\$155,000	\$160,270	\$160,270	Type	Category	Accuracy
	Spent 01-03	--	\$165,556	\$178,626	\$187,171	Anadromous	Program Support
199800405	Columbia Basin Artificial Production				Not Reviewed		no
	Rec 00-03	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	Spent 01-03	--	\$84,147	\$ 0	\$ 0	Anadromous	Production
199800800	Regional Forum Facilitation Services				Mainstem/Systemwide		no
	Rec 00-03	\$71,000	\$123,414	\$ 0	Type	Category	Accuracy
	Spent 01-03	--	\$67,961	\$93,410	\$65,427	Anadromous	Coordination
199801100	Natural Heritage Program (MT)				Not Reviewed		no
	Rec 00-03	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	Spent 01-03	--	\$ 0	\$ 5,500	\$11,000	Program Support	BPA Overhead
199801300	ESA Meeting Writer & Editor				Not Reviewed		no
	Rec 00-03	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	Spent 01-03	--	\$66,391	\$94,283	\$74,187	Anadromous	BPA Overhead
199801301	Tech Writer Salmon Committee				Not Reviewed		no
	Rec 00-03	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	Spent 01-03	--	\$ 9,271	\$ 9,573	\$ 2,072	Anadromous	BPA Overhead

## Systemwide Projects, continued...

<i>Project ID</i>	<i>Project Title</i>				<i>Review Cycle</i>		<i>BiOp?</i>
199801400	Ocean Survival of Salmonids				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$845,000	\$873,730	\$1,767,855	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$2,883,691	\$1,699,356	\$1,828,351	Anadromous	Research & Evaluation
199803100	Implement Wy-Kan-Ush-Mi Wa-Kish-Wit Watershed Assessment and Restoration Plan Now				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$289,301	\$299,136	\$299,136	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$137,203	\$438,246	\$335,986	Anadromous	Coordination
199804200	Redesign of Fish & Wildlife Management Systems				Not Reviewed		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$36,606	\$ 0	\$ 0	Program Support	BPA Overhead
199805100	Natural Heritage Program (WA)				Not Reviewed		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 2,500	\$ 0	\$ 0	Program Support	BPA Overhead
199805600	NMFS Net Exchange Program				Not Reviewed		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$41,774	\$ 5,090	\$ 0	Anadromous	Harvest
199900301	Evaluate Spawning of Fall Chinook and Chum Salmon Just Below the Four Lowermost Mainstem Dams				Mainstem/Systemwide		yes
	<i>Rec 00-03</i>	\$615,425	\$636,349	\$636,349	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$496,805	\$1,013,830	\$900,696	Anadromous	Research & Evaluation
199902200	Assessing Genetic Variation Among Columbia Basin White Sturgeon Populations				FY 2001		no
	<i>Rec 00-03</i>	\$136,043	\$136,043	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$58,328	\$73,053	\$ 0	Resident	Research & Evaluation
199904100	Use Nutrient Spawning Salmon				Not Reviewed		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$155,350	\$ 8,123	\$ 0	Anadromous	Research & Evaluation
200000600	Training Support To NRCS				FY 2001		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 5,965	\$ 0	\$ 0	Anadromous	BPA Overhead



## Systemwide Projects, continued...

<i>Project ID</i>	<i>Project Title</i>				<i>Review Cycle</i>		<i>BiOp?</i>	
200000700	Infrastructure to Complete FDA Registration of Erythromycin				Mainstem/Systemwide		yes	
	<i>Rec 00-03</i>	\$71,766	\$74,206	\$74,206	Type	Category	Accuracy	
	<i>Spent 01-03</i>	--	\$43,619	\$59,662	\$111,034	Anadromous	Research & Evaluation	
200001700	Kelt Reconditioning: A Research Project to Enhance Iteroparity in Columbia Basin Steelhead ( <i>Oncorhynchus mykiss</i> )				Mainstem/Systemwide		yes	
	<i>Rec 00-03</i>	\$227,982	\$235,733	\$235,733	Type	Category	Accuracy	
	<i>Spent 01-03</i>	--	\$117,603	\$137,652	\$220,180	Anadromous	Research & Evaluation	
200002900	Identification and thermal requirements of larval Pacific, river, and western brook lampreys				Mainstem/Systemwide		no	
	<i>Rec 00-03</i>	\$77,280	\$79,907	\$79,907	Type	Category	Accuracy	
	<i>Spent 01-03</i>	--	\$59,761	\$100,942	\$107,758	Anadromous	Research & Evaluation	
200005500	NPT Law Enforcement				Mainstem/Systemwide		no	
	<i>Rec 00-03</i>	\$426,916	\$ 0	\$ 0	Type	Category	Accuracy	
	<i>Spent 01-03</i>	--	\$509,751	\$623,154	\$462,062	Anadromous	Harvest	
200005600	Law Enforcement Anadromous Salmonids				Mainstem/Systemwide		no	
	<i>Rec 00-03</i>	\$400,000	\$413,598	\$413,598	Type	Category	Accuracy	
	<i>Spent 01-03</i>	--	\$571,057	\$400,299	\$460,997	Anadromous	Harvest	
200005700	Evaluate Effects of Hydraulic Turbulence on the Survival of Migratory Fish				FY 2000		no	
	<i>Rec 00-03</i>	\$200,000	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$169,623	\$30,182	\$ 0	Anadromous	Research & Evaluation	
200005800	Effects of supersaturated water on reproductive success of adult salmonids				FY 2001		no	
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy	
	<i>Spent 01-03</i>	--	\$110,074	\$15,724	\$ 0	Anadromous	Research & Evaluation	
200007100	Analyzing Genetic and Behavioral Changes During Salmonid Domestication				FY 2000		no	
	<i>Rec 00-03</i>	\$199,996	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$57,429	\$59,046	Anadromous	Research & Evaluation	

## Systemwide Projects, continued...

<i>Project ID</i>	<i>Project Title</i>				<i>Review Cycle</i>		<i>BiOp?</i>	
200007200	Heritability of Disease Resistance and Immune Function in Chinook Salmon				FY 2000		no	
	<i>Rec 00-03</i>	\$200,000	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 2,891	\$125,346	\$121,965	Anadromous	Research & Evaluation	
200007300	Subbasin Assessments				Not Reviewed		no	
	<i>Rec 00-03</i>	\$932,431	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$445,465	\$507,849	\$-20,884	Program Support	Research & Evaluation	
200007402	Baseline Key Ecological Function				Not Reviewed		no	
	<i>Rec 00-03</i>	\$ 9,750	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 9,750	\$ 0	\$ 0	Program Support	Research & Evaluation	
200007600	Tech Support Kintama Research				Not Reviewed		no	
	<i>Rec 00-03</i>		\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 4,050	\$ 0	\$ 0	Program Support	BPA Overhead	
200100100	Implementation Plan Development				Not Reviewed		no	
	<i>Rec 00-03</i>		\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$47,523	\$59,275	\$103,301	Anadromous	BPA Overhead	
200100300	ISO Adult PIT Interrogation System Installations				Mainstem/Systemwide		yes	
	<i>Rec 00-03</i>		\$853,313	\$853,313	\$853,313	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$606,739	\$1,106,140	Anadromous	Research & Evaluation	
200100600	Misc F&W Sponsorships				Not Reviewed		no	
	<i>Rec 00-03</i>		\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 1,000	\$ 4,000	\$ 0	Program Support	BPA Overhead	
200100800	Genetic Sex of Chinook Salmon in the Columbia River Basin				FY01 Innovative		no	
	<i>Rec 00-03</i>		\$99,736	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 868	\$63,538	\$33,858	Anadromous	Research & Evaluation	
200101000	Using Induced Turbulence to Assist Downstream-Migrating Juvenile Salmonids				FY01 Innovative		no	
	<i>Rec 00-03</i>		\$219,923	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$44,079	\$243,819	\$18,312	Anadromous	Research & Evaluation	

## Systemwide Projects, continued...

<i>Project ID</i>	<i>Project Title</i>				<i>Review Cycle</i>		<i>BiOp?</i>	
200101700	Idaho Conservation Data Center				Not Reviewed		no	
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy	
	<i>Spent 01-03</i>	--	\$ 5,000	\$ 0	\$10,000	Program Support	BPA Overhead	
200104500	Action Plan Proposal Review				Not Reviewed		no	
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy	
	<i>Spent 01-03</i>	--	\$12,415	\$118,231	\$71,992	Anadromous	BPA Overhead	
200104700	Reintroduction success of steelhead from captive propagation and release strategies				FY01 Innovative		yes	
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy	
	<i>Spent 01-03</i>	--	\$ 0	\$238,003	\$95,618	Anadromous	Research & Evaluation	
200104800	Ecosystem Diagnosis Model				Not Reviewed		no	
	<i>Rec 00-03</i>	\$277,049	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$277,049	\$ 0	Program Support	Monitoring	
200104900	Safety Net Coordinator				Not Reviewed		yes	
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy	
	<i>Spent 01-03</i>	--	\$ 4,020	\$14,608	\$ 5,602	Anadromous	BPA Overhead	
200107000	EDT Model Evaluation				Not Reviewed		no	
	<i>Rec 00-03</i>	\$139,186	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$94,176	\$45,010	Anadromous	Research & Evaluation	
200107400	NPPC Regional Data Needs				Not Reviewed		no	
	<i>Rec 00-03</i>	\$167,545	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$72,061	\$95,484	Program Support	Data Management	
200107800	EDT Validation - USF&WS				Not Reviewed		no	
	<i>Rec 00-03</i>	\$37,913	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$28,533	\$ 9,380	Anadromous	Research & Evaluation	
200200500	Fisher Fisheries				Not Reviewed		no	
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy	
	<i>Spent 01-03</i>	--	\$ 0	\$56,558	\$116,418	Program Support	BPA Overhead	

## Systemwide Projects, continued...

<i>Project ID</i>	<i>Project Title</i>				<i>Review Cycle</i>		<i>BiOp?</i>
200201300	Water Entity (RPA 151)				Not Reviewed		yes
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$27,125 \$1,826,101	Anadromous	Habitat	
200204600	Fish Alignment Project				Not Reviewed		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$36,231 \$32,747	Anadromous	BPA Overhead	
200204700	Artificial Production Review				Not Reviewed		no
	<i>Rec 00-03</i>	\$ 0	\$1,000,000	\$1,300,000	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$170,311 \$689,004	Anadromous	Production	
200205100	Sub Basin Planning				Not Reviewed		yes
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$4,300,000	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$75,719 \$3,759,520	Program Support	Research & Evaluation	
200207100	Comprehensive Marking Plan				Not Reviewed		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$ 5,303 \$45,497	Anadromous	BPA Overhead	
200207500	Technical Recovery Team (TRT)				Not Reviewed		yes
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$ 0 \$97,794	Anadromous	BPA Overhead	
200207700	Estuary/Ocean RME Support				Not Reviewed		yes
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$ 0 \$88,289	Anadromous	BPA Overhead	
200300300	Use a Multi-Watershed Approach to Increase the Rate of Learning from Columbia Basin Watershed Restoration Projects				FY02 Innovative		yes
	<i>Rec 00-03</i>	\$ 0	\$199,764	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$ 0 \$129,396	Anadromous	Research & Evaluation	
200300500	Hatchery & Genetics Management Plan				Not Reviewed		yes
	<i>Rec 00-03</i>	\$ 0	\$462,000	\$ 0	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$ 0 \$607,154	Anadromous	Production	

## Systemwide Projects, continued...

<i>Project ID</i>	<i>Project Title</i>				<i>Review Cycle</i>		<i>BiOp?</i>
200301700	Develop and Implement a Pilot Status and Trend Monitoring Program for Salmonids and their Habitat in the Wenatchee and Grande Ronde River Basins				Mainstem/ Systemwide		yes
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$226,250	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$79,230	Anadromous	Monitoring	
200304800	BPA Overhead				BPA Overhead		no
	<i>Rec 00-03</i>	\$8,000,000	\$8,000,000	\$12,000,000	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$7,679,109	\$9,466,370	Program Support	BPA Overhead	
200311300	Fish Counting Protocols				Not Reviewed		no
	<i>Rec 00-03</i>	\$ 0	\$ 0	\$72,870	Type	Category	Accuracy
	<i>Spent 01-03</i>	--	\$ 0	\$17,388	Anadromous	Monitoring	

**198605000– White Sturgeon Mitigation and Restoration in the Columbia and Snake Rivers**

**2002 Project Objectives**

- Collect  $\leq$  10,000 juvenile white sturgeon from below Bonneville Dam for subsequent release in The Dalles and John Day reservoirs
- Estimate the abundance of white sturgeon in the Bonneville Reservoir
- Evaluate the effects of augmented discharges on habitat and young-of-the-year white sturgeon

**Collection and Release of Juvenile White Sturgeon - Preliminary Results**



Photo: Courtesy Oregon Department of Fish and Wildlife

Fisheries biologists preparing juvenile white sturgeon, collected downstream from Bonneville Dam, for transport and release in The Dalles and John Day reservoirs.



Photo: Courtesy Oregon Department of Fish and Wildlife

Juvenile white sturgeon collected downstream from Bonneville Dam, are measured and tagged for later identification.



Photo: Courtesy Oregon Department of Fish and Wildlife

Captured juvenile white sturgeon are transported from below Bonneville Dam to The Dalles and John Day reservoirs via truck.

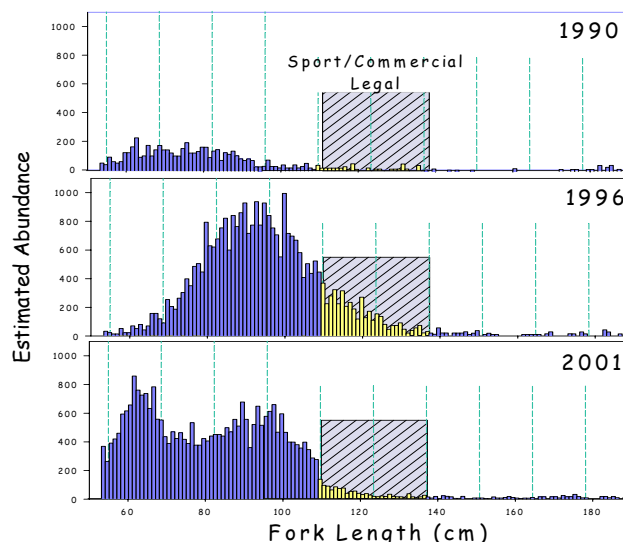
- In 2002, 5,118 juvenile white sturgeon were collected downstream from Bonneville Reservoir and subsequently released in The Dalles (N = 941) and John Day (N = 4, 177) reservoirs
- The Dalles Reservoir white sturgeon population includes an estimated 10,588 fish that were captured from below Bonneville Dam and transported to the reservoir.
- Approximately 10% of The Dalles Reservoir white sturgeon population originated from below the Bonneville Dam

**Juvenile White Sturgeon Collected Downstream from Below Bonneville Dam and Released in The Dalles and John Day Reservoirs**

Year	Release Reservoir		Total
	The Dalles	John Day	
1994	2,935	--	2,935
1995	5,611	--	5,611
1998	3,257	5,534	8,791
1999	77	4,171	4,248
2000	1,163	4,019	5,182
2001	1,257	5,195	6,452
2002	941	4,177	5,118
<b>Total</b>	15,241	23,096	38,337

## White Sturgeon Abundance in the Mainstem Columbia River - Preliminary Results

- Overall abundance of white sturgeon in John Day Reservoir has increased since 1990
- Growth for fish that were in the slot limit was slower than originally estimated which subsequently led to an over-harvest and a reduction in the number of fish in the slot-category
- Harvest guidelines were adjusted using information collected through this study

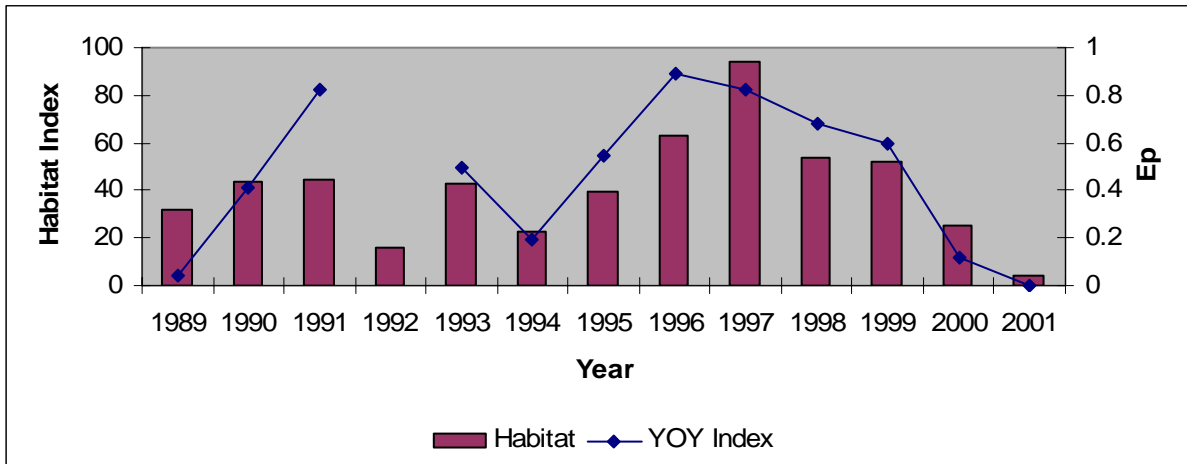


Intensive management efforts instituted in the early 1990's have resulted in an increase in the abundance of white sturgeon in the mainstem Columbia River.

### Abundance of white sturgeon based on mark-recapture estimates.

Year	30-72 inch TL N̄ (95% CI)	Number of fish by total length interval (inches)					Sum	Number/ Pounds/ acre <sup>a</sup> acre <sup>a</sup>	
		24-36	36-48	48-60	60-72	72+			
<b>Bonneville Reservoir</b>									
1976	12,200	17,900	3,900	1,200	1,200	1,600	25,800		
1989	35,400(27,500-45,400)	32,900	16,700	1,200		600	51,400	2.5	27
1994	35,200(24,800-66,000)	31,300	18,300	1,500		900	52,000	2.5	--
1999	85,400	82,400	41,800	3,200	600	400	128,400	6.2	59
2003	58,000-68,000								
<b>The Dalles Reservoir</b>									
1987	23,600(15,700-33,600)	7,800	11,000	6,100	1,800	1,000	27,700	2.5	73
1988	9,000(7,300-11,000)	4,200	4,300	1,500	500	800	11,300	1.0	32
1994	9,700(7,500-14,000)	5,800	5,700	800	<50	300	12,600	1.1	--
1997	59,800(52,400-68,100)	26,500	38,500	8,100	200	200	73,500	6.6	59
2002	33,000(26,200-42,000)	82,900	13,500	5,900	1,200	800	104,300	9.4	104
<b>John Day Reservoir</b>									
1990	3,900(2,300-6,100)	16,600	1,700	400	100	500	19,300	0.4	3
1996	27,100(23,800-30,800)	5,800	19,700	4,000	300	700	30,500	0.6	11
2001	19,600	14,900	12,800	1,100	300	900	30,000	0.6	9

### Effects of Augmented Discharges - Preliminary Results



Augmented flows during specific times of the year can significantly improve spawning success of white sturgeon in the mainstem lower Columbia River.

- Higher spring flows provided an increase in habitat that is suitable for spawning
- Increased spawning success was observed for white sturgeon spawning during years in which there were elevated spring flows
- Increases in the habitat index led to an increase in white sturgeon young-of-the year



Photo: Courtesy Oregon Department of Fish and Wildlife

Augmented flows (e.g., 1996-1999) resulted in improved spawning conditions and subsequently an increase in the abundance of young-of-the-year white sturgeon in the mainstem lower Columbia River.