



Independent Scientific Review Panel
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Final Review

of

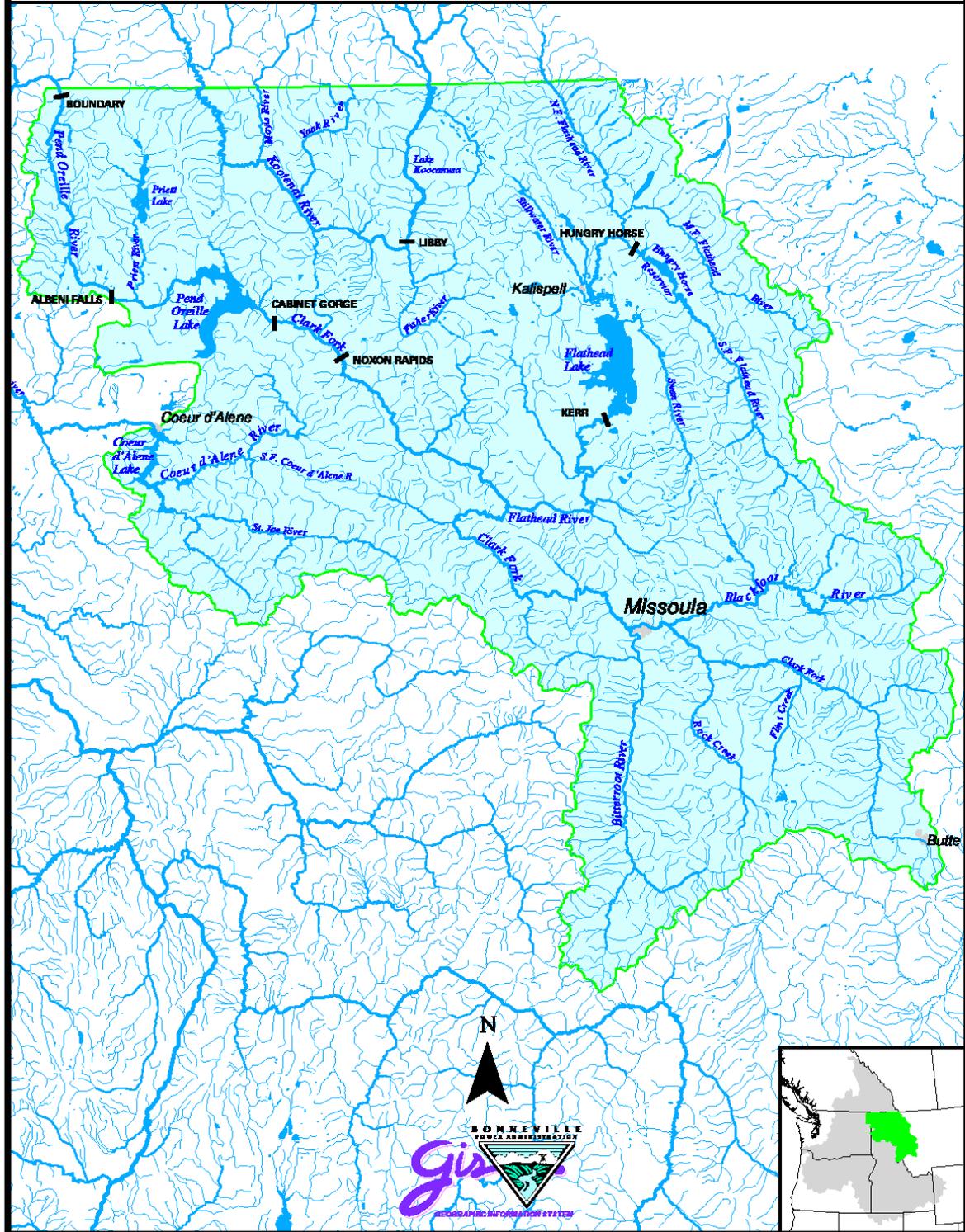
Fiscal Year 2002 Project Proposals for the Mountain Columbia Province

**ISRP 2001-4
April 6, 2001**

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MOUNTAIN COLUMBIA ECOLOGICAL PROVINCE



Subbasins: Flathead, Kootenai, Coeur d'Alene, Pend Oreille

ISRP Review of Fiscal Year 2002 Project Proposals for the Mountain Columbia Province

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Review of Fiscal Year 2002 Project Proposals for the Mountain Columbia Province

I. Introduction

This report is the Independent Scientific Review Panel's (ISRP) final review of proposals submitted for funding in the Mountain Columbia Province. It contains identification of general issues, an overview of the evaluation process, and final recommendations and detailed comments for each proposal submitted. Each ISRP recommendation includes a comparison with CBFWA's prioritization and takes into account project sponsor responses to the ISRP's preliminary review.

This marks the end of the ISRP's duties in the third iteration of the provincial review process. The ISRP continues to be enthusiastic about the new approach. Although the process still needs some fine-tuning, the ISRP noted general improvements in the quality of the subbasin summaries and the project presentations compared to those in the Columbia River Gorge and Inter-Mountain provincial review.

II. General Issues

Several crosscutting issues were identified during the review. These are included here to initiate regional discussion and inform future provincial reviews. Some issues were raised in the earlier Columbia Gorge and Intermountain Provincial reviews, but remain relevant to the Mountain Columbia Province.

A. Monitoring, Evaluation and Reporting of Results

A primary review function of the ISRP is to determine if projects will benefit fish and wildlife. Integral to this determination is whether projects monitor and evaluate progress and report results. The ISRP has found a pattern of inadequacy in these areas and offers the following observations.

1. Monitoring and Evaluation

Proposals must describe plans for monitoring and evaluating project performance, and, for ongoing projects, include summaries of monitoring data in figures and tables. Monitoring data should be included even if monitoring is conducted by another project. The ISRP is not recommending major research-level data collection for all projects. Rather, we envision cost-effective data collection procedures that can be easily replicated by new personnel. Proponents of related projects should collectively design monitoring and evaluation activities in order to enhance coordination and reduce costs.

Long-term monitoring and evaluation should have the following characteristics:

1. Data are unbiased.
2. Monitoring is cost-effective.
3. Responsibility for monitoring and evaluation is specifically assigned.
4. Data have both long-term and immediate management value.
5. Data detect changes and trends rather than cause and effect.

6. Methods are not changed unless techniques overlap.
7. Monitoring methods, times, and location are documented in reports and databases.
8. Reports are issued regularly and on time.

2. Progress of Ongoing Projects

Most of the work under review in this and previous provincial reviews has been conducted for several years using original objectives and methods. Consequently, the present review is primarily about progress toward the original goals and objectives. Unfortunately, very little monitoring data was provided to the ISRP with which it could review and comment on that progress, despite its having been requested in the proposal form and listed as one of the review criteria on the evaluation sheet.

The failure of some projects to report on progress (or the lack of progress) toward project objectives has been a recurring concern of the ISRP. Large programs should not be permitted to continue without demonstrating that they are making significant progress toward their objectives. For example, the absence of reported results on project 199106000 “Pend Oreille Wetlands Wildlife Mitigation Project – Kalispel,” despite being requested in several ISRP reviews, caused us to recommend that it not be funded.

3. Adaptive Management

Proposals often list adaptive management as a monitoring and evaluation component. However, despite the frequent use of the term, much project activity does not qualify as adaptive management because the effects of alternative management actions cannot be adequately compared. Most projects call for a single management action and an evaluation of its result, rather than the comparison of alternatives in an experimental setting with treatments and controls. Observational studies are unlikely to yield adequate information for adaptive management unless they are replicated over time and space. In some projects, the monitoring and evaluation components focus on detailed process models, which alone are unlikely to deal effectively with temporal and spatial variability or generate information useful for adaptive management.

4. Publication of results

Project sponsors should publish results of their projects in peer-reviewed scientific literature as well as in annual reports. Publication is the way new knowledge is communicated, and Fish and Wildlife Program research results are of interest and use to the region’s entire scientific community.

5. Data Repository

In principle, all data obtained through public funds should be available to the public. Projects should identify their plans making data and meta-data available for public use. If there are restrictions on data use (e.g., locations of sensitive species or a restricted-use time period for preparation of reports and manuscripts), then the restrictions should be specified and justified. A central data repository is one mechanism for making data publicly available. StreamNet may be an acceptable database for electronic storage and retrieval of Provincial project data. However, the region appears to be moving to a distributed system where data and meta-data are made available through multiple sites on the World Wide Web.

B. Prioritization and Assessment of Habitat Restoration Efforts

1. Limiting factors

Often the “limiting factors” mentioned in subbasin summaries were stated at the general level of human activities or human-generated processes, e.g., mining, logging, overgrazing, or agriculture. Subbasin summaries and proposals should identify detrimental human activities, but need to go deeper and describe how these activities limit fish or wildlife production through their effects on water quality, water quantity, sediment flow, streamside vegetation, etc. Specific biological or physical factors amenable to near term management actions should be described, as should actions that could address the ultimate causal factors.

There is a general presumption that, for fish, stream conditions are most important in limiting populations. Is there any evidence that this presumption is true? What consideration is given to the possibility that migratory populations are limited by food, space, predation, competition, or water quality in downstream waters (large river, lake, reservoir, estuary, or ocean)?

2. Hypothesis Testing and Project Selection Justification

Much of the work proposed for these basins is habitat renovation work. In both subbasin summaries and proposals, there is generally very little explanation of why the particular locations for renovation were chosen (there is some discussion in project 199004400, page 25). It seems logical that development of a hypothesis about requirements for maintaining viable, productive native fish populations in a target area would be the first order of business. The hypothesis would be based on the best available information describing the distribution, abundance, productivity, and diversity needed by a population to ensure its long-term viability. The location and quantity of habitat needed to fulfill these requirements would then become the primary targets for protection or renovation. The present proposal strategy seems to have more to do with trying to fix everything that does not “look right” to human observers than to making it “work right” for protecting and producing fish.

3. Quantitative Assessment

The most notable omissions from subbasin summaries and proposals are quantitative biological and habitat assessments. Quantitative assessments should be the basis of any production and habitat restoration plan. Specifically lacking are stock assessments and monitoring information in fisheries projects (time series on escapement, catch, fecundity, smolt yield, age structure, survival during freshwater and marine life stages, etc.) and watershed assessments in habitat projects (prescription, rehabilitation, and monitoring and evaluation). In addition, hatchery operations for harvest management versus supplementation are often confused, poorly justified, or unsupported by available data. Even incidental harvest is unjustifiable if stock assessments indicate the stock is below replacement levels.

4. Standardization of assessment

In the Council's subbasin planning effort, it might be useful to develop a stream or watershed assessment team at Council or BPA level. The team would include fluvial geomorphologists, hydrologists, and biologists to survey conditions in proposed watersheds. The team could develop prescriptions to stabilize and renovate the physical conditions and to outline monitoring needs. The work could then be contracted with people on site. At present, much of the ongoing and proposed work appears to be of questionable value to fish and wildlife, some offers no permanent solution to persistent problems, and some may even be deleterious. Part of the renovation strategy for fish populations is to restore habitat diversity. Many projects seem to follow a "cook book" approach that tends to result in homogeneous rather than diverse habitat. The ISRP is aware that the Council is considering including review of major habitat restoration project as part of the 3-Step Review Process. The ISRP supports this review as a means to evaluate alternative project designs.

C. Subbasin Summaries and Plans

Subbasin summaries have proven especially helpful to the provincial review process by providing an overview and large-scale context for many activities. The following observations are intended to improve the draft subbasin summaries and the development of subbasin plans.

Proposals and subbasin summaries need to be explicitly connected. Some proposals made direct reference to the priorities contained in subbasin summaries. This reference was helpful to reviewers and could be further used to the advantage of planning and review. The ISRP's expectations for subbasin plans are greater than for subbasin summaries. The subbasin plans should be the leading documents establishing subbasin goals and objectives to which projects can respond, rather than simply listing needs and objectives collected from existing projects.

The NWPPC's proposal development and review process needs to consider the fit of subbasin plans and proposals into provincial programs. The development of the program at the subbasin scale should be guided by provincial objectives. Considering activities such as monitoring programs at the provincial scale could realize cost savings and facilitate coordination.

D. Program vs. Project Support

Several of the large requests for the Mountain Columbia Province are to support what appear to have become program-scale divisions of fish and wildlife. The funding agency is asked to provide continuing support for habitat divisions, management programs, monitoring and evaluation (M&E) programs, land acquisition programs, and hatchery programs. The condition of fish and wildlife resources illustrates that the existence of these programs does not suffice in protecting or renovating native species. In fact, many program activities cannot be defended technically, and some may further jeopardize native species.

E. Land and Water Acquisition Trust Fund

Requests for land and water acquisition trust funds have arisen in all three provincial reviews. Examples of trust-fund type projects in the Mountain Columbia are Albeni Falls Wildlife Mitigation Project (199206100), and Wetland/Riparian Protection, Restoration, Enhancement and Maintenance in the Coeur d'Alene Subbasin (24015). The inherent difficulty with a land and water acquisition trust fund from the perspective of scientific review is that specific projects are not identified, described, and justified prior to fund allocation. Thus, projects or purchases can only be reviewed retrospectively. Front-end accountability can be facilitated through development of specific criteria that rank or prioritize potential land or water acquisitions according to their potential benefits to fish and wildlife.

The 2000 Columbia Basin Fish and Wildlife Program, section VI.A.8, recommends that BPA establish a Land and Water Acquisition Fund. The ISRP is aware that the Council, BPA, and the region are working out details for the fund, including property prioritization and selection criteria. Until that fund is established, the ISRP needs guidance from Council and Council staff on how to effectively review projects that fall within the trust fund approach. Many projects lack the site-specific information we require for our usual technical review. In addition, the Council should determine how the land and water acquisition requests would mesh with the provincial review or whether they should be reviewed through a separate process.

F. Ecological Principles in Management: Predator/Prey Relationships

Introduced non-native fishes such as walleye, bass, northern pike, and catfish are at times and places significant predators on salmonids, as are the native northern pikeminnow. The first four species provide significant sport fisheries that are in some cases encouraged by management agencies through stocking, while measures to reduce northern pikeminnow populations are in place throughout the mainstem. These species and their management should be included in province and subbasin summaries. The success of resident fish projects can be seriously affected by such predation, as noted by the ISRP in its comments on project 199004402, the Coeur D'Alene Tribe Trout Production Facility.

G. Flathead Lake Fisheries Management Objectives

Managers must decide on objectives for the Flathead Lake fisheries. The present lake ecosystem does not resemble the natural system. It is dominated by exotic species, largely lake trout, to the detriment of the native species. If lake trout are to be managed to sustain fisheries, the native species will not recover to historic abundance and may even decline from present levels, perhaps even to extinction. It is realistic to acknowledge that under that scenario, or perhaps any scenario, goals and objectives for native species based on past abundance are unattainable.

III. ISRP Review Process

Project evaluation and selection occurs in several steps. The ISRP review steps are described below.

Site Visits

The Mountain Columbia review team comprised two groups that visited the province on August 31 and September 1, 2000. One group visited the Pend Oreille and Coeur d'Alene subbasins. The other group visited the Kootenai and Flathead subbasins. The team profited from informal discussions with project leaders during the visits. These discussions combined with oral presentations at Kalispell were invaluable in identifying potential issues and clarifying the nature of the projects.

The Mountain Columbia site visit occurred before the reviewers had proposals in hand, a schedule that was dictated by the inaccessibility of research sites in the winter. However, having proposals reviewed before a site visit is preferable because they contain detail that provides context and specificity to a site review. The sequence of subbasin summaries, proposals, tours, oral presentations and ISRP deliberations, as occurred for the Inter-Mountain and Columbia Gorge provinces, is the most effective.

Proposal Review

The ISRP and CBFWA review teams received 38 Mountain Columbia proposals in late December. At least three ISRP/Peer Review Group members reviewed and commented on each proposal prior to the proposal review workshop. ISRP comments were used to scope questions for the workshop presentations but were not made available to the project sponsors at the workshop. At least one ISRP reviewer was assigned to be familiar with any technical background material submitted with the proposal.

Project Presentations

The Mountain Columbia project presentation workshop was held January 17-18 in Kalispell, Montana. Each set of subbasin presentations began with a subbasin summary. Project sponsors then presented summaries of their projects. A question and answer session followed each presentation. Projects were limited to about 15 minutes for the presentation and follow-up questions by reviewers.

Overall, the presentations were an improvement over those in the Gorge and Inter-Mountain province workshops. Sponsors made good use of maps (which often should have been included in the proposal) to describe the limiting factors they proposed to address. However, many presentations simply reiterated material in the proposals and failed to present the project as a component of a sound subbasin mitigation and recovery strategy. In addition, few subbasin summaries or presentations of ongoing projects presented data demonstrating biological results of past work. Demonstrated benefits to fish and wildlife is a basic review criterion and its absence is a glaring omission in this and previous reviews.

Review Team Evaluation Meeting

On January 19, the ISRP review team met to discuss the presentations, evaluate project proposals, and reach consensus recommendations. Review findings were included in the ISRP's preliminary report.

ISRP Final Report: Response Review and Comparison with CBFWA Prioritization

On February 9, the ISRP issued a preliminary report based on findings of the proposal review and workshop (ISRP 2001-2; www.nwcouncil.org/library/isrp). In that report, the ISRP found that ten proposals were scientifically sound, offered benefits to fish and wildlife and did not require any further ISRP review. Twenty-five proposals were recommended as fundable only if the project sponsor adequately responded to the ISRP's concerns. Three projects were recommended as "do not fund; a response is not warranted." Project sponsors were provided several weeks to respond to the ISRP's comments.

The ISRP received responses from the 25 proposals for which a response was requested and from several proposals for which a response was not requested. Only those responses that were requested were reviewed. A minimum of three ISRP reviewers who had reviewed the original proposal reviewed the response related to that proposal. The ISRP discussed the responses as well as the CBFWA's priority recommendation and comments for each proposal (see CBFWA's Draft FY 2002-2004 Mountain Columbia Province Work Plan, March 16, 2001; www.cbfgwa.org/files/province/mtncol/subsum.htm).

IV. Review Results

Taking into account the original proposals, workshop presentations, responses to review comments and CBFWA's prioritization, the ISRP review team developed consensus recommendations and comments on each of the 38 proposals submitted. The ISRP's final recommendations and a brief description of each proposal are provided below. In cases where the ISRP and CBFWA recommendations differ, CBFWA comments are also provided.¹ ISRP comments on each proposal are provided in two sets: ISRP "fundable" and "do not fund." Within each set, the comments are arranged by level of agreement with the CBFWA prioritization.² This format was chosen to aid the Council in

¹ CBFWA's comments include those made by CBFWA reviewers of the proposal and managers on the budget, and were not drafted for inclusion in the ISRP's report. These comments are included because they are what the ISRP reviewed as it compared its recommendations with CBFWA's.

² The following definitions were used for the CBFWF 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.

identifying potential issues. ISRP recommendations and comparisons with CBFWA recommendations are also provided in a table starting at page 37.

The ISRP recommendations of “fundable” are presented first. These recommendations come in five forms:

- 1) The ISRP agrees with CBFWA that a proposal is fundable, and CBFWA recommends as high priority;
- 2) The ISRP conditionally agrees with CBFWA that a proposal is fundable, and CBFWA recommends as high priority;
- 3) The ISRP and CBFWA agree that a proposal is fundable, and the ISRP recommends the proposal be elevated above CBFWA’s recommended action;
- 4) The ISRP agrees with CBFWA that a proposal is fundable and CBFWA recommends as a recommended action; and,
- 5) The ISRP recommends that a proposal is fundable and CBFWA recommends as do not fund.

The ISRP’s “do not fund” recommendations are provided next. These fall into four categories:

- 1) The ISRP recommends that a proposal is not fundable, but CBFWA recommends it as high priority;
- 2) The ISRP recommends that a proposal is not fundable, but CBFWA recommends it as a recommended action;
- 3) The ISRP recommends that a proposal is not fundable, but CBFWA does not recommend it for funding or review under this process;
- 4) The ISRP agrees with CBFWA that a proposal is not fundable and is not scientifically sound or does not offer benefits to fish and wildlife.

• 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.

ISRP and CBFWA Agree: ISRP Fundable and CBFWA High Priority

ProjectID: 24003

Acquire and conserve high priority bull and westslope cutthroat trout habitat in Trestle Creek.

Sponsor: Idaho Department of Fish and Game

Subbasin: Pend Oreille Upper

FY02 Request: \$290,400

3 YR Estimate: \$290,400

Short Description: Purchase conservation easements of fee title interests on 500 acres of private land in the Trestle Creek watershed.

CBFWA Recommendation: Urgent

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable, this is a strong proposal. The ISRP's concerns were answered satisfactorily. There was evidence of an exceptionally strong bull trout monitoring program, funded elsewhere, that included redd counts, a weir to enumerate adults, and a trap to estimate juvenile outmigrants. A general response is provided on conservation objectives that include adequate response regarding acquisitions in the context of total habitat needs. However, it is not clear how the mean monthly discharge data will be used to produce recommendations for minimum in-stream flow reservations.

ProjectID: 24005

Smith Creek Restoration

Sponsor: Idaho Department of Fish and Game

Subbasin: Kootenai

FY02 Request: \$52,680

3 YR Estimate: \$358,040

Short Description: Restore lower Smith Creek stream channel to improve native fish habitat and complement wetland restoration.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable. This is a proposal to restore about one-half mile of lower Smith Creek between its mouth at the Kootenai River and an impassable falls approximately two miles upstream of the mouth. The intent is to improve habitat currently used by a remnant kokanee run from Kootenay Lake, through return of the stream to its natural channel. Restoration of this reach of Smith Creek would bypass the current ditch linking the creek at the floodplain edge directly to the river. This ditch has little useful fish habitat, whereas the restored original creek channel should have much more, both in quantity and quality. The restoration would be a component of overall wetland restoration in the adjacent lands under the NRCS's Wetland Reserve Program. Proposers have acted in cooperation with permitting agencies (COE, IDWR), and the project would complement a conservation management project of the NRCS Wetland Reserve Program. The project constitutes a practical alternative to a channel-cleaning project being proposed to protect private property from erosion. The panel applauded inclusion of explicit monitoring and evaluation tasks; which would monitor the effect of restored natural riparian habitat on several species of fish.

The proposal is somewhat meager. The absence of a map was mitigated somewhat by the presentation, but location information should have been included in the proposal. Further, background on negative impacts of stream channelization, and specifics regarding salmonid habitat or lack thereof in the Kootenai River basin, is thin. Other BPA-funded or other projects are not mentioned. On the positive side, anticipated results from restoration are given, and the work is related to the Subbasin Summary and Idaho's 1996 fish management plan. Overall, although aspects of the proposal are lacking, the project would have a large benefit to fish and wildlife, and merits funding.

ProjectID: 24008

Genetic Inventory of Bull Trout and Westslope Cutthroat Trout in the Pend Oreille Subbasin

Sponsor: Kalispel Tribe of Indians

Subbasin: Pend Oreille Lower

FY02 Request: \$243,490

3 YR Estimate: \$450,490

Short Description: Establish a genetic sampling program for bull trout and westslope cutthroat in the Pend Oreille Subbasin. This information will be used in the recovery of bull trout in the Lower Pend Oreille Recovery Unit and to document hybridization among westslope.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable. Bull trout and westslope cutthroat trout will be collected (by electrofishing) from 60 locations in the Pend Oreille subbasin in Washington, Idaho, and British Columbia by the Kalispel Tribe, WDFW, IDFG, and a consultant. Genetic analysis from fin portions, done by WDFW and representing the most costly component of the project, would assess the extent of hybridization with non-native salmonids.

This project seems to be consistent with the goals and objectives of the subbasin summary. The proposal is concise and has clear goals. The information should help to clarify population structures and dynamics (gene flow). The microsatellite DNA analysis proposed is an important component of the management of threatened populations.

ProjectID: 24009

Assess Feasibility of Enhancing White Sturgeon Spawning Substrate Habitat, Kootenai R., Idaho

Sponsor: Kootenai Tribe of Idaho

Subbasin: Kootenai

FY02 Request: \$350,000

3 YR Estimate: 1510000, CBFWA recommends \$510,000

Short Description: Construct sediment transport models to assess the feasibility to enhance white sturgeon spawning substrate habitat, Kootenai R., ID. Study temporal/transient changes in sediment type, bedform, and erosion/deposition on spawning substrate.

CBFWA Recommendation: High Priority (Phase 1)

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable, the ISRP concerns are addressed. This is a good response, bolstered by numerous literature references. The overall program's work has a logic of accumulated evidence that has progressed to the hypothesis for egg suffocation on shifting sediments. The sediment hypothesis seems sufficiently supported by solid evidence and anecdotal observations to warrant further testing. Other hypotheses may still emerge but none are fully formulated yet.

In the response, the authors often lift an entire section from a report that could have been summarized in the original proposal (e.g. the sections on sediment dynamics on recruitment failure, egg attachment on substrate, and the velocity data). If the authors had provided this complete information in the original proposal these review questions would not have arisen.

ProjectID: 24015

Wetland/Riparian Protection, Restoration, Enhancement and Maintenance in the Coeur d'Alene Subbasin

Sponsor: Coeur d'Alene Tribe

Subbasin: Coeur d'Alene

FY02 Request: \$1,996,131

3 YR Estimate: \$6,535,188

Short Description: This project intends to protect wetland/riparian habitats within the Coeur d'Alene Subbasin through management rights acquisition and restore, enhance, and maintain those habitat for the benefit of native fish and wildlife in perpetuity.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable. The proposers provided a detailed response that addressed the ISRP concerns. The map was helpful and they have demonstrated a logical plan and selection criteria for prioritizing potential purchases. However, specific parcels are not identified. . The proposers have prepared a very complicated flow chart of activities that should be used to help identify areas of overlap and potential simplification. The response is vague as to how the project will seek consistency with the Conservation Easement Plan. In addition, the proposed review of the easement plan is an internal review rather than an independent scientific review. The sponsors should obtain outside reviewers for the plan review.

ProjectID: 24017

Restoring Bull Trout Habitat in the Blackfoot River's North Fork

Sponsor: Trout Unlimited's Western Water Project

Subbasin: Blackfoot

FY02 Request: \$329,128

3 YR Estimate: \$349,128

Short Description: Comprehensive bull trout recovery project aimed at instream restoration and streamflow enhancement, using irrigation efficiencies projects and habitat restoration in combination with voluntary water leasing.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable, the response is adequate. Although the project offers benefits to bull trout in the project area, the ISRP questions the priority of this to ESA listed bull trout populations. The response to the ISRP comments regarding jeopardy of bull trout in the project area is not convincing. Arguments are based on the "belief" that the population will benefit from the proposed actions rather than any objective evidence that the population is in jeopardy. In fact, the population is characterized as one of three "strong holds" for bull trout in the Blackfoot Watershed; consequently, this effort may have little impact on removing the larger bull trout population from jeopardy. The funding agency should examine the structure, dynamics, and diversity required for bull trout viability in this part of their range and determine whether or not habitat improvement for the Blackfoot population(s) is a key element in that determination. If it is not, available resources may be more appropriately applied to meeting bull trout viability in the regional population.

Letters from USFWS and Montana DNRC contained a great deal of specific, relevant information. The latter confirms that water "saved" will remain in-channel and the relatively large amount of new water flow involved should provide major biological benefits for at least the short term. The proposed leases may be from 10 to 30 years depending on conditions; thus, it is not clear that any benefits produced by the project will be protected in perpetuity. To offer long-term benefits, the lease should contain provisions for renewal or should be for longer-terms. The response provides that adequate fish population monitoring will be done (by MTFWP, not funded here). If the data being obtained for parent population size (redd counts), and indices of the abundance of juveniles produced by each brood, are obtained by consistent and reliable

methods, the monitoring program described can provide (in time) data needed to correct for effects of population density on survival. Compelling evidence is also provided that the project should lead to significant increases in bull trout spawning and rearing (and enhance bull trout passage in Rock Creek) in the sites involved.

ProjectID: 24021

Implement Floodplain Operational Loss Assessment, Protection, Mitigation and Rehabilitation on the Lower Kootenai River Watershed Ecosystem

Sponsor: Kootenai Tribe of Idaho

Subbasin: Kootenai

FY02 Request: \$192,864

3 YR Estimate: \$968,864

Short Description: Pilot project to assess operational losses with long-term mitigation, protection, enhancement, rehabilitation in floodplain ecosystems on the Lower Kootenai River Watershed.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable. The response was quite complete, although the comments regarding alternative operating policies for Libby Dam was marginal. The original proposal's lack of background in the flood-pulse concept was alleviated with a tour-de-force literature review. The response leaves little doubt that proposers have a coherent plan, and that the scientific personnel are capable of accomplishing the project objectives. This should be an excellent project.

ProjectID: 24023

Purchase Conservation Easement from Plum Creek Timber Company (PCT) along Fisher River

Sponsor: Montana Fish, Wildlife & Parks

Subbasin: Kootenai

FY02 Request: \$500,000

3 YR Estimate: \$1,500,000

Short Description: Purchase perpetual conservation easement on 56,400 acres (163 stream miles) of PCT lands along the Fisher River to preclude subdivision/development; protect fish habitat, maintain public recreational opportunities, and insure responsible management.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable, but benefits to fish and wildlife might be better assured with a more restrictive conservation easement. This is a proposal for partial funding (about 5 percent of the total cost) of purchase of a conservation easement for Plum Creek Timber Lands in the Fisher River watershed (a tributary of the Kootenai River below Libby Dam), primarily the bottomlands. Limiting development of the area will help establish refuges for wild stocks and prevent further habitat degradation. It will also provide a touchstone or reference point for habitat restoration efforts within the basin. Although this is a new proposal, it has been proposed and favorably reviewed for the past two years but not funded. The acquisition of a conservation easement for this huge block of land, in addition to the planned acquisition of the Thompson River project, "will result in completion of most, and possibly all, of the wildlife mitigation goals for both Libby and Hungry Horse dams." The current proposal has a reduced BPA commitment and greater commitment by other funding sources than the original proposal two years ago (now heavily supported by the state of Montana). The negotiated easement includes establishment of baseline forestry practices (not restoration projects), restriction of residential development, and preservation of recreation. The project would offer benefit to both fish and wildlife. Plum Creek would apply an existing Habitat Conservation Plan (HCP) to these lands and is stated to have monitoring in place. The proposal is straightforward and succinct. The significance is illustrated by an array of relevant regional plans and other BPA-funded projects. The

acquisition is related to other non-BPA projects. Conventional tasks and methods do not apply, although the narrative outlines the acquisition process.

The ISRP offers the comments below for consideration by the sponsors:

- Success of this proposal seems to depend on things that have not proven dependable in the past. It needs the continuing support of the landowner (present and future), protection from politicians, adherence to water allocation guides during low flow periods and years, and adherence to what is referred to here as “reasonable” forest management practices. Can the required agreements be written so that they are enforceable, will exist in perpetuity, and even though the language says that the agreement can be changed by mutual consent, permit only trivial changes?
- Many of headwater areas are outside the area to be “protected.” Is there any assurance that they will be protected from disruption?

ProjectID: 198806400

Kootenai River White Sturgeon Studies and Conservation Aquaculture

Sponsor: Kootenai Tribe of Idaho

Subbasin: Kootenai

FY02 Request: \$1,230,000

3 YR Estimate: \$5,833,000

Short Description: Prevent extinction, preserve existing gene pool, and begin rebuilding healthy age class structure of the endangered white sturgeon in the Kootenai River using conservation aquaculture techniques with wild broodstock.

CBFWA Recommendation: Urgent (Ongoing work)

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable. This was an outstanding response. The overall concern for solving the problem in the field is clearly recognized, and other projects and proposed projects have been developed (with good coordination with this project) to address the relevant ecological issues. There does seem to be excellent project accountability, despite the ISRP’s initial question based on the original proposal. The hatchery milestones are clear. Whether one agrees with the somewhat peripheral trout-pond work or not, this project is using the hatchery facilities in an understandable way to create a thoroughly managed, put-and-take fishery. This trout-pond work is only justified on a small scale. Whether a trout pond reduces fishing pressure on native stocks would need to be monitored and evaluated.

ProjectID: 198806500

Kootenai River Fisheries Recovery Investigations

Sponsor: Idaho Department of Fish and Game

Subbasin: Kootenai

FY02 Request: \$825,391

3 YR Estimate: \$2,834,892

Short Description: Recover the Kootenai River white sturgeon, develop a recovery plan for burbot and bull trout, improve fishing for rainbow and cutthroat trout and mountain whitefish, rehabilitate ecosystem health.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable. This is a well-prepared proposal that addresses the deficiencies noted in the FY 2000 ISRP review. The technical and scientific background is complete, well organized by topic, and includes numerous pertinent references to the literature. The proposal links its work to all relevant plans, specifically including the FWP, Subbasin Summary, Idaho’s regional plan, and the FWS’s BiOp and

Recovery Plan. There are specific linkages discussed with other projects, with the strong statement that this work is collaborative with others. The proposal showed strong indication of active cooperation between KTOI and BCME. There is a good listing and narrative showing the project history in terms of funding, studies, and principal results. The objectives and tasks are well organized and expressed. The methods are well described. Monitoring and evaluation constitute a large part of the program and the relevant objectives, tasks and methods are well presented. Facilities, equipment, and personnel are described and are appropriate for the work. Information transfer has been a strong feature of this project and its professional staff, and the proposal indicates that this information transfer will continue. There is less direct evidence in the proposal of basinwide coordination for sturgeon studies than is shown for Project 198806400. The benefit to fish and wildlife from this project should be high, with no negative side effects. However, the hypotheses for reduced recruitment are still evolving, and further consideration of alternative hypotheses seems desirable. For example, the actual physical processes involved with the relationship of spawning location to lake elevation were not discussed and could form the basis for additional hypotheses.

The sturgeon program objectives seemed reasonable and would take advantage of "new" information to propose a test of the hypothesis that fish will spawn in the cobble at RM 242 if Kootenay Lake elevation is held high enough. However, this may be very expensive emergency room surgery without being sure of the exact causes of the patients' maladies. The stress assessment objective for burbot still shows no indication that it would be done by qualified personnel. These comments do not require a response, but are for the benefit of the investigators.

ProjectID: 199101903

Hungry Horse Mitigation

Sponsor: Montana Fish, Wildlife & Parks

Subbasin: Flathead

FY02 Request: \$982,850

3 YR Estimate: \$3,037,850

Short Description: Mitigation for the construction and operation of Hungry Horse Dam. Implements habitat restoration, improves fish passage, protects and recovers native fish populations and reestablishes fish harvest opportunities.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable, the response was adequate and informative. The logic of prioritization is reasonable scientifically. However, this project is an amalgam of many discrete projects, and it is difficult to evaluate how well the work is progressing toward attaining the stated goals. Although the sponsors reported some data on results of past activities (one of the few to do this at their presentation), the ISRP expects that in subsequent reviews the sponsor will focus on reporting of results in terms of the original project goals. The stated goal is to mitigate loss of 250,000 juvenile bull trout and 65,000 juvenile westslope cutthroat trout from a loss of 124 km of spawning and rearing habitat. (Also see similar comments on Project 199500400).

ProjectID: 199101904

Stocking of offsite waters for Hungry Horse Mitigation - Creston National Fish Hatchery

Sponsor: U.S. Fish and Wildlife Service

Subbasin: Flathead

FY02 Request: \$106,672

3 YR Estimate: \$329,712

Short Description: Produce hatchery fish for offsite stocking to mitigate losses to Flathead Lake caused by construction and operation of Hungry Horse Dam.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable, this is a continuation proposal for use of Creston National Fish Hatchery for the production of westslope cutthroat trout and rainbow trout for stocking in waters chosen by the MDFWP and CSKT. This is a clear, concise, well-written proposal and is much simplified from earlier proposals, and simply reflects the hatching and rearing components of the state and tribal management agencies' stocking programs. Gone is the plan for Lake McDonald rehabilitation, as proposed last year. Gone is specific responsibility for species and lakes to be stocked.

The proposal is straightforward and clear. The background section is mostly history of the hatchery's involvement rather than scientific/technical background for stocking. The significance is given in the context of both the Subbasin Summary and the Fish and Wildlife Program (with sections cited). The proposal cites relevant projects in the basin and the constrained role of the hatchery in those programs. The project history is given well, including stocking data. Objectives and tasks are clear and limited. The essence of methods is provided with details referred to the HGMP. Monitoring and evaluation are discussed as the responsibility of the management agencies, and the essence of the approach is given. Facilities and equipment are appropriate, and the hatchery manager is experienced. Information transfer is to a limited audience—the management agencies. The benefit to fish and wildlife is largely to the fisheries in closed lakes and to wild stocks on which fishing mortality does not occur as a result of alternative fishing opportunities. The management agency (MFWP) has studied the potential for doing damage to organisms such as amphibians in the stocked waters and concluded that it is not a problem.

ProjectID: 199404700

Lake Pend Oreille Fishery Recovery Project

Sponsor: Idaho Department of Fish and Game

Subbasin: Pend Oreille Upper

FY02 Request: \$362,000

3 YR Estimate: \$1,100,000

Short Description: Project researches ways to recover the impacted fisheries of Lake Pend Oreille and the upper Pend Oreille River.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable. This excellent proposal rates high on all counts. Favorable ISRP comments and recommendation from last year still apply. The researcher has consistently addressed concerns raised by the ISRP and other scientific peer reviews. Although not very different from last year, as much of the effort is a continuing monitoring and evaluation operation, the proposal is updated with the Subbasin Summary and FWS BiOp as further rationale for the project. During the public comment period, the PUD provided a summary status report on kokanee in Lake Pend Oreille and a set of questions and alternative approaches that seem relevant for IDFG to address in their research. This is a service to the Council, the ISRP, and the IDFG, but the reviewers did not see a compelling reason to change the recommendation regarding funding this project.

ProjectID: 199404900

Improving the Kootenai River Ecosystem

Sponsor: Kootenai Tribe of Idaho

Subbasin: Kootenai

FY02 Request: \$710,891

3 YR Estimate: \$3,535,891

Short Description: Identify 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.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable, but with comments for consideration by investigators (no ISRP response needed). This proposal and project remain the broadest of the several Kootenai River projects. The attention is to the whole ecosystem rather than to the more limited fish species components of other studies. Various components of the ecosystem either are or have been studied by this project or others. Integration has been accomplished by cooperative development of an ecosystem model and an adaptive management process. The project is strongly cast as leading up to potential whole-ecosystem fertilization of the Kootenai River, in parallel with Canadian whole ecosystem fertilization projects for Kootenay Lake and Arrow Lake. The study has also become the vehicle for BPA to pay for fertilizer for the Canadian fertilization projects.

The lack of focus and unclear direction perceived last year by the ISRP has largely been corrected. There is now an excellent scientific background section, with plenty of scientific references, some from this study. The information is well organized by topic, and the evidence for environmental problems is well summarized. The proposal ties this work to all relevant plans, including the FWP, the Subbasin Summary, the federal Biological Opinion and Recovery Plan for sturgeon and other species, CBFWA's multi-year implementation Plan, and the local River Network. Specific sections of these plans are cited. The proposal emphasizes the role of this project in overall, long-term, cooperative planning for improving the Kootenai River ecosystem from the Montana border to (and into) Kootenay Lake. With fertilization as a long-range objective (based on results of prior work), the project logically proposes use of mesocosms to first test fertilization on a small scale. Responsiveness of the lower trophic levels at the mesocosm level will foster confidence that whole-ecosystem fertilization could work to improve the system productivity.

The relationships to other projects funded by BPA are clearly presented. However, more detail about relevant non-BPA projects would have been informative. The project history is good, with good references, a good progression of logic, and a good sense of progressively integrating the accumulated knowledge of the river basin. There are well-written objectives keyed to major aspects of the work, coupled with good tasks for each objective. Methods are well described at an appropriate level of detail. There is a great deal of monitoring, with good rationale. There are no problems with facilities or personnel. Information transfer is especially good, with annual meetings.

From the evidence presented, there should be a good benefit to fish and wildlife from this project's gradual testing of the value of fertilization, and eventual implementation. The value of fertilization in Canada seems to have been proven, and the expense for fertilization justified scientifically. Whether this is the best administrative route for the purchases, is not the ISRP's responsibility.

However, the work and the ecosystem still present a confused and confusing situation. The proposal presumably seeks to assess limiting factors below Libby Dam but appears to discount all options other than nutrient limitation (isn't flow regime driven by power peaking?). Objectives are to evaluate primary and secondary productivity, etc. before and "potentially after" large-scale nutrient supplementation, without giving criteria for deciding whether to proceed with that supplementation. Yet >1/2 of budget is for fertilizer, suggesting that the decision regarding nutrient limitation as the key factor in the basin has already been made and data gathering may be window-dressing. Much of the fertilization would be done in Arrow Reservoir although that water body is only mentioned in 1-2 paragraphs and is actually outside the lower

Kootenai River. The proposal states that the 1995 and draft 2000 NMFWS BiOp "mandates" the fertilization. Yet, for the reach at issue, the fertilization is not yet a proven key factor. It is just a management option for which two more years of in-depth work should provide the data to make the decision whether to implement.

ProjectID: 199500400

Mitigation For The Construction And Operation Of Libby Dam

Sponsor: Montana Department of Fish, Wildlife and Parks

Subbasin: Kootenai

FY02 Request: \$805,000

3 YR Estimate: \$2,505,000

Short Description: Implementation of watershed-based habitat enhancement and fish recovery actions to mitigate the losses caused by hydropower in the Kootenai subbasin. Montana Fish, Wildlife & Parks collaborates with the Tribes of Montana and Idaho, IDFG and B. C., Canada.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable, the response (a revised proposal) adequately addressed many of the ISRP's specific concerns. However, this project is an amalgam of many discrete projects, and it is difficult to evaluate how well the work is progressing toward attaining clearly stated project goals. Even the revised proposal does not provide adequate biologically measurable objectives or reporting of past results in terms of measurable benefits to fish. In this respect, it remains marginal in quality compared to other proposals in the Province. The ISRP expects that the goals and biologically measurable results will be clarified in the 3 years of work to be funded and that a subsequent proposal will clearly articulate goals and accomplishments.

The response leads one to conclude that past and proposed funding goes to support a habitat program directed to identifying situations that, in the opinion of project personnel, are potentially detrimental to fish growth and survival. Actions are then taken to alter the situation directly, or indirectly by enlisting the cooperation of local landowners. It does not appear that project personnel perceive this as a project or series of projects with clear assessment of successes and failures expected in a specified time. All projects are successful and the number of such projects completed determines program success. Reviewers are expected, therefore, to take the word, belief, or judgment of project personnel that, given the requested resources, they will find and conduct actions that benefit fish; actions that will be consistent with overall subbasin and basin goals, and in the best interest of ratepayers. This approach makes definition of proposed work and accountability for work accomplished very difficult.

Some specific concerns remain that may be helpful for the project team. (1) It appears that the project may rely too heavily on hard fixes rather than passive restoration methods. (2) The proposers have attempted to develop a new, informative format based on assembly of many different sub-projects and specific references to the Subbasin Summary. This format works much better than the previous one. (3) The text on information transfer still seems weak, and perhaps justifies more specific attention to outreach, from scientific papers to direct communication. Much of this is likely being done, some through Project 199608720 (which should be made clearer). It will do the project and BPA much good to tell others about the successes and to tie the information to this specific project.

ProjectID: 199700400

Resident Fish Stock Status Above Chief Joseph and Grand Coulee Dams

Sponsor: Kalispel Tribe of Indians

Subbasin: Pend Oreille Lower

FY02 Request: \$518,000

3 YR Estimate: \$1,588,000

Short Description: Assess the 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.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable. The response adequately addressed the issue of the geographical sequencing of data gathering. It indicated there was some logical planning and sensitivity to subbasin needs. In the next rolling review, the ISRP will be looking for a clear description how the managers are using the data gathered by this project. The ISRP and sponsors had a communication problem regarding the CPUE vs. population estimates for streams. The response does not say which of the two is the standard. The ISRP understands population estimates are (or should be) the standard.

ProjectID: 200000400

Monitor and protect bull trout for Koocanusa Reservoir.

Sponsor: BC Environment

Subbasin: Kootenai

FY02 Request: \$62,000

3 YR Estimate: \$186,000

Short Description: Access and monitor the status of wild, native stocks of bull trout in tributaries to Lake Koocanusa and the upper Kootenay River and protect these fish from inappropriate reservoir operating regimes and land use practices.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable. This project will obtain valuable data to describe movements between sub-populations of bull trout (data that could help to estimate viability indices for bull trout populations), and to help define relations between habitat conditions and population health, an important contribution to a land managers' toolbox. The contract with BPA should require that this project's final report include a vigorous analysis of the data collected.

ISRP Conditional Fundable Recommendation - CBFWA High Priority

ProjectID: 24004

Pend Oreille/Priest Exotic Fish Species Suppression and Native Fish Protection

Sponsor: Idaho Department of Fish and Game

Subbasin: Pend Oreille Upper

FY02 Request: 448500, CBFWA Recommends \$418,500

3 YR Estimate: 958000, CBFWA recommends \$928,5000

Short Description: Protect threatened stocks of native bull and westslope cutthroat trout in the Priest and Pend Oreille lakes watersheds by removing lake and brook trout, and implementing measures to prevent recolonization.

CBFWA Recommendation: Urgent (High Priority)

ISRP Recommendation: Fundable in part

ISRP Comparison with CBFWA: Agree, if funded in part.

ISRP Comments:

Fundable in part. Specifically, Objective 1a looks ok. 1b marginal; 1c, and 1d are not fundable. The reviewers were neutral on objectives 2 - 4; there will likely be some benefits in terms of acquiring knowledge.

The response made some good changes in the prioritization of project tasks. We agree with the logic of giving highest priority to removing lake trout from Upper Priest Lake. However, because of the lack of control of lake trout in Lower Priest Lake, the efforts in Upper Priest will likely be for naught without a complete barrier between the two lakes (in the Thorofare). The proposed approach will not likely be successful; an incomplete barrier will not achieve the goals. It would likely take a complete barrier to meet the project goals.

The key to success of this project as proposed will clearly be the placement and maintenance of a barrier to lake trout in the Thorofare. But the proposal would expend a lot of money for an undescribed system. There is a real leap of faith here, and a convincing case is not made that the mystery structure will be effective, largely because of the perceived need to build something that allows boat passage.

The brook trout component and modeling are not adequately justified; the results do not warrant the effort and should not be funded. The point is made in the response that dealing with brook trout in streams in the Upper Priest watershed should be done in a deliberate and measured fashion. True. But it might be critical to more aggressively prioritize streams and ensure those with strong cutthroat populations are given adequate protection now to avoid the need for costly remedial work in the future. Modeling as proposed would appear to be largely unneeded, with more attention being paid to practicality of brook trout removal as done in Montana. This effort is still too weak to merit funding.

ProjectID: 24019

Research, Monitor, and Restore Native Species

Sponsor: Confederated Salish & Kootenai Tribes

Subbasin: Flathead

FY02 Request: \$131,400

3 YR Estimate: \$415,400

Short Description: Implement and monitor fisheries improvement activities for native species and conduct a feasibility study on the reintroduction of sharp-tailed grouse. Research factors limiting the successful application of mitigation and restoration measures.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable in part

ISRP Comparison with CBFWA: Agree, if funded in part.

ISRP Comments:

Fundable in part; fundable for the fisheries monitoring with qualification, but do not fund the sharp-tailed grouse component. The number of offspring produced by a known number of parents in tributary streams, over a series of years, is key to assessing benefits of habitat improvements for fish. The funding agency should be assured that monitoring in a series of tributaries is rigorous and continuing so that diminishing returns from habitat renovation can be identified. If habitat measures are effective, there should be a tendency for juvenile abundance to increase at any given parent density. If efforts to improve escapement to the spawning grounds are successful there should be a tendency for parent numbers to increase along the curve (relating parents and offspring) described for the improved habitat conditions. The funding agency needs to be confident that strategies and methods exist for obtaining these data. There is some indication that these data are being accumulated, but it is not clearly evident; these data should become an important part of progress reporting for this project.

Monitoring fish populations in the lake will not provide reliable data to assess habitat improvements because the primary cause of mortality for native species is predation by exotic lake trout. Absent from the proposal and presumably supported with other funding is a lake trout control program. Since the monitoring proposed herein is related to more than the work proposed, the funding agency should be assured that progress in its program objectives can be isolated from those of other supporters.

Respondents argue that it is necessary to monitor age-structure, length-at-age, and age-at-maturity to assess population trends for lake trout because methods available for monitoring total population size cannot provide reliable data. The important data, however, seem to be those taken to monitor trends in indices of fish population size, especially for lake trout and native species.

Project personnel responded to comments suggesting resubmission of the sharp-tailed grouse project as a research proposal by outlining their intention to test existing models designed to predict grouse habitat by comparing predicted and observed parameters in areas with known populations of grouse. If the model performs satisfactorily, they will use it to make predictions about the suitability of other areas in western Montana as grouse habitat. These areas will be subjected to more intensive ground survey. This work will provide bases for deciding whether or not any available sites offer high probability for successful introductions. The description still is very sketchy and falls below what can be evaluated for scientific soundness. The few paragraphs of text are unclear as to methods to be used and the final paragraph of the response suggests that the actual plan is to quickly proceed with the objectives of testing reintroduction. A more detailed proposal is needed to verify soundness of approach and technical competency of project personnel to do the work.

ProjectID: 199004400

Implement Fisheries Enhancement Opportunities on the Coeur d'Alene Reservation

Sponsor: Coeur d'Alene Tribe

Subbasin: Coeur d'Alene

FY02 Request: \$1,174,365

3 YR Estimate: \$3,540,071

Short Description: Enhance critical watershed habitat to mitigate limiting factors for westlope cutthroat in the Coeur d'Alene subbasin. Compile physical, chemical and biological trend data and implement an environmental education and outreach program.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable with qualifications

ISRP Comparison with CBFWA: Agree if conditions are met in Council review or BPA contracting process.

ISRP Comments:

Fundable, with qualification that a plan is provided for how the project sponsors are going to monitor progress. The plan should include an experimental design to test the major hypotheses concerning habitat condition and resident trout production. The Council and the BPA contracting officers should ensure that a monitoring and evaluation plan is provided that is suitable for evaluating progress. This is a serious concern of the ISRP, but does not warrant re-review by the ISRP. Analysis of the data generated from these efforts should be provided for the next review in approximately three years.

A central concern of the ISRP (and the 1996 Amendment to the Power Act) is project accountability. The project has been ongoing for almost a decade (total expenditures of approx. \$4 million), but the results reported do not show significant changes or demonstrate significant benefits. Therefore, benefits to fish and wildlife are only marginally justified. Adequate fish abundance data need to be collected and analyzed in order to show positive or decreasing trends.

The response addressed our specific questions, but not our broader concerns. For example, fish population status in the four target streams was clarified to the extent that we now know that maximum trout density in some of the upper tributaries currently is about 25 fish/100 sq. meters. This is a good baseline maximum density value for westslope cutthroat in northern ID, based on data from the Tribe and other sources like IDFG and the Potlatch Corp. Also, a more normal density might be the 9 fish/100 sq. m. given in the response (from the literature).

Now the problem is in trying to assess what the proposal uses as a target for a fully recovered population. The values given in the table on p 211 (unfortunately in numbers of fish and not density) are those generated by the Tribe's HQI model, which, to our knowledge, have never been used elsewhere to set targets. It appears that these target values would represent maximum fish density in every square meter of every stream, especially in the lower portions that historically were probably only passage corridors. Thus these targets are grossly inflated and as such, could lead to requests for funding to continue rehabilitation efforts forever. This is not realistic.

This project should also include monitoring of spawner abundance for each brood and the number of offspring produced in each stream so that relations between parent and offspring abundance can be examined. The relationship produced should reflect habitat productivity. If habitat productivity is increased through habitat improvement, greater survival of offspring at each spawner density should result causing elevation of the curve. The availability of such relations would provide a tool to identify when habitat improvement can no longer be expected to be cost-effective, and to drive adaptive management. Stating that "... measurable increases in cutthroat populations will not be realized for at least three generations (15 years) and significant increases that allow for subsistence harvest will be further off" certainly raises doubts about the strategy being followed.

The project's goals are unrealistically ambitious. For example, Objective 1, task e, the macroinvertebrate study, is not well justified. They appear to be addressing the potential opportunities for restoration and

enhancement on the reservation. This project is essentially testing the hypothesis that use of catch basin from agriculture land will result in reduced sediment input and water temperature in the stream. The proposal in subsequent reviews should have substantial data to inform the testing of this hypothesis. It does not appear likely that as presented or based on past results that this project will collect or analyze the data necessary to test this hypothesis.

ProjectID: 199004401

Lake Creek Land Acquisition and Enhancement

Sponsor: Coeur d'Alene Tribe

Subbasin: Coeur d'Alene

FY02 Request: \$1,463,070

3 YR Estimate: \$5,030,784

Short Description: Protect, enhance, and maintain wetland and riparian habitat in the Lake Creek drainage as partial mitigation for the impacts attributed to the construction and operation of the Albeni Falls hydroelectric facility.

CBFWA Recommendation: High Priority (unless 24015 is funded)

ISRP Recommendation: Fundable with qualifications

ISRP Comparison with CBFWA: Agree if conditions are met in Council review or BPA contracting process.

ISRP Comments:

Fundable, if a high priority property or an easement within the Lake Creek drainage is identified that meets the criteria specified in the proposal and response. The response was illuminating, although a bit depressing. It appears the proposers are back to the start on this project, because the purchase of the Goddy property will not occur. The proposers need to identify new properties that are not described in detail in the proposal; however, they do identify an area for potential acquisitions and describe the criteria to prioritize possible future purchases. There is a problem of accountability for the last ten years.

See ISRP comment on the Land and Water Acquisition Fund in the “General Issues” section above.

ProjectID: 199500100

Kalispel Tribe Resident Fish

Sponsor: Kalispel Tribe of Indians

Subbasin: Pend Oreille Lower

FY02 Request: \$410,000

3 YR Estimate: \$1,319,600

Short Description: Assess native trout habitat in tributaries to the Pend Oreille River and implement recommendations for enhancement. Provide largemouth bass habitat in mainstem Pend Oreille River and supplement population. Monitor and evaluate all enhancement measures.

CBFWA Recommendation: High Priority

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable in part

ISRP Comments:

Fundable in part. Although a minor component of the proposal, there seems to be no justifiable need for Objective 2, task a, to develop recommendations for habitat enhancement and implement additional enhancement for \$66K. This objective may have minimal or negative impacts on native fisheries. An early assessment of the bass hatchery component is needed within three years by the time of the next review cycle. In this time there should be clear evidence of whether this project is a success or a failure. If a failure, the bass hatchery component should be terminated.

It is unfortunate that project personnel feel that they have to wait for a federal agency to provide objective goals for the fish populations when they seem capable of doing it themselves. The federal agency may be more than willing to accept what the project produces as needs for species viability. Work could then proceed in the core areas identified, and be directed to realistic, quantitative goals instead of the “proceed in the dark” approach now being followed while they wait for federal input.

The response provides information about the bass hatchery operation that is much clearer than that in the proposal. They re-cast the bass hatchery program as an experiment with evaluation methods and criteria. The goal is pretty modest - provide 12 lb/A of "harvestable" bass by the year 2008 (no mention of what fraction of those are to be hatchery fish). But then on page 6 of the response, there is a more detailed description of performance standards (need for 1.5 to 2 lifecycles @ 8-9 yrs, need for funding to determine assessment strategy, etc.) that seem unwarranted. The cost of ~ \$150-250K per year to increase bass abundance by a few pounds per acre should be examined by the Council.

The stream rehabilitation portion of the response did (unlike the proposal) show evidence of an organized approach. Monitoring and evaluation of previous rehabilitation work, as well as additional stream survey work, should continue. Chemical removal of brook trout in upper Cee Cee Ah Creek should proceed.

ISRP Disagrees with CBFWA: ISRP Recommends Elevate to High Priority, CBFWA “Recommended Action”

ProjectID: 24010

Reconnection of floodplain slough habitat to the Kootenai River

Sponsor: Kootenai Tribe of Idaho

Subbasin: Kootenai

FY02 Request: \$139,974

3 YR Estimate: \$719,974

Short Description: Assess the feasibility and options for reconnecting slough habitat that has been isolated from the Kootenai River by dikes.

CBFWA Recommendation: Recommended Action

ISRP Recommendation: Fundable for feasibility phase.

ISRP Comparison with CBFWA: Disagree, elevate to high priority for feasibility phase only.

ISRP Comments:

The feasibility phase of the project should be funded as a high priority. Subsequent funding should be conditional on an interim ISRP review after the feasibility phase (similar to the 3-Step reviews of artificial production projects) is complete. In general, the response is adequate. It provides missing information on location and the flood-pulse concept, although the description of the flood pulse concept and its relevance are barely adequate. The connection between objectives in the Subbasin Summary and the proposal is better, if still not well written. The response is marginally successful in placing the proposal in the context of the Fish and Wildlife Program. Steps have been taken since the ISRP review to communicate with others doing floodplain restoration, and it is understandable that full understanding of their work is not yet achieved such as what aspect of knowledge from these projects would be transferred. The prospect of chemical contamination is discussed in the response, as is the phasing of the work and the reviews.

This project could have immense benefit for the ecosystem of the lower Kootenai River. The sturgeon-spawning problem, for example, is that eggs and larvae do not have access to such sloughs any more. Our recommendation for an interim review is not an indication of our lack of faith in this idea, but recognition that the work needs review before three years are up, hopefully so the work (and the general concept proposed in several other proposals) can proceed.

CBFWA Comments: 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.

ProjectID: 24012

Riparian Habitat Preservation - Weaver Slough and McWinegar Slough

Sponsor: Flathead Land Trust

Subbasin: Flathead

FY02 Request: \$1,080,000

3 YR Estimate: \$1,080,000

Short Description: Protect a range of natural resources compromised by rapid subdivision and development of this area. Acquisition of purchased easements on five properties will extend private protection of Flathead River riparian corridor.

CBFWA Recommendation: Recommended Action

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable.

ISRP Comments:

Fundable. Information in the response to ISRP comments indicates that the protection of habitat provided by the proposed acquisition would exist in perpetuity. Information provided to show that these lands are “vital habitat for migratory waterfowl” was less convincing. The justification is mostly in the form of comments about the desirability of conservation easements in general, rather than this proposed purchase in particular. It is not clear that this is the “best” place to commit limited resources for acquisitions to help meet fish and wildlife program objectives. Nonetheless, local and migratory populations would likely benefit from the expected habitat protection. The ISRP viewed this as a sound and justified land acquisition/protection request and it was supported by many local and regional groups who either contributed funds or offered data in support of the value of the land to fish and wildlife.

CBFWA Comments: There appears to be an inconsistency in the ISRP's requests for M&E among project sponsors. Standards do not appear to be the same from one project to the next. A M&E plan was not requested by the ISRP for this project whereas other projects were required to provide such information for similar projects. This project presents a unique situation where BPA dollars are being requested to maintain land for agricultural use. According to language in the Farm Land Protection Program (USDA-NRCS), which will be used for cost share to fund part of this project, participating landowners must choose to keep their land agriculture. BPA may not be the appropriate match source under this language. If the BPA dollars were tied strictly to the riparian wetland portion of this project, the funding category would have been identified as High Priority.

ISRP clarification on CBFWA comments: There is an important difference between this proposal and those for which the ISRP has stressed the need for scientifically sound ongoing monitoring and evaluation to be in place. The ISRP has recommended for funding many land acquisitions before monitoring and evaluation plans were in place. In these cases, the ISRP has recognized the need to purchase (or otherwise secure for benefit of fish and wildlife) lands of high priority when they are available. The ISRP has supported these proposals, as long as criteria for prioritizing lands were specified, scientifically sound, and in agreement with other ongoing projects and standards. The ISRP has given negative comment to the many ongoing operations and maintenance components that lack monitoring and evaluation. In these cases, there are large ongoing expenditures for much active land management that is assumed to be necessary and to result in improvements, but, in the absence of monitoring and evaluation, these expenditures are not justified. The Flathead Land Trust is a one-time request for funds to complete those needed for a one-time acquisition of rights to land. The future criteria for evaluation and on-going protection were described and there are not continuing management or maintenance costs.

ISRP Agrees with CBFWA: ISRP Fundable and CBFWA recommended action

ProjectID: 24001

Lake Pend Oreille Predation Research

Sponsor: Idaho Fish and Game

Subbasin: Pend Oreille Upper

FY02 Request: \$141,000

3 YR Estimate: \$444,000

Short Description: Project seeks to balance predators with the kokanee prey base in Lake Pend Oreille, reduce competition between bull trout and other predators, and to enhance or decrease the rainbow trout population as the kokanee population changes.

CBFWA Recommendation: Recommended Action

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable

ISRP Comments:

Fundable. This project proposes to use hydroacoustic surveys coupled with cluster analysis and tagging studies to define fish species abundances in order to achieve a balance between kokanee populations and their rainbow and lake trout predators. The brief proposal adequately describes methods. The investigators are qualified and the project has a high likelihood of reaching its analysis objectives. Whether it can reach its management objectives remains to be seen over time.

The sponsors should carefully segregate the costs between their base project and this one. This could be contracted as a new task within the old project. Is Bonneville the appropriate source of funding for the derby? Sponsors should consider educating the public on keeping the rainbows and the value of catch and release in various scenarios. They should also consider a prize for the most fish caught or pounds caught. The proposal would have been stronger if the derby and prize money incentive strategy were supported by references that demonstrated the veracity of this approach. It was not clear that adding \$5K to fishing derby prizes would significantly increase the number of lake and rainbow trout killed. Some better justification is needed. Also, proposal 24004 would provide \$10K for identical prize money (duplication?). Further, why is prize money not matched by IDFG funds? These comments do not require a response to the ISRP but are for consideration by the investigators, the Council, and CBFWA.

ProjectID: 24016

Kootenai River Subbasin Stakeholders Symposium

Sponsor: Kootenai River Network

Subbasin: Kootenai

FY02 Request: \$51,450

3 YR Estimate: \$162,197

Short Description: Provide a forum to encourage resource information exchange among stakeholders in the Kootenai River subbasin (BC Canada, Montana and Idaho).

CBFWA Recommendation: Recommended Action (Fund for 1 year only)

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - fundable.

ISRP Comments:

Fundable. The response provides adequate detail on the project focus. It does not explain the need for budget items in detail but does indicate that reductions in budget are possible. The response regarding coordination with the Lake Roosevelt Forum is adequate.

ProjectID: 24020

Center for GIS Analysis and Information in the Coeur d'Alene Subbasin

Sponsor: Coeur d'Alene Tribe

Subbasin: Coeur d'Alene

FY02 Request: \$180,700

3 YR Estimate: \$563,100

Short Description: Provide GIS analysis and act as central data repository for all organizations within the Coeur d'Alene Subbasin

CBFWA Recommendation: Recommended Action

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Agree - recommended action.

ISRP Comments:

Fundable on the basis of scientific and technical merit, but the priority given to this project is a policy issue that depends on the extent to which this project duplicates other efforts, including the Council's subbasin planning. This is a proposal to develop a Coeur d'Alene Tribe GIS central data repository and to provide GIS training and analysis services in the Coeur d'Alene Subbasin. It builds on work already done in water and soils for the subbasin with plans to update the server and integrate biological data to the existing GIS system. There are good plans for coordinating with other agencies and GIS users and for monitoring the effectiveness of each stage of the project. Plans for information transfer are reasonable. The education component looks good. Personnel are well qualified to perform the tasks described. The presentation was excellent and informative.

Having demonstrated a need for GIS capability within the subbasin, the project proponents still need to think about how this capability can best be provided. Duplicating services available elsewhere makes little sense. For example, aren't well-developed GIS services available through the federal land management agencies (USFS, BLM)? Could not funding be requested for a high-speed network connection to state and/or federal agencies to help local GIS expertise support FWP activities in the basin? The history of GIS centers is that they take on a life of their own with escalating costs over time. The GIS center should work toward being self-supporting, an idea to which the Tribe is receptive.

ISRP Disagrees with CBFWA: ISRP Fundable and CBFWA Do Not Fund

The ISRP finds these two projects to be scientifically sound and to offer benefits to fish and wildlife, but does not recommend whether these should be elevated for funding.

ProjectID: 24007

Characterize and Assess Wildlife-Habitat Types and Structural Conditions for Sub-Basins within the Mountain Columbia Ecoprovince

Sponsor: Northwest Habitat Institute

Subbasin: Mountain Columbia

FY02 Request: \$327,600

3 YR Estimate: \$490,140

Short Description: Fine-scale wildlife habitat assessment for the Inter-Mountain Ecoprovince will produce critical baseline data for planning and monitoring efforts that is consistent within the NWPPC Framework wildlife-habitat relationships process.

CBFWA Recommendation: Do Not Fund

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Disagree - fundable

ISRP Comments:

Fundable. The proposal makes a convincing case for the value of presenting complex habitat information in map form. The investigators have demonstrated the ability to produce high-quality maps at the Columbia Basin level. The project will develop Landsat maps of wildlife-habitat types for the Mountain Columbia subbasin at a finer level of resolution than is currently available. The maps will be made available to wildlife managers for the development of “coarse filter” conservation strategies. Subbasin summaries, while not directly calling for these maps, do demonstrate a need for mapping products.

The sponsor responded adequately to the ISRP's previous comments on the need for validation. Ample field-testing and verification are included in the project. Good detail on validation methods is provided. If this proposal and proposal #24020 are funded, they should be coordinated to avoid duplication.

CBFWA Comments: This activity is currently being funded under the Ecosystem Diagnosis and Treatment project at 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.

ProjectID: 24025

Pend Oreille Subbasin Native Westslope Cutthroat Population Study

Sponsor: Washington Trout

Subbasin: Pend Oreille Lower

FY02 Request: \$73,275

3 YR Estimate: \$227,875

Short Description: Establish baseline information on instream habitat-trout population structure to assess risks to population persistence and effectiveness of land management actions on Colville National Forest intended to benefit native cutthroat trout.

CBFWA Recommendation: Do not fund

ISRP Recommendation: Fundable

ISRP Comparison with CBFWA: Disagree - fundable

ISRP Comments:

Fundable. This was a strong response, reflecting some additional planning and reprioritization by the proposers. Lethal sampling is eliminated. A stronger incorporation of relevant published work is demonstrated, and the study appears now to have a higher probability for providing valuable results. To the

minus side, the inclusion of two new researchers as advisors, at project expense but without any description of their contributions, is unwarranted. Three years will not be enough to gain the most useful information.

Managers presently have inadequate quantitative basis for relating habitat condition and population productivity and viability. The absence of such relations precludes clear answers to questions such as:

1. How much and what kinds of restoration are needed to restore a viable population?
2. What level of habitat alteration will jeopardize population viability?

Consequently, a manager's selection of a proposed alteration or restoration project can always be called into question. Data to overcome this deficiency are long overdue. This project has potential to begin development of such a relation.

CBFWA Comments: Do not fund. 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.

ISRP Disagrees with CBFWA: ISRP Do Not Fund and CBFWA High Priority

ProjectID: 24018

Secure and Restore Critical Fish and Wildlife Habitats

Sponsor: Confederated Salish and Kootenai Tribes

Subbasin: Flathead

FY02 Request: \$4,918,444

3 YR Estimate: \$13,996,096

Short Description: Utilize land acquisition and habitat restoration to protect and enhance habitats critical to fish and wildlife. Reduce human-wildlife conflicts on acquired and restored lands to increase their value for wildlife.

CBFWA Recommendation: High Priority

ISRP Recommendation: Do not fund

ISRP Comparison with CBFWA: Disagree - do not fund

ISRP Comments:

Do not fund in its present form. This request is for “base funding” rather than “project funding” oriented to specific topics, the norm for most BPA-funded work. The proposal does not include the elements expected in a technically sound program. It should include clear and specific objectives, detailed methods, and how the progress in attaining specific objectives will be tracked and evaluated. The reporting of results is inadequate; progress in past activities of the project need to be included as a basis for continuing similar work. Adaptive management requires data for regular assessments and decisions regarding the project strategy.

The proposal is directed, in part, by a statement of the USFWS Grizzly Bear Recovery Coordinator that “... without the maintenance of large blocks of undeveloped land along the west slope of the Missions, the probability of maintaining a grizzly bear population in the Mission Mountains is very low.” The proposal needs to include definition of “large block,” the number of such blocks needed, and what degree of connectivity among these blocks is needed to restore the desired viability of grizzly bears in the area. The proposal should go on to show that the size, number, and connectivity of blocks needed for the desired viability are available. If the needs can be identified, met, and maintained, a basis would be available for directing program actions.

Undoubtedly, humans are likely to be expanding their control of the landscape. If the area is also to have large mammals, what is truly “critical” to their persistence must be identified and limited resources directed to purchase, lease, and regulation of those areas. Gaining control of land-use practices is a logical strategy for protecting habitats. It also is logical that available resources be applied where they will most likely facilitate restoration of viability in the target populations. Before any resources are committed to these agreements, population segments that are key to the long-term viability and productivity of the regional population, or populations, need to be identified. Pursuit of agreements for “what is available” is not a systematic approach to the problem. There is a stated intent to formalize criteria as part of the project. This should be included as a work task, and used as a reference against which proposed acquisitions are evaluated.

Acquisitions proposed for elk are directed to increasing the amount of winter range. The proposal states that expansion of the herd without significant conflict with adjacent landowners can only occur with purchase of additional land. The proposal should include the basis for concluding that winter range is limiting the population.

The shoreline erosion proposal has not been adequately described or justified. At minimum, it should include the need to be addressed by development of a predictive model, the objectives of the modeling effort, and how the results will contribute to a solution. The modeling proposal itself needs critical review.

Apparently habitat condition has been monitored for at least several years as a basis for identifying and implementing locally based watershed restoration projects. Details of these assessments and how they are used to set priority should be described in the proposal.

Part of the proposal is a new position to develop and implement methods and strategies for limiting human-bear conflicts. Such a position seems like a logical step to help prevent bear-human conflicts, but is difficult to assess from a technical point-of-view. The FTE required depends on the magnitude of the problem. If each project is tracked after completion, however, why not create documentation of these post-project effects for future planning and evaluation?

There is a policy issue on how this relates to Montana's wildlife program under the Fish and Wildlife Program, some of this is like traditional wildlife property acquisition, but this issue appears to be explained in the CBFWA comment below.

CBFWA Comments: There is an agreement between BPA and MDFWP regarding wildlife credits for the state of Montana. The CSKT is not a signatory to that agreement and believe that most of the credits to date have occurred in areas that are not accessible to tribal members. An adequate M&E plan is presented in the proposal, but a direct link to objectives is not clear.

ProjectID: 199004402

Coeur D' Alene Tribe Trout Production Facility

Sponsor: Coeur d' Alene Tribe

Subbasin: Coeur d'Alene

FY02 Request: \$775,469

3 YR Estimate: \$2,516,120

Short Description: Enhancement of native stocks of CTT into natal tributaries by utilizing native CTT broodstocks and providing RBT for an interim fishery.

CBFWA Recommendation: High Priority

ISRP Recommendation: Do not fund

ISRP Comparison with CBFWA: Disagree - do not fund

ISRP Comments:

Do not fund. Despite the volume of the response, little was provided to clarify the ISRP's major uncertainties with regard to the proposed project. The proposal, presentation, and response did not instill confidence that this project would be successful. The tribes' overall program, including the "sister" proposal 199004400 Implement Fisheries Enhancement Opportunities on the Coeur d'Alene Reservation, is based on a premise that westslope cutthroat populations are depressed because of degraded habitat and, if the habitat is renovated, the populations will respond favorably. However, if that is the case, why is it logical to stock hatchery fish? The proposers gave limited consideration to the possibility that other downstream factors (e.g. predation) may actually be limiting population size.

The objectives of the program, as presented in the original proposal and the response, focus nearly exclusively on attempting to reestablish adfluvial westslope cutthroat trout to harvestable levels in the target streams. Despite relatively encouraging previous reviews (FY 1999, 2000, Step 1 review of the 3-Step process), the contents of this proposal, discussions during the oral presentation, and the review response have led the ISRP to be increasingly convinced that the proposed hatchery program for adfluvial cutthroat trout does not appear to be scientifically justified. The ISRP believes the project's objectives are not likely attainable for the following reasons.

In spite of the general lack of consideration of downstream mortality factors in the proposal and response, the proposers made a case for the adfluvial cutthroat using the Lake Coeur D'Alene littoral zone as a critically important part of their post-migration life cycle. The wide, shallow south-shore littoral zone of Lake Coeur D'Alene has a large population of primarily non-native predatory fish that are thought to exert significant predation pressure on the young adfluvial cutthroat trout. The proposal fails to address this ecological issue in any meaningful way; thus increased smolt outmigration from the proposed hatchery facility likely will simply feed a downstream predator trap. Consequently, the ISRP believes the proposed

project will fail to meet its short- or long-term objectives. This point was the basis of the ISRP general comment in Step 1 of the 3-Step review for the project to focus on resident life history patterns:

“The approach to restoration of Coeur d’Alene westslope cutthroat trout populations on reservation lands might be most successful if it focused on stream habitat restoration and on the resident, rather than the adfluvial, life history pattern. While an overall project goal is to increase adfluvial fish, which due to their larger size present the best harvest opportunity consistent with the tribe’s goals, a biologically viable approach might be to focus on increasing resident westslope cutthroat trout abundance in tributary streams – including reintroduction into streams where they have been extirpated or are at very low numbers.” (ISRP 2000-1: Review of Coeur d’Alene Tribe Trout Production Facility Master Plan, page 3).

Although this predator problem was raised as “general comment” in the 3-Step rather than a specific condition, after this provincial review process the ISRP has become increasingly convinced of the potential severity of this problem and now raises the adfluvial component as a critical shortcoming of the proposed approach.

The second issue is the assessment of the fish abundance goals set for fully recovered trout populations in the four target streams. The goals provided (described in the "sister" proposal 199004400 Implement Fisheries Enhancement Opportunities on the Coeur d'Alene Reservation) are those generated by the Tribe's Habitat Quality Index model. It appears that these target values would guide the use of hatchery supplementation (proposed here) and habitat restoration (proposed in 199004400) to achieve maximum fish density in each square meter of stream, especially in the lower stream portions that historically were probably only passage corridors. Thus, the review panel is concerned that these fish abundance goals might be inflated and unattainable.

An additional problem that emerged in the presentation was that the proposers data strongly support habitat as a primary limiting factor for their fish, in which case a hatchery-stocking program is counterproductive. The statements in the 3-Step materials that suggest it will take 50-100 years for habitat recovery to occur are unsubstantiated with the data, and the data the proposers presented in Kalispel suggest the opposite; that habitat actions have very quick effects. The proposers have provided inadequate evidence that the current environment can support the numbers of fish they want to add, and they have good evidence that wild fish increase well when habitat factors are not limiting. Adding hatchery fish to a system that cannot support more fish now is likely to further reduce the remaining wild native fish (apparently healthy in a few streams).

In the preliminary review, we noted that we anticipated potential future interaction with personnel in this project following the response loop; however, after reviewing the response the ISRP did not consider further communication necessary to make this recommendation.

CBFWA Comment: 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 cannot 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 component of putting fish into the streams based on the cost effectiveness aspect.

ProjectID: 199106000

Pend Oreille Wetlands Wildlife Mitigation Project - Kalispel

Sponsor: Kalispel Tribe of Indians

Subbasin: Pend Oreille Lower

FY02 Request: \$167,300

3 YR Estimate: \$440,450

Short Description: 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 consistent with regional planning documents.

CBFWA Recommendation: High Priority

ISRP Recommendation: Do not fund

ISRP Comparison with CBFWA: Disagree - do not fund

ISRP Comments:

Do not fund, the response does not provide a reporting of results or a monitoring and evaluation plan as requested in this and last year's reviews.

This is a proposal for maintenance and enhancement of lands previously purchased by BPA, apparently near the north end of Lake Pend Oreille. The ISRP recommended in 2000 that this proposal be funded for one year and that subsequent funding be contingent on a better description of the maintenance and monitoring methods. The project appears to include extensive active enhancement activities, and it is critical that the effectiveness of these be tested by a monitoring and evaluation (M&E) program. However, descriptions of monitoring and maintenance on this project proposal continue to be sparse. The proposal and the response state only that a detailed M&E plan will be developed in conjunction with regional efforts. The data presented at the oral presentation led the reviewers to believe that the current M&E was inadequate and the response acknowledged that that is the case. The critical missing elements remain:

- 1) Description (with data presented) of past successes and failures of enhancement activities. These evaluations should be shown in terms of ultimate biological objectives (benefit to fish and wildlife) as possible. The proposal should note adaptive management decisions that have been made using M&E.
- 2) Measurable biological objectives, associated with tasks by which they will be addressed.
- 3) Description of monitoring and evaluation plans, including their sampling design, how data will be analyzed and evaluated, and the rationale for choosing particular species, processes, or components for monitoring. A list of sample techniques is not adequate to establish a scientifically sound, useful monitoring system.

The response that this project has previously been well reviewed and that it will take time to amend the project to new technical needs is not compelling. To "fully intend" to develop adequate M&E does not address the review concern. With no progress on implementing and M&E plan, the request to continue active management can only be judged scientifically unsound.

ProjectID: 199206100

Albeni Falls Wildlife Mitigation Project

Sponsor: Albeni Falls Interagency Work Group

Subbasin: Pend Oreille Upper

FY02 Request: \$6,178,795

3 YR Estimate: \$19,331,635

Short Description: Protect, restore, enhance, and maintain wetland wildlife 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.

CBFWA Recommendation: High Priority (Urgent)

ISRP Recommendation: Do not fund

ISRP Comparison with CBFWA: Disagree - do not fund

ISRP Comments:

Do not fund, the response did not adequately address the ISRP concerns. The sample design for restoration, O&M, and M&E activities was not adequately specified. The ISRP noted in its FY2000 review that the project could be recommended only for one year of funding, which could allow time to develop a better description of the maintenance and monitoring methods. Similar scientific cautions were noted in the ISRP's FY99 report, Appendix A, page 65-66. Neither the current proposal nor the response to initial ISRP comments specified sample design or developed an M&E plan. The proposal requests funding for a very large amount of active restoration and ongoing O&M, yet neither restoration nor O&M techniques nor their evaluation are described in adequate detail. The project is ongoing and should be able to present data to evaluate the success or failure of past restoration and O&M efforts. The project presentation indicated that M&E are accomplished by subcontracts, but their design and results to date should be presented in the proposal, as these are key areas for evaluation of scientifically sound approach. Very little detail was provided for the large budget, leading to considerable confusion about how much of the funding would go for "active management" or other parts of the project. Before funding is approved, a better plan is needed.

The ISRP's initial review noted that a response should include specific description of the procedures by which active restoration and other O&M are decided, including description of the monitoring programs by which these efforts are evaluated. The sample design for restoration, O&M, and M&E activities should be specified. Examples of past successes or failures in meeting biological objectives (i.e. those linked as closely as possible to benefit to fish and wildlife) and of modification of O&M as dictated by M&E could contribute to justifying the project.

ProjectID: 199608720

Focus Watershed Coordination in the Kootenai River Watershed

Sponsor: Montana Department of Fish, Wildlife and Parks

Subbasin: Kootenai

FY02 Request: \$101,500

3 YR Estimate: \$305,250

Short Description: Fosters "grass-roots" public involvement and interagency cooperation for habitat restoration to offset deleterious impacts to the Kootenai River watershed fisheries. Establishes cost-share arrangements with government agencies and private groups.

CBFWA Recommendation: High Priority

ISRP Recommendation: Do not fund

ISRP Comparison with CBFWA: Disagree - do not fund

ISRP Comments:

Do not fund. The response discussed the ISRP's comments, but did not provide the amount of substantive information needed for a "fundable" recommendation. The proposers appear to assume that deficiencies can be corrected in a future proposal, rather than by amplification of the current proposal. For example, the response to the ISRP comment on significance to regional programs indicates that the section will be improved, but does not submit an improved section as part of the response. A similar response about future correction was given to the comment on the failure to link objectives to the subbasin summary. The

response to the question about monitoring is also inadequate. We recognize that the problem with this proposal and the proposers' response to review comments may be caused by the absence of staff for this project. Nonetheless, without a substantive response the scientific and technical quality of the proposal cannot be judged.

This is the third year that the ISRP has noted the absence of specific detail in the proposal. In FY99 the ISRP concluded that the proposal fell short of providing concrete plans. In FY00 the ISRP recommended that the project be funded for only one year, with subsequent funding contingent on, among other things, more specificity about the work and results.

In the FY01 preliminary review the ISRP noted that the project would perform an important role of information transfer and public interface. The project history provides an interesting summary of accomplishments and the narrative describes a good approach to coordination and cooperation with the public. However, the proposal is incomplete and provides an inadequate basis for multi-year funding. Few references are cited in the narrative. The "rationale and significance to regional programs" section does not cite the Subbasin summary, FWP, BiOp, or even the appended mitigation and implementation plan. The "relationships to other projects" section does not mention any Idaho state or tribal projects on the lower Kootenai River. Monitoring and evaluation is included explicitly as an objective but without detail on methods to explain how monitoring would interface with other monitoring in the basin and whether a monitoring program is already in place.

CBFWA Comments: This project is directly tied to Project Number 199500400 and should be combined with that project. All monitoring and evaluation activities are performed in the mitigation project. CBFWA recommends combining these two projects for the next contracting period.

ISRP Disagrees with CBFWA: ISRP Do Not Fund and CBFWA Recommended Action

ProjectID: 24013

Assessment of Operational Impacts of Hungry Horse Dam on Riparian Wildlife habitats and their associated aquatic components

Sponsor: Montana Department of Fish, Wildlife and Parks

Subbasin: Flathead

FY02 Request: \$188,949

3 YR Estimate: \$498,839

Short Description: Enhance and protect native wildlife communities in the flathead Basin through multi-species assessments, design of habitat improvements, develop approaches to habitat protection, mitigate variable river flows, and identify off-site mitigation potential

CBFWA Recommendation: Recommended Action

ISRP Recommendation: Do not fund

ISRP Comparison with CBFWA: Disagree - do not fund

ISRP Comments:

Do not fund; a response review was not warranted. This is a proposal to begin assessing operational impacts of Hungry Horse Dam by conducting an inventory of songbirds and amphibians along the Flathead River from Hungry Horse Dam to Flathead Lake. The proposal does a good job of describing the riparian effects of dam operations, demonstrating the need for mitigation and the potential benefits of extending understanding of operational impacts of hydropower to riparian habitats and terrestrial wildlife. However, this proposal is superficial in presentation and lacks detail that is needed to establish a sound scientific approach.

The proposal lacks a coherent list of tasks and provides no methods section and no description of data management or analysis. Methods for choosing species to assess, conducting population inventories, and assessing dam impacts on successional patterns are not described. No experimental design (e.g. location of samples, plot sizes, replicates) is given. Furthermore, the proposal does not explain how the proposed

inventory would contribute to Fish and Wildlife program goals, and, although it is for research, it cites no open peer-reviewed literature and does not provide evidence of qualification of personnel (e.g., resumes or curricula vitae that establish competency to conduct the work in a scientifically sound fashion).

CBFWA Comments: 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.

ProjectID: 24014

Assessment of Operational Impacts of Libby Dam on Riparian Wildlife habitats and their associated aquatic components

Sponsor: Montana Department of Fish, Wildlife and Parks

Subbasin: Kootenai

FY02 Request: \$188,949

3 YR Estimate: \$498,839

Short Description: Enhance and protect native wildlife communities in the [Kootenai] Basin through multi-species assessments, design of habitat improvements, develop approaches to habitat protection, mitigate variable river flows, and identify off-site mitigation potential

CBFWA Recommendation: Recommended Action

ISRP Recommendation: Do not fund

ISRP Comparison with CBFWA: Disagree - do not fund

ISRP Comments:

See comments on 24013.

CBFWA Comments: 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.

ISRP Do Not Fund and CBFWA Not Applicable

ProjectID: 24006

Pend Oreille Erosion Abatement and Landform Restoration

Sponsor: Idaho Department of Fish and Game

Subbasin: Pend Oreille Upper

FY02 Request: \$73,000

3 YR Estimate: \$115,000

Short Description: A detailed study of feasibility, design, and cost for erosion control measures and landform restoration techniques within Pend Oreille Lake and the Pend Oreille River upstream of Albeni Falls Dam. Study results would be implemented in a future project.

CBFWA Recommendation: NA; This project would be more appropriately reviewed and funded under the purview of the Albeni Falls Work Group.

ISRP Recommendation: Do not fund

ISRP Comparison with CBFWA: NA

ISRP Comments:

Do not fund. The response did not adequately address the ISRP's concerns. The panel noted in review that the project would deal with after-the-fact "fixes", and would not consider the real cause of shoreline erosion problems, which is management of lake levels due to hydropower operation. The project sponsor was asked to respond with a work plan that would evaluate, in addition to remedies mentioned in the original proposal, possible changes to lake levels. Relative effects on erosion of shoreline management actions (to be evaluated per original proposal) and lake level management could then be evaluated. The project sponsor failed to respond to this request. ISRP further requested that details of methods to be evaluated be included in the proposal. The project sponsor's response was to indicate a list of qualifications that they would seek in contractor selection. The project sponsors response to comments and requests for information is inadequate, and ISRP accordingly now recommends that the proposal not be funded.

ISRP and CBFWA Agree: Do Not Fund

ProjectID: 24002

Using DNA from bear hair samples to confirm grizzly bear presence in the Lower Pend Oreille Sub-basin.

Sponsor: Washington Department of Fish and Wildlife

Subbasin: Pend Oreille Lower

FY02 Request: \$74,516

3 YR Estimate: \$74,516

Short Description: We propose a project to confirm the presence of grizzly bears within the Washington State portion of the Selkirk Grizzly Bear Recovery Zone through the use of hair snag collection techniques and subsequent DNA analysis.

CBFWA Recommendation: Do not fund

ISRP Recommendation: Do not fund

ISRP Comparison with CBFWA: Agree - do not fund

ISRP Comments:

Do not fund; a response is not warranted. This is a proposal to collect and analyze hair samples to confirm the presence of grizzly bears in the Washington portion of the Selkirk Grizzly Bear Recovery Zone. The proposal lacks detail on a number of key considerations. The work is stated to monitor the presence of grizzlies, but the genetic analyses described would address considerably more than presence of bears. The “objectives” are tasks and both lack adequate detail on sample design and sampling methods. This is a superficial proposal for research that lacks specific well-formed questions or hypotheses and does not present any experimental design. The genetic tools seem more sophisticated than are necessary for the stated goal of establishing presence of bears; no explanation is given of why additional genetic analyses will be done on samples that prove to be grizzlies or on what sort of sampling program might allow reasonable inferences to be drawn from the data. Coordination should be demonstrated with adjacent areas harboring grizzly populations.

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Sorted by ISRP Recommendation (fundable followed by do not fund)

ProjectID	Title	Sponsor	Subbasin	FY02 Request	3 YR Estimate	ISRP Comparison with CFWA	Page
ISRP and CFWA Agree: ISRP Fundable and CFWA High Priority							9
24003	Acquire and conserve high priority bull and westslope cutthroat trout habitat in Trestle Creek.	IDFG	Pend Oreille Upper	\$290,400	\$290,400	Agree - fundable	9
24005	Smith Creek Restoration	IDFG	Kootenai	\$52,680	\$358,040	Agree - fundable	9
24008	Genetic Inventory of Bull Trout and Westslope Cutthroat Trout in the Pend Oreille Subbasin	Kalispel Tribe of Indians	Pend Oreille Lower	\$243,490	\$450,490	Agree - fundable	10
24009	Assess Feasibility of Enhancing White Sturgeon Spawning Substrate Habitat, Kootenai R., Idaho	Kootenai Tribe of Idaho	Kootenai	\$350,000	\$1,510,000	Agree - fundable	10
24015	Wetland/Riparian Protection, Restoration, Enhancement and Maintenance in the Coeur d'Alene Subbasin	Coeur d'Alene Tribe	Coeur d'Alene	\$1,996,131	\$6,535,188	Agree - fundable	11
24017	Restoring Bull Trout Habitat in The Blackfoot River's North Fork	Trout Unlimited's Western Water Project	Blackfoot	\$329,128	\$349,128	Agree - fundable	11
24021	Implement Floodplain Operational Loss Assessment, Protection, Mitigation and Rehabilitation on the Lower Kootenai River Watershed Ecosystem	Kootenai Tribe of Idaho	Kootenai	\$192,864	\$968,864	Agree - fundable	12
24023	Purchase Conservation Easement from Plum Creek Timber Company (PCT) along Fisher River	MFWP	Kootenai	\$500,000	\$1,500,000	Agree - fundable	12

ProjectID	Title	Sponsor	Subbasin	FY02 Request	3 YR Estimate	ISRP Comparison with CFWA	Page
198806400	Kootenai River White Sturgeon Studies and Conservation Aquaculture	Kootenai Tribe of Idaho	Kootenai	\$1,230,000	\$5,833,000	Agree - fundable	13
198806500	Kootenai River Fisheries Recovery Investigations	IDFG	Kootenai	\$825,391	\$2,834,892	Agree - fundable	13
199101903	Hungry Horse Mitigation	MFWP	Flathead	\$982,850	\$3,037,850	Agree - fundable	14
199101904	Stocking of offsite waters for Hungry Horse Mitigation - Creston National Fish Hatchery	USFWS	Flathead	\$106,672	\$329,712	Agree - fundable	15
199404700	Lake Pend Oreille Fishery Recovery Project	IDFG	Pend Oreille Upper	\$362,000	\$1,100,000	Agree - fundable	15
199404900	Improving the Kootenai River Ecosystem	Kootenai Tribe of Idaho	Kootenai	\$710,891	\$3,535,891	Agree - fundable	16
199500400	Mitigation For The Construction And Operation Of Libby Dam	MFWP	Kootenai	\$805,000	\$2,505,000	Agree - fundable	17
199700400	Resident Fish Stock Status Above Chief Joseph and Grand Coulee Dams	Kalispel Tribe of Indians	Pend Oreille Lower	\$518,000	\$1,588,000	Agree - fundable	18
200000400	Monitor and protect bull trout for Kooconusa Reservoir.	BC Environment	Kootenai	\$62,000	\$186,000	Agree - fundable	18
TOTAL				\$9,557,497	\$32,912,455		

ProjectID	Title	Sponsor	Subbasin	FY02 Request	3 YR Estimate	ISRP Comparison with CFWA	Page
ISRP Conditional Fundable Recommendation - CFWA High Priority							19
24004	Pend Oreille/Priest Exotic Fish Species Suppression and Native Fish Protection	IDFG	Pend Oreille Upper	\$448,500 (CFWA Rec. \$418,500)	\$958,000 (CFWA Rec. \$928,000)	Agree if funded in part.	19
24019	Research, Monitor, and Restore Native Species	Confederated Salish and Kootenai Tribes	Flathead	\$131,400	\$415,400	Agree if funded in part.	20
199004400	Implement Fisheries Enhancement Opportunities on the Coeur d'Alene Reservation	Coeur d'Alene Tribe	Coeur d'Alene	\$1,174,365	\$3,540,071	Agree if conditions are met in Council review or BPA contracting process.	21
199004401	Lake Creek Land Acquisition and Enhancement	Coeur d'Alene Tribe	Coeur d'Alene	\$1,463,070	\$5,030,784	Agree if conditions are met in Council review or BPA contracting process.	22
199500100	Kalispel Tribe Resident Fish	Kalispel Tribe of Indians	Pend Oreille Lower	\$410,000	\$1,319,600	Agree, if funded in part	22

ProjectID	Title	Sponsor	Subbasin	FY02 Request	3 YR Estimate	ISRP Comparison with CFWA	Page
ISRP Disagrees with CFWA: ISRP Recommends Elevate to High Priority, CFWA Recommended Action							23
24010	Reconnection of floodplain slough habitat to the Kootenai River	Kootenai Tribe of Idaho	Kootenai	\$139,974	\$719,974	Disagree - elevate feasibility phase to high priority	23
24012	Riparian Habitat Preservation - Weaver Slough and McWinegar Slough	Flathead Land Trust	Flathead	\$1,080,000	\$1,080,000	Disagree - elevate to high priority	24
ISRP Agrees with CFWA: ISRP Fundable and CFWA recommended action							25
24001	Lake Pend Oreille Predation Research	IDFG	Pend Oreille Upper	\$141,000	\$444,000	Agree - fundable	25
24016	Kootenai River Subbasin Stakeholders Symposium	KRN	Kootenai	\$51,450	\$162,197	Agree - fundable	25
24020	Center for GIS Analysis and Information in the Coeur d'Alene Subbasin	Coeur d'Alene Tribe	Coeur d'Alene	\$180,700	\$563,100	Agree - fundable	26
ISRP Disagrees with CFWA: ISRP Fundable and CFWA Do Not Fund							27
24007	Characterize and Assess Wildlife-Habitat Types and Stuctural Conditions for Sub-Basins within the Mountain Columbia Ecoprovince	Northwest Habitat Institute	Mountain Columbia	\$327,600	\$490,140	Disagree - fundable	27
24025	Pend Oreille Subbasin Native Westslope Cutthroat Population Study	Washington Trout	Pend Oreille Lower	\$73,275	\$227,875	Disagree - fundable	27
ISRP Disagrees with CFWA: ISRP Do Not Fund and CFWA High Priority							29
24018	Secure and Restore Critical Fish and Wildlife Habitats	Confederated Salish and Kootenai Tribes	Flathead	\$4,918,444	\$13,996,096	Disagree - do not fund	29
199004402	Coeur D' Alene Tribe Trout Production Facility	Coeur d' Alene Tribe	Coeur d'Alene	\$775,469	\$2,516,120	Disagree - do not fund	30

ProjectID	Title	Sponsor	Subbasin	FY02 Request	3 YR Estimate	ISRP Comparison with CFWA	Page
199106000	Pend Oreille Wetlands Wildlife Mitigation Project - Kalispel	Kalispel Tribe of Indians	Pend Oreille Lower	\$167,300	\$440,450	Disagree - do not fund	32
199206100	Albeni Falls Wildlife Mitigation Project	Albeni Falls Interagency Work Group	Pend Oreille Upper	\$6,178,795	\$19,331,635	Disagree - do not fund	33
199608720	Focus Watershed Coordination in the Kootenai River Watershed	MFWP	Kootenai	\$101,500	\$305,250	Disagree - do not fund	33
ISRP Disagrees with CFWA: ISRP Do Not Fund and CFWA Recommended Action							34
24013	Assessment of Operational Impacts of Hungry Horse Dam on Riparian Wildlife habitats and their associated aquatic components	MFWP	Flathead	\$188,949	\$498,839	Disagree - do not fund	34
24014	Assessment of Operational Impacts of Libby Dam on Riparian Wildlife habitats and their associated aquatic components	MFWP	Flathead	\$188,949	\$498,839	Disagree - do not fund	35
ISRP Do Not Fund and CFWA Not Applicable							35
24006	Pend Oreille Erosion Abatement and Landform Restoration	IDFG	Pend Oreille Upper	\$73,000	\$115,000	NA	35
ISRP and CFWA Agree: Do Not Fund							36
24002	Using DNA from bear hair samples to confirm grizzly bear presence in the Lower Pend Oreille Sub-basin.	WDFW	Pend Oreille Lower	\$74,516	\$74,516	Agree - do not fund	36

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