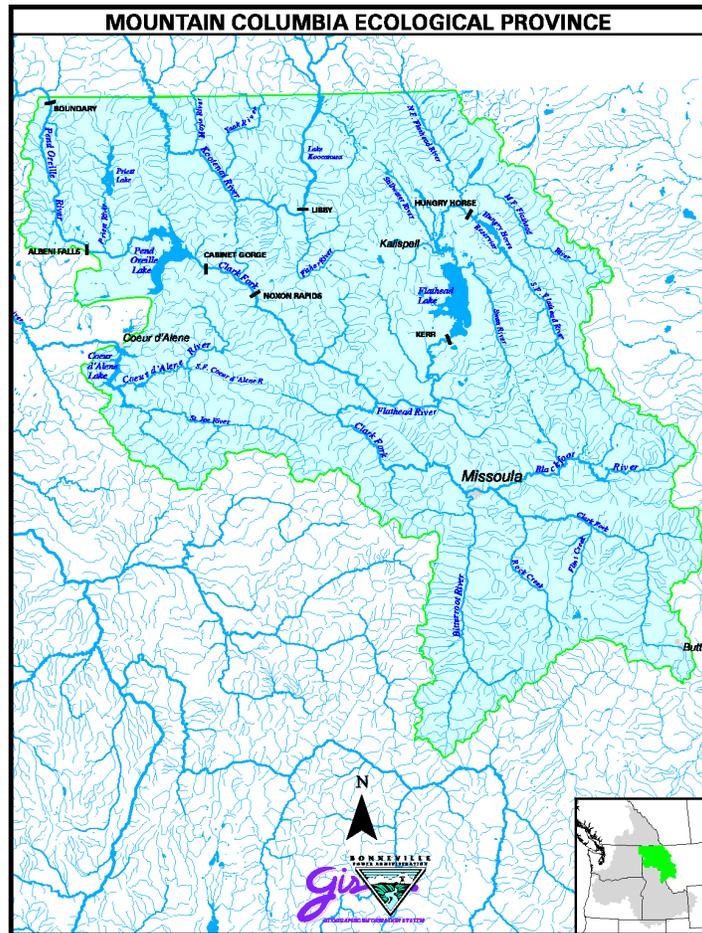


# Draft FY 2002-2004 Mountain Columbia Province Work Plan



**Prepared for the  
Northwest Power Planning Council**

**by the  
Columbia Basin Fish and Wildlife Authority**

**March 16, 2001**

# Draft FY 2002-2004 Mountain Columbia Province Work Plan

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## Introduction

The “rolling” provincial review process was developed by the Northwest Power Planning Council (NWPPC) in February 2000 in response to recommendations by the Independent Scientific Review Panel (ISRP) and the Columbia Basin Fish and Wildlife Authority (CBFWA). Under this new province based process each individual project proposal within a province will be reviewed for technical merit and management relevance every three years. Under the previous process all project proposals for Bonneville Power Administration (BPA) funding under the Fish and Wildlife Program were reviewed annually. The purpose of the NWPPC’s new multi-year process is to reduce the burden of reviewing large numbers of proposals, most of which had been reviewed just one year before, and to provide for a more thorough review of the project proposals in the context of a subbasin summary. Additionally, the process is intended to provide the opportunity for site visits by reviewers, project presentations with a question and answer period, and provide reviewers with more detailed background and planning documents which will reduce the reviewer’s reliance strictly on the proposal form.

The subbasin summaries developed under this process are intended to be interim and will be replaced by subbasin plans developed to meet requirements of the recently amended Fish and Wildlife Program. The Mountain Columbia Province was the third province to be reviewed under this new process. The results of this review for the Mountain Columbia Province are summarized here.

This document was developed collaboratively by the NWPPC staff, ISRP, fish and wildlife managers, other stakeholders, and CBFWA staff, culminating in project and budget recommendations for FY 2002-2004. The subbasin summaries are provided only as context for the project recommendations.

The CBFWA process for providing these recommendations utilized the ISRP preliminary findings and integrated manager evaluations of the technical and management merits of the project proposals relative to anadromous fish, resident fish and wildlife management needs, and the goals and objectives identified in the subbasin summaries. A total of 38 project proposals were submitted and reviewed with three proposals receiving a “do not fund” recommendation. In addition, the reviewers identified an additional project proposal in which the review and funding would be more appropriate under the purview of the Albeni Falls Work Group. The recommended projects address needs identified in the subbasin summaries and include 18 new and 16 ongoing projects totaling \$27 million.

This draft work plan includes the subbasin summaries, which describe the physical and biological characteristics of each subbasin within the Mountain Columbia Province. The summaries also identify past accomplishments, limiting factors, management objectives and strategies, current needs and recommended budgets for project implementation.

## Geographic Description

The Mountain Columbia Province, which is located in northeastern Washington, northern Idaho, northwestern Montana, and British Columbia, consists of eight major subbasins (Figure 1). For this review, the following subbasins have been evaluated:

1. Kootenai River (Includes Kootenay Lake and Koocanusa Reservoir)
2. Flathead River (Includes the North, Middle, and South Forks of the Flathead River as well as Hungry Horse Reservoir and Flathead Lake)
3. Pend Oreille River (Divided into upper (above Albeni Falls) and lower (Albeni Falls to the Canadian Border) sections. In addition, the Priest Subbasin was included in this subbasin)
4. Coeur d'Alene (Includes Lake Coeur d'Alene and associated tributaries)

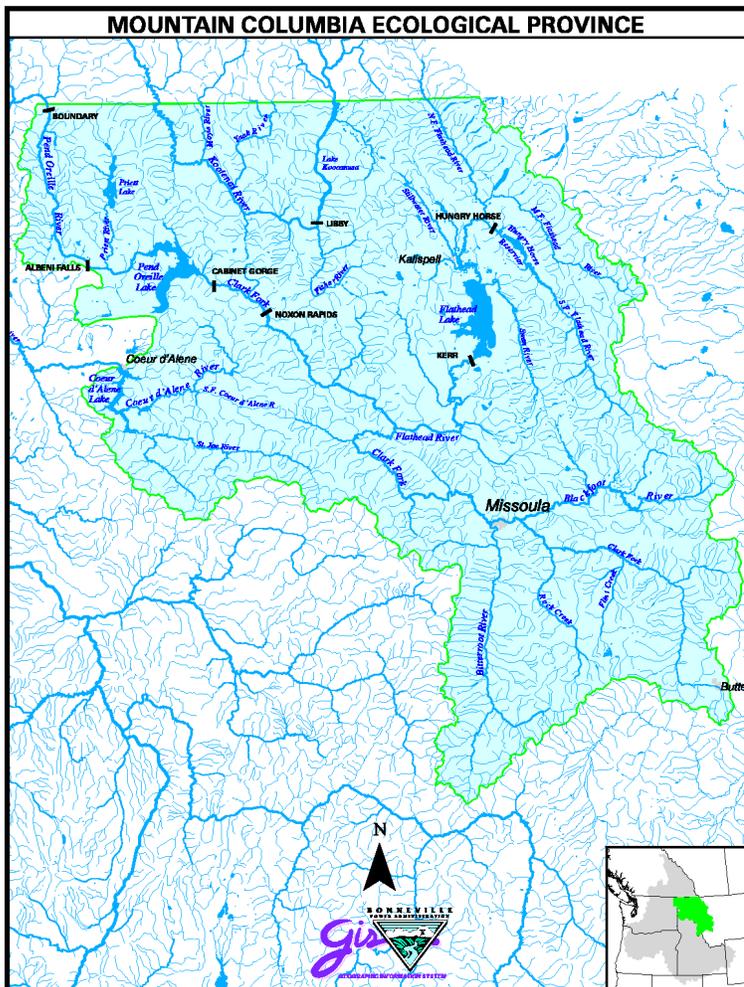


Figure 1. Mountain Columbia Province.

## **Project Review Process**

### **Subbasin Summaries**

The Mountain Columbia Province review was initiated at a July 25-26, 2000, meeting in Kalispell, Montana. An invitation was sent to an extensive distribution list to encourage all interested parties (i.e. land and water managers, representatives of watershed councils, etc.) to attend and provide input. The purpose of this first meeting was to provide all interested parties with the opportunity to identify sources of information necessary for the development of subbasin summaries for this province (i.e. monitoring data, habitat restoration results, existing assessments, etc.). The intent was to insure that Bonneville Power Administration (BPA) expenditures for fish and wildlife projects compliment and enhance existing efforts and insure that priority needs are addressed. Subsequent meetings were held to review draft summaries and identify goals and objectives.

Previously, ecosystem summaries for each subbasin were developed as a means of providing context for project proposals. Under the new process a more formal structure with subbasin teams was formed to develop the more comprehensive subbasin summaries of the newly identified provinces. Other local interested parties also provided input to and participated on the subbasin teams (i.e. other land and water managers, representatives from watershed councils, etc.).

Subbasin summaries for the Mountain Columbia Province were completed in September 2000. BPA issued the solicitation for project proposals for the Mountain Columbia Province on November 3, 2000, with project proposals due December 15, 2000. The project sponsors were asked to show a direct tie between their projects and the needs identified in the subbasin summaries.

### **Review by the ISRP**

The ISRP reviewed 38 project proposals for the Mountain Columbia Province. At least three ISRP/Peer Review Group members reviewed each proposal. To ensure a consistent and fair evaluation, standard formats and criteria were applied to all proposals to generate comments and scores prior to the proposal review workshop. These scores and comments were not made available to the project sponsors at the workshop, but were used by the ISRP to develop questions for the site visits and workshop presentations. The workshops consisted of site visits and project presentations.

#### **Site Visits (August 31 –September 1, 2000)**

The ISRP, subbasin teams, fish and wildlife managers, the CBFWA province review team and other stakeholders toured the province to gain a better understanding of the existing ecological conditions and limiting factors as well as view some ongoing projects in each subbasin. During the tour, managers provided oral presentations for areas/projects within the province that the group was unable to visit.

#### **Project Presentation (January 17-18, 2001)**

Prior to the presentation of individual project proposals, subbasin team leaders provided a general overview for their respective summaries. Following each subbasin summary presentation, project proposals relative to that subbasin were presented to the ISRP, CBFWA province review team, fish and wildlife managers, NWPPC staff, CBFWA staff and other stakeholders. All project sponsors were provided 15 minutes to present their proposal and answer questions. During this review, the CBFWA province review team

applied Subbasin Project Review Criteria (Table 1) to each project. Every effort was made to be consistent among all project proposals reviewed.

Table 1. CBFWA Subbasin Project Review Criteria

<b>Technical Criteria</b>	
1. Does the proposal demonstrate that the project uses appropriate scientifically valid strategies or techniques and sound principles (best available science)?	<b>Y or N</b>
2. Are the objectives clearly defined with measurable outcomes and tasks that contribute toward accomplishment of the objectives?	<b>Y or N</b>
3. Are the resources proposed (staff, equipment, materials) appropriate to achieve the objectives and time frame milestones?	<b>Y or N</b>
4. Does the proposal include monitoring and evaluation to determine whether objectives are being achieved (including performance measures/methods) at the project level?	<b>Y or N</b>
5. Will the proposed project significantly benefit the target species/ indicator populations?	<b>Y or N</b>
6. Does the proposal demonstrate that project benefits are likely to persist over the long term and will not be compromised by other activities in the basin?	<b>Y or N</b>
7. Does the proposal demonstrate that all reasonable precautions have been taken, to not adversely affect habitat/populations of wildlife, native resident and anadromous fish?	<b>Y or N</b>
8. Are there explicit plans for how the information, technology etc. from this project will be disseminated or used?	<b>Y or N</b>
<b>Management Criteria</b>	
1. Does the proposed project address fish and wildlife related objectives, strategies, needs and actions as identified in the subbasin summaries?	<b>Y or N</b>
2. Does the project address an urgent requirement or threat to population maintenance and/or habitat protection (i.e., threatened, endangered or sensitive species)?	<b>Y or N</b>
3. Does the project promote/maintain sustainable and /or ecosystem processes or maintain desirable community diversity?	<b>Y or N</b>
4. Is there cost share for the construction/implementation and/or monitoring and evaluation of the project?	<b>Y or N</b>
5. Will the project complement management actions on private, public and tribal lands and does the project have demonstrable support from affected agencies, tribes and public?	<b>Y or N</b>
6. Will the project provide data critical for in season, annual and/or longer term management decisions?	<b>Y or N</b>
7. Will this project provide or protect riparian or other habitat that may benefit both fish and wildlife?	<b>Y or N</b>

### **Preliminary ISRP Report**

On February 9, 2001, the ISRP released a Preliminary Review of Fiscal Year 2002 Project Proposals for the Mountain Columbia Province (ISRP 2001-2 at NWPPC). This report summarized the ISRP's preliminary review of each project proposal and identified areas of concern where they had requested a written response to questions. The due date for written responses to this report was February 23, 2001.

### **CBFWA Province Review Group**

During February 27 – March 1, 2001, the CBFWA province review group reviewed all project proposals within the province using criteria listed in Table 1 which resulted in a consensus Yes or No. Subbasin team members also participated in the review of the project proposals. The following elements were considered during the review:

- How well does the project relate to the criteria (Table 1)
- Validation of existing work- is the current funding level appropriate (Section 6 O&M and Section 7 M&E of existing projects)? Is it appropriate to continue implementation of existing work (Section 4 P&D and Section 5 C&I of existing projects)?
- Evaluation of proposed new work- does a new project proposal demonstrate a priority need over implementation strategies within existing projects (Sections 4 and 5 of existing projects)?

The preliminary ISRP technical review of all proposals was utilized while discussing the technical merits of each project. Project proposals were grouped by subbasin during their review. Following the technical and management review, the project proposals were prioritized within each subbasin according to the fish and wildlife needs within that subbasin. The following definitions were used for the subbasin prioritization:

- Urgent - These projects or tasks within a project are of urgent need. They will either have a direct impact on survival or protection of a key species or will protect investments made in this subbasin. These projects should be able to demonstrate an immediate cost if not funded (loss of habitat, impact on a population, etc.). An example might also include ongoing O+M costs.
- High Priority - These projects or tasks within a project are high priority within the subbasin. The project addresses a specific need within the subbasin summaries.
- Recommended Actions - These are good projects that cannot demonstrate a significant loss by not funding this year. These projects should be funded, but under a limited budget could be delayed temporarily without significant loss.
- Do not fund - These projects are either technically inadequate or do not address a need within the subbasin summaries. These projects may be inappropriate for BPA funding.

### **CBFWA Review and Approval of Project Recommendations and Subbasin Summaries**

The final step in the project proposal review process was the consensus approval of the project recommendations by CBFWA members. The CBFWA members review and the recommendations in the subbasin summaries and province work plan demonstrate regional support by the fish and wildlife managers.

On March 6, 2001, the province recommendations and subbasin summaries were discussed in the CBFWA Resident Fish and Wildlife committees. The committees made some modifications to the province recommendations based on technical or regional management concerns. It was decided to group the Urgent and High Priority projects for the final recommendation to NWPPC since all of these projects should be funded in FY 2002.

### **Proposal Review Results**

A total of 38 project proposals were reviewed in the Columbia Gorge Province (17 ongoing projects and 21 new proposals, (Table 2)). Three proposals were categorized as

Do Not Fund. In addition, the reviewers identified an additional project proposal in which the review and funding would be more appropriate under the purview of the Albeni Falls Work Group. Comments pertaining to these proposals follow:

Project Number 21007, *Characterize and Assess Wildlife-Habitat Types and Structural Conditions for Subbasins within the Mountain Columbia Ecoprovince*, is currently being funded under the Ecosystem Diagnosis and Treatment project by the NWPPC. The need for expansion of this project to produce finer resolution within each province should be determined through the EDT assessment process. If that process determines that finer resolution is necessary for regional planning, then funding for expansion should be provided through the NWPPC subbasin assessment effort.

Project 24002, *Using DNA from Bear Hair Samples to Confirm Grizzly Bear Presence in the Lower Pend Oreille Subbasin*, is a project proposal that was characterized by the lack of a well developed experimental design. The proposal lacked objectives as well as a sampling design and sampling methods. The techniques for genetic analyses were identified as inappropriate.

Project Number 24025, *Pend Oreille Subbasin*, is a project proposal that exhibits poor coordination with fish and wildlife managers and an unawareness of similar work that has been performed in proposed research areas. Some of the work that is proposed is redundant with existing information and project activities. Genetic data already exists for Fourth of July Creek, one of the sampling locations identified in the proposal. In-channel habitat data also exists for several of the sampling locations identified in the proposal. Lethal sampling is unwarranted for the amount of information that would be obtained.

Project Number 24006, *Pend Oreille Erosion Abatement and Landform Restoration*, is a project proposal that would be more appropriately reviewed and funded under the purview of the Albeni Falls Work Group.

### **Three-year Budget Recommendation**

Table 3 provides a three-year funding recommendation for the Mountain Columbia Province that strives to meet the Province's basic goal of providing for healthy, sustainable populations of fish and wildlife that will provide ecological, economic, cultural, recreational, and aesthetic benefits to the region. All of the projects recommended here should be initiated within the next three years. A total of 34 projects that address needs identified in the subbasin summaries are recommended for funding and include new and ongoing projects totaling \$27 million.

Table 2. CBFWA project proposal review for the Mountain Columbia Province

Note: Due to space constraints, text in the criteria fields shown as “n” over “a” should be interpreted as “n/a”.

Project ID	Title	Sponsor	Province	Subbasin	Technical Criteria								Management Criteria							Project Review Comments	ISRP Review	CBFWA			
					1	2	3	4	5	6	7	8	1	2	3	4	5	6	7			Category			
24017	Restoring Bull Trout Habitat in The Blackfoot River's North Fork	TU	Mountain Columbia	Blackfoot	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	A	Y	Y	Y	Y - \$433,000	Y	N	Y	A subbasin summary has not been developed for this subbasin. Sponsor's request is for \$330,000 for FY 2002. CBFWA encourages stakeholders in the subbasin to develop a subbasin summary.	Yes	Urgent/High Priority
24015	Wetland/Riparian Protection, Restoration, Enhancement and Maintenance in the Coeur d'Alene Subbasin	CDAT	Mountain Columbia	Coeur d'Alene	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	N	N	Y	N	Y	This is a programmatic project focusing on five specific areas for restoration. All fisheries monitoring for this project will be provided under Project Number 199004400. The M&E required for site response would be provided within this project. There is a high probability for cost share in the future for this project. Land trust issues should be resolved in a regional forum before being established within individual subbasins or for an individual project.	Yes	Urgent/High Priority
24020	Center for GIS Analysis and Information in the Coeur d'Alene Subbasin	CDAT	Mountain Columbia	Coeur d'Alene	Y	Y	Y	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y - \$43,000	Y	Y	N	This project should be well coordinated with Project 199700400. This project should be funded under the subbasin planning efforts planned by the NWPPC. This project is a high priority at the subbasin level.	No, Fundable	Recommended Action
199004400	Implement Fisheries Enhancement Opportunities on the Coeur d'Alene Reservation	CDAT	Mountain Columbia	Coeur d'Alene	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y - \$375,000	Y	Y	Y		Yes	Urgent/High Priority

Project ID	Title	Sponsor	Province	Subbasin	Technical Criteria										Management Criteria			Project Review Comments	ISRP Review	CBFWA							
199004401	Lake Creek Land Acquisition and Enhancement	CDAT	Mountain Columbia	Coeur d'Alene	Y	Y	Y	N	Y	Y	Y	N	Y	Y	N	Y	N	Y	N	Y	N	Y	N	Y	The implementation activities within this ongoing project could be transferred into Project Number 24015 if that project were funded.	Yes	Urgent/High Priority (unless 24015 is funded)
199004402	Coeur D' Alene Tribe Trout Production Facility	CDAT	Mountain Columbia	Coeur d'Alene	N	N	Y	N	N	N	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	This project is requesting a placeholder for a hatchery facility that is currently moving through the 3-step process. Several questions were raised about the proposal during the provincial review process that will be addressed during the 3-step process. The scientific validity of this project will be determined during the 3-step process. The objectives stated in the proposal are tasks and do not indicate the overall objective of the proposal. Monitoring and evaluation are proposed but whether they will meet objectives can not be determined if those objectives have not been presented. The proposal is for a supplementation hatchery to provide harvest for the CDAT. The hatchery is clearly being developed using the best scientific foundation for the subbasin and should be commended for that. It is difficult to apply these criteria based on science when the ultimate goal of the project is for harvest benefit. IDFG and MDFWP support much of the proposal, but has difficulty supporting the supplementation com	Yes	Urgent/High Priority





Project ID	Title	Sponsor	Province	Subbasin	Technical Criteria										Management Criteria			Project Review Comments	ISRP Review	CBFWA		
					1	2	3	4	5	6	7	8	9	10	11	12	13				14	15
24010	Reconnection of floodplain slough habitat to the Kootenai River	KTOI	Mountain Columbia	Kootenai	Y	N	N	Y	N	N	Y	Y	Y	Y	N	N	Y	Y	Y	This project will investigate the feasibility of an alternative for sturgeon recovery. The province review group felt that the implementation of Project 24021 is necessary prior to funding Project 24010. In addition, the review group struggled with understanding the objectives of the proposed work since the identified objectives were really tasks. As it is currently written, the project should be categorized as a "Recommended Action". The USFWS White Sturgeon Recovery Team has identified this as a high priority action. It is essential for this project to be implemented if Project 24021 identifies reconnection of the flood plain as a high priority.	Yes	Recommended Action
24014	Assessment of Operational Impacts of Libby Dam on Riparian Wildlife habitats and their associated aquatic components	MFWP	Mountain Columbia	Kootenai	N	N	Y	Y	N	N	Y	Y	Y	N	N	N	Y	Y	N	Operational loss assessments are emphasized as a priority in the subbasin summary. A more detailed description of proposed activities is needed to rank this project in a higher category.	Do not fund	Recommended Action
24016	Kootenai River Subbasin Stakeholders Symposium	KRN	Mountain Columbia	Kootenai	N	Y	Y	N	N	N	N	Y	Y	N	Y	Y	Y	Y	N	Better coordination and information dissemination is needed between northern Idaho and western Montana fisheries agencies and stakeholders on the Kootenai River. Whether a specific symposium is necessary is not certain. Some of the coordination should be the responsibility of the focus watershed coordinator under Project Number 199608720. This project is not needed on an annual basis, only one year of funding should be considered.	Yes	Recommended Action (Fund for 1 year only)





Project ID	Title	Sponsor	Province	Subbasin	Technical Criteria										Management Criteria			Project Review Comments	ISRP Review	CBFWA			
	Pend Oreille Sub-basin.																						
24008	Genetic Inventory of Bull Trout and Westslope Cutthroat Trout in the Pend Oreille Subbasin	KT	Mountain Columbia	Pend Oreille Lower	Y	Y	Y	N	N	Y	Y	Y	Y	N	N	Y		Y	Y	N		No, Fundable	Urgent/High Priority
24025	Pend Oreille Subbasin Native Westslope Cutthroat Population Study	WT	Mountain Columbia	Pend Oreille Lower	Y	N	Y	N	N	N	N	Y	Y	N	N	Y		N	Y	N	Not well coordinated with the fish and wildlife managers. Some of the work proposed here is redundant with existing information and existing project activities. Genetic data already exists for Fourth of July Creek, one of the sampling locations proposed in this project. In-channel habitat data also exists for several of the sampling locations proposed in this project. This project seems to assume that these 9 cutthroat populations differ across their range. There is a wealth of literature on this subject. Lethal sampling is unwarranted for amount of information derived.	Yes	Do not fund
199106000	Pend Oreille Wetlands Wildlife Mitigation Project – Kalispel	KT	Mountain Columbia	Pend Oreille Lower	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y		Y	Y	Y		Yes	Urgent/High Priority	
199500100	Kalispel Tribe Resident Fish	KT	Mountain Columbia	Pend Oreille Lower	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y - \$300,000	Y	Y	Y	Hatchery production of bass does not promote/maintain a sustainable and/or ecosystem process.	Yes	Urgent/High Priority	
199700400	Resident Fish Stock Status Above Chief Joseph and Grand Coulee Dams	KT	Mountain Columbia	Pend Oreille Lower	Y	Y	Y	Y	N	N	Y	Y	Y	N	N	Y - \$300,000	Y	Y	N	This project will be wrapping up the majority of the sampling in this province during this review cycle. The work is moving into the Intermountain Province where the work is considered a high priority by the fish and wildlife managers in that area.	Yes	Urgent/High Priority	

Project ID	Title	Sponsor	Province	Subbasin	Technical Criteria										Management Criteria			Project Review Comments	ISRP Review	CBFWA					
24001	Lake Pend Oreille Predation Research	IDFG	Mountain Columbia	Pend Oreille Upper	Y	Y	Y	Y	Y	N	Y	Y	Y	N	N	Y	Y	Y	N	Y	Y	N	The benefits from this project could be compromised by activities outside the scope of this project. The project is not directly targeted at a threatened, endangered or sensitive population although indirect impacts may be observed.	No, Fundable	Recommended Action
24003	Acquire and conserve high priority bull and westslope cutthroat trout habitat in Trestle Creek.	IDFG	Mountain Columbia	Pend Oreille Upper	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Concern was raised as to the inconsistency of the ISRP comments on acquisition projects. The cost share portion of this project will be providing the monitoring activities for these actions.	Yes	Urgent
24004	Pend Oreille/Priest Exotic Fish Species Suppression and Native Fish Protection	IDFG	Mountain Columbia	Pend Oreille Upper	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N					Y	Y	N	Development of hydroacoustic methodology should be well coordinated with Project 24001 and could be restricted to one or the other projects. High priority within the draft USFWS bull trout recovery plan. This project is important in developing lake trout management methodology options which pose the number one risk to bull trout populations in this province. Sustainability may be contingent on actively continuing the project. Since development of the proposal, the USFWS has indicated that they may provide cost share for this project in the future. Objective 6, task 5 is covered under Project Number 24008 (this budget has been reduced by \$30,000 for FY 2002).	Yes	Urgent/High Priority
24006	Pend Oreille Erosion Abatement and Landform Restoration	IDFG	Mountain Columbia	Pend Oreille Upper																			This project would be more appropriately reviewed and funded under the purview of the Albeni Falls Work Group.	Yes	NA



Table 3. CBFWA 3-Year Project Recommendations for the Mountain Columbia Province.

ProjectID	Title	Sponsor	Province	Subbasin		CBFWA	CBFWA Budget Comments		
					FY 2002	Category	FY 2003	FY 2004	
24017	Restoring Bull Trout Habitat in The Blackfoot River's North Fork	TU	Mountain Columbia	Blackfoot	\$330,000.00	Urgent/High Priority		\$10,000.00	\$10,000.00
24015	Wetland/Riparian Protection, Restoration, Enhancement and Maintenance in the Coeur d'Alene Subbasin	CDAT	Mountain Columbia	Coeur d'Alene	\$1,996,131.00	Urgent/High Priority	If this project is funded, Project Number 199004401 should be ended and those activities should be incorporated into this proposal.	\$2,161,480.00	\$2,377,577.00
24020	Center for GIS Analysis and Information in the Coeur d'Alene Subbasin	CDAT	Mountain Columbia	Coeur d'Alene	\$180,700.00	Recommended Action		\$195,300.00	\$187,100.00
199004400	Implement Fisheries Enhancement Opportunities on the Coeur d'Alene Reservation	CDAT	Mountain Columbia	Coeur d'Alene	\$1,174,365.00	Urgent/High Priority	CBFWA reviewers have concerns with the O&M budget proposed. A more complete budget breakdown will be provided to the RFC at the next phase of project review	\$1,167,833.00	\$1,197,873.00
199004401	Lake Creek Land Acquisition and Enhancement	CDAT	Mountain Columbia	Coeur d'Alene	\$1,463,070.00	Urgent/High Priority (unless 24015 is funded)	If Project Number 24015 is funded, this project should end. O&M and enhancement activities (\$160,020) in the proposal would be transferred to Project Number 24015.	\$1,667,394.00	\$1,900,320.00
199004402	Coeur D' Alene Tribe Trout Production Facility	CDAT	Mountain Columbia	Coeur d'Alene	\$775,469.00	Urgent/High Priority		\$843,202.00	\$897,449.00
24012	Riparian Habitat Preservation - Weaver Slough and McWinegar Slough	FLT	Mountain Columbia	Flathead	\$1,080,000.00	Recommended Action			

ProjectID	Title	Sponsor	Province	Subbasin		CBFWA	CBFWA Budget Comments		
24013	Assessment of Operational Impacts of Hungry Horse Dam on Riparian Wildlife habitats and their associated aquatic components	MFWP	Mountain Columbia	Flathead	\$188,949.00	Recommended Action		\$191,249.00	\$118,641.00
24018	Secure and Restore Critical Fish and Wildlife Habitats	CSKT	Mountain Columbia	Flathead	\$4,918,440.00	Urgent/High Priority		\$4,538,826.00	\$4,538,826.00
24019	Research, Monitor, and Restore Native Species	CSKT	Mountain Columbia	Flathead	\$131,400.00	Urgent/High Priority		\$144,500.00	\$139,500.00
199101903	Hungry Horse Mitigation	MFWP	Mountain Columbia	Flathead	\$982,850.00	Urgent/High Priority		\$990,000.00	\$1,065,000.00
199101904	Stocking of offsite waters for Hungry Horse Mitigation - Creston National Fish Hatchery	USFWS	Mountain Columbia	Flathead	\$106,672.00	Urgent/High Priority		\$109,872.00	\$113,168.00
24005	Smith Creek Restoration	IDFG	Mountain Columbia	Kootenai	\$52,680.00	Urgent/High Priority		\$302,680.00	\$2,680.00
24009	Assess Feasibility of Enhancing White Sturgeon Spawning Substrate Habitat, Kootenai R., Idaho	KTOI	Mountain Columbia	Kootenai	\$350,000.00	Urgent/High Priority (Phase 1)		\$100,000.00	\$60,000.00
24010	Reconnection of floodplain slough habitat to the Kootenai River	KTOI	Mountain Columbia	Kootenai	\$139,974.00	Recommended Action		\$540,000.00	\$40,000.00
24014	Assessment of Operational Impacts of Libby Dam on Riparian Wildlife habitats and their associated aquatic components	MFWP	Mountain Columbia	Kootenai	\$188,949.00	Recommended Action		\$191,249.00	\$118,641.00
24016	Kootenai River Subbasin Stakeholders Symposium	KRN	Mountain Columbia	Kootenai	\$51,450.00	Recommended Action (Fund for 1 year only)		0	0

ProjectID	Title	Sponsor	Province	Subbasin		CBFWA	CBFWA Budget Comments		
24021	Implement Floodplain Operational Loss Assessment, Protection, Mitigation and Rehabilitation on the Lower Kootenai River Watershed Ecosystem	KTOI	Mountain Columbia	Kootenai	\$192,864.00	Urgent/High Priority	Province review group recommends adding \$85,000 for each year to expand the project throughout the entire lower river. During the second year the planning phase could be reduced by \$300,500.	\$661,500.00	\$114,500.00
24023	Purchase Conservation Easement from Plum Creek Timber Company (PCT) along Fisher River	MFWP	Mountain Columbia	Kootenai	\$500,000.00	Urgent/High Priority		\$500,000.00	\$500,000.00
198806400	Kootenai River White Sturgeon Studies and Conservation Aquaculture	KTOI	Mountain Columbia	Kootenai	\$1,230,000.00	Urgent (Ongoing work)	Funding for burbot hatchery expansion should be reviewed by project sponsor.	\$2,999,000.00	\$1,604,000.00
198806500	Kootenai River Fisheries Recovery Investigations	IDFG	Mountain Columbia	Kootenai	\$825,391.00	Urgent/High Priority	If the USGS project gets funded through the High Priority process, the \$100,000 subcontract in this proposal should be removed from the project.	\$1,057,804.00	\$951,697.00
199404900	Improving the Kootenai River Ecosystem	KTOI	Mountain Columbia	Kootenai	\$710,891.00	Urgent/High Priority		\$855,000.00	\$1,970,000.00
199500400	Mitigation For The Construction And Operation Of Libby Dam	MFWP	Mountain Columbia	Kootenai	\$805,000.00	Urgent/High Priority		\$830,000.00	\$870,000.00
199608720	Focus Watershed Coordination in the Kootenai River Watershed	MFWP	Mountain Columbia	Kootenai	\$101,500.00	Urgent/High Priority		\$101,750.00	\$102,000.00
200000400	Monitor and protect bull trout for Koocanusa Reservoir.	BCE	Mountain Columbia	Kootenai	\$62,000.00	Urgent/High Priority		\$62,000.00	\$62,000.00
24008	Genetic Inventory of Bull Trout and West-slope Cutthroat Trout in Pend Oreille Subbasin	KT	Mountain Columbia	Pend Oreille Lower	\$243,490.00	Urgent/High Priority		\$207,000.00	

ProjectID	Title	Sponsor	Province	Subbasin		CBFWA	CBFWA Budget Comments		
199106000	Pend Oreille Wetlands Wildlife Mitigation Project – Kalispel	KT	Mountain Columbia	Pend Oreille Lower	\$167,300.00	Urgent/High Priority		\$173,900.00	\$99,250.00
199500100	Kalispel Tribe Resident Fish	KT	Mountain Columbia	Pend Oreille Lower	\$410,000.00	Urgent/High Priority		\$480,000.00	\$429,600.00
199700400	Resident Fish Stock Status Above Chief Joseph and Grand Coulee Dams	KT	Mountain Columbia	Pend Oreille Lower	\$518,000.00	Urgent/High Priority		\$530,000.00	\$540,000.00
24001	Lake Pend Oreille Predation Research	IDFG	Mountain Columbia	Pend Oreille Upper	\$141,000.00	Recommended Action		\$148,000.00	\$155,000.00
24003	Acquire and conserve high priority bull and westslope cutthroat trout habitat in Trestle Creek.	IDFG	Mountain Columbia	Pend Oreille Upper	\$290,400.00	Urgent			
24004	Pend Oreille/Priest Exotic Fish Species Suppression and Native Fish Protection	IDFG	Mountain Columbia	Pend Oreille Upper	\$418,500.00	Urgent /High Priority		\$284,500.00	\$225,000.00
199206100	Albeni Falls Wildlife Mitigation Project	AFIWG	Mountain Columbia	Pend Oreille Upper	\$6,178,795.00	Urgent/High Priority		\$6,431,031.00	\$6,721,809.00
199404700	Lake Pend Oreille Fishery Recovery Project	IDFG	Mountain Columbia	Pend Oreille Upper	\$362,000.00	Urgent/High Priority		\$362,000.00	\$376,000.00
	Total – All Recommendations				\$27,268,230.00			\$28,837,070.00	\$27,487,631.00

## **Kootenai River Subbasin**

The Kootenai River ecosystem has been altered and degraded for the past 75 years by diking, channelization, impoundment, and losses of floodplain habitat. As a result, the ecosystem has been exposed to physical and chemical changes that are not typically found in natural ecosystems. Due to these various activities, the ecosystem is currently characterized as ultra-oligotrophic, in a collapsed state, and limited by post-development cultural denutrition.

The most recent changes are due to the operation of Libby Dam for hydropower and flood control. The operation of Libby Dam has altered the river hydrograph and annual thermal regime. As a result, there has been a decrease in the productivity of the river, the fish community has been altered, white sturgeon (ESA listed) recruitment has declined, the burbot (petitioned for Emergency Listing) fisheries have collapsed, the quality of the rainbow trout fishery has declined, and there has been a reduction in the recruitment of bull trout (Threatened).

The operation of Libby Dam has resulted in the functional loss of the lower Kootenai River watershed floodplain. Historically, the floodplain attracted a wide range of wildlife such as woodland caribou, grizzly bear, moose, mule deer, white-tailed deer, elk, and migratory waterfowl. Once a diverse floodplain, the wildlife habitats are now fragmented, declining, decadent, or lost. Ecosystem rehabilitation is essential to reverse the declining trends in the native fish and wildlife populations.

Because habitats and land uses vary across the Kootenai River Subbasin, the limiting factors for fish and wildlife also differ. Although the subbasin can be divided into six zones based on major types of waterbodies and land uses, the following limiting factors tend to persist throughout the subbasin: 1) fragmentation/connectivity; 2) floodplain alteration and stream morphology changes (includes sedimentation); 3) nonnative species interactions; 4) vegetation change; 5) water pollution; and 6) human-wildlife interactions. Other constraints on fish and wildlife productivity include inundation, altered hydrographs and thermal regimes, predation, altered littoral zones, and a lack of recruitment.

Six existing projects have been recommended for continued funding in the Kootenai River Subbasin (Table 4). Project Number 198806400, *Kootenai River White Sturgeon Studies and Conservation Aquaculture*, will continue to allow for actions to be implemented that will preserve the existing gene pool and begin rebuilding healthy age-classes of endangered white sturgeon in the Kootenai River through conservation aquaculture and the use of wild broodstock. Project Number 198806500, *Kootenai River Fisheries Recovery Investigations*, will allow for the continuation of efforts to recover the Kootenai River white sturgeon population, develop a recovery plan for burbot and bull trout, improve fishing for rainbow trout and cutthroat trout and mountain whitefish, and rehabilitate ecosystem health. Project Number 199404900, *Improving the Kootenai River Ecosystem*, allows for the identification of the most appropriate and effective management strategies to enhance aquatic biota in the Kootenai River ecosystem and recover native species assemblages across multiple trophic levels. Project Number 199500400, *Mitigation for the Construction and Operation of Libby Dam*, provides for the implementation of watershed-based habitat enhancement and fish recovery actions to mitigate the losses caused by hydropower operations in the Kootenai River Subbasin.

Project Number 199608720, *Focus Watershed Coordination in the Kootenai River Watershed*, fosters “grass-roots” public involvement and interagency cooperation for habitat restoration to offset deleterious impacts to fisheries in the Kootenai River watershed. Project Number 200000400, *Monitor and Protect Bull Trout for Koocanusa Reservoir*, allows for the monitoring of wild, native bull trout stocks in tributaries to Lake Koocanusa and the upper Kootenay River and the protection of these populations from inappropriate reservoir operating regimes and land use practices.

Seven new projects are recommended for funding in this subbasin (Table 4). Project Number 24005, *Smith Creek Restoration*, will restore the lower Smith Creek stream channel and improve native fish habitat as well as compliment wetland restoration. Project Number 24009, *Assess Feasibility of Enhancing White Sturgeon Spawning Substrate Habitat, Kootenai R., Idaho*, will construct sediment transport models to assess the feasibility of enhancing white sturgeon spawning and substrate habitat as well as study temporal/transient changes in substrate type, bedform, and erosion/deposition on spawning substrate. Project Number 24010, *Reconnection of Floodplain Slough Habitat to the Kootenai River*, will assess the feasibility and options for reconnecting slough habitat that has been isolated from the Kootenai River by dikes. Project Number 24014, *Assessment of Operational Impacts of Libby Dam on Riparian Wildlife Habitats and Their Associated Aquatic Components*, will enhance and protect native wildlife communities in the Kootenai River Subbasin through multi-species assessments, design of habitat improvements, development of approaches to habitat protection, mitigation for variable river flows, and identification off-site mitigation potential. Project Number 24016, *Kootenai River Subbasin Stakeholders Symposium*, will provide a forum to encourage resource information exchange among stakeholders in the Kootenai River Subbasin. Project Number 24021, *Implement Floodplain Operational Loss Assessment, Protection, Mitigation, and Rehabilitation on the Lower Kootenai River Watershed Ecosystem*, is a pilot project that will assess operational losses with long-term mitigation, protection, enhancement, and rehabilitation in floodplain ecosystems on the lower Kootenai River watershed. Project 24023, *Purchase Conservation Easement from Plum Creek Timber Company (PCT) Along Fisher Creek*, will result in the purchase of a perpetual conservation easement on 56,400 acres (163 stream miles) of Plum Creek Timber Company lands along the Fisher River. This project will preclude subdivision/development, protect fish habitat, maintain public recreational opportunities, and ensure responsible management.

This suite of projects addresses the key needs identified in the Kootenai River Subbasin Summary including: 1) protect habitat of native fish and wildlife, 2) reduce or eliminate hybridization and competition with nonnative species, 3) rehabilitate locally extirpated fish and wildlife species to a self-sustaining condition, 4) reconnect fragmented habitats and isolated populations, 5) rehabilitate in-channel habitat structure, function, and complexity, 6) devise innovative means of replacing lost or irretrievable spawning or rearing habitat, 7) rehabilitate riparian and wetland habitats and floodplain function, 8) rehabilitate watershed primary and secondary productivity, 9) rehabilitate watershed function and condition, 10) reduce point and non-point sources of pollution, 11) restore the quantity, seasonal pattern, and stability of streamflows and reservoir conditions, 12) replace lost tribal hunting, fishing, and gathering areas and cultural and spiritual sites, 13) reduce human-wildlife conflicts, 14) increase research, evaluation, and monitoring, and 15) increase community understanding and respect.

Table 4. Projects recommended for funding in the Kootenai River Subbasin.

<b>Project ID</b>	<b>Title</b>	<b>Sponsor</b>
198806400	Kootenai River White Sturgeon Studies and Conservation Aquaculture	KTOI
198806500	Kootenai River Fisheries Recovery Investigations	IDFG
199406500	Improving the Kootenai River Ecosystem	KTOI
199500400	Mitigation for the Construction and Operation of Libby Dam	MFWP
199608720	Focus Watershed Coordination in the Kootenai River Watershed	MFWP
200000400	Monitor and Protect Bull Trout for Koocanusa Reservoir	BCE
24005	Smith Creek Restoration	IDFG
24009	Assess Feasibility of Enhancing White Sturgeon Spawning Substrate Habitat, Kootenai R., Idaho	KTOI/ USGS
24010	Reconnection of the Floodplain Slough Habitat to the Kootenai River	KTOI
24014	Assessment of Operational Impacts of Libby Dam on Riparian Wildlife Habitats and Their Associated Aquatic Components	MFWP
24016	Kootenai River Subbasin Stakeholders Symposium	MFWP
24021	Implement Floodplain Operational Loss Assessment, Protection, Mitigation, and Rehabilitation on the Lower Kootenai River Watershed Ecosystem	KTOI
24023	Purchase Conservation Easement from Plum Creek Timber Comply Along Fisher River	MFWP

### **Flathead River Subbasin**

The physical and chemical dynamics as well as the presence, distribution, and abundance of fish and wildlife species in the Flathead River Subbasin were forever altered with the completion of Hungry Horse Dam in 1952. The dam impounded the South Fork of the Flathead River creating Hungry Horse Reservoir. When Hungry Horse Reservoir filled, 23,750 acres of low elevation forest, wetland, and riparian habitats were inundated, including seasonal habitat for a wide variety of avifauna, spring and fall grizzly bear habitat, and important big game range and calving area.

Presently, the subbasin is characterized by a number of limiting factors. Because habitats and land uses vary across the Flathead River Subbasin, the limiting factors for fish and wildlife also differ. Although the subbasin can be divided into six zones based on major types of waterbodies and land uses, the following limiting factors tend to persist throughout the subbasin: 1) fragmentation; 2) floodplain alteration; 3) nonnative species interactions; 4) vegetation change; 5) sedimentation; and 6) human-wildlife conflicts. Other constraints on fish and wildlife productivity include inundation, altered hydrographs and thermal regimes, predation, altered littoral zones, and cultural eutrophication (Flathead Lake).

Two existing projects have been recommended for continued funding in the Flathead River Subbasin (Table 5). Project Number 199101903, *Hungry Horse Mitigation*, will continue to provide mitigation for the construction and operation of Hungry Horse Dam. This project will continue to implement habitat restoration, improve fish passage, protect

and recover native fish populations, and reestablish fish harvest opportunities. Project Number 199101904, *Stocking of Offsite Waters for Hungry Horse Mitigation – Creston National Fish Hatchery*, will continue to produce fish for offsite stocking to mitigate losses to Flathead Lake caused by the construction and operation of Hungry Horse Dam.

Four new projects are recommended for funding in the subbasin (Table 5). Project Number 24012, *Riparian Habitat Preservation – Weaver Slough and McWinegar Slough*, will allow for the protection of natural resources compromised by rapid subdivision and development in the Flathead River Subbasin. The acquisition of purchased easements on five properties will extend private conservation on the Flathead River riparian corridor, permanently protecting lowland/wetland habitats. Protecting these sloughs is a high priority because of their value as resting and feeding sites for migratory waterfowl. Project Number 24013, *Assessment of Operational Impacts of Hungry Horse Dam on Riparian Wildlife Habitats and Their Associated Aquatic Components*, will provide for the enhancement and protection of native wildlife communities through multi-species assessments, design of habitat improvements, development of approaches to habitat protection, mitigation for variable river flows, and identification of off-site mitigation potential. Project Number 24018, *Secure and Restore Critical Fish and Wildlife Habitats*, will utilize land acquisition and habitat restoration to protect and enhance habitats critical to fish and wildlife as well as reduce human-wildlife conflicts. Project Number 24019, *Research, Monitor, and Restore Native Species*, will implement and monitor fisheries improvement activities for native species and conduct feasibility study on the reintroduction of sharp-tailed grouse.

This suite of projects addresses the needs identified in the Flathead Subbasin Summary including: 1) protect habitat of native fish and wildlife, 2) reduce or eliminate hybridization and competition with nonnative species, 3) rehabilitate locally extirpated fish and wildlife species to a self-sustaining condition, 4) reconnect fragmented habitats and isolated populations, 5) restore in-channel habitat structure, function, and complexity, 6) restore riparian and wetland habitats and floodplain function, 7) restore watershed function and condition, 8) reduce point and non-point sources of pollution, 9) restore the quantity, seasonal pattern, and stability of streamflows and reservoir conditions, 10) replace lost tribal hunting, fishing, and gathering areas and cultural and spiritual sites, and 11) reduce human-wildlife conflicts.

Table 5. Projects recommended for funding in the Flathead River Subbasin.

<b>Project ID</b>	<b>Title</b>	<b>Sponsor</b>
24012	Riparian Habitat Preservation – Weaver Slough and McWinegar Slough	FLT
24013	Assessment of Operational Impacts of Hungry Horse Dam on Riparian Wildlife Habitats and Their Associated Aquatic Components	MFWP
24018	Secure and Restore Critical Fish and Wildlife Habitats	CSKT
24019	Research, Monitor, and Restore Native Species	CSKT
199101903	Hungry Horse Mitigation	MFWP
199101904	Stocking of Offsite Waters for Hungry Horse Mitigation – Creston National Fish Hatchery	USFWS

## **Pend Oreille Subbasin Summary**

The numerous dams (e.g., Waneta, Seven Mile, Boundry, Box Canyon, Cedar Creek, Sullivan Lake, Mill Pond, North Fork Sullivan Creek, and Albeni Falls) have contributed significantly to the declines of fish and wildlife populations in the Pend Oreille Subbasin.

The single greatest alteration to the upper portion of the Pend Oreille River Subbasin in recent history was the completion of Albeni Falls Dam in 1952. Through hydropower operations, the upper Pend Oreille River and Lake Pend Oreille have been severely impacted. For example, consistent drawdowns have reduced the amount of gravel along the shoreline of Lake Pend Oreille that is useable for kokanee spawning. As a result, the kokanee population has been reduced to a level that can no longer support a sport fishery. Consequently, the kokanee population can no longer support, as a prey base, the rainbow trout, bull trout, and lake trout populations. The drawdowns have also affected the warmwater fisheries of the Pend River by dewatering much of their preferred habitat.

Albeni Falls Dam operations have also impacted wildlife resources. Shoreline landforms that provide valuable wildlife habitat in Lake Pend Oreille and Pend Oreille River were rendered vulnerable to accelerated erosion. Considerable land area loss has occurred and is ongoing. The construction of Albeni Falls Dam and the resulting regulated hydrology also removed most vegetation from wetlands resulting in the production of open water areas. The removal of cover resulted in the loss of potential nesting sites for a diversity of wildlife species.

In the lower portion of the Pend Oreille River, the dams have changed the habitat from that of a cold water fast-moving river to warm and shallow reservoirs. As a result, nonnative warm and coolwater fishes now dominate the reservoirs of the lower Pend Oreille River

The dams have also impacted the connectivity for fluvial and adfluvial bull trout migratory life forms. In addition, the dams have isolated bull trout populations and reduced or eliminated genetic exchange thus threatening the persistence of the self-sustaining nature of these populations.

In general, the two primary limiting factors for fish, wildlife, and associated habitats throughout the Pend Oreille Subbasin are habitat loss and non-native species competition. Habitat loss can be described in a variety of ways, but is generally referred to as the loss of connectivity, quality, quantity, and diversity.

Five existing projects have been recommended for continued funding in the Pend Oreille River Subbasin (Table 6). Of those five projects, three (i.e., 199106000, 199500100, and 199700400) are located in the lower Pend Oreille River, one is located in the upper Pend Oreille River (i.e., 199404700) and one (i.e., 199206100) is subbasin-wide. Project Number 199106000, *Pend Oreille Wetlands Wildlife Mitigation Project – Kalispel*, will continue to protect, restore, enhance, and maintain important wetland/riparian wildlife habitat along the Pend Oreille River as partial mitigation for the construction and operation impacts associated with Albeni Falls Dam. Project Number 199206100, *Albeni Falls Wildlife Mitigation Project*, will continue to protect, restore, enhance, and maintain wetland habitat in all Mountain Columbia subbasins (except the Bitterroot, Flathead, and Blackfoot) as ongoing mitigation for construction impacts associated with the Albeni

Falls hydroelectric project. Project Number 199404700, *Lake Pend Oreille Fishery Recovery Project*, will continue to research ways to recover the impacted fisheries of Lake Pend Oreille and the upper Pend Oreille River. Project Number 199500100, *Kalispel Tribe Resident Fish*, will continue to assess native trout habitat in tributaries to the Pend Oreille River and implement recommendations for enhancement as well as provide largemouth bass habitat in the mainstem Pend Oreille River and supplement the largemouth bass population. This project will continue to monitor and evaluate all enhancement measures. Project Number 199700400, *Resident Fish Stock Status Above Chief Joseph and Grand Coulee Dams*, will continue to assess fish assemblages and habitat conditions for all resident fish species in the blocked area by compiling existing data and performing research where data gaps are identified.

Four new projects were recommended for funding in the subbasin (Table 6). Of the four projects, one project (i.e., 24008) is located in the lower Pend Oreille River, and the remaining three (i.e., 24001, 24003, and 24004) are located in the upper Pend Oreille River. Select objectives of Project Number 24004 are located in the Priest Lake/River portion of the subbasin. Project Number 24001, *Lake Pend Oreille Predation Research*, will attempt to balance the predators with the kokanee prey base in Lake Pend Oreille, reduce competition between bull trout and other predators, and enhance or decrease the rainbow trout population as the kokanee population changes. Project Number 24003, *Acquire and Conserve High Priority Bull and Westslope Cutthroat Trout Habitat in Trestle Creek*, will allow for the purchase of conservation easements of fee title interests on 500 acres of private land in Trestle Creek. Project Number 24004, *Pend Oreille/Priest Exotic Fish Species Suppression and Native Fish Protection*, will allow for the protection of threatened stocks of native bull trout and westslope cutthroat trout in the Priest and Pend Oreille lakes watershed by removing lake and brook trout, and implementing measures to prevent recolonization. Project Number 24008, *Genetic Inventory of Bull Trout and Westslope Cutthroat Trout in the Pend Oreille Subbasin*, will allow for the identification of genetic variation/differentiation and hybridization in westslope cutthroat trout and bull trout populations. Information obtained from this work will be essential to the recovery of bull trout in the Lower Pend Oreille Recovery Unit.

This suite of projects addresses needs identified in the Pend Oreille Subbasin Summary including:

#### Upper Pend Oreille River Fisheries

- Restore the kokanee population and the fishery dependent on it through Albeni Falls Dam operational changes.
- Determine the habitat overlap between rainbow trout and bull trout, and the degree of hybridization with westslope cutthroat trout.
- Assess the ecological impacts of the modified lake hydrograph on fish and wildlife populations and communities, and investigate modifying operations to benefit fish and wildlife while minimizing socio-political impacts.
- Research broad ecological relationships and identify limiting factors for focal species within the subbasin.
- Assess the genetic structure and purity of westslope cutthroat trout.
- Conduct a fisheries habitat assessment to determine construction, inundation, and operational impacts resulting from Albeni Falls Dam.

## Wildlife

- Conduct a wildlife habitat assessment to determine operational impacts resulting from Albeni Falls Dam.
- Research broad ecological relationships and to identify limiting factors for focal species within the subbasin.
- Survey the subbasin to map waterfowl use areas and winter distribution of ungulates.
- Initiate a system of breeding bird surveys across the subbasin.
- Initiate assessment of listed species or those likely to become listed as threatened or endangered by federal, state, or tribal governments.

## Lower Pend Oreille River

### Fisheries

- Restore, protect, and maintain spawning and rearing habitat in tributary streams to improve survival of bull trout and westslope cutthroat trout.
- Conserve genetic diversity and provide opportunity for genetic exchange among local populations.
- Complete westslope cutthroat trout and bull trout population inventories and habitat surveys in remaining unsurveyed tributaries to the Pend Oreille River.
- Identify limiting factors and threats to existence for native fish.
- Purchase critical watershed areas for protection and restoration of native fish species and their habitat.
- Improve conditions for spawning and rearing cutthroat and bull trout in the lower Pend Oreille Subbasin by reducing competition with brook trout.
- Increase the harvestable biomass of largemouth bass in Box Canyon Reservoir.
- Determine stock status of game and non-game species within the Pend Oreille River, tributaries, and surrounding lakes.
- Continue to monitor and expand resident fish relative abundance and species distribution surveys on the Pend Oreille River and its tributaries.
- Continue to collect genetic information on resident native stocks of westslope cutthroat trout, bull trout, possible red band rainbow trout stocks, and potentially unique kokanee salmon stocks to develop better management guidelines to conserve and enhance sensitive stocks.
- Evaluate the predator/prey balance of lake trout and kokanee salmon in Bead Lake to evaluate recently enhanced public access on federal land and resulting increased recreational fishing pressure and harvest of lake trout.
- Evaluate the Pend Oreille River bass tournament fishing pressure on largemouth bass; potential nest predation impacts upon incubating eggs; and subsequent egg to fry survival rates on natural bass recruitment.

## Wildlife

- Continue monitoring radio-collared caribou, grizzly bears, and cougars.
- Continue annual censusing of the Selkirk caribou population.
- Continue Tribal Interdisciplinary approach to habitat and population projects within the subbasin.
- Continue reed canary grass management research and monitoring.
- Restore hydrology to protected areas of the floodplain.

- Increase wetland diversity and density within the Cusick Valley floodplain.
- Develop vegetative protocols for bank erosion stabilization.
- Develop landowner handbook for bio-engineered bank stabilization.
- Implement bio-engineered shoreline stabilization techniques on the banks of the Pend Oreille River.

Priest River

Fisheries

- Gather additional information on exotic species abundance and distribution and tributary habitat condition to better define native species management options.
- Remove exotic species.
- Identify the biological factors related to the feasibility of lake trout control in Upper Priest Lake.
- Survey habitat restoration possibilities and prioritize where habitat restoration work would occur.
- Survey the distribution and abundance of brook trout before removal actions should be considered.
- Substantially and permanently reduce the lake trout population.
  - Restore, protect, and maintain spawning and rearing habitat in tributary streams to improve survival of bull trout and westslope cutthroat trout.
  - Conserve genetic diversity and provide opportunity for genetic exchange among local populations.
  - Review operations of Albeni Falls Dam and Priest Lake Outlet Dam. When appropriate, provide recommendations through FERC relicensing process and/or federal consultation that minimize effects on fish, including fish passage, minimum flows, entrainment, stabilized flow regimes, and TDG.
  - Improve conditions for spawning and rearing cutthroat and bull trout in the Priest River subbasin by reducing competition with brook trout.
  - Minimize competition between lake trout and bull trout from Upper Priest Lake and by preventing reestablishment from Priest Lake by migration through the Thorofare.

Table 6. Projects recommended for funding in the Pend Oreille Subbasin.

<b>Project ID</b>	<b>Title</b>	<b>Sponsor</b>
24001	Lake Pend Oreille Predation Research	IDFG
24003	Acquire and Conserve High Priority Bull and Westslope Cutthroat Trout Habitat in Trestle Creek	IDFG
24004	Pend Oreille/Priest Exotic Fish Species Suppression and Native Fish Protection	IDFG
24008	Genetic Inventory of Bull Trout and Westslope Cutthroat Trout in the Pend Oreille Subbasin	KT
199106000	Pend Oreille Wetlands Mitigation Project – Kalispel	KT
199206100	Albeni Falls Wildlife Mitigation Project	AFIWG
199404700	Lake Pend Oreille Fishery Recovery Project	IDFG
199500100	Kalispel Tribe Resident Fish	KT
199700400	Resident Fish Stock Status Above Chief Joseph and Grand Coulee Dams	KT

## **Coeur d'Alene Subbasin**

The distribution and abundance of native fish and wildlife species in the Coeur d'Alene subbasin have been effectively limited by landscape level changes that degraded habitat quality and resulted in fragmentation of habitat patches and isolation of populations. It is widely accepted that the persistence of species is linked to the resilience of local populations as well as to the condition, structure, and interaction of populations and habitats at larger scales.

Dramatic changes in riparian, wetland, stream and forest ecosystems have resulted from several suppressing factors that include livestock grazing, dam construction, logging, mining, introduction of exotic species, channelization, urbanization, road construction, and irrigation withdrawals. In many instances, habitat degradation and consequent reduction in native fish and wildlife populations have resulted from the cumulative effects of small changes to terrestrial and aquatic ecosystems.

Three existing projects have been recommended for continued funding in the Coeur d'Alene Subbasin (Table 7). Project Number 199004400, *Implement Fisheries Enhancement Opportunities on the Coeur d'Alene Reservation*, provides for the enhancement of critical watershed habitat to mitigate limiting factors for westslope cutthroat trout. Through this project physical, chemical, and biological data is collected and an environmental education/outreach program is implemented operated. Project Number 199004401, *Lake Creek Acquisition and Enhancement*, allows for the protection, enhancement, and maintenance of wetland and riparian habitat in the Lake Creek drainage as partial mitigation for the impacts attributed to the construction and operation of the Albeni fall hydroelectric facility and as partial mitigation for the construction and operation of Grand Coulee Dam. Project Number 199004402, *Coeur d'Alene Tribe Trout Production Facility*, represents a supplementation program for native westslope cutthroat trout populations on the Coeur d'Alene Reservation. Currently, the project provides put-and-take rainbow trout fisheries in lakes (closed systems) on the reservation as a means of mitigation for the westslope cutthroat trout fisheries which have been closed to angling during the period of rehabilitation.

Two new projects have been recommended for funding in the subbasin (Table 7). Project Number 24015, *Wetland/Riparian Protection, Restoration, Enhancement and Maintenance in the Coeur d'Alene Subbasin*, will allow for the protection, restoration, enhancement, and maintenance of wetland/riparian habitats. Project Number 24020, *Center for GIS Analysis and Information in the Coeur d'Alene Subbasin*, will provide GIS analysis capabilities and act as the central data repository for all organizations within the Coeur d'Alene Subbasin.

This suite of projects addresses the needs identified in the Couer d'Alene Subbasin Summary including: 1) stabilize and restore native populations, 2) continue on and off-site mitigation of the wildlife loss ledger for the construction and inundation of Albeni Falls Dam, 3) identify and protect known concentration areas and key habitats from foreseeable threats such as development and other land use changes, 4) protect and enhance large non-fragmented blocks of old growth habitats, inclusive of the historic diversity of old growth habitat types, 5) protect and enhance wetland and riparian habitats whenever possible, 6) provide safe movement corridors between blocks of habitat (fine-scale corridors) and between ecosystems (large-scale corridors), 7) develop a

comprehensive GIS wildlife database for the subbasin that allows for consistent data collection and management, data exchange, critical habitat mapping, gap analysis, and peer review.

Table 7. Projects recommended for funding in the Coeur d’Alene Subbasin.

<b>Project ID</b>	<b>Title</b>	<b>Sponsor</b>
24015	Wetland/Riparian Protection, Restoration, Enhancement and Maintenance in the Couer d’Alene Subbasin	CDAT
24020	Center for GIS Analysis and Information in the Couer d’Alene Subbasin	CDAT
199004400	Implement Fisheries Enhancement Opportunities on the Coeur d’Alene Reservation	CDAT
199004401	Lake Creek Land Acquisition and Enhancement	CDAT
199004402	Coeur d’Alene Tribe Trout Production Facility	CDAT

### **Blackfoot River Subbasin**

Although a subbasin summary does not exist for the Blackfoot River, Project Number 24017, *Restoring Bull Trout Habitat in the Black Foot River’s North Fork*, was submitted by Trout Unlimited for consideration in the Rolling Provincial Review. The project, which will addresses correcting dewatering and low flows, migration barriers and unconnected core habitat, and a degraded tributary stream bed and channel, was recommended for funding.

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