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July 30, 2009

DECISION MEMORANDUM

TO: Council Members

FROM: Mark Fritsch, project implementation manager

SUBJECT: Council decision on Project #2008-710-00, *Development of an Integrated strategy for Chum Salmon Restoration in the tributaries below Bonneville Dam*, a Columbia Basin Fish Accord project.

PROPOSED ACTION: The Council staff recommends that the Council support Objectives 1, 2, 4 and 6 of the project for implementation with the condition that the qualifications and responses identified by the ISRP for Objectives 3 and 5 be addressed as part the anticipated Step Review associated with Objective 7. Full implementation of Objectives 3, 5 and 7 is dependant on future reviews by the ISRP and Council.

BUDGETARY/ECONOMIC IMPACTS

The proposed budget for the first year of this project is estimated to be \$496,372.

BACKGROUND

On March 11, 2009 the Bonneville Power Administration (Bonneville) submitted a 2008 Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp) project narrative for Independent Scientific Review Panel (ISRP) review for Project #2008-710-00, *Chum Salmon Enhancement in the Lower Columbia River*. The 2008 FCRPS BiOp is a 10-year operations and configuration plan to mitigate for the adverse effects of the hydro-system on the 13 listed fish under the Endangered Species Act (ESA). The Reasonable and Prudent Alternative (RPA) of the FCRPS BiOp calls for Bonneville and the other federal Action Agencies to implement specific mitigation actions to avoid jeopardy and adverse modification of the critical habitat of ESA listed Columbia River fish. The project is intended to address several actions required by the FCRPS BiOp RPA:

- RPA action 42: *Fund a hatchery program to re-introduce chum salmon in Duncan Creek including capital construction, implementation and monitoring and evaluation as long as NOAA Fisheries considers it beneficial to recovery and necessary to reduce risk of the target population.*

- RPA action 42: *Fund the assessment of habitat potential, development of reintroduction strategies, and implementation of pilot supplementation projects in selected Lower Columbia River tributaries below Bonneville Dam.*
- RPA action 17: *Monitoring of chum salmon spawning in the mainstem Columbia River in the area of the Ives Island Complex and/or access to the Hamilton and Hardy Creeks for this spawning population.*

The purpose of the project is to develop and implement habitat restoration, reintroduction and hatchery supplementation in tributaries below Bonneville Dam. The project has the following seven objectives.

Objective 1 - *Habitat restoration and chum channel site assessment.*

Objective 2 - *Lower Columbia River chum salmon stock status review.*

Objective 3 - *Develop a supplementation/reintroduction strategy for LCR chum salmon.*

Objective 4 - *Population monitoring and evaluation program development.*

Objective 5 - *Grays River chum salmon supplementation.*

Objective 6 - *Removal of invasive vegetation in Hamilton Spring Channel.*

Objective 7 - *Initiate 3 Step review for at least one top ranked project identified by the habitat restoration and chum channel site assessment.*

On April 29, 2009 the ISRP provided its review (ISRP document 2009-14). The ISRP requested additional information before they could determine if the proposal met scientific criteria.

On June 8, 2009, the Council received a response from the Washington Department of Fish and Wildlife (WDFW), and on July 23, 2009 the Council received the final ISRP review (ISRP document 2009-29). The ISRP found that the proposal “*Meets Scientific Review Criteria in Part (qualified)*”. To date no public comment has been received on the ISRP review.

ANALYSIS

The ISRP found that four of the seven project objectives (Objectives 1, 2, 4 and 6) met scientific review criteria. The ISRP provided an “in part” recommendation for the project since Objectives 3, 5 and 7 did not meet review criteria. This recommendation was “qualified” to request that the scheduling and timing sequence of these objectives (i.e., 3, 5 and 7) needs to be revised to ensure the sponsors address key questions to justify and help the ISRP understand the ecological basis for the supplementation associated with these objectives.

It is important to note that the Columbia River chum populations are currently at critically low levels. There are currently two conservation programs in the Columbia River Basin, Grays River and Duncan Creek. The first program is part of the Duncan Creek Project (i.e., Project #2001-053-00, *Reintroduction of Chum in Duncan Creek*) that was approved as part of the step review by the Council on March 15, 2005. However, funds for this project were reduced in 2008, cost

associated with bringing this program back to full production are included in this proposal. The second program is located in Grays River and has been in operation since 1998 through funds provided by WDFW.¹

The Grays River Conservation Hatchery program was initiated by WDFW to lessen the risk of a complete brood-year failure. That possibility exists in the Grays subbasin due to the combination of high flow events, unstable channel dynamics and the existence of only one protected off-channel chum spawning area (the only protected off-channel spawning area - the Gorley Springs Channel - was lost in 1999). The Grays River program consists of collecting and spawning wild adult broodstock, incubating and releasing fed fry after 2 months. Bonneville supports funding the continuation of broodstock take, egg incubation and fry production to maintain this ongoing safety-net program in Grays River – consistent with FCRPS BiOp that calls for continuation of these safety net supplementation programs. The anticipated cost of the Grays River program is approximately \$35,000 per year.

The WDFW considers the continuity of the Duncan Cr. and Grays River safety net programs essential to reduce the risk of catastrophic failure of a year class and protection of key genetic resources. The Hatchery Scientific Review Group (HSRG) reached a similar conclusion in its recently concluded review of the Columbia Basin hatchery programs, noting that the use of these chum conservation hatchery programs should be viewed as an important short-term risk management strategy to preserve the genetic legacy of depressed chum salmon in the Columbia River. Also, hatchery chum salmon populations are less likely to be affected by domestication given their short amount of time in the hatchery.

Council staff supports continued efforts at the Grays River Conservation Hatchery at the proposed \$35,000 funding level until these activities and other *supplementation/reintroduction strategies* are confirmed through the anticipated step review as outlined in Objective 7 of the project. Therefore, based on the ISRP review the Council staff recommends that the Council support the project for implementation (i.e., Objectives 1, 2, 4 and 6) with the condition that the qualifications and responses identified by the ISRP (ISRP document 2009-29) for Objectives 3 and 5 be addressed as part the anticipated Step Review associated with Objective 7. Full implementation of these objectives (i.e., Objectives 3, 5 and 7) is dependant on future reviews by the ISRP and Council.

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¹ Funds to date have been a combination of state ESA funds and NOAA BiOp implementation. These funds are no longer available.