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January 7, 2014

## DECISION MEMORANDUM

**TO:** Council Members

**FROM:** Mark Fritsch, project implementation manager

**SUBJECT:** Follow-up Wildlife review action for Project #2002-011-00, *Kootenai River Operational Loss Assessment*.

**PROPOSED ACTION:** The Fish and Wildlife Committee recommends that the Council support the project to develop the mitigation implementation plan for ISRP review by April 2015. Further implementation of this project and funding will be determined based on ISRP review and Council approval.

**SIGNIFICANCE:** The proposed action will address a condition placed on this project, as part of the Council's recommendation associated with the Wildlife Category Review on July 16, 2009, and establish a review process for out year implementation.

## BUDGETARY/ECONOMIC IMPACTS

The current Fiscal Year 2014 expense budget for the project is \$735,462 with a performance period of November 1, 2013 to October 31, 2014.

## BACKGROUND

As part of the Council recommendation associated with the FY 2002 Mountain Columbia Provincial review Proposal #24021, *Implement Floodplain Operational Loss Assessment, Protection, Mitigation and Rehabilitation on the Lower Kootenai River Watershed Ecosystem*, was funded. The goal of the pilot project implemented by the Kootenai Tribe of Idaho in conjunction with Montana Fish, Wildlife & Parks, was to assess the impacts of the dams and reservoirs on the environment in the Kootenai River and on its associated floodplain. To accomplish this a series of indices were developed for each order of impacts and combined into

an overall Index of Ecological Integrity (IEI)<sup>1</sup> for the US portion of the Kootenai River floodplain and for each of the three unique geomorphic reaches found in this portion of the Kootenai River (i.e., canyon, braided, and meander reaches).

On July 16, 2009, as part of the Council decision for projects in the Wildlife Category Review, the Council provided a conditional recommendation to Project #2002-011-00 as follows.

*“Staff recommended budget is a 3-year average (FY2010-2012) to cover the time anticipated to complete the operational loss assessment. Staff recommends an ISRP and Council review of the completed operational loss assessment. Out-year budgets for capital and expense to be determined based on that review”*

On October 11, 2012 the Council received a submittal from the Kootenai Tribe of Idaho (KTOI) to address the condition placed on the project. The submittal included a cover letter, draft reported titled, *Phase I: Draft Kootenai River Floodplain Ecosystem Operational Loss Assessment Report*, and appendices A-N. The Council submitted the response to the ISRP for review. The ISRP provided their initial review report on November 30, 2012 (ISRP document 2012-18). The ISRP found that the proposal needed additional detail and provided a recommendation of “Response Requested.”

On January 17, 2013 the KTOI requested a meeting with the ISRP to clarify their concerns raised regarding accuracy, sensitivity, and confidence levels for the various indices of the IEI. On February 7, 2013 the ISRP and KTOI met to discuss the ISRP concerns. On February 12, 2013 the ISRP provided a summary of the meeting with KTOI regarding the project.

On August 19, 2013 the Council received a response from the KTOI providing the additional information requested by the ISRP in their previous review. The submittal included a cover letter, a document addressing the specific ISRP information requests, and an updated report and supporting appendices.

On October 15, 2013 the Council received the ISRP’s final review (ISRP document 2013-13). The ISRP found that the project’s operational loss assessment “Meets Scientific Review Criteria (Qualified).”

## **ANALYSIS**

It is evident from the ISRP review that the KTOI and the ISRP have both appreciated the numerous reviews and interchange that have occurred with this project during its development. The ISRP expressed this appreciation in their final review and acknowledged the commendable job accomplished by the KTOI staff. They also noted the value in the use of what was learned through the development of the operational loss assessment and mentioned the approach could be useful elsewhere.

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<sup>1</sup> Refers to the capability of supporting and maintaining a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of natural habitat of the region. The ecological integrity concept provides a system-specific framework in which abiotic and biotic data can be ranked on a comparable quantitative scale. This method of estimating condition can be more ecologically-relevant than traditional analyses such as species richness.

As noted in the *Operational Loss Assessment Report* and in the ISRP final review the project is at a point to transition to the next phase of the project (i.e., Phase II - Development of the Implementation Plan). The project will now focus on developing a mitigation implementation plan to identify and prioritize appropriate opportunities to rehabilitate ecological functions within the Kootenai River Valley. The application of the Operational Loss toolsets will provide the foundation for the implementation and monitoring plan. This plan will be developed for the Kootenai River Floodplain by the co-managers and agency partners within the Kootenai River basin; KTOI, Montana Fish, Wildlife and Parks, Confederated Salish and Kootenai Tribe, Idaho Department of Fish and Game, U.S. Forest Service, Army Corps of Engineers, and U.S. Fish and Wildlife Service.

In addition to the development of the mitigation plan, the effectiveness of these tools will be tested. Monitoring of reach and project specific study sites will continue during this period to test the toolsets ability to detect changes at the project level and as projects accumulate, the reach level<sup>2</sup>. Currently, the toolset is being tested in the Flathead River Basin in Montana to assess its transferability to other basins.

In association with the transition to Phase II the ISRP requested a review (i.e., “Qualification”) of the multi-year restoration plan including the specific goals and 5 - 10 year quantitative objectives for their actions, and to receive updates and documentation of progress made every 1 - 2 years.

During this transition the KTOI staff will be available to provide information to other regional managers that might be interested in developing or implementing an IEI based assessment and/or monitoring protocol in their subbasins. It is also important to note that the Wildlife Advisory Committee has the following specific activity to advise the Council.

*The need for new methods to assess operational losses that incorporate the results of ongoing pilot projects that have explored how best to fulfill that specific need. This could include technical testing and evaluation of operational loss models and methodologies, or other alternative habitat evaluation methods.*

As an assessment tool, the IEI methodology documented many changes in the Kootenai River ecosystem at varying abiotic and biotic levels and over the different scales. All of these changes can be tied back at least in part to the construction and operation of Libby Dam. With the completion of the IEI assessment, the Kootenai River Operational Loss Assessment Project (Project #2002-011-00) has met its objective. The Projects goal in 2014 is to develop the mitigation implementation plan as addressed by the ISRP qualification, assist the region through

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<sup>2</sup> Though it was a favorable ISRP review they did express concerns regarding the ability to detect changes from restoration treatments addressing dam operations in the Kootenai Subbasin and the ability to apply and monitor these restoration actions. KTOI acknowledged these limitation in their response to ISRP stating “*However, the overall effect of mitigation projects likely would be small relative to the large drainage and the myriad of cascading impacts caused by the on-going operation of Libby Dam.*” and “*It is likely that any observable effects of small projects would be obscured at the reach or basin scale, due to the sheer size of the reach or basin*”.

the Wildlife Advisory Committee on the use of the assessment in operational losses in the Columbia River Basin<sup>3</sup>.

The implementation of the mitigation plan (i.e., Phase III) and the associated funds will occur in conjunction with the KTOI ongoing habitat projects<sup>4</sup> and will be dependent on favorable review by the ISRP<sup>5</sup>. The submittal of the implementation plan for ISRP review is expected in the first quarter of 2015. In addition the 1-2 year update and progress, as requested by the ISRP, will be addressed during the review of the mitigation implementation plan.

Based on the information above the Fish and Wildlife Committee recommends that the Council support the project to develop the mitigation implementation plan for ISRP review by April 2015. Further implementation of this project and funding will be determined based on ISRP review and Council approval.

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<sup>3</sup> In addition, it is important to note that Bonneville has recently required that a significant portion of the annual project budget be directed toward implementation of restoration projects along the Kootenai River.

<sup>4</sup> Project 2002-002-00 - Restore Natural Recruitment of Kootenai River White Sturgeon  
Project 2002-008-00 - Reconnect Kootenai River with Historic Floodplain  
Project 1992-061-05 - Albeni Falls Wildlife Mitigation-Kootenai Tribe

<sup>5</sup> The KTOI has an integrated fish and wildlife program that is holistic in addressing social constraints and limiting factors in the Kootenai River Subbasin in order to recover and conserve fish and wildlife habitats affected by the construction and operations of the hydrosystem.