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January 6, 2010

## DECISION MEMORANDUM

**TO:** Council Members

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

**SUBJECT:** Council decision on Project #2009-009-00, *Basinwide Supplementation Evaluation*, a Columbia Basin Fish Accord project.

**PROPOSED ACTION:** Council staff recommends that the Council support the project for implementation where the condition placed on this project, as part of the Council's June 9, 2009 decision has been adequately addressed.

### BUDGETARY/ECONOMIC IMPACTS

The total amount associated with this Accord project equals \$7,922,849 in expense funds for Fiscal Years 2008 through 2017. A contract (#42631) in the amount of \$644,735 is active with a performance period of April 1, 2009 to April 30, 2010 at \$644,735.

### BACKGROUND

In 2008-2009, Bonneville, the U.S. Army Corps of Engineers, and the U.S. Bureau of Reclamation (the "Action Agencies") signed agreements with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), the Confederated Tribes of the Warm Springs Reservation (CTWSRO), the Confederated Tribes and Bands of the Yakama Nation (YN), and the Columbia River Inter-Tribal Fish Commission (CRITFC). The agreement with these Tribes and CRITFC is referred as the Three Treaty Tribes MOA. The Action Agencies also signed agreements with the Confederated Tribes of the Colville Reservation (CCT), the Shoshone-Bannock Tribes (SBT), and the states of Idaho, Montana, and Washington. These agreements are known as the Columbia Basin Fish Accords.

As set forth in the guidance document outlining the review process for the Accords, the Council recognizes Bonneville's commitment to Accord projects. The Accords do not, however, alter the Council's responsibilities with respect to independent science review or the Council's role following such review. As with all projects in the Fish and Wildlife Program, Accord projects are subject to review by the Independent Scientific Review Panel (ISRP), and the Council provides funding recommendations based on full consideration of the ISRP's report and the Council's Program.

The goal of this project is to support recommendations from the *Ad Hoc* Supplementation Workgroup (AHSWG 2008)<sup>1</sup> for a basinwide evaluation of the long-term effects of hatchery supplementation on productivity of naturally spawning anadromous salmonid populations. To address this recommendation there is a need for more accurate and precise information on trends in abundance and productivity of supplemented salmon and steelhead populations and relative reproductive success (RRS) of naturally spawning salmon of natural origin versus hatchery origin within supplemented populations.

The plan for this phase of the proposal covers the following four specific objectives:

- Objective 1: Obtain an estimate of the 2009 natural spawning escapement of the supplemented spring Chinook population upstream of the Castile Falls complex in the upper basin of the Klickitat River (three years) using a pair of Dual-Frequency Identification Sonars (DIDSONs).
- Objective 2: Complete development of a mark-recapture likelihood model that incorporates tag loss, including the uncertainty of the tag loss estimate, into the inference for population abundance (one year).
- Objective 3: Perform a relative reproductive success (RRS) study of natural origin (NO) versus hatchery origin (HO) salmon in a population associated with an ongoing supplementation monitoring and evaluation program for which tissue samples have been collected but for which genetic analysis and estimation of RRS remains unfunded (10 years).
- Objective 4: Perform RRS studies of NO versus HO salmon in four to five different populations that have been reintroduced (following extirpation of the native population) and supported through hatchery supplementation (10 years).

The proposal was submitted to the ISRP on March 26, 2009 for review, and on May 22, 2009 the ISRP provided a review (ISRP Document 2009-19). The ISRP found that three (Objectives 2, 3 and 4) of the four objectives addressed by this proposal “Meets Scientific Review Criteria (Qualified)”. The remaining objective (Objective 1) received a “Response Requested”<sup>2</sup>. No public comment was received on the ISRP review.

On June 9, 2009 the Council provided the following recommendation.

Council Recommendation (Objective 1)

Council recommends that additional information be provided that clearly describes the linkage of the DIDSON escapement monitoring to the approved Klickitat River Anadromous Fisheries Master Plan, and ask the project sponsor to address the issues

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<sup>1</sup> <http://www.nwcouncil.org/fw/program/2008amend/uploadedfiles/95/Final%20Draft%20AHSWG%20report.pdf>

<sup>2</sup> The ISRP found that the objective as described in the proposal was not adequately linked to the Klickitat River Anadromous Fisheries Master Plan (*Klickitat Fishery YKFP Design*, Project #1988-115-35). In addition, the ISRP had questions regarding the suitability of the technology to monitor supplementation. The The ISRP recommended the project proponent clarify the linkage of the proposed effort under this Accord project and the ongoing planning effort as approved for the spring Chinook supplementation program in the Klickitat Subbasin, and provide additional detail regarding the use of DIDSON as a monitoring tool.

raised by the ISRP regarding the suitability of sonar as a monitoring tool, for subsequent ISRP and Council review.

Council Recommendation (Objective 2, 3 and 4)

The Council recommends these objectives for implementation with the condition that the responses and the qualifications identified by the ISRP (ISRP document 2009-19) be addressed as part of contracting and be reflected in future reviews.

On November 11, 2009 a response was received from CRITFC<sup>3</sup> (via Bonneville) intended to address the conditions placed on Objective 1 of the project as recommended by the Council on June 9, 2009 (please see above). On December 21, 2009 the Council received the ISRP review (ISRP document 2009-54).

**ANALYSIS**

The ISRP found that the follow-up information regarding Objective 1 (i.e., Use Dual-Frequency Identification Sonar (DIDSON) to estimate natural escapement of spring Chinook salmon above Castile Falls, Klickitat River) meets scientific review criteria (qualified). The qualification addresses the need for the DIDSON results to be reviewed by the ISRP in three years, as it relates to a tool for estimating escapement for spring Chinook population upstream of the Castile Falls in the Klickitat River and elsewhere in the Columbia River Basin. This qualification can be addressed through contracting and be reviewed as part of future reviews.

Based on the ISRP review, the Council staff recommends that the condition placed on this project as part of the Council decision on June 9, 2009 has been adequately addressed. Council staff recommends the Council support the project for implementation.

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<sup>3</sup> The CRITFC response was dated July 10, 2009.