

W. Bill Booth
Chair
Idaho

James A. Yost
Idaho

Tom Karier
Washington

Dick Wallace
Washington



Bruce A. Measure
Vice-Chair
Montana

Rhonda Whiting
Montana

Melinda S. Eden
Oregon

Joan M. Dukes
Oregon

July 1, 2010

MEMORANDUM

TO: Committee members

FROM: Mark Fritsch, project implementation manager

SUBJECT: Council decision on Project #2008-524-00, *Implement Tribal Pacific Lamprey Restoration Plan*, a Columbia Basin Fish Accord project.

PROPOSED ACTION: That the Fish and Wildlife committee:

- support proceeding with all tasks associated with Objectives 1 and 4 as well as tasks that received favorable ISRP review addressing planning, development of methods and technologies, data collection and dissemination associated with Objectives 2, 3, 5 and 6.
- the remaining tasks (e.g., study designs, plans and methods) associated with Objectives 2, 3, 5 and 6 will need additional review by the ISRP. If favorable review is received from the ISRP the actions (i.e., tasks) can proceed to implementation.

BUDGETARY/ECONOMIC IMPACTS

The total budget for this Accord project is \$6,298,848 (i.e., it ranges from \$575,000 to \$700,582 per year¹) in expense funds for Fiscal Years 2008 through 2017.

BACKGROUND

In 2008-2009, the Bonneville Power Administration, 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 agreements with these Tribes and CRITFC are referred as the Three Treaty Tribes MOA. The Action Agencies also signed agreements with the Confederated Tribes of the Colville Reservation (CCT), the

¹ This range includes the anticipated 2.5-percent annual inflation adjustment, beginning in Fiscal Year 2010. The Fiscal Year 2009 budget was re-distributed into Fiscal Year 2010.

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 scientific review of project proposals or the Council's role following such reviews. 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 implementation recommendations based on full consideration of the ISRP's report and the Council's Program.

On June 8, 2009, the Council received from Bonneville a Columbia Basin Fish Accord proposal from the Columbia River Inter-Tribal Fish Commission (CRITFC) for Project #2008-524-00, *Pacific Lamprey Passage Design*.²

The ultimate goal of this project is to implement the objectives of the draft *Tribal Pacific Lamprey Restoration Plan for the Columbia River Basin*.³ To address the needs embedded in restoration plan, the proposal outlined nine sub-objectives.

The proposal was submitted to the ISRP for review, and on June 24, 2009 the ISRP provided a review (ISRP document 2009-24). The ISRP found that the proposal "Meets Scientific Review Criteria - In Part." No public comment was received on the ISRP review.

The ISRP found the proposal to be too general to support scientific review. The panel found that only the action associated with the finalization of the lamprey restoration plan met scientific criteria. The ISRP recommended that this objective precede implementation of field work so as to provide a prioritized list of actions and studies, but more importantly to provide more details on the methods to be used to address lamprey passage and distribution questions in the sub-objectives found in the proposal.

On August 12, 2009, based on the ISRP review, the Council recommended support for only the ongoing actions associated with the finalization of the lamprey restoration plan. The Council also called for CRITFC to address the concerns raised by the ISRP and recommended that any additional actions be subject to future review by the ISRP and the Council.

On April 29, 2010 the CRITFC presented an overview of the revised project (i.e., lamprey restoration plan implementation) to the ISRP and Council staff. On May 4, 2010 the Council received a submittal from CRITFC intended to address the condition placed on this project on August 12, 2009 by the Council.⁴ The submittal included a cover letter and the revised narrative (i.e., tribal restoration plan) for the project. On May 27, 2010 the ISRP provided its review (ISRP document 2010-16). The ISRP found that the project *Meets Scientific Review Criteria (In Part) – Objectives 1 and 4 meet criteria (qualified). Parts of Objectives 2, 3, and 5 meet criteria,*

² The proposal is listed in the May 2008 agreement in Attachment B, Lamprey.

³ Tribal Pacific Lamprey Restoration Plan for the Columbia River Basin. Available at critfc.org.

⁴ The project title was changed (pursuant to an ISRP suggestion) to reflect the various project elements. The project is now titled *Implement Tribal Pacific Lamprey Restoration Plan*.

and other parts need separate sub-proposals. Objective 6 is premature – it should be based on the outcome of Objective 3.

ANALYSIS

The revised narrative reviewed by the ISRP addressed many of the ISRP's initial recommendations and many improvements were evident in the proposal. The ISRP stated that the project will provide benefit to Pacific lamprey, especially on the collection of information regarding their life history and population status. However, the ISRP found the proposal included objectives that should be treated as individual projects (i.e., sub-proposals), and stated that the additional details needed for an adequate review should be submitted and reviewed individually (found in parts of Objective 2, 3, 5 and 6). This would be similar to the approach the ISRP and Council used with Project # 2007-325-00, *UPA Wenatchee Subbasin Complexity Proposal*.

Based on the ISRP review the Council staff has summarized by objective the following recommendation for the Fish and Wildlife Committee to consider. In addition, a general summary for the project as a whole is provided.

Objective 1. Finalize the Tribal Pacific Lamprey Restoration Plan for the Columbia River Basin. (*ISRP document 2010-16; Qualified*).

Recommendation: Proponent needs to complete the plan and take into account the additional information and detail requested by the ISRP. This qualification can be addressed as part of contracting.

Objective 2. Improve mainstem and tributary lamprey passage efficiency, and survival. (*ISRP document 2010-16; In Part*).

Recommendation: Proponent to proceed with coordination and initiating the development of methods and technologies (Task 2.1A, Task 2.1B subtask v; Task 2.1D subtask ii and iii). The designs and tests of the structures and methods should be reviewed by ISRP prior to installation and implementation (Task 2.1B subtasks i-iv; Task 2.1C subtasks i-iv; and Task 2.1D subtask i).

Objective 3. Monitor and evaluate, collect and disseminate information on lamprey population status, life histories and mainstem habitat. (*ISRP document 2010-16; In Part*).

Recommendation: Proponent to initiate collaboration and data share with other entities conducting work and to collaborate on data bases on abundance and literature reviews (Task 3.1A subtask iii-v; Task 3.1B subtask ii and v; Action 3.2; action 3.4). This recommendation requires a favorable review by the ISRP of the study designs and methods before they are implemented (Task 3.1A subtasks i and ii; Task 3.1B subtasks i – iv; Task 3.3A subtasks i and ii; Task 3.3B).

Objective 4. Establish and coordinate public education and other outreach programs. (*ISRP document 2010-16; Qualified*).

Recommendation: Proponent to address how the effectiveness of the education and outreach programs will be monitored. This qualification can be addressed as part of contracting.

Objective 5. Evaluate contaminant accumulation and other water quality impacts on lamprey. (ISRP document 2010-16; *In Part*).

Recommendation: Proponent to proceed with data collection and literature review (Task 5.1A; Action 5.2). This recommendation requires a favorable review by the ISRP of the study design before the study is implemented (Task 5.1B).

Objective 6. In collaboration with CRITFC member tribes and other regional entities with resource sharing, plan, develop and if appropriate, implement an experimental safety-net lamprey artificial production facility for the conservation of the species. (*ISRP document 2010-16; Does Not Meet Review Criteria*).

Recommendation: Proponent to proceed to collect and disseminate information and initiate other activities in Objective 3 (Task 3.1A subtasks iii-v; Task 3.1B subtasks ii and v; Action 3.2; action 3.4). Some of the information gathered will be needed to provide the preliminary information for Objective 6. The planning and collaboration activities for Objective 6 should proceed (Task 6.1A-C). At the appropriate time, the proponent should present a plan (Task 6.1 D and E, and Task 6.2) for review by the ISRP and the Council that addresses the review elements defined in the step review process (Council document 2006-21, *Three-Step Review Process*).

Summary

Council staff recommends that the Fish and Wildlife Committee supports proceeding with all tasks associated with Objectives 1 and 4. In addition, tasks that received favorable ISRP review addressing planning, development of methods and technologies, data collection and dissemination associated with Objectives 2, 3, 5 and 6 can proceed. The remaining tasks (e.g., study designs, plans and methods) associated with Objectives 2, 3, 5 and 6 will need additional review by the ISRP. If favorable review is received from the ISRP the actions (i.e., tasks) can proceed to implementation.



COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION

729 NE Oregon, Suite 200, Portland, Oregon 97232

Telephone 503 238 0667

Fax 503 235 4228

Memorandum

To: Paul Lumley, Executive Director
From: Bob Heinith, Hydro Program Coordinator/Lamprey Project Leader
Date: July 1, 2010
RE: Clarification of Issues related to CRITFC Accord Project
2008-524-00 Implement Tribal Pacific Lamprey Restoration Plan

Summary

CRITFC staff has reviewed the Northwest Power and Conservation Council staff memorandum related to the above Accord Project. While we concur with the majority of the Council staff recommendations, we differ with respect to some important elements. We have provided this memo to clarify and make recommendations regarding how to proceed with implementation of this important project. The memorandum follows the proceeds objective by objective to address the Council staff and ISRP recommendations.

We would like to see the following recommendations added to the Council staff recommendations to the Fish and Wildlife Committee:

- support proceeding with the following additional tasks under Objectives 2, 3 and 6 which address planning, collaboration, coordination, and participation in regional workgroups with regards to various elements of design, research, and data collection and sharing. As clarified by the project sponsor, the functions of these subtasks are consistent with other planning and coordination subtasks receiving favorable ISRP review:
 - Task 2.1B, Subtasks (i) (collaboration only), (iii) and (iv)
 - Task 2.1C, Subtasks (i) – (iv)
 - Task 3.1B, Subtasks (ii) – (iv)
 - Task 6.1
- support proceeding with Task 3.1A, subtasks (i) and (ii) regarding CRITFC's collaboration and participation in the Willamette telemetry studies being conducted in partnership with multiple entities and funding sources and supported by detailed project proposals.

Objective 1. Finalize the Tribal Pacific Lamprey Restoration Plan for the Columbia River Basin.

We concur with Council staff and the ISRP that the plan needs to be finalized. We are in the process of hiring a project leader to assist in this endeavor and will incorporate the comments of the ISRP and ISAB into the final plan.

Objective 2. Improve mainstem and tributary lamprey passage efficiency and survival

We appreciate the support for moving ahead with the coordination and planning elements of the project. The actions for this objective are almost entirely coordination and planning with other regional entities that are engaged in developing and funding lamprey passage solutions at their projects. Principally, these are the Corps of Engineers and the Mid-Columbia PUDs, Portland General Electric and the Bureau of Reclamation, who are in the lead for developing lamprey passage improvements at their projects. CRITFC provides technical assistance to these entities through these subtasks, but does not fund these other entities' work. The Council staff and ISRP support CRITFC's participation in such capacities. The following subtasks similarly consist on only collaboration and coordination activities, and as clarified should be similarly given favorable review and support:

Task 2.1B, Subtasks (i) (collaboration only), (iii) and (iv)

- *Subtask(i) Collaborate with regional dam operators to develop and adapt improved adult lamprey counting methods and establish consistent 24 hour lamprey counting at Corps dams, Mid-Columbia FERC dams and Willamette Falls and assisting with Warm Springs Tribal Accord adult lamprey abundance estimation project at Willamette Falls*
- *Subtask(iii) Coordinate and collaborate with other entities such as WDFW, ODFW, Corps and Fish Passage Center to develop and adapt improved juvenile lamprey dam counting methods at bypass systems*
- *Subtask(iv) Collaborate with Corps and other regional entities to establish active tagging technology for juvenile lamprey.*

Task 2.1C, Subtasks (i) – (iv)

- *Subtask(i) In collaboration with other regional entities use passage and research information from Task B to establish adult improvement priority areas such as modifications to fishway entrances by installation of lower velocity structures, LAPS systems, plates over diffuser gratings, ramps, rounding weir corners and modifying blind corners such as auxiliary water system areas*
- *Subtask(ii) In collaboration with other regional entities create a prioritized list of adult passage improvements for all mainstem dam fishways*
- *Subtask(iii) In collaboration with other regional entities establish adult lamprey passage rates through mainstem reservoirs and research ways to reduce reservoir passage losses*
- *Subtask(iv) In collaboration with CTUIR, Warm Springs and Yakama Accord Projects link mainstem passage research with tributary passage research through the use of PIT-Tag, radio tag, acoustic tag and other appropriate technologies*

There are two subtasks under this objective that involve activities that go beyond planning and coordination. These two activities involve video counting at Willamette Falls and research and development of lamprey friendly screen technologies for tributary (e.g irrigation) screens. This

work will be carried out with USFWS and USGS respectively. We will prepare more detailed proposals for this work and make them available for additional review, in particular for:

- 1) Task 2.1 B. Subtask (ii) where CRITFC proposes to collect video counts at Willamette Falls basin information and methods gathered from a similar ongoing USFWS funded collaborative video counting project at John Day Dam.
- 2) Task 2.1 D Subtask (i) where CRITFC proposes to provide cost share funding for the ongoing USGS project to develop tributary screen designs to protect juvenile lamprey from impingement and passage into irrigation and other tributary water diversion structure. However, we note that as a costshare project, CRITFC has some limited input into the project structure, but is not in control of the final project design and therefore ISRP review may be limited.

Objective 3. Monitor and evaluate, collect and disseminate information on lamprey population status, life histories and mainstem habitat.

The ISRP and Council staff support a number of collaborative and data sharing subtasks under this objective. Like under Objective 2, we are providing clarifying that several subtasks involve only planning, coordination, collaboration tasks with the other regional managers and entities. Like the others, these are subtasks should proceed to contracting. These are:

Task 3.1B, Subtasks (ii)-(iv):

- *Subtask(ii) Coordinate and share data with CRITFC Accord tribes on their juvenile lamprey tributary surveys*
- *Subtask(iii) Coordinate, collaborate with Corps, USFWS, Mid-Columbia PUDs and others on mainstem surveys and population studies.*
- *Subtask(iv) Coordinate/collaborate on juvenile population studies funded by the Corps under AFEP and investigate other sources such FERC license holder investigations.*

The ISRP and Council staff recommends separate proposals for the rest of Objective 3 not obtaining favorable review. These are discussed below:

- 1) Task 3.1 A. Implement Willamette River adult lamprey migration and habitat study:
 - *Subtask (i) Fund subcontractor Cramer Fish Sciences to trap and radio tag about 200 adult lamprey at Willamette Falls Fishway throughout the migration season.*
 - *Subtask (ii) Fund Oregon State University and Cramer Fish Sciences to characterize adult lamprey life history stages (migration, holding, spawning) throughout the Willamette River through radio-telemetry methods including fixed receivers, boat and aerial tracking.*

This is an ongoing collaborative study with separately funded participation by the Grande Ronde Tribe, Portland General Electric, the Bureau of Reclamation. CRITFC's participation in this project funds investigators from Oregon State University (Dr. Carl Schreck and Mr. Ben Clemens) and Cramer Fish Sciences (Dr. Chris Peery), who are the principal researchers. These

researchers along with CRITFC staff gave formal presentations on the project with respect to methods and current findings to the ISRP during the April 29, 2010 ISRP review of this overarching project. As part of the project proposal (Narrative), the ISRP was provided formal detailed proposals for this research by these researchers to review prior to the formal presentation on April 29, 2010. The ISRP also had specific questions regarding lamprey use of suboptimum habitat. Dr. Carl Schreck has responded to that question in a separate memo sent to the ISRP via Council Staff on July 1, 2010 (Attachment 1).

Other collaborators are depending upon CRITFC's researchers to provide cooperative data which requires tagging and tracking adult lamprey. A key reason for CRITFC's involvement in this project was the unique opportunity and ability to collaborate and cost share research and resources with other co-managers of the resource, which the ISRP (and the region) supports. While the ISRP recommended that CRITFC's researchers engage with other collaborators in data sharing for this study, such data sharing cannot occur unless the project is funded. We recommend that this work element move forward while additional ISRP review of this project proceeds. With respect to the overall 2010-2011 Project 2008-524-00, this project is the primary focus, with the budget at \$347,800. Because of the collaborative nature of this project, the central role of the CRITFC funding in it, and the detailed proposals developed and submitted to date, this Task should be allowed to move forward.

- 2) Task 3.1B. In cooperation and collaboration with other regional entities, investigate the adult and juvenile lamprey status and abundance trends by conducting inventories of adult and juvenile lamprey abundance distribution and habitat at dams and in mainstem rivers and reservoirs.
 - *Subtask(i) In collaboration and resource sharing with USGS, USFWS and others, plan prioritize and implement mainstem juvenile lamprey habitat inventories.*

CRITFC proposes to provide cost share funding to the USFWS researchers to engage in lower Columbia River mainstem juvenile lamprey surveys and will provide the ISRP with a specific proposal for this subtask.

- 3) Task 3.3A. Fund analysis of existing juvenile and adult genetic samples to optimize suite of DNA and AFLP markers
 - *Subtask(i) Analyze existing samples to assist in establishing gene flow trends and temporal vs geographical/spatial differences.*

For the April 29, 2010 ISRP review we included a project proposal from Dr. David Close for this work to the ISRP. The ISRP did not provide any specific comments on the proposal. We will provide updates to this proposal

- *Subtask(ii) Analyze potential for subpopulation gene flow in the Willamette subbasin.*

CRITFC will provide a project proposal from Dr. Margaret Docker as a response to the ISRP for review for this subtask.

- 4) Task 3.3B. Fund obtaining additional juvenile and adult genetic material and analyze for DNA and AFLP markers
- *Subtask(i) Contract through University of British Columbia to obtain collection of additional samples from areas already surveyed (n=30 samples per site) to examine temporal issues and add sites from Washington coast rivers, Elwha River, Fraser, Skeena, and Nass rivers, British Columbia, Moose River, Alaska, etc.*

For the April 29, 2010 ISRP review we included a project proposal from Dr. David Close for this work to the ISRP. The ISRP did not provide any specific comments on the proposal. We will provide updates to the proposal

Objective 4 Establish and coordinate public education and other outreach programs.

We concur with Council Staff that we will address the ISRP qualification for this Objective through contracting.

Objective 5. Evaluate contaminant accumulation and other water quality impacts on lamprey.

The ISRP and Council staff support the literature reviews on toxics under Objective 5 but requested a separate proposal for Action 5.1, Task 5.1B:

Action 5.1. Compare toxic accumulation levels between adult and juvenile lamprey from different parts of the Columbia Basin

- Task 5.1B Through funding partnerships with USGS, EPA and others, evaluate juvenile contaminants in 2-3 tributaries in 2010 and expand in future years.

CRITFC proposes to use a unique, cost share opportunity for this project with the USGS who will be performing the research. CRITFC will provide the ISRP with their project proposal for review, however again, while CRITFC is allowed to provide input into the project structure, the final project design will be decided by USGS and there may therefore be little for ISRP to review. Per ISRP recommendations, CRITFC will collaborate with member tribes to obtain samples.

Objective 6. In collaboration with CRITFC member tribes and other regional entities with resource sharing, plan, develop and if appropriate, implement an experimental safety-net lamprey artificial production facility for the conservation of the species.

Objective 6 is a long term artificial production objective. Objective 6.1 and tasks under Objective 6.1 are planning exercises, not an implementation exercise. There is a current window of opportunity to cost share and collaborate this objective with other lamprey regional resources if this objective can proceed expeditiously. Juvenile lamprey will be needed for passage studies and contaminant studies in order to preserve wild lamprey populations. We included research

literature from Lampman (2009) and a research outline by Dr. Carl Schreck in our narrative submittal to which the ISRP found favorable. Given these issues, we believe it important for Action 6.1 to proceed.

Action 6.1 Develop plan for artificial production facility (Timeline: 2010-2011)

Given the serious recent decline in lamprey numbers throughout the basin, a reasonable strategy is to develop a conservation propagation facility (Lampman et al. 2009). Among other things, lamprey produced by this facility can be utilized for passage studies to avoid mining remaining natural production.

- Task 6.1A Fund an expert panel with international participation to scope needs for artificial production facility (i.e. proper husbandry, appropriate siting, facilities, broodstock, gamete management, release protocols, pheromone studies etc.; Hokkaido 2008). Broodstock collection methods (i.e. funnel traps) successfully used by the CTUIR for their Accord funded translocation project may be considered.
- Task 6.1B Conduct a workshop using the information gained in Task 6.1.A to develop a draft facility plan
- Task 6.1C Seek collaborative partnerships between tribes, USFWS, and other regional entities to develop cost share mechanisms to fund planning for task 6.1A and 6.1B (for example Chelan PUD has some funding for lamprey mitigation projects under the new Rocky Reach FERC license).
- Task 6.1D Seek regional review of conservation facility plan
- Task 6.1 E Finalize conservation facility plan

We will offer the plan to the ISRP and the region for review before proceeding with Action 6.2.

Action 6.2 If warranted, based upon the plan, proceed with implementation of an experimental artificial production conservation facility and monitor and evaluate results (2012-2018)

Attachment 1 Dr. Carl Schreck June 1, 2010 memo to ISRP