

**Fifth Annual Report to the Northwest Governors
on Expenditures of the Bonneville Power Administration**

**to Implement the Columbia River Basin Fish and Wildlife Program of the
Northwest Power and Conservation Council**

1978 - 2005



July 2006



Council Document 2006-11

Summary

In Fiscal Year 2004, the Bonneville Power Administration spent a total of \$493.6 million, and in Fiscal Year 2005 a total of \$576.3 million, to implement the Council's Columbia River Basin Fish and Wildlife Program. The program is designed to protect, mitigate and enhance Columbia River Basin fish and wildlife that have been affected by hydroelectric dams.

The Council's last report on Bonneville's fish and wildlife expenditures was current through Fiscal Year 2003. The current report includes expenditures through Fiscal Year 2005. The grand total of Bonneville's fish and wildlife expenditures, 1978-2005, now stands at \$7.802 billion. Expenditures are provided by Bonneville for this report and are not separately verified by the Council. Here, in descending order, is a breakdown of the expenditures, which are detailed further in the Appendix of this report:

- \$2,740,300,000 (\$191.0 million in 2004 and 110.8 million in 2005) for power purchases to meet load requirements in response to required river operations that reduce hydropower generation.
- \$1,571,700,000 (\$137.9 million in 2004 and \$135.8 million in 2005) for the Council's direct program. The 2004 and 2005 totals are for direct expenditures only and do not include annual expenditures from the separate capital-investment budget. With capital expenditures added, total direct-program spending for 2004 is \$146.4 million, and for 2005 the total is \$148.0 million.¹

For the period 2001-2004, direct program expenditures included a total of \$16,000,000

(\$400,000 in 2004 and zero in 2005) in one-time expenditures for "high priority" and "action plan" projects. These are included in the total above. The high-priority projects were intended to bring immediate benefits to all species listed for protection under the Endangered Species Act in advance of subbasin planning (subbasin plans were submitted to the Council in 2004 and adopted into the fish and wildlife program in 2004 and 2005). The "action plan" projects were intended to bring immediate benefits to ESA-listed salmon and steelhead that were affected by altered hydropower dam operations in the spring and early summer of 2001, when the flow of the Columbia River was at a near-record low.

Sorted by type of species, total (1978-2005) expenditures to implement the direct program are \$1,306,861,461 (\$96,206,584 in 2004 and \$101,172,351 in 2005) on anadromous fish projects; \$219,612,570 (\$18,899,368 in 2004 and \$20,236,591 in 2005) on resident fish projects, and \$175,567,671 (\$10,659,908 in 2004 and \$13,278,339 in 2005) on wildlife projects.

- \$1,381,500,000 (\$21.7 million in 2004 and \$182.1 million in 2005) in forgone revenue, the calculated value of hydropower that could not be generated because of required river operations to assist fish passage and improve fish survival, such as water spills at the dams.
- \$1,246,300,000 (\$85.4 million in 2004 and \$89.7 million in 2005) in fixed expenses for bonds issued by Bonneville to pay for capital investments in fish-passage facilities at the dams.

¹ The fish and wildlife budget has two spending categories: direct-program expenditures, which average \$139 million per year, and a capital-spending budget of \$36 million per year. Direct-program expenditures are payments Bonneville makes annually from its fund, which in the form of debt issued on behalf of Bonneville by the U.S. Treasury. Bonneville pays back the debt over time. In general, Bonneville views hatcheries and related facilities, for example. In this report, Tables 1 and 2, Cumulative and Total Annual Expenditures, 1978-2005, report only the direct-spending totals. Tables 3 through 5 include in their totals both direct expenditures and capital expenditures.

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- \$801,600,000 (\$57.2 million in 2004 and \$57.9 million in 2005) to reimburse the U.S. Treasury for the power-generation share of other federal agency expenditures to mitigate the impact of hydropower on fish and wildlife. Primarily these reimbursements are paid to the U.S. Army Corps of Engineers, Bureau of Reclamation, and U.S. Fish and Wildlife Service for efforts to improve fish and wildlife survival apart from the Council's program, such as operation and maintenance of fish passage facilities and federal fish hatcheries.



Background

The 2005 Report

This is the fifth in a series of annual reports the Council prepares to explain funding of the Columbia River Basin Fish and Wildlife Program. The reports respond to a July 1999 request by the governors of Idaho, Oregon, Montana and Washington, the four states represented on the Council, to begin reporting annually on expenditures of the Bonneville Power Administration to implement the program.

In this fifth annual report, the Council provides an update of Bonneville's funding through Fiscal Year 2005. The report also includes information about salmon and steelhead in the Columbia River Basin. Financial information was provided by Bonneville in response to requests from the Council. Information about salmon and steelhead was compiled from reports by the U.S. Army Corps of Engineers, NOAA Fisheries, the states of Washington and Oregon through the Columbia River Compact, and the University of Washington Joint Institute for the Study of the Atmosphere and Oceans.

The Northwest Power and Conservation Council

The Northwest Power Act of 1980, a federal law, authorized the states of Idaho, Montana, Oregon, and Washington to form the Northwest Power and Conservation Council (it was known until 2003 as the Northwest Power Planning Council). The Act directs the Council to prepare a program to protect, mitigate and enhance fish and wildlife of the Columbia River Basin that have been affected by hydropower. The Act also directs the Administrator of the Bonneville Power Administration, the federal agency that sells electricity generated at federal dams in the Columbia River Basin, to use the Bonneville fund in a manner consistent with

the Council's program to protect, mitigate and enhance fish and wildlife.

The Columbia River Basin Fish and Wildlife Program

The Council is a planning, policy-making and reviewing body. Consistent with the Northwest Power Act, the Council develops the fish and wildlife program and monitors its implementation. The program is implemented primarily by Bonneville but also by the region's fish and wildlife agencies and tribes, the U.S. Army Corps of Engineers, the Bureau of Reclamation and the Federal Energy Regulatory Commission and its licensees. The program addresses hydropower impacts on anadromous fish, resident fish and wildlife. Anadromous fish are those that spawn in freshwater, migrate to the Columbia River estuary as juveniles, spend their adult lives in the Pacific Ocean, and then return to their freshwater birthplaces to spawn and die. Resident fish are those that live and migrate within freshwater rivers, streams, and lakes.

The program directs scientific research; habitat protection, including acquisitions and easements²; and construction projects to improve habitat and fish passage and to build and operate hatcheries.

The program also establishes certain reservoir elevations and flow requirements to protect anadromous and resident fish and their habitat. Other measures call for using stored water to maintain appropriate water temperatures and protect streambeds. The program focuses most of the mitigation activities on anadromous fish, consistent with language in the Northwest Power Act. Section 2.6 of the Act states that anadromous fish "are of significant importance to the social and economic well-being of the Pacific

2 Habitat acquisitions for wildlife are credited against identified habitat losses attributable to the construction of hydropower dams. The crediting unit is c³ targete³ and if so how, to change the formula for calculating habitat unit acquisitions against identified losses, and 2) whether Bonneville should use its capital borrowing authority to acquire habitat for fish.

Northwest and the Nation” and that these fish “are dependent on suitable environmental conditions substantially obtainable from the management and operation” of dams on the Columbia River and its tributaries. Primarily these are salmon and steelhead, but anadromous Pacific lamprey and sturgeon also are found in the Columbia system.

Through a collaborative process, the Council and Bonneville solicit projects to implement the program. The Council submits project proposals for review by the fish and wildlife managers, the Independent Scientific Review Panel³ and the general public and then recommends projects to Bonneville for funding. The Council also requests NOAA Fisheries and the U.S. Fish and Wildlife Service to provide input on projects required to meet their Endangered Species Act obligations for threatened and endangered fish species.

Beginning in Fiscal Year 2007, projects that implement the program will be based on needs identified in subbasin plans and funded for three years at a time rather than one year. There are 57 subbasin plans, developed locally over a two-year period (2002-2004). The Council amended the plans into the fish and wildlife program in late 2004 and early 2005.

3 The Independent Scientific Review Panel was created by the Council in response to a 1996 amendment to the Northwest Power Act that called for greater scientific scrutiny and public accountability of expenditures through the Council's program. The 11 members of the Panel are nominated by the National Academy of Sciences and appointed by the Council.

Expenditures by Category, Fiscal Years 2004 and 2005

Direct program expenditures

Direct program expenditures pay for projects that are reviewed by the ISRP, fish and wildlife managers, and the public, and then are recommended by the Council to Bonneville for funding. For 2004, Bonneville reported direct program expenditures of \$146.4 million and for 2005, \$148 million. Those amounts include capital obligations. Subtracting capital obligations, the expenditures total \$137.9 million in 2004 and \$135.8 million in 2005.

In 2004, Bonneville's spending for anadromous fish totaled \$96.2 million and for 2005, \$101.2 million. For resident fish, the amount was \$18.9 million in 2004 and \$20.2 million in 2005. For wildlife, the amount was \$10.6 million in 2004 and \$13.3 million in 2005. Expenditures for anadromous fish projects amounted to 65.7 percent of direct-program spending in 2004 and 68.3 percent in 2005. Resident fish projects accounted for 12.9 percent of direct-program spending in 2004 and 13.6 percent in 2005. Wildlife expenditures accounted for 7.2 percent of direct-program spending in 2004 and 8.9 percent in 2005.⁴

Bonneville reported external fish and wildlife program support expenditures of \$10.01 million in 2004 and \$2.3 million in 2005. These include costs such as data management, coordination and information to support all programs. Internal program support (\$10.6 million in 2004 and \$10.9 million in 2005) includes contracts for program review and independent analysis of the program, and for Bonneville's Fish and Wildlife Division overhead and personnel costs.

Power purchases

Measures in the Council's program and in the 2000 and 2004 Biological Opinions on Hydropower Operations issued by NOAA Fisheries and the U.S. Fish and Wildlife Service can affect hydropower generation. These measures include river and dam operations to protect spawning and rearing areas for resident fish such as bull trout and white sturgeon and improve passage conditions at dams for juvenile salmon and steelhead. To make up lost hydropower generation when these operations occur, Bonneville often buys electricity from other suppliers. These purchases are part of Bonneville's larger wholesale power purchases. To determine how much of these purchases to attribute to lost hydropower from the fish operations, Bonneville performs two annual calculations of its total power purchases — one that includes the fish operations and one that does not. Bonneville attributes the difference in power purchases to the fish requirements and, therefore, identifies them as a cost in its fish and wildlife budget. Bonneville assigned \$191 million in power purchases to the fish and wildlife budget in 2004 and \$110.8 million in 2005.

Forgone revenue

River and dam operations can result in lost income, and in some circumstances increased income, for Bonneville. The budget term for the lost income is forgone revenue. To determine forgone revenue, Bonneville calculates the net value of the hydropower revenues gained and lost as a result of fish operations on an annual basis. Bonneville charges forgone revenue against its fish and wildlife budget as an expense. For Fiscal Year 2004, Bonneville assigned forgone revenue of \$21.7 million to the fish and wildlife budget. For 2005, the amount was \$182.1 million.

⁴ Wildlife expenditures are treated differently than expenditures for anadromous fish and resident fish. Wildlife projects address habitat losses that have been calculated, by species, for each federal dam (or groups of dams within tributary subbasins). The identified losses only address the impacts of dam construction; losses attributable to dam operations have not been quantified. The Council and Bonneville worked with the region's wildlife managers to develop a system of crediting habitat acquisitions against the losses.

Credits

In the Northwest Power Act Congress directs Bonneville's administrator to use the Bonneville Fund — electricity ratepayer dollars — to pay for the projects and activities in the Council's program. The Power Act also states that 1) ratepayers are only responsible for mitigating the impacts of hydropower, and not impacts caused by non-power uses of the dams such as irrigation, navigation, flood control, and recreation; and 2) the Bonneville administrator can allocate mitigation costs between power and non-power purposes.

Bonneville pays the entire — power and non-power — cost of mitigating the impacts of federal dams on fish and wildlife and then receives a credit against its annual debt payment to the U.S. Treasury for the non-power portion. This arrangement results from a 1994 agreement between Bonneville, the Treasury, and the federal Office of Management and Budget. At that time the non-hydropower share of mitigation costs was determined to be 27 percent (subsequently revised to 22.3 percent due to changes in operations at Grand Coulee Dam). Accordingly, Bonneville pays the entire cost of mitigation and then receives a credit (this is called the 4(h)(10)(C) credit, after the relevant section of the Power Act) for the 22.3 percent attributable to non-power purposes of the dams. Bonneville takes the credit in two categories of expenditures: as a credit against direct fish and wildlife program expenditures and as a credit against power purchases.

Additionally, the agreement created a fund of \$325.2 million comprised of 4(h)(10)(C) credits earned but not taken by Bonneville between 1980 and 1994. This Fish Cost Contingency Fund could be tapped by Bonneville if water conditions were sufficiently adverse for hydropower generation. Bonneville has used the Fish Cost Contingency Fund twice: first during the drought of 2001 and again in 2003 when all remaining funds were exhausted.

Bonneville has calculated and claimed a 4(h)(10)(C) credit every year since 1994. For Fiscal Year 2004, the credit was \$77 million (after true-up). For Fiscal Year 2005 it was \$57.7 million (after true-up). This brought to \$832 million through 2005 the amount of credit Bonneville has taken for fish-related expenses since 1995, when the credits first were taken.

Fish Runs and Fisheries

This report also includes the most recent numbers the Council could gather about salmon and steelhead runs and fisheries in the Columbia River Basin. The Council collected the information from reports prepared by the Washington and Oregon departments of fish and wildlife, NOAA Fisheries, the U.S. Army Corps of Engineers, the Fish Passage Center and the Data Access in Real Time project of the University of Washington.

Some of the figures and tables are presented differently in this version of the report than in past versions, reflecting changes in how the state and federal agencies compile and report the information. Estimates of wild adult fish returning to spawn (Figure 12 and Table 12) are particularly difficult because only a portion of hatchery-produced fish are marked — typically with a clipped adipose fin (the small fin on the lower back immediately in front of the tail). With the adipose fin in place, unmarked hatchery fish look like wild fish to the people who count fish at Snake and Columbia river dams. Additionally, some information that was reported in past versions of this report no longer is available.

The Council is indebted to Tim Fisher of Fisher Fisheries, Inc., and to Jim Geiselman of the Bonneville Power Administration for providing data compiled from state and federal sources on the status of the ESA-listed stocks. Fisher's March 2005 report for Bonneville, Preliminary Abundance-based Trend Results for Columbia Basin Salmon and Steelhead ESUs, is posted on federal agencies' salmon recovery website at this location:

www.salmonrecovery.gov/reports_and_papers/research

Figures from the Fisher report on the status of threatened and endangered species of salmon and steelhead in the Columbia Basin are included in this report as Appendix C.

Figure 1: BPA Fish and Wildlife Cumulative Expenditures 1978-2005

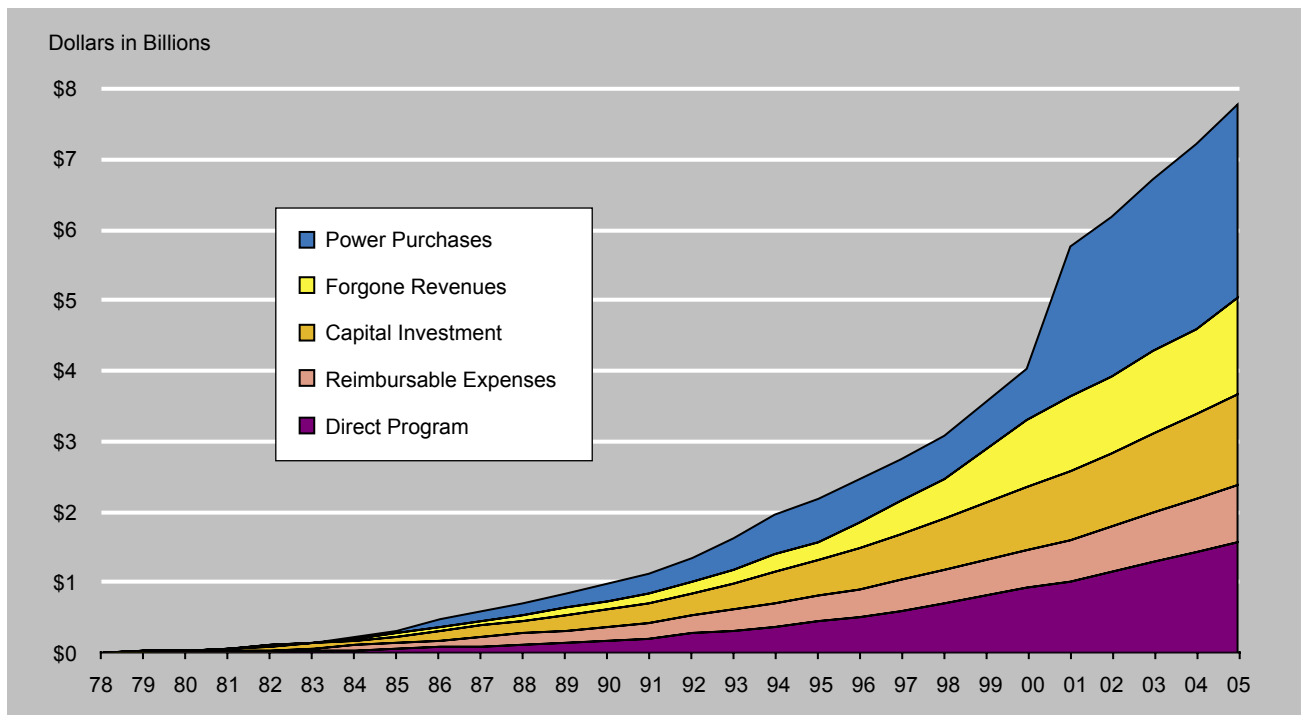


Figure 2: BPA Fish and Wildlife Total Annual Expenditures 1978-2005

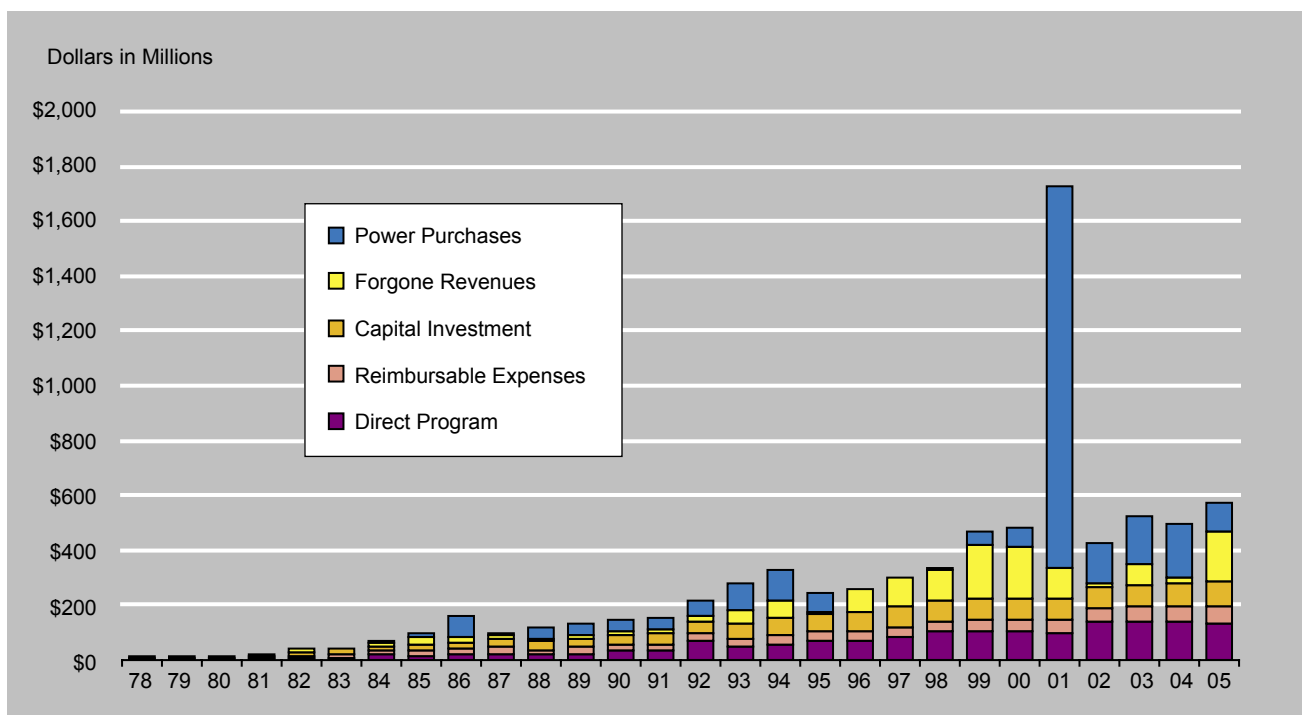


Figure 3: BPA Fish and Wildlife Obligations by Species 1978-2005

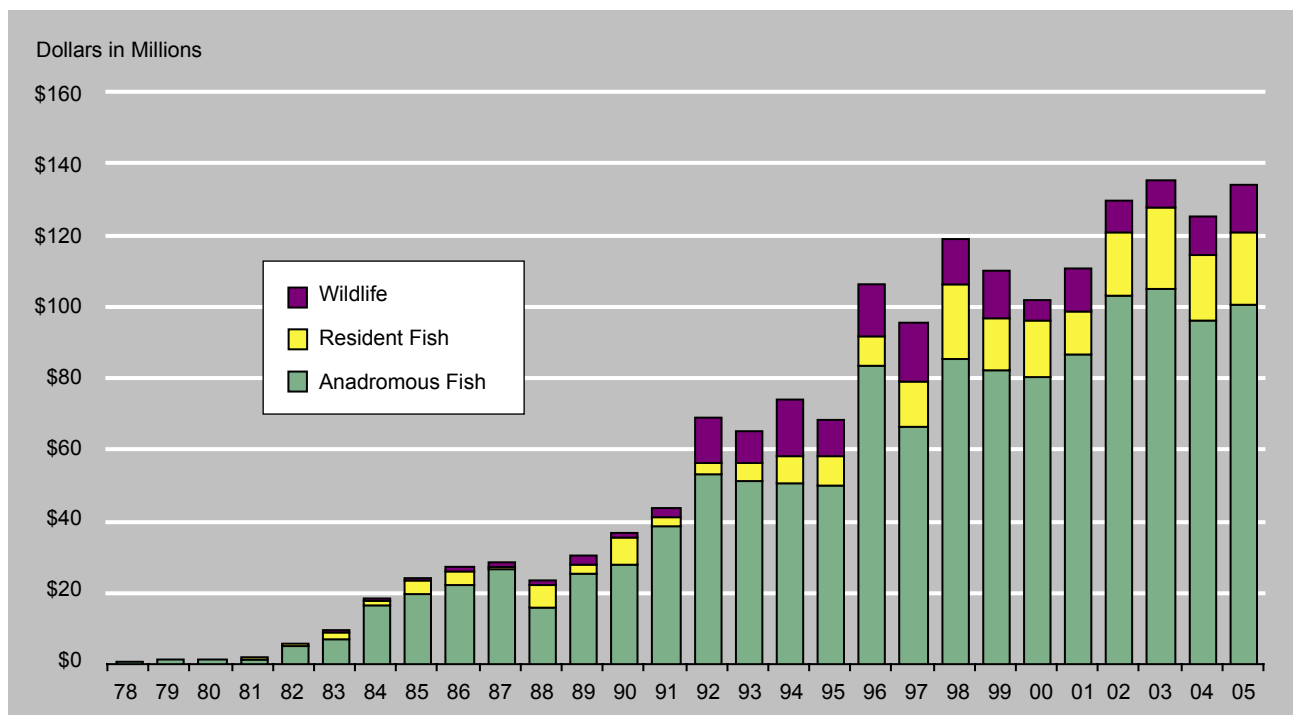


Figure 4: BPA Fish and Wildlife Obligations by General Purpose 2005

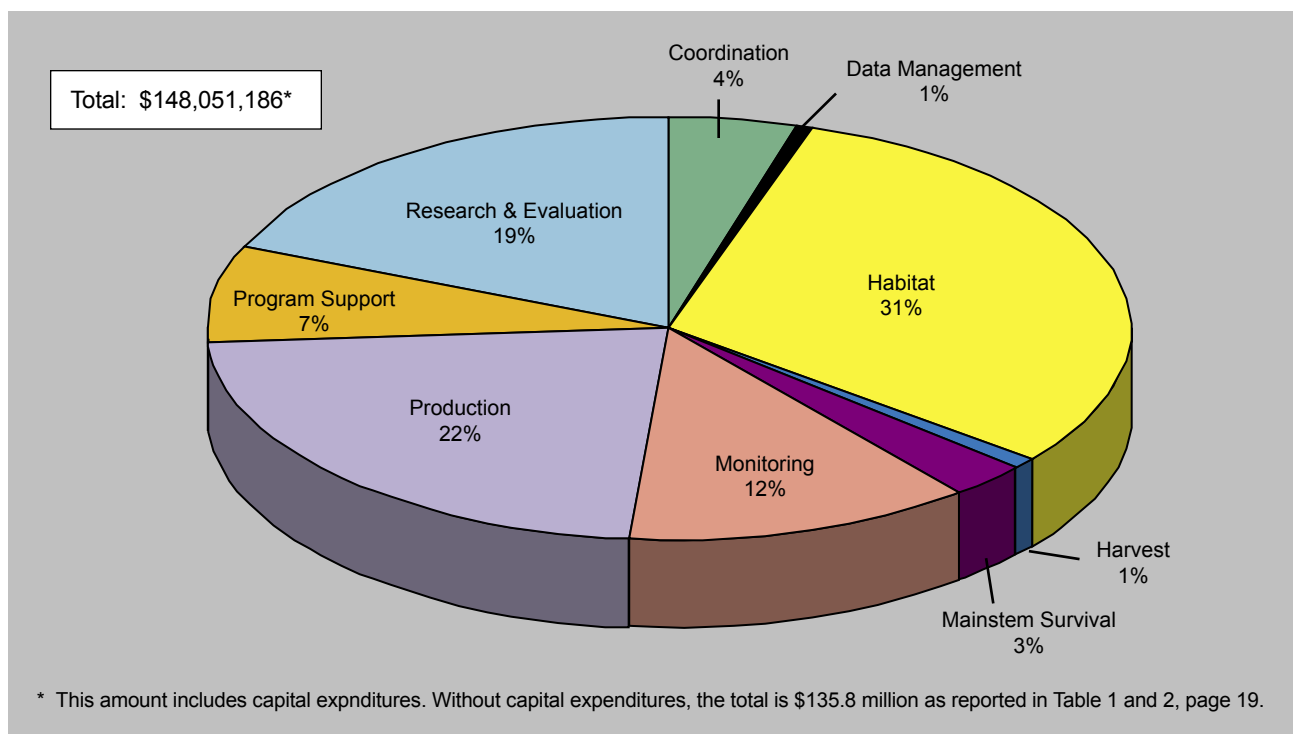


Figure 5: BPA Direct Program Budget, Obligations by Province 1978-2005

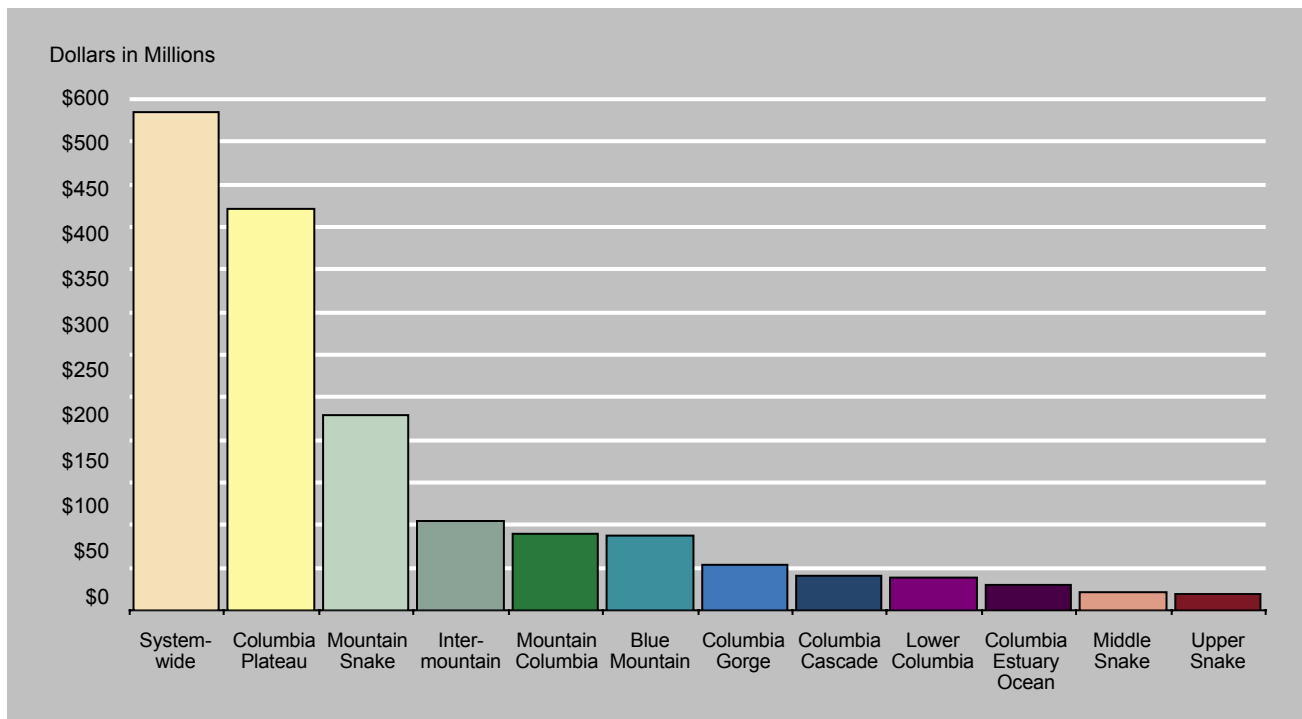


Figure 6: BPA Direct Program Budget, Obligations by Prime Contractor 1 1978-2005

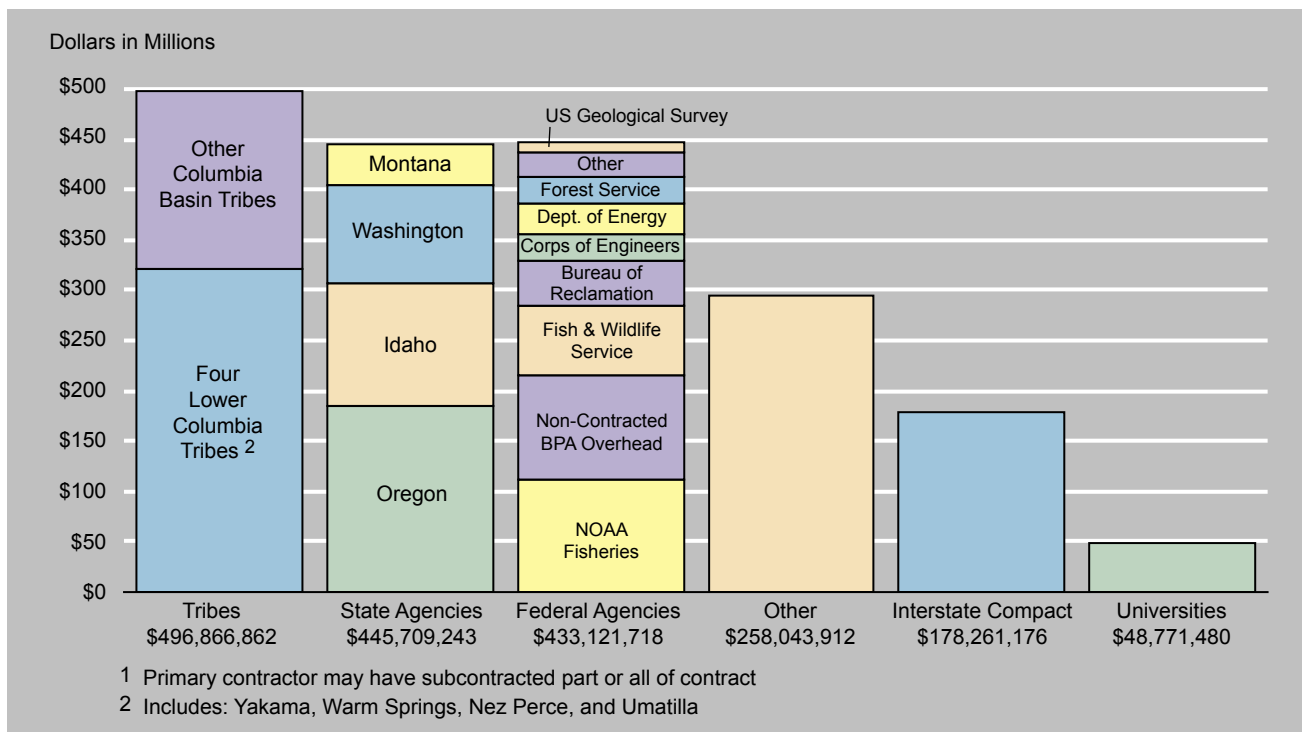
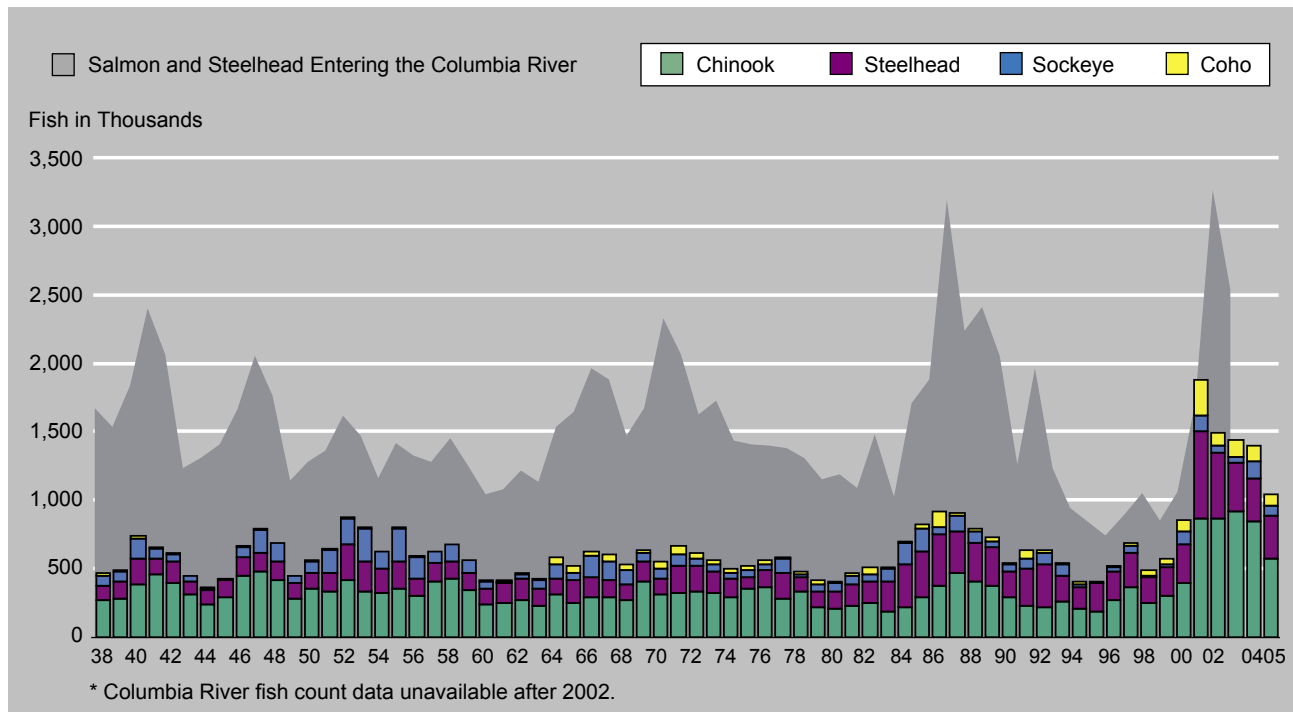


Figure 7: Total Estimated Salmon and Steelhead Entering the Columbia River and Passing Bonneville Dam 1938-2005*



**Figure 8: Ocean Temperature Cycles*
January 1900 - November 2005**

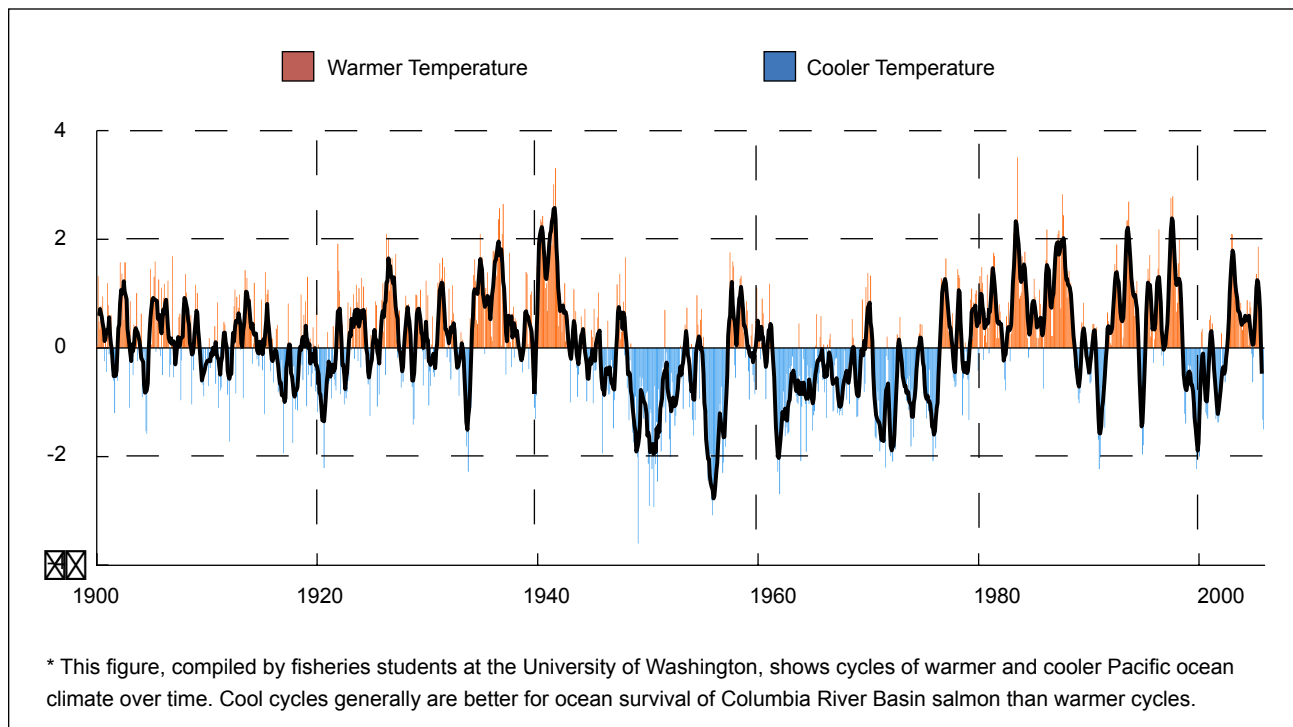


Figure 9: Estimated Inriver Juvenile Survival through the Hydrosystem 1966-1980, 1997-2005*

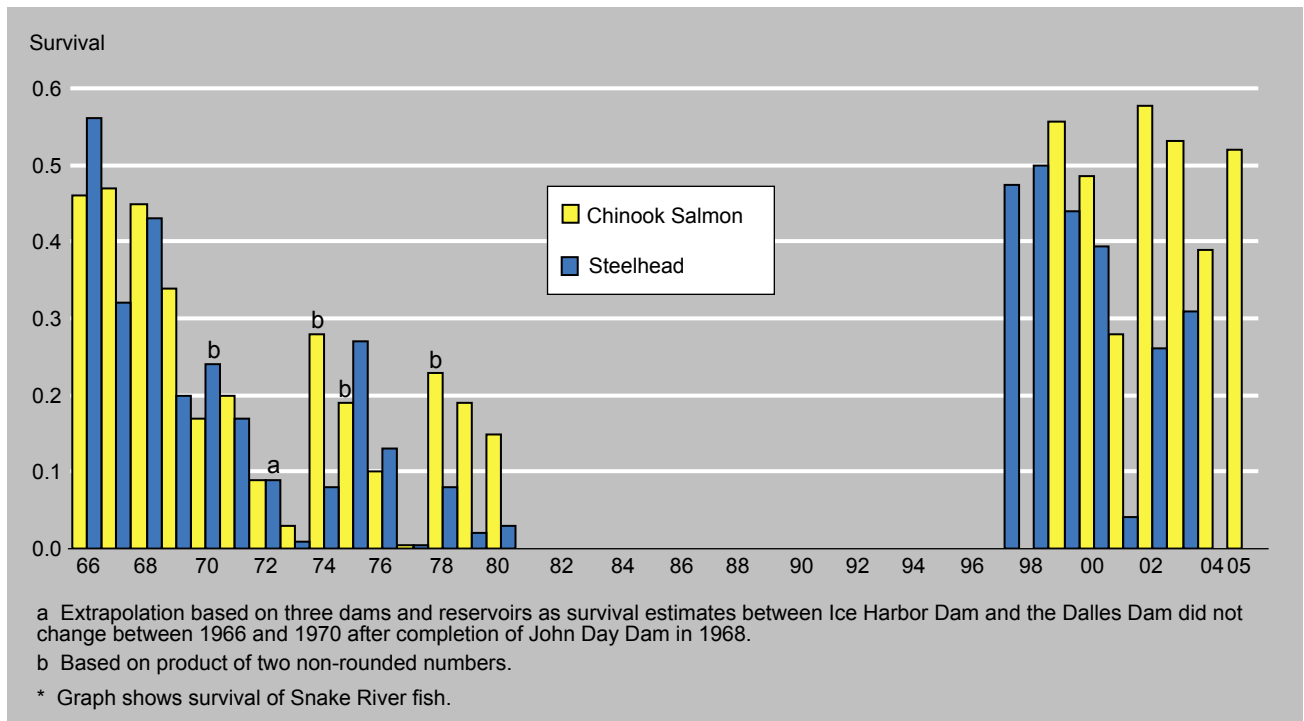


Figure 10: Where Do the Fish Go? Fish Counted at Each Mainstem Dam 2003-2004

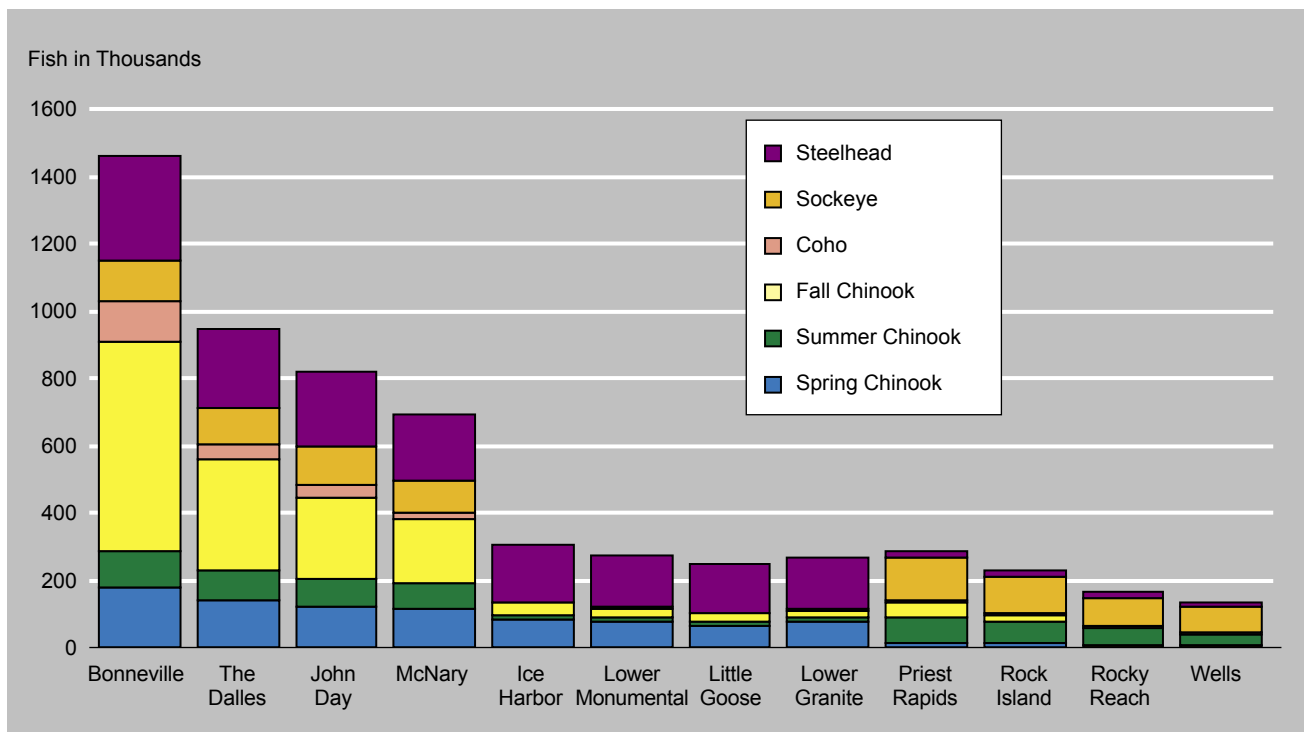


Figure 11: Commercial Landings of Salmon and Steelhead from the Columbia River 1866-2002

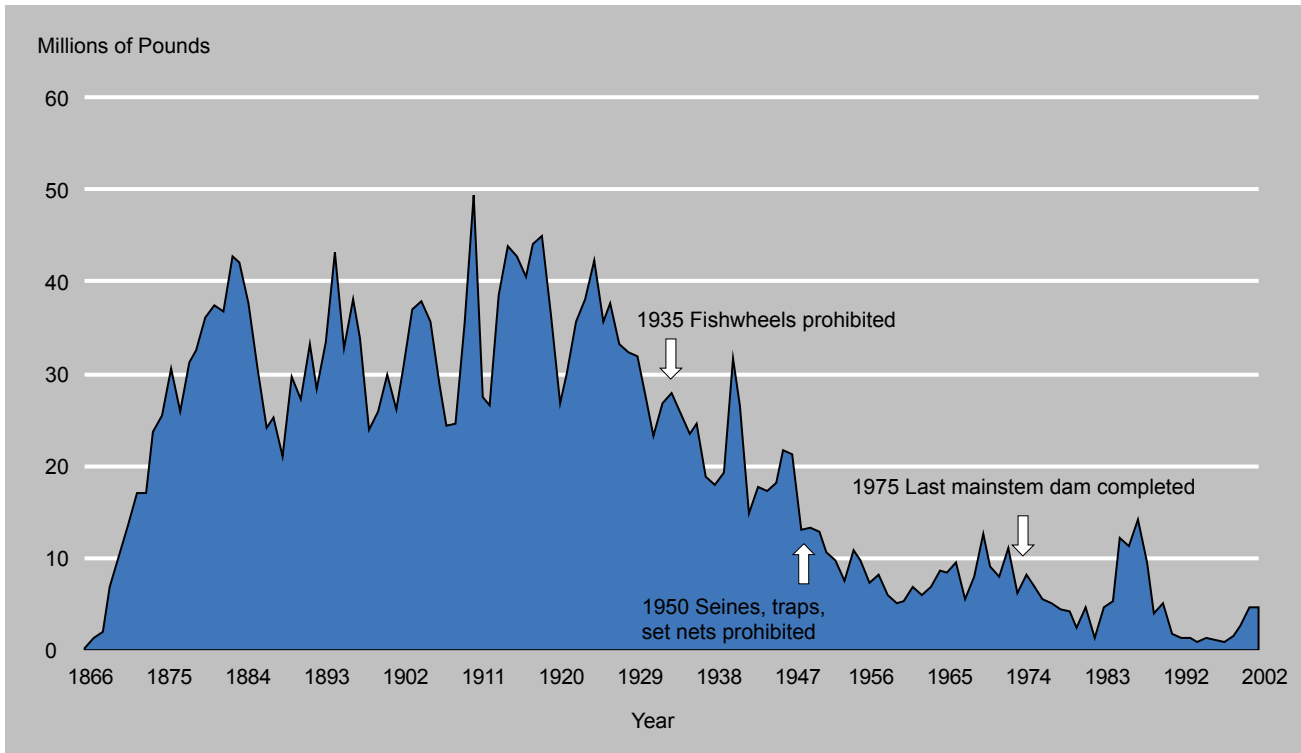


Figure 12: Wildlife Habitat Units: Lost & Acquired

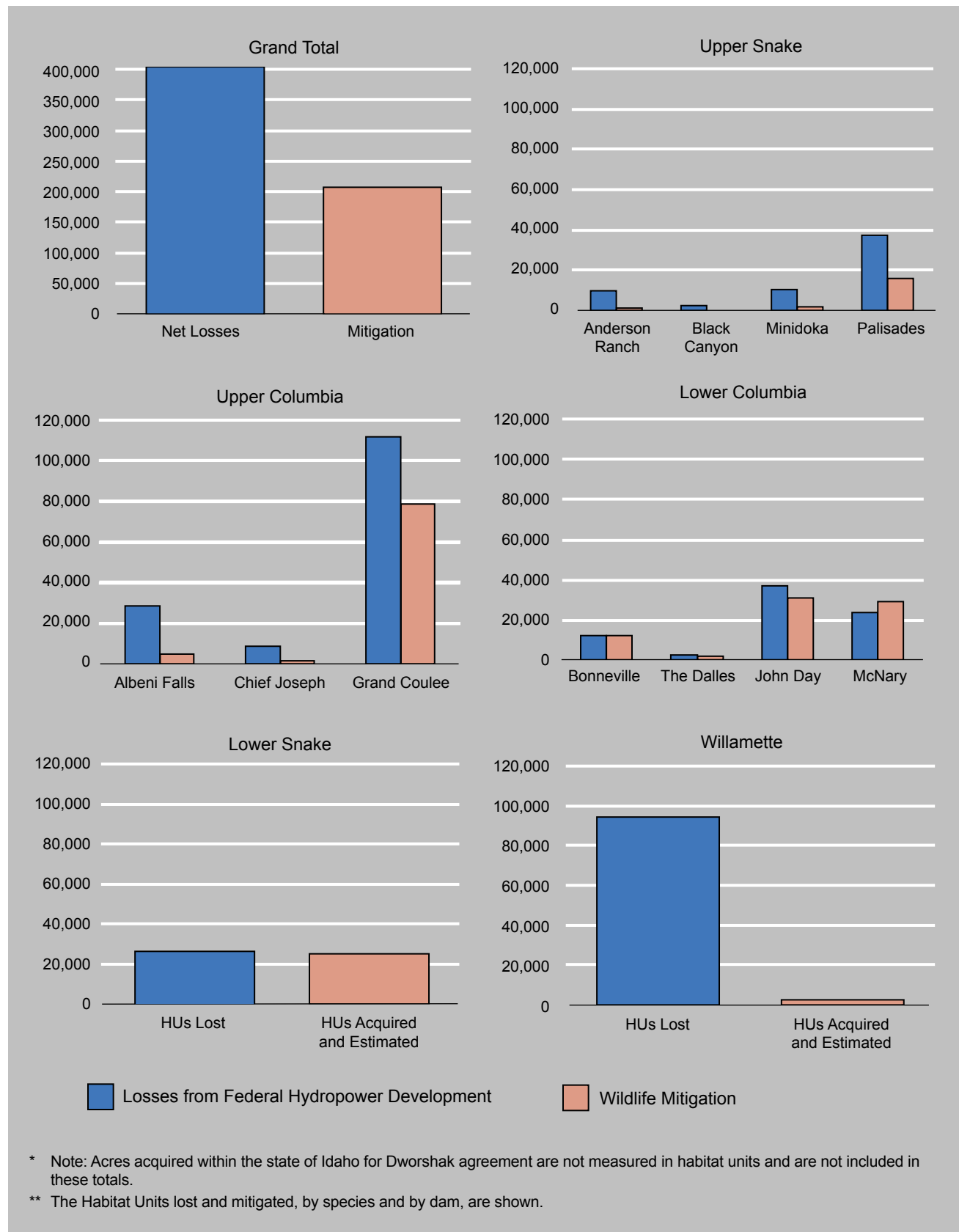


Figure 13: Wildlife Habitat Units Lost and Acquired, Species Most Affected

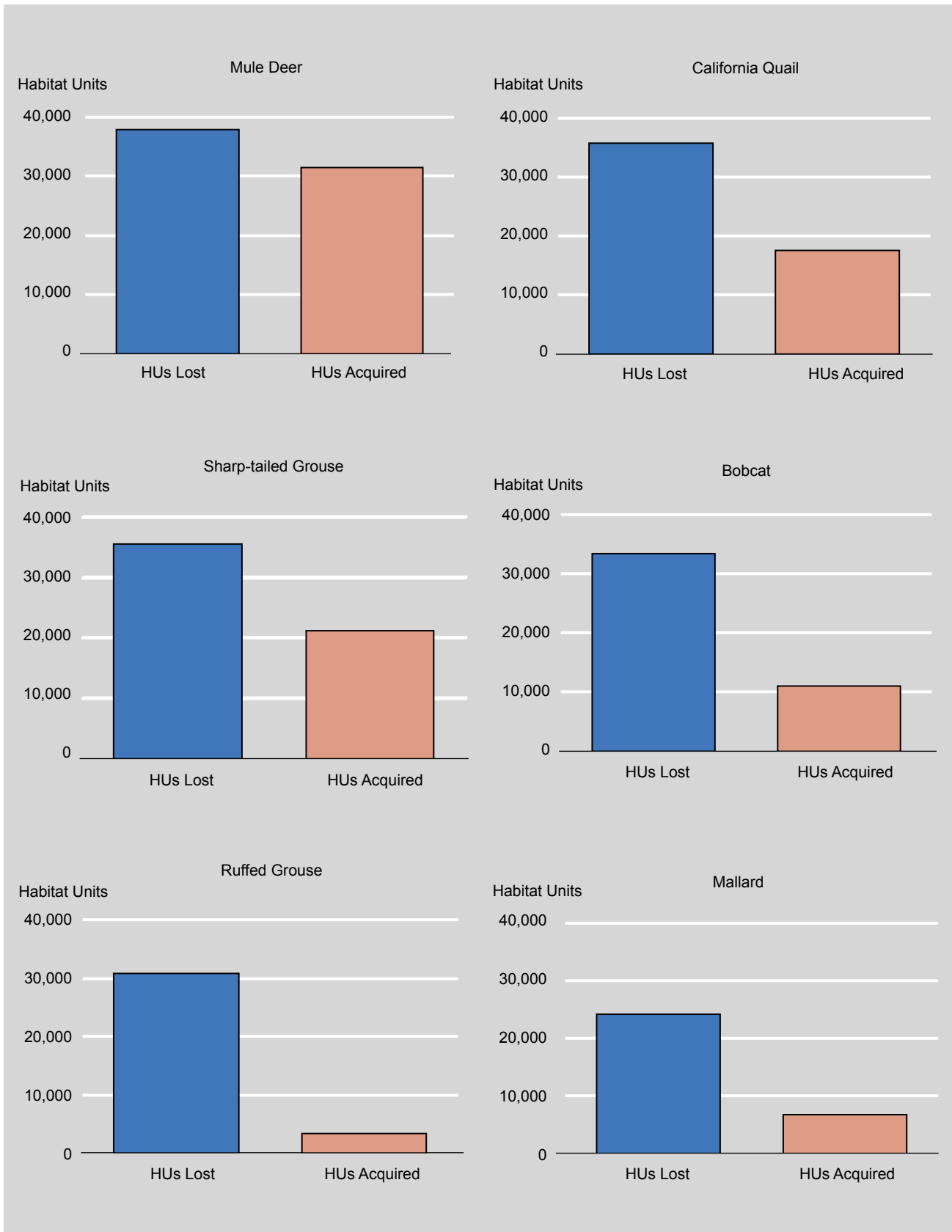
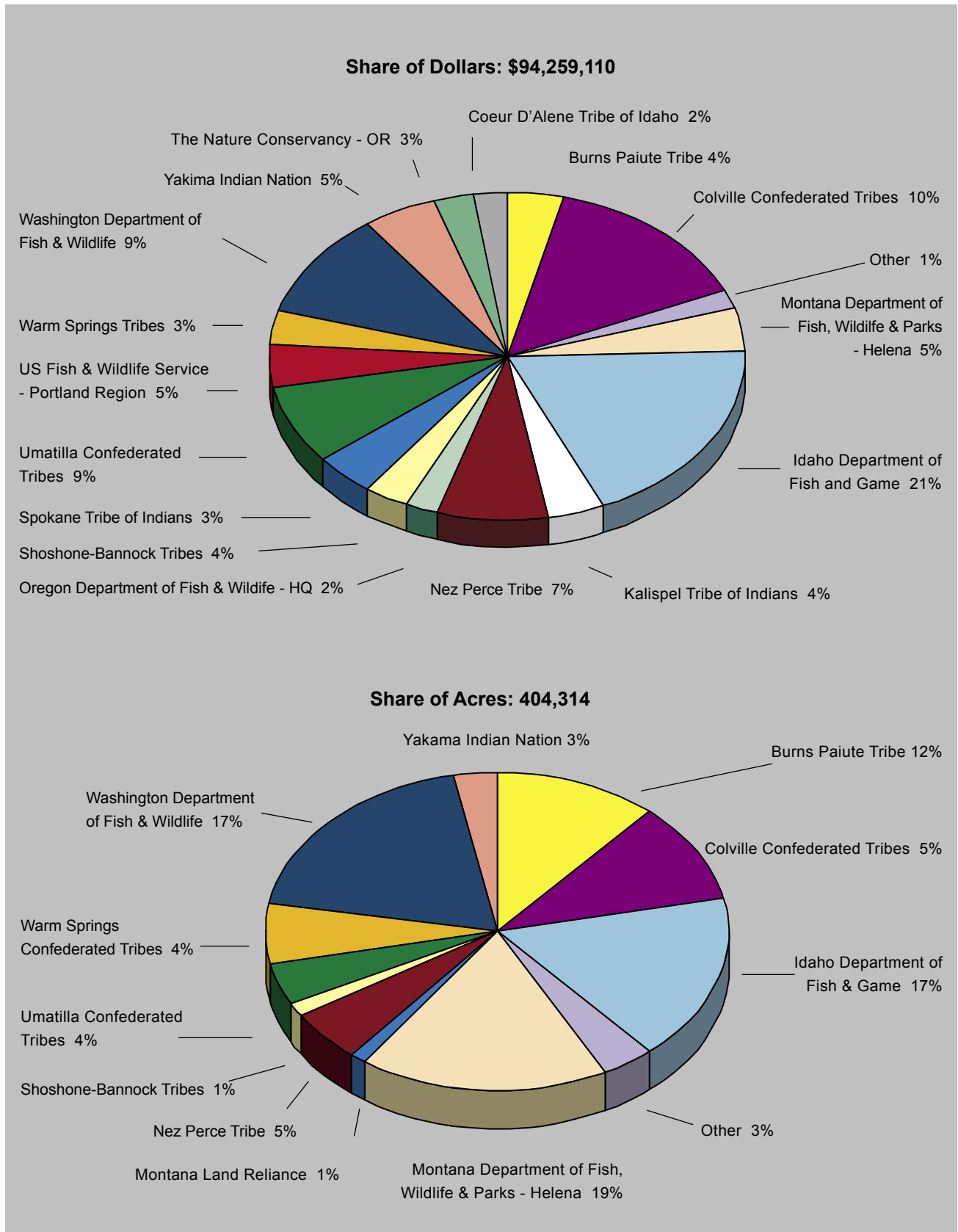
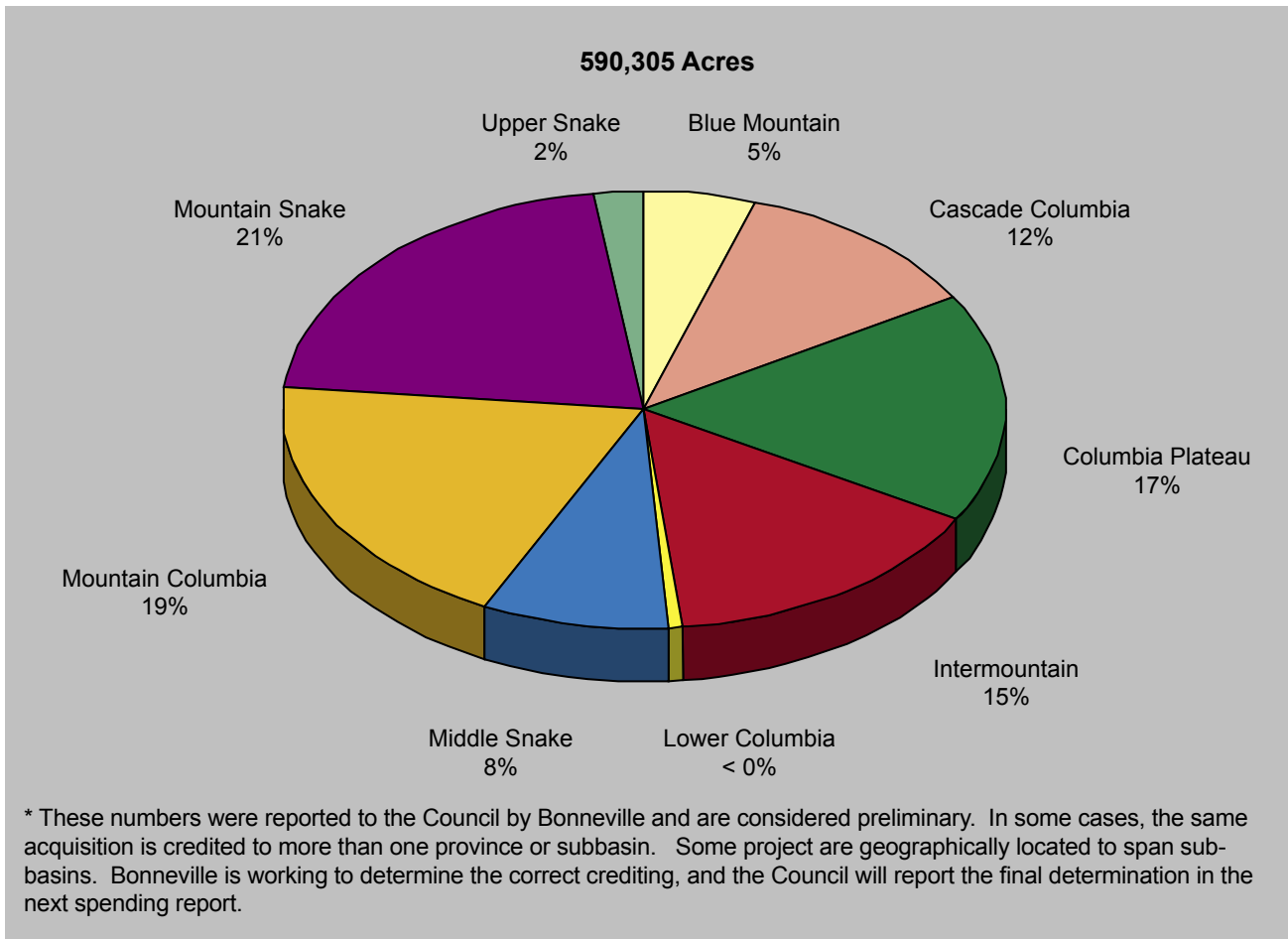


Figure 14: Wildlife Acres Protected and Share of Acquisition Costs by Entity

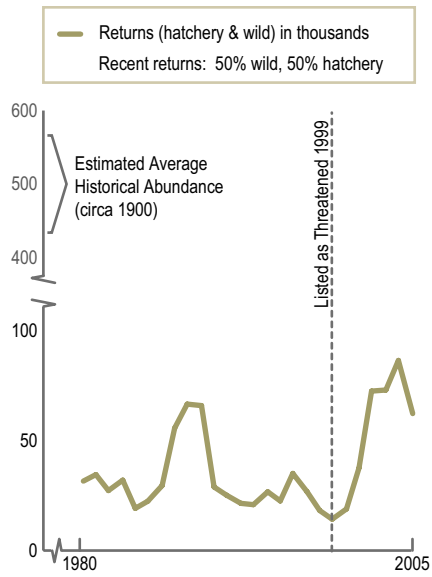


**Figure 15: Properties Purchased by BPA for Wildlife Purposes by Province*
1978-2005**

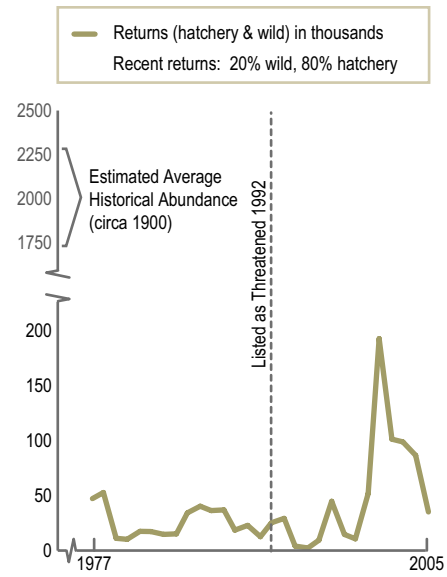


Appendix A: Status of Endangered Species Act-listed Salmon and Steelhead Populations in the Columbia River Basin*

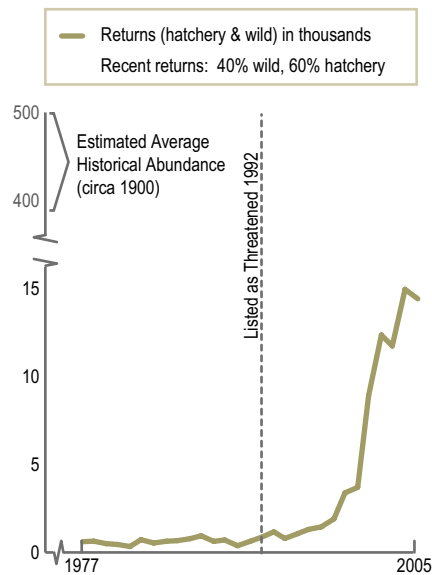
**Lower Columbia River
Chinook ESU**



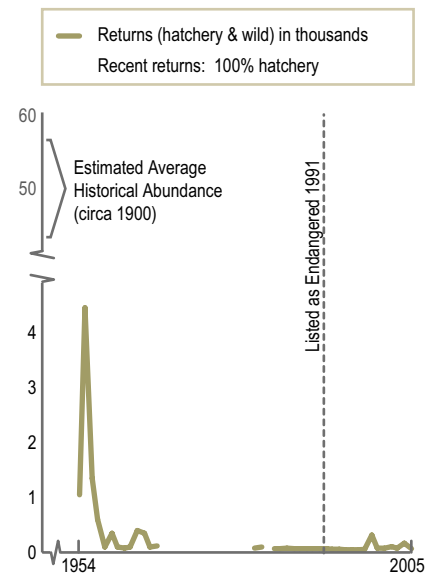
**Snake River Spring/Summer
Chinook ESU**



**Snake River Fall
Chinook ESU**

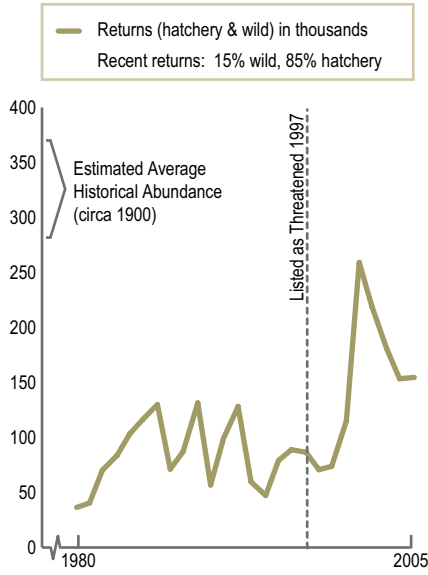


**Snake River
Sockeye ESU**

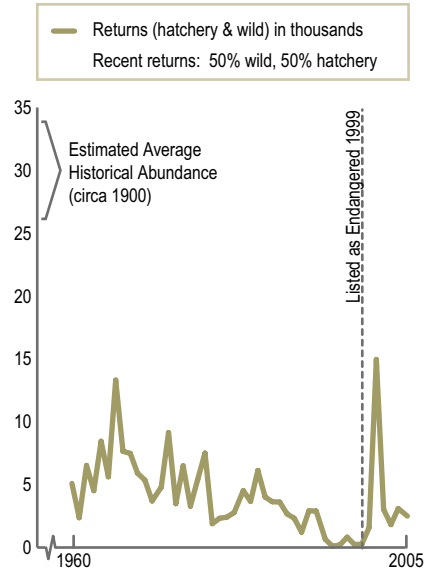


* These figures, reproduced with permission of NOAA Fisheries, are taken from the 2006 Annual Report to Congress of the Pacific Coastal Salmon Recovery Fund.

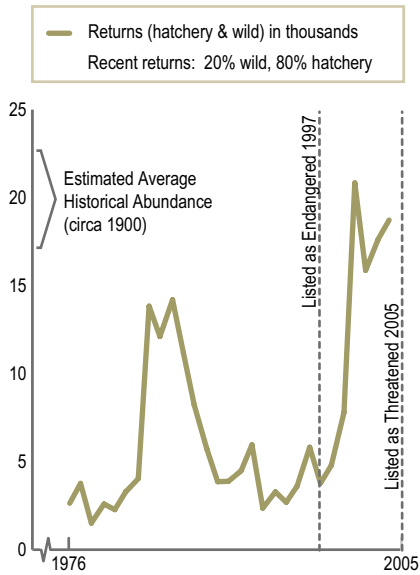
Snake River Steelhead DPS



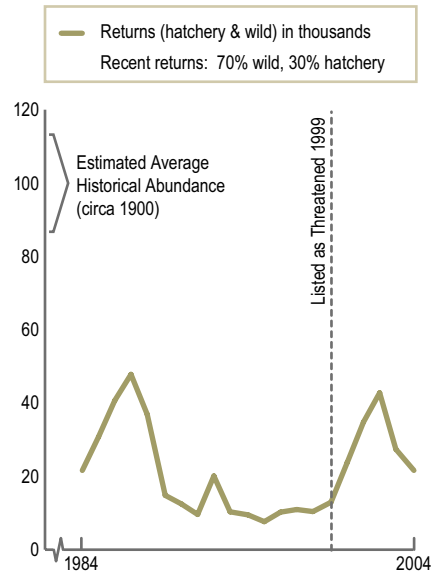
Upper Columbia River Spring Chinook DPS



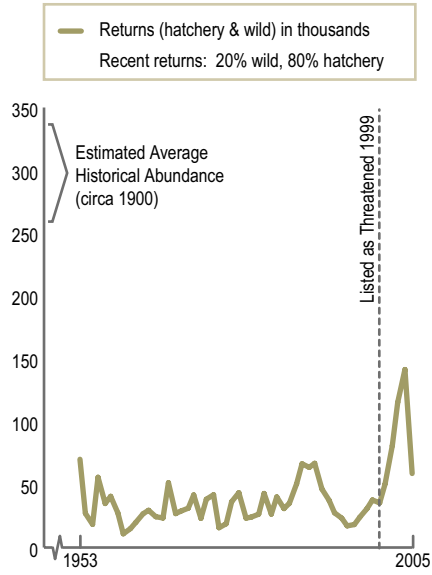
Upper Columbia River Steelhead DPS



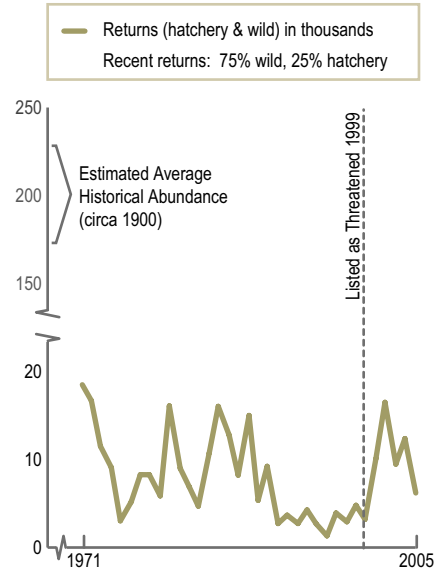
Middle Columbia River Steelhead DPS



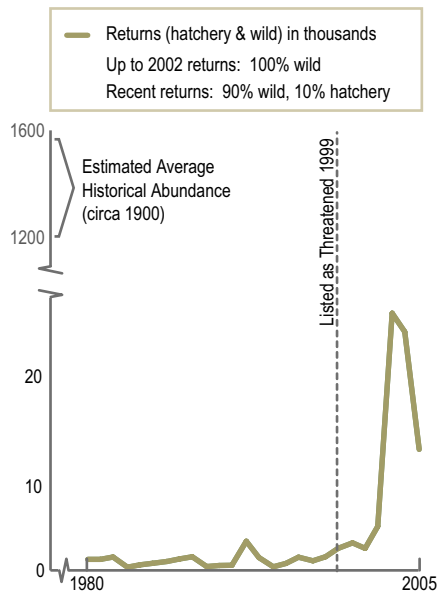
**Upper Willamette River
Chinook ESU**



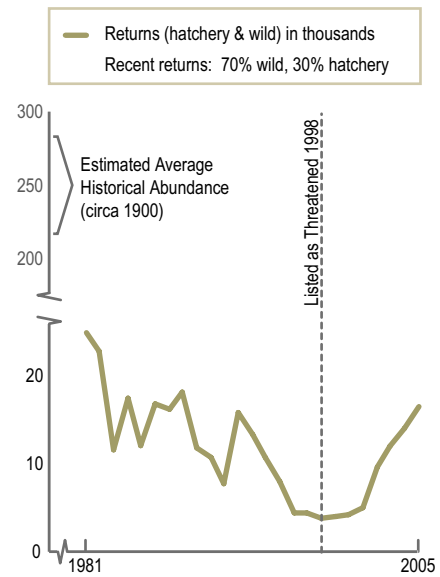
**Upper Willamette River
Steelhead DPS**



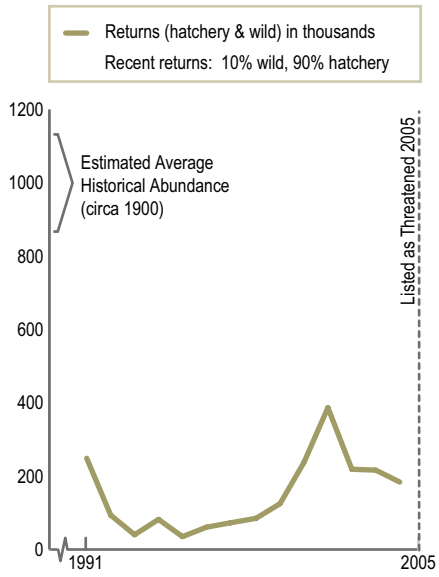
**Columbia River
Chum ESU**



**Lower Columbia River
Steelhead DPS**



Lower Columbia River Coho ESU



Appendix B: Tables

Table 1 & 2 Cumulative and Total Annual Expenditures

	1978-1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004*	2005	Total	
Direct Program	\$2.3	\$2.3	\$4.6	\$9.1	\$19.6	\$15.9	\$19.6	\$22.2	\$18.8	\$23.0	\$32.8	\$33.0	\$67.0	\$49.6	\$55.9	\$71.4	\$68.5	\$82.2	\$104.9	\$108.2	\$101.1	\$137.1	\$140.7	\$137.9	\$135.8	\$1,571.7		
Action Plan/High Priority*																					\$2.9	\$6.4	\$6.3	\$0.4		\$16.0		
Reimbursable	\$15.0	\$6.1	\$11.5	\$14.2	\$16.0	\$19.9	\$23.7	\$29.7	\$19.0	\$23.6	\$23.4	\$24.3	\$28.4	\$30.5	\$34.9	\$36.1	\$35.4	\$35.9	\$36.4	\$38.9	\$37.6	\$42.5	\$50.9	\$52.6	\$57.2	\$57.9	\$801.6	
Fixed Expenses 1/	\$24.0	\$8.8	\$12.4	\$15.9	\$16.6	\$19.7	\$22.1	\$28.5	\$31.0	\$31.9	\$34.3	\$38.2	\$41.9	\$53.6	\$61.3	\$63.6	\$73.1	\$76.3	\$74.1	\$76.3	\$78.2	\$78.2	\$78.2	\$80.5	\$85.4	\$89.7	\$1,291.7	
Subtotal	\$41.3	\$17.2	\$28.5	\$39.2	\$52.2	\$55.5	\$65.4	\$80.4	\$68.8	\$78.5	\$90.5	\$95.5	\$137.3	\$133.7	\$152.1	\$171.1	\$177.0	\$194.4	\$215.4	\$223.2	\$222.1	\$224.7	\$272.6	\$280.1	\$280.9	\$283.4	\$3,681.0	
1/ Associated with Capital Investments																												
River Ops																												
Power Purchases	\$0.0	\$0.0	\$0.0	\$0.0	\$12.0	\$17.0	\$74.0	\$11.0	\$40.0	\$40.0	\$40.0	\$40.0	\$59.0	\$104.0	\$111.7	\$63.5	\$0.0	\$0.0	\$5.4	\$47.6	\$64.8	\$1,389.6	\$147.8	\$171.1	\$191.0	\$110.8	\$2,740.3	
Foregone Revenues	\$0.0	\$3.0	\$14.0	\$1.0	\$8.0	\$27.0	\$19.0	\$9.0	\$10.0	\$15.0	\$15.0	\$15.0	\$23.0	\$45.0	\$62.0	\$7.1	\$81.7	\$107.8	\$116.5	\$197.8	\$193.1	\$115.9	\$12.6	\$79.2	\$21.7	\$182.1	\$1,381.5	
Subtotal	\$0.0	\$3.0	\$14.0	\$1.0	\$20.0	\$44.0	\$93.0	\$20.0	\$50.0	\$55.0	\$55.0	\$55.0	\$82.0	\$149.0	\$173.7	\$70.6	\$81.7	\$107.8	\$121.9	\$245.4	\$257.9	\$1,505.5	\$160.4	\$250.3	\$212.7	\$292.9	\$4,121.8	
River Ops MOA Period Sub Total \$2,320.2																												
Grand Total	\$41.3	\$20.2	\$42.5	\$40.2	\$72.2	\$99.5	\$158.4	\$100.4	\$118.8	\$133.5	\$145.5	\$219.3	\$282.7	\$325.8	\$241.7	\$258.7	\$302.2	\$337.3	\$468.6	\$480.0	\$1,730.2	\$463.0	\$530.4	\$493.6	\$576.3	\$7,802.8		

MOA Period Total \$3,577.0

Dollars are in Millions

* Action plan and high-priority projects were designed to benefit ESA-listed species 1) in advance of subbasin planning, and 2) in response to changed dam operations during the drought and energy crisis of 2001. The total for these expenditures was \$16 million.

Source: Bonneville Power Administration

Table 3 Obligations by Species, 1978-2005

Fiscal Year	Anadromous Fish	Resident Fish	Wildlife	Total
1978	\$400,000	\$0	\$0	\$400,000
1979	\$979,628	\$0	\$0	\$979,628
1980	\$1,232,775	\$0	\$0	\$1,232,775
1981	\$1,512,801	\$0	\$0	\$1,512,801
1982	\$5,349,333	\$251,000	\$0	\$5,600,333
1983	\$7,222,161	\$1,441,440	\$789,026	\$9,452,627
1984	\$16,675,925	\$1,263,895	\$589,066	\$18,528,886
1985	\$19,945,958	\$3,571,308	\$553,022	\$24,070,288
1986	\$22,208,357	\$3,779,463	\$1,009,667	\$26,997,487
1987	\$26,560,517	\$591,182	\$1,149,655	\$28,301,354
1988	\$15,848,972	\$6,389,391	\$1,040,601	\$23,278,964
1989	\$25,225,428	\$3,016,827	\$2,053,497	\$30,295,752
1990	\$27,737,779	\$7,795,641	\$1,058,418	\$36,591,838
1991	\$38,973,827	\$2,028,859	\$2,530,970	\$43,533,656
1992	\$53,119,662	\$3,550,209	\$12,847,109	\$69,516,980
1993	\$51,129,495	\$5,457,600	\$8,936,699	\$65,523,794
1994	\$51,044,466	\$7,072,137	\$16,090,951	\$74,207,554
1995	\$49,894,315	\$8,692,253	\$10,206,415	\$68,792,983
1996	\$63,789,352	\$7,962,544	\$14,815,773	\$86,567,669
1997	\$66,524,626	\$12,944,597	\$16,615,431	\$96,084,654
1998	\$85,533,382	\$20,991,620	\$12,675,870	\$119,200,872
1999	\$82,415,426	\$14,850,466	\$13,443,429	\$110,709,321
2000	\$80,591,738	\$15,808,570	\$6,022,069	\$102,422,377
2001	\$86,707,688	\$12,348,834	\$12,117,092	\$111,173,614
2002	\$103,474,620	\$17,568,123	\$9,413,746	\$130,456,489
2003	\$105,384,293	\$22,764,723	\$7,670,918	\$135,819,935
2004	\$96,206,585	\$18,899,368	\$10,659,908	\$125,765,860
2005	\$101,172,351	\$20,236,591	\$13,278,339	\$134,687,281
Total	\$1,306,861,461	\$219,612,570	\$175,567,671	\$1,702,041,702

* Totals for 2001-03 include program support and other costs, as indicated below. These costs were not separately reported by Bonneville prior to 2001.

FY	External Program Support 1	BPA Program Support 2	Other 3
2000	\$2,737,207	\$16,356,411	\$566,751
2001	\$1,215,601	\$5,207,617	\$21,425
2002	\$1,699,568	\$11,095,041	
2003	\$4,460,374	\$12,041,388	
2004	\$10,019,553	\$10,648,717	\$19,143
2005	\$2,354,004	\$10,990,758	\$607,319
Total	\$22,486,306	\$66,340,931	

- 1 External Program Support includes tasks such as data management that support all programs
- 2 BPA Program Support includes contracted tasks such as program review and independent analysis, as well as BPA internal overhead such as personnel costs
- 3 Expenses not otherwise categorized

Source: Bonneville Power Administration

Table 4 Breakdown of Expenditures for Mainstem, Production, Habitat and Harvest - Excluding Action Plan and High Priority

General Purpose	FY 2003	FY 2004	FY 2005
Coordination	\$6,403,568	\$5,760,114	\$6,594,675
Data Management	\$236,896	\$558,731	\$906,578
Habitat	\$39,500,655	\$40,306,108	\$44,898,740
Harvest	\$1,957,396	\$2,666,015	\$1,611,232
Mainstem Survival	\$3,639,242	\$3,228,871	\$4,112,685
Monitoring	\$20,930,630	\$17,189,343	\$18,008,894
Production	\$34,939,205	\$32,185,286	\$33,085,526
Research and Evaluation	\$32,672,718	\$33,890,947	\$27,683,912
BPA Program Support	\$12,041,388	\$10,648,717	\$10,990,758
Other			158,184
Total	\$152,321,697	\$146,434,130	\$148,051,186

Source: Bonneville Power Administration

Table 5 Obligations by Province, 1978-2005

Province	1978-2005	2003	2004	2005
Systemwide	\$585,098,727	\$41,021,491	\$42,375,167	\$39,508,689
Columbia Plateau	\$470,870,841	\$28,530,634	\$25,395,810	\$27,057,099
Mountain Snake	\$229,071,527	\$20,023,083	\$17,908,414	\$17,157,162
Intermountain Columbia	\$104,513,786	\$12,884,976	\$13,116,278	\$18,225,072
Mountain Columbia	\$89,090,066	\$8,040,476	\$6,897,321	\$7,004,651
Blue Mountain	\$88,012,973	\$9,399,860	\$6,895,057	\$8,236,701
Columbia Gorge	\$54,123,708	\$6,487,780	\$4,947,368	\$5,103,954
Columbia Cascade	\$41,420,769	\$3,454,315	\$5,153,736	\$4,548,526
Lower Columbia	\$39,575,193	\$4,205,860	\$6,006,986	\$3,374,505
Columbia Estuary	\$29,527,952	\$3,289,408	\$5,008,417	\$4,295,766
Upper Snake	\$19,591,601	\$1,064,601	\$345,252	\$659,919
Middle Snake	\$21,108,519	\$1,877,824	\$1,735,608	\$1,565,370
Total	\$1,772,005,662	\$140,280,309	\$135,785,413	\$136,737,413
Program Support	\$63,808,965	\$12,041,388	\$10,648,717	\$10,990,758

Source: Bonneville Power Administration

Table 6A Obligations by Prime Contractor - 1978-2005

Contractor Type	Prime Contractor	1979-2005	Contractor Type	Prime Contractor	1979-2005
FEDERAL	NATIONAL MARINE FISHERIES SVC	\$112,757,626	TRIBE	NEZ PERCE TRIBE	\$120,908,028
	NON-CONTRACTED BPA OVERHEAD	\$102,466,466		YAKAMA INDIAN NATION	\$115,578,367
	FISH & WILDLIFE SERVICE	\$70,252,285		UMATILLA CONFEDERATED TRIBES	\$53,203,928
	BUREAU OF RECLAMATION	\$44,655,717		COLVILLE CONFEDERATED TRIBES	\$40,896,401
	CORP OF ENGINEERS	\$25,878,299		WARM SPRINGS TRIBES	\$32,336,247
	DEPARTMENT OF ENERGY	\$29,934,347		KOOTENAI TRIBE OF IDAHO	\$23,465,457
	FOREST SERVICE	\$25,881,772		SPOKANE TRIBE OF INDIANS	\$22,607,606
	OTHER	\$25,315,289		SHOSHONE-BANNOCK TRIBES	\$21,211,832
	US GEOLOGICAL SURVEY	\$9,161,792		KALISPEL TRIBE OF INDIANS	\$16,538,235
	TOTAL	\$446,303,594		COEUR D'ALENE TRIBE OF IDAHO	\$14,121,672
STATE	OREGON DEPARTMENT OF FISH & WILDLIFE	\$180,222,001		COLUMBIA RIVER INTERTRIBAL FISH COMMISSION	\$13,586,142
	OREGON STATE POLICE - FISH & WILDLIFE	\$3,480,952		SHOSHONE-PAUIUTE TRIBES	\$9,378,008
	OREGON WATER TRUST	\$1,004,400		BURNS PAUIUTE TRIBE	\$8,618,562
	OREGON DEPARTMENT OF ENERGY	\$193,707		SALISH-KOOTENAI TRIBES	\$4,491,425
	OREGON DEPARTMENT OF TRANSPORTATION	\$106,422		POINT NO POINT TRIBE	\$11,960
	OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY	\$186,618		TULALIP TRIBE	\$4,988
	OREGON DEPARTMENT OF PARKS & RECREATION	\$5,367		KLAMATH TRIBE CHEHALIS INDIAN TRIBE	\$4,512
	Subtotal	\$185,199,466		CHEHALIS INDIAN TRIBE	\$2,082
	IDAHO DEPARTMENT OF FISH & WILDLIFE	\$113,755,528		SQUAXIN ISLAND TRIBE	\$1,304
	IDAHO SOIL & WATER CONSERVATION COMMISSION	\$7,083,530		TOTAL	\$496,966,756
	IDAHO STATE OFFICE OF SPECIES CONSERVATION	\$154,140	INTERSTATE COMPACT	Pacific States Marine Fisheries Commission	\$178,261,176
	IDAHO STATE HISTORICAL SOCIETY	\$31	UNIVERSITY	University	\$48,857,807
	Subtotal	\$120,993,229	OTHER	Private/Other	\$144,624,542
	WASHINGTON DEPARTMENT OF FISH & WILDLIFE	\$86,713,503		Local/Semi governmental	\$54,185,351
	WASHINGTON DEPARTMENT OF ECOLOGY	\$6,077,932		Utility	\$24,804,622
	WASHINGTON WILDLIFE COALITION MEMBERS	\$3,445,738		COLUMBIA BASIN FISH & WILDLIFE FDN	\$22,444,005
	WASHINGTON STATE CONSERVATION COMMISSION	\$694,411		Not Specified (Land)	\$13,163,259
	WASHINGTON DEPARTMENT OF ECOLOGY	\$542,633		NATIONAL FISH & WILDLIFE FOUNDATION	\$6,658,199
	WASHINGTON STATE ENERGY OFFICE	\$242,857		TOTAL	\$295,711,855
	WASHINGTON DEPARTMENT OF TRANSPORTATION	\$101,700		GRAND TOTAL	\$1,881,978,553
	WASHINGTON DEPARTMENT OF NATURAL RESOURCES	\$5,000			
	Subtotal	\$97,823,775			
	MONTANA DEPARTMENT OF FISH & WILDLIFE	\$33,692,166			
	MONTANA FISH, WILDLIFE & PARK	\$8,000,606			
	Subtotal	\$41,692,772			
	TOTAL	\$445,709,243			

Source: Bonneville Power Administration

Table 6B Expenditures of Direct BPA funds by contractor,* 1996-2005

Contractor	Total	Contractor	Total
PACIFIC STATES MARINE FISH COMMISSION	\$125,139,170	COLUMBIA RIVER INTERTRIBAL FISH COMMISSION	\$4,932,208
NEZ PERCE TRIBE	\$106,871,800	CONFEDERATED TRIBES OF THE UMATILLA INDI	\$4,660,809
OREGON DEPARTMENT OF FISH & WILDLIFE- HQ	\$95,214,332	OREGON STATE UNIVERSITY	\$4,569,772
YAKAMA NATION	\$84,808,722	US DOE RICHLAND OPERATIONS OFC	\$4,368,203
IDAHO DEPARTMENT OF FISH & GAME	\$72,093,146	MWH AMERICAS INC	\$4,268,094
WASHINGTON DEPARTMENT OF FISH & WILDLIFE	\$60,107,370	IDAHO SOIL & WATER CONSERVATION COMMISSION	\$4,200,607
NATIONAL MARINE FISHERIES SERVICE - SEATTLE OFFICE	\$43,471,177	US DOI GEOLOGICAL SURVEY	\$4,073,408
UMATILLA CONFEDERATED TRIBES	\$37,672,049	DEPT OF FISHERIES & OCEANS (CANADIAN)	\$3,622,330
WARM SPRINGS TRIBES	\$30,071,485	WESTLAND IRRIGATION DISTRICT	\$3,548,255
COLVILLE CONFEDERATED TRIBES	\$24,547,813	CONCORD CONSTRUCTION, INC	\$3,540,383
COLUMBIA BASIN FISH & WILDLIFE FOUNDATION	\$21,982,314	CONFEDERATED TRIBES OF THE	\$3,238,699
KOOTENAI TRIBE of IDAHO	\$18,241,907	COLUMBIA RIVER INTER-TRIBAL	\$3,083,377
SPOKANE TRIBE of INDIANS	\$16,902,020	CONFEDERATED TRIBES AND BANDS OF THE	\$3,073,595
BONNEVILLE POWER ADMINISTRATION - FISH AND WILDLIFE PROGRAM SUPPORT	\$16,848,350	IDAHO DEPARTMENT OF FISH & GAME / KALISPEL	\$2,861,571
PACIFIC NORTHWEST ELECTRIC POWER &	\$16,196,356	UNIVERSITY of IDAHO	\$2,623,622
NATT MCDUGALL COMPANY	\$15,876,408	SLAYDEN CONSTRUCTION INC	\$2,582,316
US FISH AND WILDLIFE SERVICE - PORTLAND REGION	\$15,120,271	US FISH AND WILDLIFE SERVICE - FISHERIES PROGRAM OFFICE	\$2,561,689
NATIONAL MARINE FISHERIES SERVICE - PORTLAND OFFICE	\$14,860,289	ASOTIN COUNTY CONSERVATION DISTRICT	\$2,390,714
UNIVERSITY OF WASHINGTON	\$13,398,991	LOWER COLUMBIA RIVER ESTUARY PARTNERSHIP	\$2,344,881
KALISPEL TRIBE of INDIANS	\$12,148,701	UNDERWOOD CONSERVATION DISTRICT	\$2,333,575
BONNEVILLE POWER ADMINISTRATION - TRANSMISSION BUSINESS LINE	\$11,860,217	US GEOLOGICAL SURVEY	\$2,314,513
COEUR D'ALENE TRIBE of IDAHO	\$11,133,279	DESTRON - FEARING	\$2,254,524
SHOSHONE-BANNOCK TRIBES	\$10,754,217	ESSA TECHNOLOGIES LTD.	\$2,227,191
IMPERO CONSTRUCTION COMPANY	\$10,716,321	CONTRACTOR UNKNOWN TO EMIS	\$2,167,074
FISHPRO, INC.	\$10,459,556	CLATSOP ECONOMIC DEVELOPMENT COMMITTEE	\$2,152,615
US DEPT. OF ENERGY - BATTLE PACIFIC NORTHWEST LABORATORY - (RICHLAND)	\$10,289,413	NATURE CONSERVANCY - MONTANA	\$2,101,220
NATIONAL BIOLOGICAL SERVICE / USFWS - NATIONAL FISH RESEARCH CENTER - SEATTLE	\$9,844,736	CITY OF YAKIMA	\$2,049,515
US BUREAU OF RECLAMATION - PACIFIC NW REGION (BOISE)	\$9,686,763	PACIFIC POWER & LIGHT/UECA	\$1,994,000
MONTGOMERY WATSON	\$9,549,413	COEUR D'ALENE TRIBE OF INDIANS	\$1,992,180
US DOI FISH & WILDLIFE SERVICE	\$9,152,253	NEZ PERCE SOIL & WATER CONSERVATION DISTRICT	\$1,832,377
NORTHWEST POWER PLANNING COUNCIL	\$9,067,769	LEMHI SOIL & WATER CONSERVATION DISTRICT	\$1,787,083
NATIONAL MARINE FISHERIES SVC	\$8,460,439	WASHINGTON STATE UNIVERSITY	\$1,750,237
BURNS PAIUTE TRIBE	\$8,203,148	BIOANALYSTS INC (D. CHAPMAN)	\$1,675,879
CONFEDERATED TRIBES AND BANDS OF THE YAK	\$7,813,863	KITTITAS-YAKIMA RES CONS & DEV	\$1,666,998
SHOSHONE-PAIUTE TRIBES	\$7,663,955	CONFEDERATED SALISH-KOOTENAI TRIBES	\$1,651,272
CUSTER SOIL & WATER CONSERVATION DISTRICT	\$7,411,930	U.S. FOREST SERVICE	\$1,639,797
US ARMY CORE OF ENGINEERS - PORTLAND DISTRICT	\$7,367,824	MONTANA FISH, WILDLIFE & PARKS / CONFEDERATED SALISH-KOOTENIA TRIBES	\$1,606,434
NATIONAL FISH & WILDLIFE FOUNDATION	\$6,408,371	USFS - PACIFIC NW RESEARCH STATION	\$1,577,145
WASHINGTON DEPT OF ECOLOGY	\$6,089,022	PAULSEN ENVIRONMENTAL RESEARCH	\$1,518,287
MONTANA FISH, WILDLIFE & PARKS	\$5,899,021	IDAHO STATE CONSERVATION COMMISSION	\$1,495,304
MONTANA DEPARTMENT OF FISH & WILDLIFE - HELENA	\$5,697,907	YAKIMA CO-OP	\$1,479,863
UMATILLA ELECTRIC COOP ASSOCIATION	\$5,621,125	PORTLAND GENERAL ELECTRIC	\$1,396,282
DIGITAL ANGEL CORPORATION	\$5,109,234	WASCO COUNTY SOIL & WATER CONSERVATION DISTRICT	\$1,360,528
CH2M HILL - NORTHWEST INC.	\$5,043,703	OREGON STATE UNIVERSITY / CUMULATIVE RISK INITIATIVE	\$1,360,009

Table 6B Expenditures of Direct BPA funds by contractor 1996-2005 (continued)

Contractor	Total	Contractor	Total
COLUMBIA COUNTY SOIL & WATER CONSERVATION DISTRICT	\$1,331,566	US DOI NW BIOLOGICAL SCIENCE CENTER	\$556,552
WALLOWA COUNTY SOIL & WATER CONSERVATION DISTRICT	\$1,283,803	USFS - UMATILLA NATIONAL FOREST	\$534,198
US DOI BUREAU OF RECLAMATION	\$1,271,869	EASTERN OREGON STATE COLLEGE	\$521,423
USDA FOREST SERVICE	\$1,258,457	YAKAMA NATION FISHERIES PROJECT	\$515,366
S CENTRAL WASHINGTON RESOURCE CONSERVATI	\$1,215,855	SYNERGY CONSULTING INC	\$511,623
US BUREAU OF RECLAMATION (WA)	\$1,205,799	MILLER ECOLOGICAL CONSULTANTS	\$507,552
US GEO. SURVEY - BIOLOGICAL RESOURCES DIV. - COLUMBIA RIVER RESEARCH LAB	\$1,204,305	LATAH SOIL & WATER CONSERVATION DIST	\$506,862
USDA - NATURAL RESOURCES CONSERVATION SERVICE	\$1,169,780	TRANSNATION TITLE INSURANCE CO	\$500,000
INTERMOUNTAIN COMMUNICATIONS	\$1,116,616	UNION COUNTY	\$480,024
MONTANA DEPT FISH WILDLIFE & PARKS	\$1,111,885	WALLA WALLA COUNTY CONSERVATION DISTRICT	\$474,928
PACIFIC POWER & LIGHT COMPANY	\$1,107,973	US GEOLOGICAL SURVEY - BIOLOGICAL RESOURCES DIVISION	\$468,198
NORTHWEST FISHERIES SCIENCE CENTER	\$1,037,476	UNISYS CORPORATION	\$445,509
JEFFERSON COUNTY SOIL & WATER CONSERVATION DISTRICT	\$1,026,185	USFS - GIFFORD PINCHOT NAT. FOREST - MT ADAMS RANGER DISTRICT, WIND RIVER DIV.	\$444,891
CASCADE PACIFIC RESOURCE	\$1,016,797	FISHER FISHERIES LTD.	\$432,167
HARZA NORTHWEST INC	\$1,010,802	MOBRAND BIOMETRIC, INC.	\$430,780
POMEROY SOIL & WATER CONSERVATION DISTRICT	\$983,310	TICOR TITLE INSURANCE COMPANY	\$430,000
US FISH AND WILDLIFE SERVICE - DENVER REGION	\$978,033	EDUCATIONAL SERVICES DISTRICT #105 (YAKIMA)	\$427,427
UNION COUNTY SOIL & WATER CONSERVATION DISTRICT	\$941,543	WASHINGTON TROUT	\$415,446
US FISH AND WILDLIFE SERVICE - AHSARKA	\$937,531	RESEARCH INTO ACTION	\$414,555
LAKE ROOSEVELT DEVELOPMENT ASSOCIATION	\$916,393	HES	\$412,682
KINTAMA RESEARCH CORPORATION	\$893,888	M-F WATER CONTROL DISTRICT	\$400,000
US DEPARTMENT OF ENERGY - OAK RIDGE NATIONAL LABORATORY	\$881,687	USFS - MT. HOOD NATIONAL FOREST	\$391,000
LEWIS SOIL & WATER CONSERVATION DISTRICT	\$878,996	BIOMARK INC.	\$384,762
OREGON WATER TRUST	\$878,078	CLATSOP CTY ECONOMIC DEVL CNCL	\$384,653
SANDPOINT TITLE INSURANCE INC	\$850,356	PER LTD.	\$376,374
USFS - WALLOWA-WHITMAN NATIONAL FOREST - LAGRANDE DISTRICT,	\$838,422	STEPHEN H. SMITH FISHERIES CONSULTING, INC.	\$369,498
USFS - FLATHEAD NATIONAL FOREST	\$837,468	WASHINGTON WATER TRUST	\$365,912
WYEAST RESOURCE CONSERVATION & DEVELOPMENT COUNCIL	\$836,333	JEFF KUECHLE	\$360,691
MOSS-ADAMS ADVISORY SERVICES	\$819,207	SHERMAN SOIL & WATER CONSERVATION DISTRICT	\$360,578
S. P. CRAMER & ASSOCIATES	\$806,021	RICHARD HINRICHSEN	\$344,480
IRZ CONSULTING LLC	\$784,663	USFS - INTERMOUNTAIN REGION (4) - OGDEN	\$340,057
US FISH AND WILDLIFE SERVICE - FISH ASST. VANCOUVER	\$775,613	ALLIANCE TITLE & ESCROW CORP	\$336,000
CUSTER COUNTY TITLE INC	\$764,616	CITY OF SCAPPOOSE	\$329,060
KITTITAS COUNTY WATER PURVEYORS	\$730,000	DONNA SILVERBERG	\$328,212
WALLA WALLA BASIN WATERSHED COUNCIL	\$728,047	ENVIRONMENTAL SCIENCE ASSOCIATES	\$303,102
CANADA DEPARTMENT OF FISHERIES & OCEANS	\$684,700	USFS - MT HOOD NATIONAL FOREST - HOOD RIVER RANGER DISTRICT	\$296,082
SHOSHONE-PAIUTE TRIBES OF DUCK VALLEY RE	\$651,766	THE NATURE CONSERVANCY - OR	\$295,917
CLEARWATER FOCUS WATERSHED PROGRAM	\$641,749	ROCKY MOUNTAIN RESEARCH STATION	\$291,370
COLUMBIA CONSERVATION DISTRICT	\$637,188	CIBER INC	\$288,324
WALLA WALLA COUNTY SOIL AND WATER CONSERVATION DISTRICT	\$624,166	ROBERT HALF TECHNOLOGY	\$285,200
IDAHO DEPARTMENT OF FISH & GAME / KOOTENAI	\$610,923	WASHINGTON STATE CONSERVATION COMMISSION.	\$284,479
US BUREAU OF RECLAMATION - YAKIMA	\$580,303	FIRST AMERICAN TITLE CO	\$283,800
US SMALL BUSINESS ADMINISTRATION	\$573,849	KITTITAS COUNTY CONSERVATION DISTRICT	\$283,359
		P.A.C.E.	\$276,905

Table 6B Expenditures of Direct BPA funds by contractor 1996-2005 (continued)

Contractor	Total	Contractor	Total
ECO-NORTHWEST	\$276,345	TEASDALE ENVIRONMENTAL	\$174,144
NEZ TRIBAL TRIBAL FISHERIES/WATERSHED PROGRAM	\$270,293	NATURAL RESOURCES CONSERVATION SERVICE	\$173,044
WALLOWA RESOURCES INC	\$267,687	LAKE ROOSEVELT FORUM	\$172,292
GILLIAM SOIL AND WATER CONSERVATION DISTRICT	\$264,857	GARDENA FARMS IRRIGATION DISTRICT #13	\$171,435
MORROW COUNTY SOIL AND WATER CONSERVATION DISTRICT	\$263,061	EASTERN OREGON UNIVERSITY	\$171,219
KOOTENAI RIVER NETWORK INC	\$261,402	NEZ PERCE SOIL & WATER	\$169,035
HINRICHSN ENVIRONMENTAL SERVICES	\$259,481	US ARMY CORE OF ENGINEERS - WALLA WALLA DIST	\$165,938
US ARMY CORE OF ENGINEERS - NORTHWEST DIVISION	\$250,760	NORTHWEST HABITAT INSTITUTE	\$164,281
JONES & STOKES ASSOCIATES	\$248,968	GOLDEN PACIFIC HOMES	\$160,000
BIOANALYSTS INC	\$244,591	IDAHO STATE OFFICE OF SPECIES CONSERVATION	\$154,140
EASTERN WASHINGTON UNIVERSITY - ARCHAEOLOGY & HISTORY DEPARTMENT	\$241,176	CHELAN COUNTY CONSERVATION DISTRICT	\$152,788
WHEELER SOIL AND WATER CONSERVATION DISTRICT	\$238,941	KRUGEL & ASSOCIATES	\$152,000
DSCONSULTING	\$238,197	RHI MANAGEMENT RESOURCES	\$147,432
ESD105	\$232,500	CASCADE PACIFIC RESC CONSV & DEVL INC	\$143,487
GRANDE RONDE MODEL WATERSHED FOUNDATION	\$223,463	OXARC	\$143,340
COLUMBIA RIVER ESTUARY STUDY TASKFORCE	\$218,250	USFS - NEZ PERCE NATIONAL FOREST	\$142,878
MARKS & MARKS	\$218,020	NATIONAL SYS & RESEARCH	\$141,574
RESOURCE CONSERVATION & DEVELOPMENT	\$217,584	TERRAQUA INC	\$140,520
US FISH AND WILDLIFE SERVICE - (LONGVIEW WA)	\$214,203	D J WARREN & ASSOCIATES INC	\$137,864
HUDSON BAY DISTRICT IMPROVEMENT CO INC	\$213,423	RICK APPELEGATE	\$136,100
USFS - PACIFIC NW REGION (6) - PORTLAND	\$213,180	JEAN EDWARDS	\$135,711
NSRI	\$208,915	ARCHAEOLOGICAL & HISTORICAL SERVICE	\$127,894
WALLOWA PUBLIC WORKS DEPARTMENT	\$206,426	DS CONSULTING	\$124,650
SEA RESOURCES INC	\$203,659	UNIVERSITY OF ALASKA FAIRBANKS	\$122,421
UNION COUNTY PUBLIC WORKS DEPARTMENT	\$203,650	ADVANCED TELEMETRY SYSTEMS INC	\$122,027
CRATE'S POINT	\$200,000	SUNDAY & ASSOCIATES INC	\$121,137
KENNETH STINSON, LATAH SOIL AND WATER CONSERVATION DISTRICT	\$200,000	SHAPIRO & ASSOCIATES INC	\$120,983
NORTON-ARNOLD & COMPANY	\$196,214	BC/ MINISTRY ENVIRONMENT LAND AND PARKS	\$117,449
COLUMBIA SOIL & WATER CONSERVATION DISTRICT	\$196,036	GORGE EARTHWORKS INC	\$116,082
WALLOWA COUNTY	\$189,922	ENERGY NEWSDATA INC	\$114,600
KATHLEEN A CONCANNON	\$188,422	SUN WEST PRODUCTIONS	\$113,998
COLE & WEBER	\$188,237	PACIFIC WATERSHED INSTITUTE	\$112,620
OREGON DEPT OF ENVIRONMENTAL QUALITY - BUSINESS OFFICE	\$186,618	FOSTER WHEELER ENVIRONMENTAL CO	\$101,955
OREGON HEALTH SCIENCES UNIV	\$184,796	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION	\$101,700
MINISTRY OF WATER LAND AND AIR PROTECTIO	\$184,384	JAMES J ANDERSON MD	\$100,000
LEMHI IRRIGATION DISTRICT	\$182,938	US DEPT OF JUSTICE	\$100,000
USFWS - CRESTON NATIONAL FISH HATCHERY	\$181,088		
UNIVERSITY of MONTANA	\$180,539		
MONUMENT SOIL & WATER CONSERVATION DISTRICT	\$174,704		

* Contracts under \$100,000 are not listed.

Source: Bonneville Power Administration

Table 7A Salmon and Steelhead Passing Bonneville Dam, 1938 - 2005

These dam counts can not be utilized for year to year comparison of abundance or population size without evaluating and quantifying the effects of facility modifications, dam operations, dam modifications, upstream development, fisheries, hatchery production, counting schedules, counting techniques, between-dam counting discrepancies, counting station modification, fishway modifications, fallback and dam passage efficiencies.

Yearly totals of all fish passing Bonneville Dam 1938 - 1976

Year	Chinook	Steelhead	Sockeye	Coho	Year	Chinook	Steelhead	Sockeye	Coho	
1938	271,799	107,003	75,040	15,185	1979	220,335	114,010	52,627	26,612	
1938	271,900	107,003	75,040	15,200	1980	207,770	129,254	58,882	12,974	
1939	286,200	122,032	73,382	14,400	1981	232,299	159,270	56,037	21,935	
1940	391,600	185,174	148,807	11,900	1982	247,911	157,640	50,219	55,816	
1941	461,400	118,089	65,741	17,900	1983	186,214	218,419	100,542	8,402	
1942	401,900	151,800	55,464	12,400	1984	216,469	315,795	152,540	16,604	
1943	313,100	92,133	39,845	2,500	1985	293,803	330,170	165,933	38,504	
1944	240,800	100,518	15,072	4,200	1986	371,075	376,752	58,099	108,587	
1945	297,500	120,133	9,501	790	1987	468,574	300,351	116,956	17,921	
1946	446,000	142,807	74,376	3,900	1988	411,897	279,277	79,721	27,038	
1947	480,500	135,444	171,139	11,200	1989	373,202	287,802	41,884	27,422	
1948	419,500	139,062	4,100	4,100	1990	296,389	183,011	49,581	11,641	
1949	277,700	119,285	51,444	1,000	1991	226,433	274,535	76,482	60,417	
1950*	357,400	114,087	77,993	10,200	1992	219,688	314,974	84,992	14,369	
1951*	331,800	140,689	169,428	5,200	1993	259,337	188,386	80,178	10,642	
1952	420,900	260,990	184,645	7,800	1994	208,197	161,978	12,678	20,291	
1953	332,500	223,914	235,215	13,000	1995	189,419	202,448	8,774	10,397	
1954 ¹	321,000	176,260	130,107	4,100	1996	272,885	205,213	30,252	15,737	
1955 ²	359,800	198,411	237,748	3,700	1997	360,673	258,385	47,008	24,061	
1956 ³	300,900	131,116	156,418	6,100	1998	248,860	185,094	13,218	46,290	
1957 ⁴	403,200	139,183	82,915	4,700	1999	306,981	206,488	17,875	40,684	
1958 ⁵	426,400	131,437	122,389	3,700	2000	401,733	275,273	93,398	85,734	
1959 ⁶	345,000	129,026	86,560	2,700	2001	867,933	633,464	114,934	259,756	
1960 ⁷	237,600	113,676	59,713	3,268	2002	870,803	481,203	49,610	88,459	
1961 ⁸	254,300	139,719	17,111	3,456	2003	917,154	361,412	39,291	125,743	
1962 ⁹	268,100	164,025	28,179	14,788	2004	845,717	311,122	123,291	115,041	
1963 ¹⁰	230,500	129,418	60,319	12,658	2005	570,413	315,650	72,971	83,305	
1964 ¹¹	315,600	117,252	99,856	53,602						
1965 ¹²	253,400	166,453	55,125	49,400						
1966	294,700	143,661	156,661	36,972						
1967	292,700	121,872	144,158	48,505						
1968	276,400	106,974	108,207	43,030	1	Fish counting discontinued for annual winter maintenance on November 29, 1950.				
1969	411,300	140,782	59,636	24,162	2	Fish counting initiated Feb. 28, 1954 and discontinued Nov. 27, 1954				
1970	314,032	113,510	70,762	54,868	3	Fish counting initiated Feb. 28, 1955 and discontinued Nov. 29, 1955				
1971	328,740	193,966	87,447	53,817	4	Fish counting initiated March 1, 1956 and discontinued Dec. 1, 1956				
1972	336,037	185,886	56,323	34,216	5	Fish counting initiated March 1, 1957 and discontinued Nov. 30, 1957				
1973	318,836	157,823	58,979	25,849	6	Fish counting initiated March 2, 1958 and discontinued Nov. 30, 1958				
1974	288,410	137,054	43,837	31,605	7	Fish counting initiated March 1, 1959 and discontinued Nov. 28, 1959				
1975	350,320	85,540	58,212	32,772	8	Fish counting initiated March 1, 1960 and discontinued Nov. 30, 1960				
1976	364,907	124,177	43,611	36,666	9	Fish counting initiated March 1, 1961 and discontinued Nov. 30, 1961				
1977	281,659	193,437	99,829	9,325	10	Fish counting initiated March 1, 1962 and discontinued Nov. 30, 1962				
1978	332,323	104,431	18,436	30,278	11	Fish counting initiated March 1, 1963 and discontinued Nov. 30, 1963				
					12	Fish counting initiated March 28, 1964 and discontinued Nov. 28, 1964				

* Fish counting discontinued for annual winter maintenance on November 29, 1950.

- 1 Fish counting initiated Feb. 28, 1954 and discontinued Nov. 27, 1954
- 2 Fish counting initiated Feb. 28, 1955 and discontinued Nov. 29, 1955
- 3 Fish counting initiated March 1, 1956 and discontinued Dec. 1, 1956
- 4 Fish counting initiated March 1, 1957 and discontinued Nov. 30, 1957
- 5 Fish counting initiated March 2, 1958 and discontinued Nov. 30, 1958
- 6 Fish counting initiated March 1, 1959 and discontinued Nov. 28, 1959
- 7 Fish counting initiated March 1, 1960 and discontinued Nov. 30, 1960
- 8 Fish counting initiated March 1, 1961 and discontinued Nov. 30, 1961
- 9 Fish counting initiated March 1, 1962 and discontinued Nov. 30, 1962
- 10 Fish counting initiated March 1, 1963 and discontinued Nov. 30, 1963
- 11 Fish counting initiated March 1, 1964 and discontinued Nov. 28, 1964
- 12 Fish counting initiated March 28, 1965 and discontinued Nov. 30, 1965

Source: 1938 - 1976: Annual Fish Passage Reports - Corps of Engineers
1977 - 2005: Corps of Engineers, Fish Passage Center

Table 7B Minimum Numbers (in Thousands) of Salmon and Steelhead, Including Jacks, Entering the Columbia River Basin, 1938-2002*

Year	Chinook		Sockeye	Coho 2/	Chum 3/	Steelhead		Total	Chum 3/	Steelhead		Total
	Spr.1/	Sum.				Fall	Winter 4/Summer			Summer	Winter 4/Summer	
1938	118.4	122.7	582.2	168.0	271.9	157.0	—	249.6	1,669.8	—	55.4	1,403.8
1939	155.5	191.8	550.3	124.8	184.2	96.3	—	232.0	1,534.9	—	112.1	1,380.5
1940	97.6	112.7	742.9	196.0	164.4	102.8	—	422.8	1,839.2	—	77.1	1,315.6
1941	129.0	106.5	1,175.7	173.6	131.5	340.1	—	336.8	2,393.2	—	114.1	1,160.9
1942	87.9	94.8	979.0	94.5	83.8	425.5	—	297.2	2,062.7	—	80.6	1,191.6
1943	133.8	57.0	600.9	73.4	80.9	78.7	—	216.0	1,240.7	—	67.0	1,091.0
1944	78.4	67.1	709.8	24.6	174.2	22.6	—	232.3	1,309.0	—	46.0	1,486.5
1945	118.8	52.6	711.7	10.9	204.6	48.3	—	268.4	1,415.3	—	67.7	1,034.8
1946	199.3	72.0	831.9	101.1	121.5	72.7	—	268.0	1,666.5	—	94.4	1,706.7
1947	251.8	86.3	903.6	335.3	176.2	40.7	—	261.8	2,055.7	—	77.3	1,876.9
1948	173.3	86.9	899.2	143.2	134.5	85.6	—	240.1	1,762.8	—	85.0	474.2
1949	178.3	57.8	550.5	52.6	100.7	44.7	—	162.5	1,147.1	—	91.7	364.3
1950	146.1	69.3	588.6	112.6	125.9	58.9	—	179.0	1,280.4	—	2.5	2,229.4
1951	259.0	116.4	385.6	203.7	112.4	46.1	—	244.5	1,367.7	—	68.0	2,055.1
1952	319.8	114.5	323.0	318.9	126.3	28.9	—	383.1	1,614.5	—	2.9	1,262.1
1953	342.4	95.0	257.3	260.0	61.3	22.9	76.8	361.3	1,477.0	—	63.2	1,965.4
1954	237.4	114.8	231.9	180.0	37.4	28.5	49.8	289.5	1,169.3	—	55.9	1,236.5
1955	317.1	147.6	281.5	245.0	64.3	10.7	51.2	208.7	1,421.0	—	36.4	854.3
1956	297.9	195.2	312.7	202.0	64.4	4.7	51.2	328.8	1,328.8	—	52.2	1,262.1
1957	307.8	207.0	276.6	147.8	55.1	4.2	54.8	229.6	1,282.9	—	88.9	748.5
1958	268.5	187.5	393.2	313.3	24.2	8.3	48.4	211.2	1,454.6	—	26.5	905.4
1959	198.2	169.8	296.0	270.7	21.2	5.5	61.0	231.6	1,254.0	—	15.3	1,054.5
1960	175.2	142.6	246.1	179.1	47.7	3.0	56.5	199.8	1,050.0	—	23.6	861.8
1961	203.8	129.2	252.3	60.2	112.4	3.1	94.4	227.9	1,083.3	—	2.4	1,064.5
1962	255.4	108.0	290.6	42.9	184.7	5.7	78.7	251.7	1,217.7	—	2.5	1,711.0
1963	219.0	100.0	265.1	79.9	161.9	3.0	79.4	228.8	1,137.1	—	(40.1)	689.4
1964	247.2	97.0	372.2	104.9	453.9	3.2	79.9	178.6	1,536.9	—	NA	(553.1)
1965	241.9	82.1	399.2	55.2	519.0	1.5	120.3	227.3	1,646.5	—	9.4	2,529.3
1966	236.1	74.8	347.8	174.8	785.9	3.1	133.1	208.6	1,964.2	—	NA	(553.1)
1967	240.5	100.7	385.0	180.2	694.2	2.1	111.5	167.3	1,881.5	—	NA	(553.1)
1968	199.5	89.4	346.3	134.8	423.9	0.6	122.5	161.2	1,478.2	—	NA	(553.1)
1969	295.0	106.2	471.0	75.8	463.4	1.1	66.8	191.2	1,670.5	—	NA	(553.1)
1970	252.7	72.9	532.2	95.4	1,079.0	1.2	134.5	157.0	2,324.9	—	NA	(553.1)
1971	266.9	89.5	488.6	150.5	648.7	1.1	169.2	248.5	2,063.0	—	NA	(553.1)
1972	353.3	77.5	338.3	123.3	362.6	2.4	113.0	257.8	1,628.2	—	NA	(553.1)
1973	326.1	48.9	562.1	61.3	422.8	1.8	90.9	217.0	1,730.9	—	NA	(553.1)
1974	224.1	34.0	367.1	43.8	534.0	1.2	77.7	168.9	1,440.8	—	NA	(553.1)
1975	176.1	44.4	525.9	58.2	437.7	0.8	62.0	105.4	1,410.5	—	NA	(553.1)

1/ Counting began at Bonneville Dam on May 7, 1938. Estimates for tributary runs below Bonneville Dam are not included for 1938-45.

2/ Commercial catch and dam counts only, 1938-59.

3/ Commercial catch numbers only, 1938-49.

4/ Abundance index.

() indicates estimate.

* Data is unavailable after 2002.

Source: Fish Passage Center

Table 9 Estimated Inriver Juvenile Survival through the Hydrosystem, 1966-1980, 1997-2005

Year	Chinook Salmon	Steelhead	Year	Chinook Salmon	Steelhead
1966	0.46	0.56	1979	0.19	0.02
1967	0.47	0.32	1980	0.15	0.03
1968	0.45	0.43	1997		0.47
1969	0.34	0.20	1998		0.50
1970	0.17	0.24	1999	0.56	0.44
1971	0.20	0.17	2000	0.49	0.39
1972	0.09	0.09 a			
1973	0.03	0.01	Year	Mid-Columbia	Snake
1974	0.286	0.08	2001	NA	NA
1975	0.19b	0.27	2002	0.75	NA
1976	0.10	0.13	2003	0.77	0.7
1977	0.01	0.01	2004	0.62	0.49
1978	0.23b	0.08	2005	0	0.53

There is a gap in this information between 1981 and 1997. Prior to 1993, survival studies based on observations of freeze brands on juvenile fish were considered unreliable, and further studies were put off until PIT tag data became available that year. Between 1993 and 1997, PIT tag detectors were installed only at Snake River dams, and so systemwide survivals for those years were mathematical expansions of the Snake River observations. Beginning in 1997, with additional PIT tag detection equipment available, systemwide survival observations were possible and the mathematical expansions no longer were used.

a Extrapolation based on three dam and reservoirs as survival estimates between Ice Harbor Dam and The Dalles. Dam did not change between 1966 and 1970 after completion of John Day Dam in 1968.

b Based on product of two non-rounded numbers

Source: NOAA Fisheries

Table 10 Where do the Fish Go? Fish Counted at Each Mainstem Dam, 2003 - 2004

Dam	Spring Chinook		Summer Chinook		Fall Chinook		Coho		Sockeye		Steelhead	
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
Bonneville	206,268	179,037	128,166	105,032	658,064	621,895	133,870	119,849	39,291	123,291	361,412	311,122
The Dalles	142,729	137,957	111,931	87,925	353,405	334,538	45,374	40,564	34,176	107,466	273,172	238,242
John Day	111,642	118,520	105,615	83,060	249,810	244,723	38,577	34,755	35,417	113,497	286,176	227,199
McNary	106,673	115,179	104,948	74,217	208,982	193,550	19,830	20,132	32,037	89,707	230,418	201,071
Ice Harbor	86,190	81,752	25,343	16,185	31,664	32,276	1,431	3,519	37	91	186,474	168,897
Lower Monumental	77,947	75,363	22,307	12,789	22,851	25,878	1,104	3,663	14	80	176,541	153,530
Little Goose	76,096	65,862	17,877	11,567	20,918	23,568	864	3,042	23	81	166,046	146,418
Lower Granite	78,904	75,224	20,559	11,277	20,213	22,560	1,265	3,904	11	113	180,672	154,389
Priest Rapids	18,792	14,451	86,837	72,673	54,804	47,406	5,216	5,624	36,551	124,943	17,652	18,727
Rock Island	17,634	11,786	88,401	67,145	26,132	18,744	5,869	5,982	34,779	106,666	17,509	19,547
Rocky Reach	4,666	5,099	69,362	49,625	13,980	10,814	993	786	30,355	81,338	13,641	14,580
Wells	4,702	4,793	46,391	32,847	8,253	5,777	168	291	28,977	78,053	9,963	9,317

Source: Fish Passage Center

Table 11 Commercial Landings of Salmon and Steelhead from the Columbia River, Non-Indian and Treaty Indian combined, 1866-2002*

Zone 1 - 6

Millions of Pounds																					
1866	0.2720	1887	24.2080	1908	24.3409	1929	32.3213	1950	13.2843	1971	9.0041	1992	1.7282								
1867	1.2240	1888	25.3284	1909	24.5353	1930	31.9234	1951	12.9132	1972	7.8827	1993	1.4127								
1868	1.9040	1889	21.0722	1910	35.3304	1931	27.0318	1952	10.7243	1973	11.1252	1994	1.2203								
1869	6.8000	1890	29.6326	1911	49.4800	1932	23.3302	1953	9.7178	1974	6.2666	1995	0.8985								
1870	10.2000	1891	27.1288	1912	27.5302	1933	26.8468	1954	7.6303	1975	8.2431	1996	1.3349								
1871	13.6000	1892	33.1390	1913	26.5562	1934	27.9019	1955	10.8267	1976	7.0193	1997	1.1596								
1872	17.0000	1893	28.2796	1914	38.5013	1935	25.7560	1956	9.7863	1977	5.4335	1998	0.9012								
1873	17.0000	1894	33.3268	1915	43.8387	1936	23.5286	1957	7.3229	1978	5.0410	1999	1.6181								
1874	23.8000	1895	43.1593	1916	42.7463	1937	24.6735	1958	8.1144	1979	4.3933	2000	2.7605								
1875	25.5000	1896	32.7554	1917	40.4480	1938	18.8339	1959	6.0212	1980	4.2635	2001	4.5920								
1876	30.6000	1897	38.0250	1918	44.1254	1939	17.9112	1960	5.1539	1981	2.3291	2002	4.7512								
1877	25.8400	1898	33.9502	1919	44.9345	1940	19.3201	1961	5.3304	1982	4.7556										
1878	31.2800	1899	24.0036	1920	36.3115	1941	31.6027	1962	6.8824	1983	1.2495										
1879	32.6400	1900	25.7990	1921	26.7125	1942	26.5462	1963	5.8842	1984	4.7313										
1880	36.0400	1901	29.8324	1922	30.1527	1943	14.7533	1964	6.9606	1985	5.3825										
1881	37.4000	1902	26.2000	1923	35.6673	1944	17.6432	1965	8.5838	1986	12.2769										
1882	36.8084	1903	30.4887	1924	38.1671	1945	17.3686	1966	8.4225	1987	11.3547										
1883	42.7992	1904	36.8639	1925	42.3334	1946	18.0781	1967	9.4424	1988	14.1987										
1884	42.1600	1905	37.8001	1926	35.5667	1947	21.6640	1968	5.5862	1989	9.4118										
1885	37.6584	1906	35.6531	1927	37.6884	1948	21.2466	1969	8.0427	1990	3.9369										
1886	30.4980	1907	28.7206	1928	33.1271	1949	13.0507	1970	12.5828	1991	5.0364										

* Data is unavailable after 2002.

Source: Oregon Department of Fish and Wildlife and Washington Department of Fish and Wildlife

Table 12A Wildlife Accounting by Species and Dam

Dam	Wildlife Species	HUs Lost	HUs Acquired	HUs Remaining	Percent Completed	Dam	Wildlife Species	HUs Lost	HUs Acquired	HUs Remaining	Percent Completed
Albani Falls	Bald Eagle (breeding)	4,508	301	4,207	6.68%	Bonneville WA	Black-capped Chickadee	511	429	82	83.95%
Albani Falls	Bald Eagle (wintering)	4,365	314	4,051	7.19%	Bonneville WA	Canada Goose	1,222	1,112	110	91.00%
Albani Falls	Black-capped Chickadee	2,286	117	2,169	5.12%	Bonneville WA	Great Blue Heron	2,150	607	1,543	28.23%
Albani Falls	Canada Goose	4,699	1,161	3,538	24.71%	Bonneville WA	Lesser Scaup	0	0	0	0.00%
Albani Falls	Mallard	5,985	227	5,758	3.79%	Bonneville WA	Mink	811	1,687	-876	208.01%
Albani Falls	Muskrat	1,756	82	1,674	4.67%	Bonneville WA	Spotted Sandpiper	1,383	0	1,383	0.00%
Albani Falls	Redhead Duck	3,379	0	3,379	0.00%	Bonneville WA	Yellow Warbler	82	40	42	48.78%
Albani Falls	White-tailed Deer	1,690	30	1,650	1.79%	Bonneville WA	All Species	6,159	3,875	2,284	62.92%
Albani Falls	Yellow Warbler	0	59	-59	0.00%	Chief Joseph	Bobcat	401	132	269	32.92%
Albani Falls	All Species	28,658	2,291	26,367	7.99%	Chief Joseph	Canada Goose	213	10	203	4.69%
Anderson Ranch	Black-capped Chickadee	890	0	890	0.00%	Chief Joseph	Lesser Scaup	0	0	0	0.00%
Anderson Ranch	Blue Grouse	1,980	0	1,980	0.00%	Chief Joseph	Lewis Woodpecker	286	141	145	49.30%
Anderson Ranch	Common Snipe	0	889	-889	0.00%	Chief Joseph	Mink	920	137	783	14.89%
Anderson Ranch	Mallard	1,048	81	967	7.73%	Chief Joseph	Mule Deer	1,982	409	1,583	20.53%
Anderson Ranch	Mink	1,732	0	1,732	0.00%	Chief Joseph	Ring-necked Pheasant	239	0	239	0.00%
Anderson Ranch	Mule Deer	2,689	0	2,689	0.00%	Chief Joseph	Sage Grouse	1,179	554	625	46.99%
Anderson Ranch	Peregrine Falcon	0	0	0	0.00%	Chief Joseph	Sharp-tailed Grouse	2,290	14	2,276	0.61%
Anderson Ranch	Ruffed Grouse	919	0	919	0.00%	Chief Joseph	Spotted Sandpiper	1,255	10	1,245	0.80%
Anderson Ranch	Western Meadowlark	0	74	-74	0.00%	Chief Joseph	Yellow Warbler	58	26	32	44.83%
Anderson Ranch	Yellow Warbler	361	3	358	0.83%	Chief Joseph	All Species	8,833	1,433	7,400	16.22%
Anderson Ranch	All Species	9,619	1,047	8,572	10.88%	Cougar	American Dipper	285	0	285	0.00%
Big Cliff	Bald Eagle	0	0	0	0.00%	Cougar	Bald Eagle	0	0	0	0.00%
Big Cliff	Beaver	50	0	50	0.00%	Cougar	Beaver	189	182	7	96.30%
Big Cliff	Black-tailed Deer	81	0	81	0.00%	Cougar	Black Bear	1,856	0	1,856	0.00%
Big Cliff	Common Merganser	11	0	11	0.00%	Cougar	Black-tailed Deer	1,192	0	1,192	0.00%
Big Cliff	Osprey	0	0	0	0.00%	Cougar	Cougar	1,472	0	1,472	0.00%
Big Cliff	Pileated Woodpecker	71	0	71	0.00%	Cougar	Harlequin duck	282	0	282	0.00%
Big Cliff	River Otter	38	0	38	0.00%	Cougar	Osprey	0	0	0	0.00%
Big Cliff	Roosevelt Elk	81	0	81	0.00%	Cougar	Pileated Woodpecker	1,938	0	1,938	0.00%
Big Cliff	Ruffed Grouse	81	0	81	0.00%	Cougar	River Otter	189	0	189	0.00%
Big Cliff	All Species	413	0	413	0.00%	Cougar	Roosevelt Elk	1,484	0	1,484	0.00%
Black Canyon	Black-capped Chickadee	0	0	0	0.00%	Cougar	Ruffed Grouse	293	0	293	0.00%
Black Canyon	Canada Goose	214	0	214	0.00%	Cougar	Spotted Owl	1,774	0	1,774	0.00%
Black Canyon	Mallard	270	0	270	0.00%	Cougar	Waterfowl	0	0	0	0.00%
Black Canyon	Mink	652	1	651	0.15%	Cougar	Yellow Warbler	170	25	145	14.71%
Black Canyon	Mule Deer	242	53	189	21.90%	Cougar	All Species	11,124	207	10,917	1.86%
Black Canyon	Ring-necked Pheasant	260	0	260	0.00%	Detroit	Bald Eagle	0	0	0	0.00%
Black Canyon	Sharp-tailed Grouse	532	0	532	0.00%	Detroit	Beaver	715	0	715	0.00%
Black Canyon	Yellow Warbler	0	3	-3	0.00%	Detroit	Black-tailed Deer	3,061	0	3,061	0.00%
Black Canyon	All Species	2,170	57	2,113	2.63%	Detroit	Common Merganser	0	0	0	0.00%
Bonneville OR	Black-capped Chickadee	511	189	322	36.99%	Detroit	Osprey	0	0	0	0.00%
Bonneville OR	Canada Goose	1,222	0	1,222	0.00%	Detroit	Pileated Woodpecker	1,156	0	1,156	0.00%
Bonneville OR	Great Blue Heron	2,150	388	1,762	18.05%	Detroit	River Otter	882	0	882	0.00%
Bonneville OR	Lesser Scaup	0	0	0	0.00%	Detroit	Roosevelt Elk	2,210	0	2,210	0.00%
Bonneville OR	Mink	811	0	811	0.00%	Detroit	Ruffed Grouse	3,028	0	3,028	0.00%
Bonneville OR	Spotted Sandpiper	1,383	2	1,381	0.14%	Detroit	Spotted Owl	246	0	246	0.00%
Bonneville OR	Yellow Warbler	82	11	71	13.41%	Detroit	All Species	11,298	0	11,298	0.00%
Bonneville OR	All Species	6,159	590	5,569	9.58%						

Table 12A Wildlife Accounting by Species and Dam (continued)

Dam	Wildlife Species	HUs Lost	HUs Acquired	HUs Remaining	Percent Completed	Dam	Wildlife Species	HUs Lost	HUs Acquired	HUs Remaining	Percent Completed
Dexter	American Dipper	119	0	119	0.00%	Green Peter	Osprey	0	0	0	0.00%
Dexter	Bald Eagle	0	0	0	0.00%	Green Peter	Pileated Woodpecker	710	0	710	0.00%
Dexter	Beaver	832	0	832	0.00%	Green Peter	River Otter	575	0	575	0.00%
Dexter	Black-tailed Deer	1,078	0	1,078	0.00%	Green Peter	Roosevelt Elk	3,997	0	3,997	0.00%
Dexter	California quail	664	0	664	0.00%	Green Peter	Ruffed Grouse	3,264	0	3,264	0.00%
Dexter	Greater Scaup	0	0	0	0.00%	Green Peter	All Species	16,432	0	16,432	0.00%
Dexter	Mink	832	0	832	0.00%	Hills Creek	American Dipper	200	0	200	0.00%
Dexter	Osprey	0	0	0	0.00%	Hills Creek	Bald Eagle	0	0	0	0.00%
Dexter	Red Fox	508	0	508	0.00%	Hills Creek	Beaver	326	955	-629	292.94%
Dexter	Ring-necked Pheasant	332	0	332	0.00%	Hills Creek	Black Bear	2,958	66	2,892	2.23%
Dexter	Ruffed Grouse	701	0	701	0.00%	Hills Creek	Black-tailed Deer	2,912	259	2,653	8.89%
Dexter	Western Gray Squirrel	284	0	284	0.00%	Hills Creek	Cougar	2,381	110	2,271	4.62%
Dexter	Wood Duck	644	0	644	0.00%	Hills Creek	Harlequin duck	269	0	269	0.00%
Dexter	Yellow Warbler	654	0	654	0.00%	Hills Creek	Osprey	0	0	0	0.00%
Dexter	All Species	6,648	0	6,648	0.00%	Hills Creek	Pileated Woodpecker	3,201	0	3,201	0.00%
Foster	Bald Eagle	0	0	0	0.00%	Hills Creek	River Otter	384	0	384	0.00%
Foster	Beaver	245	0	245	0.00%	Hills Creek	Roosevelt Elk	3,203	106	3,097	3.31%
Foster	Black-tailed Deer	890	0	890	0.00%	Hills Creek	Ruffed Grouse	468	0	468	0.00%
Foster	Osprey	0	0	0	0.00%	Hills Creek	Spotted Owl	2,977	0	2,977	0.00%
Foster	Ring-necked Pheasant	385	0	385	0.00%	Hills Creek	Waterfowl	0	0	0	0.00%
Foster	River Otter	340	0	340	0.00%	Hills Creek	Yellow Warbler	210	0	210	0.00%
Foster	Roosevelt Elk	652	0	652	0.00%	Hills Creek	All Species	19,489	1,496	17,993	7.68%
Foster	Ruffed Grouse	853	0	853	0.00%	John Day OR	Black-capped Chickadee	435	0	435	0.00%
Foster	Wood Duck	179	0	179	0.00%	John Day OR	California quail	3,162	0	3,162	0.00%
Foster	All Species	3,544	0	3,544	0.00%	John Day OR	Canada Goose	4,005	0	4,005	0.00%
Grand Coulee	Black-capped Chickadee	0	2	-2	0.00%	John Day OR	Great Blue Heron	1,593	0	1,593	0.00%
Grand Coulee	Blue Grouse	0	954	-954	0.00%	John Day OR	Lesser Scaup	0	0	0	0.00%
Grand Coulee	Bobcat	0	8	-8	0.00%	John Day OR	Mallard	3,700	0	3,700	0.00%
Grand Coulee	Canada Goose (nesting)	74	0	74	0.00%	John Day OR	Mink	719	7	712	0.97%
Grand Coulee	Downy Woodpecker	0	1,495	-1,495	0.00%	John Day OR	Mule Deer	0	5,966	-5,966	0.00%
Grand Coulee	Great Blue Heron	0	4,500	-4,500	0.00%	John Day OR	Spotted Sandpiper	1,593	0	1,593	0.00%
Grand Coulee	Mallard	0	2	-2	0.00%	John Day OR	Western Meadowlark	2,530	8,070	-5,540	318.97%
Grand Coulee	Mourning Dove	9,316	1,001	8,315	10.74%	John Day OR	Yellow Warbler	543	14	529	2.58%
Grand Coulee	Mule Deer	27,133	17,172	9,961	63.29%	John Day OR	All Species	18,280	14,057	4,223	76.90%
Grand Coulee	Pigmy Rabbit	0	1,246	-1,246	0.00%	John Day WA	Black-capped Chickadee	435	677	-242	155.63%
Grand Coulee	Riparian Forest	1,632	200	1,432	12.25%	John Day WA	California quail	3,162	4,581	-1,419	144.88%
Grand Coulee	Riparian Shrub	27	0	27	0.00%	John Day WA	Canada Goose	4,005	2,742	1,263	68.46%
Grand Coulee	Ruffed Grouse	16,502	2,908	13,594	17.62%	John Day WA	Great Blue Heron	1,593	1,691	-98	106.15%
Grand Coulee	Sage Grouse	2,746	7,432	-4,686	270.65%	John Day WA	Lesser Scaup	0	0	0	0.00%
Grand Coulee	Sharp-tailed Grouse	32,723	14,789	17,934	45.19%	John Day WA	Mallard	3,700	3,083	617	83.32%
Grand Coulee	Western Meadowlark	0	286	-286	0.00%	John Day WA	Mink	719	1,430	-711	198.89%
Grand Coulee	White-tailed Deer	21,632	9,064	12,568	41.90%	John Day WA	Spotted Sandpiper	1,593	0	1,593	0.00%
Grand Coulee	Yellow Warbler	0	129	-129	0.00%	John Day WA	Western Meadowlark	2,530	1,927	603	76.17%
Grand Coulee	All Species	111,785	61,212	50,573	54.76%	John Day WA	Yellow Warbler	543	667	-124	122.84%
Green Peter	Bald Eagle	0	0	0	0.00%	John Day WA	All Species	18,280	16,798	1,482	91.89%
Green Peter	Band-tailed Pigeon	3,487	0	3,487	0.00%	Lookout Point	American Dipper	350	0	350	0.00%
Green Peter	Beaver	381	0	381	0.00%	Lookout Point	Bald Eagle	0	0	0	0.00%
Green Peter	Black-tailed Deer	3,997	0	3,997	0.00%	Lookout Point	Beaver	1,739	0	1,739	0.00%
Green Peter	Common Merganser	21	0	21	0.00%	Lookout Point	Black-tailed Deer	4,043	0	4,043	0.00%

Table 12A Wildlife Accounting by Species and Dam (continued)

Dam	Wildlife Species	HUs Lost	HUs Acquired	HUs Remaining	Percent Completed	Dam	Wildlife Species	HUs Lost	HUs Acquired	HUs Remaining	Percent Completed
Lookout Point	California quail	1,937	0	1,937	0.00%	McNary WA	Mallard (wintering)	0	0	0	0.00%
Lookout Point	Common Merganser	95	0	95	0.00%	McNary WA	Mink	1,000	925	75	92.50%
Lookout Point	Mink	1,586	0	1,586	0.00%	McNary WA	Spotted Sandpiper	0	0	1,090	0.00%
Lookout Point	Osprey	0	0	0	0.00%	McNary WA	Western Meadowlark	2,775	1,130	1,645	40.72%
Lookout Point	Pileated Woodpecker	1,614	0	1,614	0.00%	McNary WA	Yellow Warbler	263	396	-133	150.57%
Lookout Point	Red Fox	2,082	0	2,082	0.00%	McNary WA	All Species	18,834	22,041	-3,207	117.03%
Lookout Point	Ring-necked Pheasant	1,654	0	1,654	0.00%	Minidoka	Bald Eagle (wintering)	0	89	-89	0.00%
Lookout Point	Roosevelt Elk	3,668	0	3,668	0.00%	Minidoka	Mallard	0	0	0	0.00%
Lookout Point	Ruffed Grouse	2,457	0	2,457	0.00%	Minidoka	Marsh Wren	0	0	0	0.00%
Lookout Point	Spotted Owl	714	0	714	0.00%	Minidoka	Mule Deer	3,413	1,632	1,781	47.82%
Lookout Point	Western Gray Squirrel	1,070	0	1,070	0.00%	Minidoka	Redhead Duck	0	0	0	0.00%
Lookout Point	Wood Duck	1,124	0	1,124	0.00%	Minidoka	River Otter	2,993	0	2,993	0.00%
Lookout Point	Yellow Warbler	1,321	0	1,321	0.00%	Minidoka	Sage Grouse	3,755	0	3,755	0.00%
Lookout Point	All Species	25,454	0	25,454	0.00%	Minidoka	Western Grebe	0	0	0	0.00%
Lower Snake	Black-capped Chickadee	0	1,091	-1,091	0.00%	Minidoka	Yellow Warbler	342	0	342	0.00%
Lower Snake	California quail	20,508	1,208	19,300	5.89%	Minidoka	All Species	10,503	1,721	8,782	16.39%
Lower Snake	Canada Goose	2,040	7	2,033	0.34%	Palisades	Bald Eagle (breeding)	5,941	3,329	2,612	56.03%
Lower Snake	Downy Woodpecker	365	399	-34	109.32%	Palisades	Bald Eagle (wintering)	18,565	6,974	11,591	37.57%
Lower Snake	Mallard (nesting)	0	365	-365	0.00%	Palisades	Black-capped Chickadee	1,358	480	878	35.35%
Lower Snake	Mink	0	48	-48	0.00%	Palisades	Canada Goose	805	388	417	48.20%
Lower Snake	Mule Deer	0	3,652	-3,652	0.00%	Palisades	Mallard	2,622	998	1,624	38.06%
Lower Snake	Ring-necked Pheasant	2,647	49	2,598	1.85%	Palisades	Mink	2,276	653	1,623	28.69%
Lower Snake	Sage Grouse	0	45	-45	0.00%	Palisades	Mule Deer	0	0	-153	106.23%
Lower Snake	Sharp-tailed Grouse	0	6,390	-6,390	0.00%	Palisades	Peregrine Falcon	0	0	0	0.00%
Lower Snake	Song Sparrow	288	799	-511	277.43%	Palisades	Ruffed Grouse	2,331	491	1,840	21.06%
Lower Snake	Western Meadowlark	0	9,795	-9,795	0.00%	Palisades	Yellow Warbler	718	160	558	22.28%
Lower Snake	Yellow Warbler	927	457	470	49.30%	Palisades	All Species	37,070	16,080	20,990	43.38%
Lower Snake	All Species	26,775	24,305	2,470	90.77%	The Dalles OR	Black-capped Chickadee	91	0	91	0.00%
McNary OR	Black-capped Chickadee	0	1,202	-1,202	0.00%	The Dalles OR	Canada Goose	220	0	220	0.00%
McNary OR	Blue Grouse	0	408	-408	0.00%	The Dalles OR	Great Blue Heron	213	0	213	0.00%
McNary OR	California quail	1,263	1,448	-185	114.65%	The Dalles OR	Lesser Scaup	0	0	0	0.00%
McNary OR	Canada Goose	697	0	697	0.00%	The Dalles OR	Mink	165	0	165	0.00%
McNary OR	Downy Woodpecker	75	845	-770	1126.67%	The Dalles OR	Spotted Sandpiper	267	0	267	0.00%
McNary OR	Great Blue Heron	0	39	-39	0.00%	The Dalles OR	Western Meadowlark	124	0	124	0.00%
McNary OR	Mallard (nesting)	1,392	93	1,299	6.88%	The Dalles OR	Yellow Warbler	85	0	85	0.00%
McNary OR	Mallard (wintering)	0	0	0	0.00%	The Dalles OR	All Species	1,165	0	1,165	0.00%
McNary OR	Mink	250	145	105	58.00%	The Dalles WA	Black-capped Chickadee	91	272	-181	298.90%
McNary OR	Spotted Sandpiper	273	20	253	7.33%	The Dalles WA	Canada Goose	220	734	-514	333.64%
McNary OR	Western Meadowlark	694	1,981	-1,287	285.45%	The Dalles WA	Great Blue Heron	213	111	102	52.11%
McNary OR	Yellow Warbler	66	284	-218	430.30%	The Dalles WA	Lesser Scaup	0	0	0	0.00%
McNary OR	All Species	4,710	6,465	-1,755	137.26%	The Dalles WA	Mink	165	410	-245	248.48%
McNary WA	Black-capped Chickadee	0	3,178	-3,178	0.00%	The Dalles WA	Spotted Sandpiper	267	158	109	59.18%
McNary WA	Blue Grouse	0	137	-137	0.00%	The Dalles WA	Western Meadowlark	124	58	66	46.77%
McNary WA	California quail	5,051	10,275	-5,224	203.43%	The Dalles WA	Yellow Warbler	85	156	-71	183.53%
McNary WA	Canada Goose	2,787	2,323	464	83.35%	The Dalles WA	All Species	1,165	1,899	-734	163.00%
McNary WA	Downy Woodpecker	301	1,757	-1,456	583.72%						
McNary WA	Great Blue Heron	0	117	-117	0.00%						
McNary WA	Mallard (nesting)	5,567	1,803	3,764	32.39%						

Source: Bonneville Power Administration

Table 12B Wildlife Habitat Units Lost, Acquired and Estimated, by Dam Group

Dam Group	Dam	HUs Lost	Total HUs Acquired & Estimated*	Percent Completed
Lower Columbia	Bonneville	12,318	12,251	99.5%
Lower Columbia	John Day	36,560	30,855	84.4%
Lower Columbia	McNary	23,544	29,234	124.2%
Lower Columbia	The Dalles	2,330	1,899	81.5%
		74,752	74,239	99.3%
Lower Snake	Four Lower Snake Dams	26,775	25,266	94.4%
Upper Columbia	Albani Falls	28,658	5,023	17.5%
Upper Columbia	Chief Joseph	8,833	1,433	16.2%
Upper Columbia	Grand Coulee	111,785	78,919	70.6%
		149,276	85,375	57.2%
Upper Snake	Anderson Ranch	9,619	1,047	10.9%
Upper Snake	Black Canyon	2,170	57	2.6%
Upper Snake	Minidoka	10,503	1,833	17.5%
Upper Snake	Palisades	37,070	16,080	43.4%
		59,362	19,017	32.0%
Willamette	Big Cliff	413	32	7.7%
Willamette	Cougar	11,124	307	2.8%
Willamette	Detroit	11,298	58	0.5%
Willamette	Dexter	6,648	150	2.3%
Willamette	Foster	3,544	96	2.7%
Willamette	Green Peter	16,432	0	0.0%
Willamette	Hills Creek	19,489	1,496	7.7%
Willamette	Lookout Point	25,454	513	2.0%
		94,402	2,652	2.8%
Grand Total		404,567	206,549	51.1%

* Estimated HUs are those not yet credited by Bonneville against losses.

Source: Bonneville Power Administration

Table 12C Wildlife Habitat Units Lost, Gained*, Acquired, Estimated, and Total by Dam or Area**

Dam	HUs Lost	HUs Gained	HUs Acquired	HUs Estimated**	Total Acquired & Estimated** HUs
Albani Falls	28,658	171	2,306	2,717	5,023
Anderson Ranch	9,619	0	1,047	0	1,047
Big Cliff	413	40	0	32	32
Black Canyon	2,170	76	57	0	57
Bonneville OR	6,159	1,335	590	0	590
Bonneville WA	6,159	1,335	3,875	7,786	11,661
Chief Joseph	8,833	1,440	1,433	0	1,433
Cougar	11,124	1,637	207	100	307
Detroit	11,298	3,233	0	58	58
Dexter	6,648	1,214	0	150	150
Foster	3,544	926	0	96	96
Grand Coulee	111,785	0	61,212	17,707	78,919
Green Peter	16,432	4,742	0	0	0
Hills Creek	19,489	853	1,496	0	1,496
John Day OR	18,280	7,199	14,057	0	14,057
John Day WA	18,280	7,199	16,798	0	16,798
Lookout Point	25,454	2,636	0	513	513
Lower Snake	26,775	0	24,305	961	25,266
McNary OR	4,710	2,749	6,465	0	6,465
McNary WA	18,834	10,995	22,041	728	22,769
Minidoka	10,503	5,129	1,721	112	1,833
Palisades	37,070	0	16,080	0	16,080
The Dalles OR	1,165	289	0	0	0
The Dalles WA	1,165	289	1,899	0	1,899
Total	404,567	53,487	175,589	30,960	206,549

* Gained HUs are those that resulted from inundation and created habitat for some species.

** Estimated HUs are those not yet credited by Bonneville against losses.

Source: Bonneville Power Administration

Table 12D BPA Expenditures for Individual Wildlife Tracts

WL Site	Tract	Acres Protected	Purchase Cost	Purchase Type	WL Site	Tract	Acres Protected	Purchase Cost	Purchase Type
Albani Falls Dam	Upper Hangman	1,387	\$2,200,000	Fee Title	McCoy Lake Watershed	Parson East and West	501	\$792,349	Fee Title
Asotin Creek	Schlee	8,500	\$3,000,000	Fee Title	McCoy Lake Watershed	People Living God Prop.	440	\$498,000	Fee Title
Blue Creek Winter Range	Abrahamson Property (A 322)	78	\$42,237	Fee Title	Muddy Cr / Marys River	Sampson	566	\$577,629	Fee Title
Blue Creek Winter Range	Blue Creek Land Swap	701	\$812,000	Exchange	Pend Oreille	Carstens	222	\$387,500	Fee Title
Boise River WMA	Krueger	166	\$332,500	Fee Title	Pend Oreille	Heller	92	\$281,262	Fee Title
Boundary Creek	Boundary Creek	1,405	\$672,885	Fee Title	Pend Oreille	Koregut	105	\$325,837	Fee Title
Burlington Bottoms	Burlington Bottoms	417	\$700,000	Fee Title	Pend Oreille	Testall	241	\$277,767	Fee Title
Camas Prairie	Rice Property	1,364	\$1,075,228	Fee Title	Pend Oreille	Twigg	170	\$177,348	Fee Title
Candy Landing	Candy Property	23	\$280,000	Fee Title	Pend Oreille Wetlands I	Pend Oreille Wetlands I	436	\$427,185	Fee Title
Deer Parks WMA	Allien	81	\$283,800	none/unknown	Pend Oreille Wetlands II	Pend Oreille Wetlands II	164	\$199,500	Fee Title
Deer Parks WMA	Beaver/Dick (Kinghorn 1)	310	\$465,000	none/unknown	Pend Oreille WMA	Deep Creek	40	\$65,000	Fee Title
Deer Parks WMA	Boyle Ranch	2,556	\$5,200,000	Fee Title	Pine Creek	Perkins Lake Tract	98	\$200,000	Fee Title
Deer Parks WMA	Horkley	128	\$336,000	none/unknown	Precious Lands WMA	Pine Creek	24,304	\$3,200,000	Fee Title
Deer Parks WMA	Menan (Kinghorn 2)	140	\$220,350	Fee Title	Precious Lands WMA	ODL #1	760	\$228,486	Fee Title
Denny Jones	Denny Jones Ranch	6,365	\$1,700,000	Fee Title	Precious Lands WMA	ODL #2	201	\$50,378	Fee Title
Fox Creek	Kieffer Property	40	\$64,000	Fee Title	Rainwater Ranch	Precious Lands	15,325	\$4,250,524	Fee Title
Fox Creek	Smith Property	160	\$320,000	Fee Title	Rainwater Ranch	Rudeen	8,678	\$4,085,550	Fee Title
Goose Haven Lake	Bader	648	\$800,324	none/unknown	Sage Flat WA	Rudeen	2,450	\$1,700,000	Fee Title
Hellsgate	Berg	6,300	\$2,000,000	Easement	Scotch Creek WA	Sage Flat	8,380	\$1,526,057	Mix
Hellsgate	Bill Kuenhe	4,814	\$2,275,000	Fee Title	Scotch Creek WA	Chesaw	7,300	\$295,291	Fee Title
Hellsgate	Colville Allotments	80	\$21,746	Fee Title	Scotch Creek WA	Scotch Creek	320	\$158,665	Fee Title
Hellsgate	Covington	129	\$68,000	Fee Title	Scotch Creek WA	Tunk	2,563	\$1,282,000	Fee Title
Hellsgate	Friedlander	60	\$47,116	Fee Title	Sorenson	Soda Hills	42	\$172,955	Fee Title
Hellsgate	Graves	2,700	\$657,403	Fee Title	Steigerwald Lake NWR	Sorenson	9	\$110,000	Fee Title
Hellsgate	Henry Kuehne	4,860	\$3,000,000	Fee Title	Steigerwald Lake NWR	Bliss	27	\$139,000	Fee Title
Hellsgate	Hinman	770	\$139,608	Fee Title	Steigerwald Lake NWR	Burlington Northern	90	\$594,000	Fee Title
Hellsgate	Nespelem Bend	517	\$95,000	Fee Title	Swanson Lakes	James	191	\$872,852	Fee Title
Hellsgate	Redford Canyon	221	\$175,000	Fee Title	Swanson Lakes	Nelson	792	\$191,889	Exchange
Hellsgate	Sand Hills	1,394	\$175,000	Fee Title	Swanson Lakes	Swanson Lakes	14,939	\$3,071,856	Fee Title
Hellsgate	Tumwater	18,812	\$4,500,000	Easement	Tacoma/Trimble WMA	Lower Trimble Creek	450	\$506,000	Fee Title
Iskuipja	Iskuipja	5,937	\$2,260,625	Fee Title	Tacoma/Trimble WMA	Tacoma Creek	437	\$535,000	Fee Title
Kruse Pine Creek Easement	Pine Creek (Kruse)	800	\$310,000	Easement	Tacoma/Trimble WMA	Upper Trimble Creek	303	\$304,500	Fee Title
Ladd Marsh	Ladd Marsh	940	\$265,000	Mix	Tex Creek WMA	Quarter Circle	2,135	\$260,000	Fee Title
Little Pend Oreille NWR	Kaniku Addition	716	\$313,000	Mix	The Pend Oreille WMA	Albani Cove	70	\$126,208	Fee Title
Little Pend Oreille NWR	Weir	200	\$275,707	Fee Title	The Pend Oreille WMA	Albani Cove	96	\$288,000	Fee Title
Logan Valley	Logan Valley	1,700	\$2,000,000	Lease	The Pend Oreille WMA	Coccolalla Lake	98	\$290,500	Fee Title
Lower Yakima Wetlands	Buena	92	\$102,200	Lease	The Pend Oreille WMA	Denton Slough	17	\$44,000	Fee Title
Lower Yakima Wetlands	Knight Property	80	\$79,000	Easement	The Pend Oreille WMA	Derr Creek (Henderson Ranch)	240	\$511,000	Fee Title
Lower Yakima Wetlands	Laterala	417	\$830,000	Easement	The Pend Oreille WMA	Pack River (McMahon)	30	\$42,500	Fee Title
Lower Yakima Wetlands	Lower Satus	1,791	\$393,000	Mix	The Pend Oreille WMA	Rapid Lightening (Ginter)	110	\$219,900	Fee Title
Lower Yakima Wetlands	Mosebar	733	\$167,725	Mix	The Pend Oreille WMA	Trout Creek (Hunter Ranch)	216	\$875,500	Fee Title
Lower Yakima Wetlands	North Satus	1,110	\$331,150	Mix	The Pend Oreille WMA	Westmond Lake	65	\$118,000	Fee Title
Lower Yakima Wetlands	Old Goldendale	193	\$89,250	Easement	Thurston	Thurston	54	\$121,275	Easement
Lower Yakima Wetlands	S Barkes Rd.	81	\$91,000	Lease	Trout Creek Peninsula	Wheeler Peninsula Tract	112	\$155,000	Fee Title
Lower Yakima Wetlands	Satus	4,474	\$975,750	Mix	Tualatin River NWR	Oleson Tract 1	132	\$577,908	Mix
Lower Yakima Wetlands	South Campbell	260	\$229,875	Lease	Tualatin River NWR	Oleson Tract 2	100	\$859,210	Mix
Lower Yakima Wetlands	Toppensish	1,600	\$809,925	Mix	Vancouver Lowlands	Vancouver Lowlands (Shillapoo)	612	\$1,740,657	Fee Title
Lower Yakima Wetlands	Wanity	361	\$120,000	Mix	Wanaket	Wanaket (Conforth Ranch)	2,817	\$1,042,976	Fee Title
Lower Yakima Wetlands	Wapato	770	\$395,750	Easement	Wellpoint Mtn WA	Allotment 154	148	\$146,000	Fee Title
Lower Yakima Wetlands	West Satus	160	\$147,175	Lease	Wellpoint Mtn WA	Wynecoop (A 67B)	80	\$63,000	Fee Title
McCoy Lake Watershed	Allotment 65 C	40	\$47,000	Fee Title	Whitney	Whitney	54	\$121,680	Easement
McCoy Lake Watershed	Etue Property	74	\$148,720	Fee Title	Williamette River	Green Island	856	\$1,052,826	Easement
McCoy Lake Watershed	Harris Property	180	\$194,940	Fee Title	Williamette River	Willow Creek / Cuddeback	165	\$1,394,605	Fee Title
McCoy Lake Watershed	Kenworthy Property	40	\$60,000	Fee Title	Willow Creek	Willow Creek	329	\$1,058,000	Easement
McCoy Lake Watershed	Lantry East	85	\$60,744	Fee Title	Windy Bay	Ramsey	147	\$300,000	none/unknown
McCoy Lake Watershed	Lantry West	124	\$116,187	Fee Title	Winterfeld Easement	Winterfeld	422	\$225,000	Easement
McCoy Lake Watershed	McCrea Property (A 401 A)	35	\$19,530	Fee Title					

Source: Bonneville Power Administration

Table 13 Wildlife Habitat Units Lost and Acquired, Species Most Affected

Wildlife Species	HUs Lost	HUs Acquired	HUs Net	Percent Completed	Wildlife Species	HUs Lost	HUs Acquired	HUs Net	Percent Completed
Mule Deer	37,923	31,491	6,432	83.04%	Redhead Duck	3,379	0	3,379	-
California quail	35,747	17,512	18,235	48.99%	Red Fox	2,590	0	2,590	-
Sharp-tailed Grouse	35,545	21,193	14,352	59.62%	Blue Grouse	1,980	1,499	481	75.71%
Bald Eagle	33,379	11,007	22,372	32.98%	Wood Duck	1,947	0	1,947	-
Ruffed Grouse	30,897	3,399	27,498	11.00%	Muskrat	1,756	82	1,674	4.67%
Mallard	24,284	6,652	17,632	27.39%	Riparian Forest	1,632	200	1,432	12.25%
White-tailed Deer	23,312	9,094	14,218	39.01%	Western Gray Squirrel	1,354	0	1,354	-
Canada Goose	22,423	8,477	13,946	37.80%	American Dipper	954	0	954	-
Black-tailed Deer	17,254	259	16,995	1.50%	Downy Woodpecker	741	4,496	-3,755	606.75%
Roosevelt Elk	15,295	106	15,189	0.69%	Harlequin duck	551	0	551	-
Mink	12,638	5,467	7,171	43.26%	Bobcat	401	140	261	34.91%
Mourning Dove	9,316	1,001	8,315	10.74%	Song Sparrow	288	799	-511	277.43%
Spotted Sandpiper	9,104	190	8,914	2.09%	Lewis Woodpecker	286	141	145	49.30%
Western Meadowlark	8,777	23,321	-14,544	265.71%	Common Merganser	127	0	127	-
Pileated Woodpecker	8,690	0	8,690	-	Riparian Shrub	27	0	27	-
Great Blue Heron	7,912	7,453	459	94.20%	Common Shrike	0	889	-889	-
Sage Grouse	7,680	8,031	-351	104.57%	Greater Scaup	0	0	0	-
Black-capped Chickadee	6,608	7,637	-1,029	115.57%	Lesser Scaup	0	0	0	-
Yellow Warbler	6,510	2,430	4,080	37.33%	Marsh Wren	0	0	0	-
Spotted Owl	5,711	0	5,711	-	Osprey	0	0	0	-
Ring-necked Pheasant	5,517	49	5,468	0.89%	Peregrine Falcon	0	0	0	-
River Otter	5,401	0	5,401	-	Pigmy Rabbit	0	1,246	-1,246	-
Black Bear	4,814	66	4,748	1.37%	Waterfowl	0	0	0	-
Beaver	4,477	1,137	3,340	25.40%	Western Grebe	0	0	0	-
Cougar	3,853	110	3,743	2.85%	Total	404,567	175,574	228,993	43.40%
Band-tailed Pigeon	3,487	0	3,487	-					

* HUs acquisitions exceed losses for these species. Therefore, negative numbers represent excess habitat units.

Source: Bonneville Power Administration

Table 14A BPA wildlife acres protected by agency

Agency Name	Acres Protected
Washington Department of Fish & Wildlife	78,040
Montana Department of Fish & Wildlife - Helena	70,386
Idaho Department of Fish & Game	68,974
Burns Paiute Tribe	46,462
Colville Confederated Tribes	40,657
Confederated Tribes Warm Springs Indian Reservation	24,304
Nez Perce Tribe	21,159
Confederated Tribes of the Umatilla Indian Reservation	17,432
Yakama Indian Nation	12,142
Montana Land Reliance	5,041
Shoshone-Bannock Tribes	5,013
Spokane Tribe of Indians	3,292
Kalispel Tribe of Indians	2,618
USFS - Flathead National Forest	2,383
Oregon Department of Fish & Wildlife- Hq	1,752
US Fish and Wildlife Service - Portland Region	1,465
Coeur D'Alene Tribe of Idaho	1,387
McKenzie River Trust	856
The Nature Conservancy - OR	494
Kootenai Tribe of Idaho	210
The Nature Conservancy - MT	107
US Fish and Wildlife Service - Denver Region	80
Flathead Land Trust	60
Total	404,314

Source: Bonneville Power Administration

Table 14B BPA wildlife acquisition costs by agencies

Agency Name	Cost
Idaho Department of Fish & Game	17,909,110
Colville Confederated Tribes	13,553,873
Washington Department of Fish & Wildlife	9,993,415
Confederated Tribes of the Umatilla Indian Reservation	7,389,151
Nez Perce Tribe	7,000,803
Yakama Indian Nation	4,761,800
Spokane Tribe of Indians	3,982,336
US Fish and Wildlife Service - Portland Region	3,741,677
Montana Department of Fish & Wildlife - Helena	3,728,583
Kalispel Tribe of Indians	3,710,664
Burns Paiute Tribe	3,700,000
Confederated Tribes Warm Springs Indian Reservation	3,200,000
Shoshone-Bannock Tribes	2,982,000
The Nature Conservancy - OR	2,452,605
Coeur D'Alene Tribe of Idaho	2,200,000
Oregon Department of Fish & Wildlife- Hq	2,018,410
McKenzie River Trust	1,052,826
USFS - Flathead National Forest	416,000
Kootenai Tribe of Idaho	355,000
Montana Land Reliance	100,059
US Fish and Wildlife Service - Denver Region	5,000
Flathead Land Trust	3,598
The Nature Conservancy - MT	2,200
Total	94,259,110

Source: Bonneville Power Administration

Table 15 Properties Purchased by BPA for wildlife purposes, 1978-2005

Province	Subbasin	Site	Acres Protected	Purchase Type	Subbasin	Province	Site	Acres Protected	Purchase Type
Blue Mountain	Grande Ronde	Ladd Marsh	940	Mix	Willamette	Middle Snake	Tualatin River NWR	232	Mix
	Grande Ronde	Precious Lands WMA	16,286	Fee Title	Willamette		Whitney	54	Easement
	Grande Ronde	Rainwater Ranch	8,678	Fee Title	Willamette		Willamette River	1,021	Fee Title
	Grande Ronde	Wanaket	2,817	Fee Title	Willamette		Willow Creek	329	Easement
Cascade Columbia	Columbia Upper Middle	Sage Flat WA	8,380	Mix	Malheur	Mountain Columbia	Denny Jones	6,385	Fee Title
	Okanogan	Asotin Creek	8,500	Fee Title	Malheur		Logan Valley	38,377	Lease
	Okanogan	Columbia Basin Wetlands	100	Fee Title	Malheur		Soda Hills WHMA	1,700	Fee Title
	Okanogan	Sage Flat WA	8,380	Mix	Owyhee			2,563	Fee Title
	Okanogan	Scott Creek WA	11,910	Fee Title				942	Fee Title
	Okanogan	Sunnyside	1,280	Lease				37,595	Easement
	Okanogan	Wenas WA	30,053	Lease				1,289	Exchange
	Okanogan	Columbia Basin Wetlands	100	Fee Title				113	Fee Title
	Okanogan	Wanaket	2,817	Fee Title				1,094	Mix
	Okanogan	Swanson Lakes	792	Exchange				0	No purchase/enhancement
Columbia Plateau	Columbia Lower Middle	Swanson Lakes	14,999	Fee Title			0	none/unknown	
	Columbia Lower Middle	Pine Creek	24,304	Fee Title			0	Partnerships	
	Crab	Iskulpa	5,937	Fee Title			33,217	Easement	
	John Day	Rainwater Ranch	8,678	Fee Title			235	Exchange	
	Umatilla	Lower Yakima Wetlands	1,460	Easement			0	No purchase/enhancement	
	Walla Walla	Lower Yakima Wetlands	613	Lease			0	none/unknown	
	Yakima	Lower Yakima Wetlands	10,069	Mix			0	none/unknown	
	Yakima	Lower Yakima Wetlands	0	Lease			1,405	Fee Title	
	Yakima	Wenas WA	30,053	Lease			33,217	Easement	
	Yakima	Wenas WA	30,053	Lease			235	Exchange	
Intermountain	Coeur D'Alene	The Pend Oreille WMA	942	Fee Title		Mountain Snake	Libby Dam Mitigation	0	No purchase/enhancement
	Columbia Upper	Helisgate	25,112	Easement				0	none/unknown
	Columbia Upper	Helisgate	15,545	Fee Title				67	Fee Title
	Columbia Upper	Helisgate	0	Fee Title				59,991	Fee Title
	Columbia Upper	Lake Roosevelt Peregrine Falcon	0	No purchase/enhancement				59,991	Fee Title
	Columbia Upper	Carey Creek	117	Fee Title				4,873	Fee Title
	Pend Oreille	Little Pend Oreille NWR	200	Mix				0	No purchase/enhancement
	Pend Oreille	Little Pend Oreille NWR	716	Fee Title				166	Fee Title
	Pend Oreille	Pend Oreille	648	Fee Title				1,364	Fee Title
	Pend Oreille	Pend Oreille Wetlands (Kaispel)	600	Fee Title				3,006	Fee Title
Lower Columbia	Pend Oreille	Perkins Lake	98	Fee Title		Upper Snake	Deer Parks WMU	209	none/unknown
	Pend Oreille	Priest River	63	Fee Title				800	Easement
	Pend Oreille	Tacoma/Trimbale WMA	1,190	Fee Title				2,450	Fee Title
	Pend Oreille	The Pend Oreille WMA	942	Fee Title				2,563	Fee Title
	Pend Oreille	Trout Creek Peninsula	112	Fee Title				2,135	Fee Title
	San Poil	Helisgate	25,112	Easement				422	Easement
	San Poil	Helisgate	15,545	Fee Title				37,595	Easement
	San Poil	Helisgate	0	No purchase/enhancement				1,289	Exchange
	Spokane	Blue Creek Winter Range	701	Exchange				113	Fee Title
	Spokane	Blue Creek Winter Range	78	Fee Title				1,094	Mix
Lower Columbia	Spokane	Fox Creek	200	Fee Title		Systemwide	Hungry Horse Mitigation	0	No purchase/enhancement
	Spokane	McCoy Lake Watershed	769	Fee Title				0	none/unknown
	Spokane	Wellpinit Mtn WA	228	Fee Title				0	Partnerships
	Spokane	Steigewald Lake NWR	317	Fee Title				4,514	Easement
	Spokane	Vancouver Lowlands	612	Fee Title				33,217	Exchange
	Spokane	Sandy River Delta	417	No purchase/enhancement				235	Exchange
	Spokane	Burlington Bottoms	0	Fee Title				0	No purchase/enhancement
	Spokane	Canby Landing	23	Fee Title				0	none/unknown
	Spokane	Muddy Cr / Marys River	222	Fee Title				0	Fee Title
	Spokane	Sorenson	42	Fee Title				0	Fee Title
Grand Total	South Pasture	0	none/unknown				1,316	Fee Title	
	Thurston	54	Easement				669,678		

* These numbers were reported to the Council by Bonneville and are considered preliminary. In some ci subbasins. Bonneville is working to determine the correct crediting, and the Council will report the final determination in the next spending report.

Source: Bonneville Power Administration



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