

APPENDIX B

Chapter 3 Appendix

TABLE OF CONTENTS

B.1.	OTHER STATE AGENCY PROGRAMS	B-1
B.1.1	Washington Department of Fish and Wildlife (WDFW)	B-1
B.1.2	Washington State Conservation Commission (WSCC)	B-2
B.1.3	Washington Department of Community Trade and Economic Development (CTED)	B-4

LIST OF TABLES

Table B-1	Columbia Basin Land Cover Characteristics by WRIA
-----------	---

B.1. OTHER STATE AGENCY PROGRAMS

B.1.1 Washington Department of Fish and Wildlife (WDFW)

The Washington Department of Fish and Wildlife (WDFW) serves Washington's citizens by protecting, restoring, and enhancing fish and wildlife and their habitats, while providing sustainable fish and wildlife related recreational and commercial opportunities. It is WDFW's goal to maintain healthy, diverse, and self-sustaining fish and wildlife populations and properly functioning habitats. One approach WDFW employs to accomplish this is to work with other resource management entities to identify where habitat protection can occur most effectively and efficiently. WDFW provides technical review and assistance as well as access to information and management recommendations to assist others in protecting and restoring fish, wildlife, and their habitats.

In the Columbia River Basin, achieving the goal to preserve and enhance fish and wildlife resources is challenging because of competition for scarce water resources. In the debate over conflicting needs, providing water for fish and wildlife is perceived as competing with beneficial uses of water for people. Through the Columbia River Water Management Bill (E2SHB 2860), the legislature prioritized the development of new water supplies, which include storage and conservation, in order to meet the economic and community development needs of people and the instream flow needs of fish. In doing so, an atmosphere of conflict was replaced by a framework of cooperation to facilitate meeting both instream and out-of-stream water needs. WDFW is playing a constructive role in implementing that framework.

Washington Department of Fish and Wildlife has played an essential role in introducing science into the debate about water resource management in the Columbia River Basin. WDFW participated in discussions that led to the 2006 legislation, and the agency continues to play a unique role as the Columbia River Water Resource Management Program is implemented.

First, WDFW was invited by Ecology to participate in their program Implementation Team. This unprecedented interagency approach means that WDFW contributes its fish and wildlife perspectives early and often as the program's key policy questions are defined and discussed. WDFW joins other agencies and key stakeholders on the Columbia River Water Resources Policy Advisory Group – a forum designed to build understanding of one another's perspectives and provide advice to Ecology on Program implementation issues. Participation on this group allows WDFW the opportunity to share our perspectives and values for fish and wildlife, to understand the perspectives of other stakeholders, and to help identify areas of common interest.

In addition, WDFW participates in review of voluntary regional agreements, dedicates staff to suggest appropriate mitigation measures to offset negative impacts to fish and wildlife from permits issued for new water rights, lends our instream flow expertise in the development and annual update of the Columbia River water supply inventory, and identifies benefits and costs to fish and wildlife associated with various policy alternatives.

The CRWRP is offering solutions to problems that have also been identified in local watershed planning and salmon recovery efforts. It will be important, as this program unfolds, to ensure harmonization among watershed plan, CRWRP, and salmon recovery plan implementation so that funding is directed at projects meeting the broadest possible range of needs.

WDFW is currently conducting research for Ecology that analyzes fish and wildlife impacts and benefits associated with each of three feed route alternatives being proposed by USBOR for getting water from

Billy Clapp Lake to Potholes Reservoir. Once a preferred route is selected, a detailed analysis of fish and wildlife impacts will be conducted to assess resource benefits and costs associated with the proposal. WDFW will also provide technical assistance in design of the mitigation strategy and development of a management plan for the system.

Pursuant to a related 2006 session bill, E2SSB 6581, WDFW is working with Ecology, USFWS, and other interested parties to study instream flows in the Hanford Reach of the Columbia River and their impact on the ecological condition of the Reach, especially as it relates to the needs of salmon and steelhead in that stretch of the river.

In Lake Roosevelt, WDFW and tribal partners are conducting fisheries evaluation studies that will help determine both the potential resource impacts from additional drawdown of Lake Roosevelt and the appropriate enhancement projects to mitigate those impacts. One species that would be impacted is kokanee (land-locked sockeye salmon) – a relatively abundant species that supports both tribal and non-tribal recreational fisheries. Drawdown could impact kokanee production in the lake. DFW is monitoring and evaluating the immigration of kokanee into Lake Roosevelt from Canadian waters in order to better estimate population losses due to reservoir drawdown. This evaluation will also be instrumental in determining the appropriate types of enhancement for mitigation of the drawdown impacts.

Finally, implementation of the legislation requires WDFW participation in feasibility studies related to off-mainstem storage projects. Contribution to feasibility studies involves conduct of field reconnaissance and compilation of agency data on fish and wildlife resources at the sites, estimation of likely impacts to fish and wildlife resources and to recreational opportunities, development of potential mitigation scenarios, development and review of environmental assessment documents, and providing agency representation in work groups, review processes, and public forums. WDFW's early participation in the site selection and scoping process means that the breadth of impacts, costs, and alternatives for potential mitigation measures can become integral to the overall project description. When new storage comes on-line, WDFW will work with Ecology and others to manage instream water releases to maximize benefits to salmon and steelhead populations and other fish and wildlife.

WDFW's participation in the CRWRP ensures that decisions are made with eyes wide open to the costs and benefits to fish and wildlife and their habitats, and also ensures that the state can fulfill its goal of no net loss of these important natural resources.

B.1.2 Washington State Conservation Commission (WSCC)

The Washington State Conservation Commission was created in 1939 through passage of the Conservation Districts Law (Chapter 89.08 RCW). The Conservation Commission exists to assist and guide conservation districts. The Conservation Commission manages multiple conservation programs, two of which may affect irrigated agriculture or water demands in the Columbia River Basin in Washington State. Those programs are the Conservation Reserve Enhancement Program (CREP) and the Irrigation Efficiencies Program.

Conservation Reserve Enhancement Program

The Conservation Reserve Enhancement Program (CREP) is a voluntary land retirement program that helps agricultural producers protect environmentally sensitive land, decrease erosion, restore wildlife habitat, and safeguard ground and surface water.

The program is a partnership among producers; tribal, state, and federal governments; and, in some cases, private groups. CREP is an offshoot of the Conservation Reserve Program (CRP). Like CRP, CREP is administered by the FSA. By combining CRP resources with state, tribal, and private programs, CREP provides farmers and ranchers with a sound financial package for conserving and enhancing the natural resources of farms.

CREP addresses high-priority conservation issues of both local and national significance, such as impacts to water supplies, loss of critical habitat for threatened and endangered wildlife species, soil erosion, and reduced habitat for fish populations such as salmon. CREP is a community-based, results-oriented effort centered on local participation and leadership.

Enrollment in a state is limited to specific geographic areas and practices. Like CRP, CREP contracts require a 10- to 15-year commitment to keep lands out of agricultural production. The program provides payments to participants who offer eligible land. A federal annual rental rate, including an FSA state committee-determined maintenance incentive payment, is offered, plus cost-share of up to 50 percent of the eligible costs to install the practice. Further, the program generally offers a sign-up incentive for participants to install specific practices.

FSA uses CRP funding to pay a percentage of the program's cost, while state, tribal governments, or other non-federal sources provide the balance of the funds. States and private groups involved in the effort may also provide technical support and other in-kind services.

CREP supports increased conservation practices such as filter strips and forested buffers. These conservation practices help protect streams, lakes, and rivers from sedimentation and agricultural runoff. CREP also helps landowners develop and restore wetlands through the planting of appropriate groundcover.

WSCC partners with the federal government for the state's CREP program, paying 20% of compensation provided under the program. The 2005 annual report from the Washington Farm Service Agency states that the CREP program in Washington in FY2005 paid \$1,562,667 on 577 contracts for protecting salmon habitat and planting 567 miles of stream banks with buffers. Those contracts are state-wide and no information on the acreage within the CREP and the Columbia River Basin was found.

Irrigation Efficiencies Grants Program (IEGP)

The Irrigation Efficiencies Grants Program (IEGP) helps private landowners partner with local conservation districts to save water and aid in salmon recovery. By implementing best management practices to increase the efficiency of on-farm water application and conveyance systems, the IEGP converts conservation water savings into beneficial instream flows in tributaries where listed salmonid species will benefit from more consistent and persistent water flows.

The IEGP is administered by the WSCC through a contracted partnership with the Washington State Department of Ecology. There are ten conservation districts in fish critical basins throughout the state participating in the Irrigation Efficiencies Program. Conservation districts receiving funds manage each grant to ensure that a portion of the water saved by the water conservation measure or irrigation efficiency will be placed as a purchase or lease into the Trust Water Program (TWP) to enhance instream flows. The Department of Ecology has allocated \$3.5 million for the 2005-2007 biennium for this program.

B.1.3 Washington Department of Community Trade and Economic Development (CTED)

The Washington Department of Community Trade and Economic Development (CTED) connects local jurisdictions, public utilities, ports and other entities to assistance, funding and tools to help local community plan and grow. The programs offered include infrastructure financing, growth management guidance, emerging energy technologies, economic development assistance and related programs. Several CTED programs are relevant to water supply and demand issues in the Columbia River Basin, and are briefly described below.

B.1.3.1 Washington Public Works Board (PWB)

The Washington Public Works Board (PWB), a division of CTED, helps communities manage their environmental infrastructure by providing financial and technical assistance for critical public health, safety, and environmental infrastructure. Three important and widely used funding sources are administered or co-administered by the Public Works Board. These include: 1) the Public Works Assistance Account, which funds all Public Works Trust Fund programs; 2) the Drinking Water State Revolving Fund, which funds all Drinking Water State Revolving Fund Loans, and the 3) the Water System Acquisition and Rehabilitation Program. For 2007 the PWB recommended approval of \$25M in construction loans for cities and counties located within the Columbia River Basin.

B.1.3.2 Public Works Trust Fund (PWTF)

The PWTF Construction Loan program is available to cities and towns, counties and Special Purpose Districts. Systems that may be considered for funding include road, sanitary sewer, domestic water, bridge, storm sewer, and solid waste / recycling. Eligible activities include repair, replacement, rehabilitation, reconstruction and improvement of eligible public work systems to meet current standards for existing users, and may include reasonable growth (this is generally the twenty-year growth projection included in the local government comprehensive plan under the Growth Management Act (GMA)).

B.1.3.3 Drinking Water State Revolving Fund (DWSRF)

Created by Congressional reauthorization of the Safe Drinking Water Act, the DWSRF Loan Program is jointly administered by the Public Works Board and the Washington State Department of Health (DOH), Drinking Water Division. DOH determines the eligibility and priority ranks each project. PWB staff determines the ability to proceed, environmental impact, and ability to repay the loan. The program is intended to improve drinking water systems and protect public health and is designed for both publicly and privately owned systems.

B.1.3.4 Water System Acquisition and Rehabilitation Program (WSARP)

WSARP helps local governments maintain safe, reliable drinking water systems throughout the state. Grants ranging up to \$500,000 may be used to pay for a portion of planning, design, and other pre-construction activities; system acquisition; and capital construction costs. Applicants with sound drinking water utility management that own at least one municipal Group A public water system may be eligible for funding. The state Department of Health, the Public Works Board, and the Department of Community, Trade and Economic Development jointly administer the program.

The 2005 Legislature committed two million dollars to help municipal water systems acquire and rehabilitate other public water systems that have water quality problems or have been allowed to deteriorate to a point where public health is an issue. It was the second Legislative appropriation. In 2003 the Legislature committed four million dollars.

In December 2005 the Public Works Board approved about \$950,000 in funding for two projects located within the Columbia River Basin.

B.1.3.5 Community Economic Revitalization Board

The Community Economic Revitalization Board (CERB) is the state's only economic development infrastructure program. It supports business and industrial job growth in partnership primarily with rural communities. CERB provides local governments low-interest loans and sometimes grants to help finance public facility projects needed for private sector expansion and job creation.

The CERB Rural Natural Resources/Rural Counties Program is for communities in designated timber or commercial salmon harvesting impacted areas and rural counties. CERB provides loans or, in unique circumstances, grants for new infrastructure projects to support potential industrial or tourism projects, and improve economic development and diversification projects.

Eligible applicants are counties, cities, towns, special purpose districts (e.g., PUDs), port districts, and municipal corporations and quasi-municipal corporations providing for economic development purposes within the designated Rural Natural Resource and Rural Counties. Of the 24 counties located within the Columbia River Basin, 22 meet the population requirement for rural designation.

A maximum of \$1,000,000 can be loaned for infrastructure projects to support industrial development; for tourism projects, a maximum of \$250,000 is available. A local match of at least 25 percent of the total CERB request is targeted. All projects must be part of an economic development plan consistent with state planning requirements and must demonstrate strong community support.

TABLES

Table B-1. Columbia Basin Land Cover Characteristics by WRIA¹

WRIA No. & Name	Irrigated Agriculture (acres)		Non-Irrigated Ag. ³ (acres)	Low Intensity Residential (acres)	High Intensity Residential (acres)	Commercial/Industrial/Transportation (acres)	Natural Vegetation ⁴ (acres)	Wetland ⁵ (acres)	Barren ⁶ (acres)	Water ⁷ (acres)
	Orchard/Vineyard	Other Ag. ²								
28 Salmon-Washougal	1,607	44,789	1,122	28,584	110	11,693	206,272	1,667	5,861	15,106
29 Wind-White Salmon	3,487	7,926	773	1,118	0	1,617	495,400	800	53,766	12,119
30 Klickitat	171	20,819	41,490	2,017	1	2,738	791,660	860	52,053	11,198
31 Rock-Glade	0	96,207	338,011	11,744	72	7,064	563,253	277	1,154	41,137
32 Walla Walla	6,115	69,004	481,086	9,168	50	6,223	323,439	114	1,108	11,615
33 Lower Snake	3,984	41,318	149,014	760	1	2,545	249,997	128	142	14,708
34 Palouse	0	15,043	1,107,590	6,431	89	16,542	599,336	6,115	424	14,176
35 Middle Snake	0	9,028	472,604	4,335	0	3,817	915,659	87	13,465	21,365
36 Esquatzel Coulee	7,381	335,443	274,694	8,997	127	15,885	398,120	1,442	222	16,672
37 Lower Yakima	69,143	156,092	232,763	30,516	410	19,214	1,338,266	4,071	5,715	6,505
38 Naches	16,404	7,618	6,841	2,735	4	1,586	613,840	440	50,058	7,565
39 Upper Yakima	8,181	67,311	38,133	7,249	24	10,092	1,139,068	1,114	78,823	19,065
40 Alkali-Squilchuck	4,771	1,758	0	3,643	45	8,469	498,707	201	1,523	20,107
41 Lower Crab	6,234	288,518	541,777	9,529	43	27,065	691,149	10,080	1,231	46,137

See notes at end of table.

Table B-1

WRIA No. & Name	Irrigated Agriculture (acres)		Non-Irrigated Ag. ³ (acres)	Low Intensity Residential (acres)	High Intensity Residential (acres)	Commercial/Industrial/Transportation (acres)	Natural Vegetation ⁴ (acres)	Wetland ⁵ (acres)	Barren ⁶ (acres)	Water ⁷ (acres)
	Orchard/Vineyard	Other Ag. ²								
42 Grand Coulee	2,523	11,148	162,110	2,260	1	4,400	267,428	129	166	34,037
43 Upper Crab-Wilson	0	15,726	625,551	1,812	0	10,026	522,307	3,603	262	6,303
44 Moses Coulee	15,411	1,725	290,865	2,763	15	3,942	407,427	22	352	7,338
45 Wenatchee	13,902	1,009	267	3,943	85	2,974	780,481	1,482	60,756	13,358
46 Entiat	2,050	23	0	219	0	372	287,722	85	11,871	3,333
47 Chelan	10,421	72	0	1,003	1	627	553,311	114	55,981	46,330
48 Methow	6,004	3,617	1,407	720	0	2,261	1,292,034	725	51,476	6,926
49 Okanogan	33,393	37,162	3,274	1,908	3	8,172	1,204,524	1,470	25,225	25,937
50 Foster Creek	3,355	11,052	122,291	824	1	2,513	419,389	185	1,286	16,199
51 Nespelem	0	3,730	98	206	0	270	138,084	120	852	800
52 Sanpoil	79	4,846	756	761	0	622	575,522	242	41,958	3,243
53 Lower Lake Roosevelt	144	1,688	67,499	915	0	1,883	226,273	172	2,002	25,741
54 Lower Spokane	1	21,035	122,241	10,053	86	7,204	376,643	351	14,908	13,593
55 Little Spokane	4	59,242	41,736	12,714	102	6,234	283,800	1,046	24,661	3,741
56 Hangman	1	8,487	173,091	6,416	118	5,548	95,288	333	595	1,058

See notes at end of table.

Table B-1

WRIA No. & Name	Irrigated Agriculture (acres)		Non-Irrigated Ag. ³ (acres)	Low Intensity Residential (acres)	High Intensity Residential (acres)	Commercial/Industrial/Transportation (acres)	Natural Vegetation ⁴ (acres)	Wetland ⁵ (acres)	Barren ⁶ (acres)	Water ⁷ (acres)
	Orchard/Vineyard	Other Ag. ²								
57 Middle Spokane	4,707	15,345	11,862	21,683	258	7,587	113,037	308	5,743	2,812
58 Middle Lake Roosevelt	2	22,290	8,966	932	0	1,365	599,723	651	34,294	38,733
59 Colville	20	47,520	16,101	4,507	0	2,119	534,434	1,628	39,944	5,199
60 Kettle	9	15,778	2,422	491	0	743	599,662	84	32,615	3,732
61 Upper Lake Roosevelt	0	7,184	1,452	1,059	0	826	324,155	94	20,885	12,607
62 Pend Oreille	2	21,110	20	1,302	0	1,405	690,377	1,061	56,345	17,453
Totals⁸	1,690,169	5,337,907	203,315	1,649	205,647	19,115,788	41,300	747,721	545,951	

NOTES

Abbreviations: Ag: Agriculture

¹Information based on the Washington Land Cover Dataset (USGS, 1999) that used 1992 land cover data.

²Includes pasture/hay, row crops and urban/recreational grasses.

³Includes small grains and fallow.

⁴Includes deciduous forest, evergreen, mixed forest, shrubland and grasslands/herbaceous.

⁵Includes woody wetlands and emergent herbaceous wetlands.

⁶Includes bare rock/sand/clay, quarries/strip mines/gravel pits and transitional.

⁷Includes open water and perennial ice/snow.

⁸Totals may not match totals by county in Table 3-3 because the county and WRIA boundaries do not match – the county boundaries extend farther west than the WRIA boundaries. The total land cover for each WRIA is a better representation of the total land cover by type within the Columbia Basin study area than the county totals.