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January 4, 2011

MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Council Staff

SUBJECT: Discuss the status of two projects designed to address Reasonable and Prudent Alternative elements of the Estuary module of the Federal Columbia River Power System Biological Opinion.

PROPOSED ACTION

Staff will discuss with committee members the status and next steps involved following ISRP reviews of two estuary projects.

BACKGROUND

Project #2010-073-00, *Columbia Land Trust Estuarine Restoration*

The goal of the Columbia Land Trust (CLT) project is to develop, design and construct on-the-ground restoration habitat actions that provide high survival benefits to meet targets required under the 2008 BiOp. The restoration actions will benefit threatened and endangered salmonid species in lower river/estuary mainstem and tributary tidal habitats that promote diverse estuarine life histories. Since 2000, Columbia Land Trust has protected and/or restored over 4,000 acres of estuarine habitat in the Columbia River estuary for the purpose of salmon recovery. Columbia Land Trust has accomplished this by permanently securing a land base from willing land owners. These lands now serve as platform from which on-the-ground restoration projects are able to be implemented. The project types developed within this program are largely tidal reconnection actions that restore full or near full tidal influence to areas that have been disconnected from tidal and fluvial hydrologic processes by levees, roads, dredge material and railroad causeways. These restoration actions are to restore estuarine connectivity and function to floodplain and wetland habitats and thereby allowing juvenile salmon to regain benefit from these rearing and refuge areas.

Science Review

On June 25, 2010, the Bonneville Power Administration (Bonneville) submitted a 2008 Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp) project narrative for review by the Independent Scientific Review Panel (ISRP).

On August 6, 2010, the ISRP requested additional information from the proponents to determine whether the proposal met scientific criteria (ISRP document 2010-26), stating that the current proposal “does not meet scientific review criteria” and a response in the form of a revised proposal is needed. In addition the ISRP provided the following guidance to the sponsor.

- 1. In the technical justification, program significance, and project relationships sections clarify the specific role of the Trust in the process of BPA-funded habitat restoration.*
- 2. Include quantitative environmental and biological objectives consistent with the 2009 Fish and Wildlife Program. The objectives given are very general and not amendable to technical review.*
- 3. For tasks 1, 2, and 3 provide a level of detail that will enable the ISRP to adequately evaluate the potential of this proposal/project to provide benefits to juvenile salmonids. (see comments below for these tasks).*
- 4. Provide details on specific monitoring methods and data management.*

On September 8, 2010 the Council received a cover letter and the revised narrative from BPA. The Council received the ISRP’s final review (ISRP document 2010-41) of the revised proposal on November 17, 2010. The ISRP found the revised proposal “*does not meet scientific review criteria*”. In addition, the ISRP provided detail to the inadequacies of the revised proposal as it related to the initial four areas of guidance that was provided in their previous review. No public comment has been received on the ISRP reviews.

Project #2010-004-00, CREST Estuary Habitat Restoration

The purpose of the Columbia River Estuary Study Taskforce (CREST) project is to restore estuary habitat through the development, design, and construction of on-the-ground habitat restoration actions that will provide high benefits to meet goals required under the 2008 BiOp for the benefit of threatened and endangered salmonid species in mainstem and tidal habitats that promote diverse estuarine life histories. The restoration actions focus on dike breaches, land acquisitions to restore shallow water in-channel and off -channel rearing habitats for threatened and endangered salmonid species. In the past six years, CREST habitat projects have resulted in 86 acres restored and over 18 linear miles of shoreline reconnected or enhanced.

Science Review

On March 5, 2020, the Bonneville submitted a 2008 Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp) project narrative for review by the ISRP.

On April 15, 2010, the ISRP requested additional information (i.e., “response requested”) from the proponents to determine whether the proposal met scientific criteria (ISRP document 2010-9). The ISRP found the current proposal “does not meet scientific review criteria”. The ISRP requested that the narrative be revised and that a point-by-point response to the following ISRP concerns be addressed.

1. Clarification of the specific role of CREST in the process of BPA-funded habitat restoration.
2. More details on the two projects mentioned in the cover letter by Mr. Maslen (Ft. Columbia Tidal Reconnection and Otter Point Restoration). Until the projects have actually been designed, the ISRP cannot determine their technical and scientific merit or whether the projects may benefit Columbia River Basin Fish and Wildlife. A revised proposal for the above two projects could be paired with a document that describes CREST's role in a restoration plan for the entire estuary over the next decade. This comprehensive proposal should (1) deal with the proponent's vision(s), goals, and objectives for the estuary, (2) review accomplishments to date in terms of meeting the goal of restoring 16000 acres, and (3) provide a blueprint for future work.
3. A summary of the analyses completed by the estuary BiOp science group and the ERTG that evaluate the merit of the proposed activities (in 2, above) and a cross-referencing of the proposed work with the analyses.
4. An explanation of the specific methods that CREST uses to identify and prioritize habitat restoration projects. There is a need to demonstrate how the scientific prioritization criteria will be applied to the landscape in general, not just individual projects. How will these criteria be evaluated at multiple sites to decide which sites should be developed into protection and restoration projects? It is not evident from the proposal that recent advances in classifying and mapping estuary habitats (see presentations at the Astoria science/policy exchange www.nwcouncil.org/fw/program/2009spe/Default.asp) have been incorporated into a long-term approach to identify where protection and restoration should be implemented to achieve the three primary objectives.
5. Specific examples of the significance and consistency of proposed BPA-funded CREST projects with regional programs and how coordination will be achieved.
6. An explanation of how the limiting factors described in the Lower Columbia River and Columbia River Estuary Subbasin Plan and RPAs in the 2008 BiOp will be specifically addressed. The three primary objectives: (1) increase the availability of preferred habitat; (2) increase the macro-detritus food web; and (3) increase habitat connectivity, need to be developed in a quantitative form. The proponents need to elaborate on the quantitative connection hypothesized between these ecosystem attributes and the survival and capacity of different life-stages and species of salmon in the estuary.
7. Further details on monitoring methods for the two specific projects mentioned in 2 (above). Who will actually decide on the methods? Will the methods be extracted from Roegner et al. (2009), and what is the role of the ERTG in selecting them? Details are requested on the design of the BACI analyses. If cause-effect relationships are being sought, before and after monitoring will require randomization of sites and attention to sample sizes in a power analysis.

On May 21, 2010 the Council received, from BPA, a cover letter that included a point-by-point response to the ISRP, final narrative, and information on the Fort Columbia Tidal Reconnection and Otter Point Restoration projects. The Council received the ISRP's final review (ISRP document 2010-23) of the submittal on June 28, 2010. The ISRP found that the submittal and the information received "does not meet scientific review criteria". Though the ISRP

appreciated the response summary provided by the proponents and the information regarding the projects at Fort Columbia and Otter Point, the ISRP found the proposal itself failed to provide an adequate level of detailed on project selection criteria, estimation of biological benefits, and methods and study designs for individual and cumulative project monitoring and evaluation remain deficient. In addition, the ISRP provided detail to the inadequacies of the revised proposal as it related to the initial seven areas of concern that was provided in their previous review.

On July 26, 2010 a teleconference was organized to clarify and discuss the ISRP concerns with Council and BPA staffs and the ISRP. As a follow up to the teleconference additional information was requested by the ISRP concerning CREST's capacity to do RM&E work and a summary of the BPA Estuary Program including a process diagram for project selection. The ISRP also requested information on the framework of the BPA Estuary RM&E Program and how it fits into the BPA Estuary Habitat Program.

On August 27, 2010 the Council received a joint submittal from BPA and CREST. The submittal is intended to address the previous ISRP review of this proposal (ISRP document 2010-23). The submittal received included a cover letter, BPA estuary program overview, and a monitoring overview provided by CREST. On November 12, 2010 the Council received the follow-up review by the ISRP (ISRP document 2010-37). No public comment has been received on the ISRP reviews. The ISRP found that the submittal and the information received "*does not meet scientific review criteria*". The ISRP provided the following comment.

No substantial new information was provided in the follow-up response. Most of the material provided was in fact provided by BPA in various documents which give an overview of estuary work. Very little narrative was provided by CREST".
CREST is one example of an umbrella-type organization involved with estuary activities and used by BPA as facilitators to find restoration sites, prescribe restoration actions, and subcontract the work to environmental engineering firms and partners. There is often insufficient scientific content in such proposals for a science-based review.
Under this particular proposal, CREST may do some limited monitoring (at sites selected by LCREP/BPA as mentioned in the response). However, there does not seem to be any substantial application of the scientific method to their activities. Efforts by the ISRP to obtain sufficient details from them regarding methods and reporting have been unsuccessful thus far.

ANALYSIS

It appears the mechanisms for project selection and evaluation in the estuary are not functioning. Recently, two project specific reviews (i.e., Project # 2010-004-00, *CREST Estuary Habitat Restoration* and Project # 2010-073-00, *Columbia Land Trust Estuarine Restoration*) have resulted in "*does not meet scientific review criteria*" recommendations from the ISRP (ISRP documents 2010-37 and 2010-41, respectively).

This disconnect is also noted in the ISRP's final review associated with the Research, Monitoring and Evaluation and Artificial Production categorical review (ISRP document 2010-44B) associated with Project #2003-007-00, *Lower Columbia River Estuary Ecosystem*

Monitoring, sponsored by the Lower Columbia River Estuary Partnership (LCREP). As part of this review the ISRP provided a “yes (qualified)” recommendation. The qualification addresses the ISRP’s requests for additional information and detail in a “synthesis” report that needs to be reviewed by the ISRP. The synthesis document is to address integration of results and after completion of a classification system and monitoring design. In addition, this document should include methods and monitoring details from all entities involved. The ISRP stresses that all participants be involved in the development of this document (i.e., NOAA, PNNL, CLT, LCREP, CREST). The ISRP stated that this effort should be completed by the end of 2011. This qualification associated with LCREP’s project is explicitly linked to the issue raised by the ISRP in their review of the CREST and CLT estuary projects (e.g., details regarding methods, project relationships, prioritization framework, scientific process and etc.).

Based on the status of the reviews associated with CREST and CLT it has become apparent that there is a need to do an intervention in Program activities in the estuary to ensure integration of regional products and needs. There is clearly a need to make adjustments and define a regional approach to monitoring, evaluation, research and reporting strategies to address the needs in the estuary and ensure that activities in the estuary are conducted in a scientifically sound, efficient and collaborative manner.

LCREP’s role is to convene and provide coordination among restoration implementers such as the CLT and CREST. Since the Council is currently involved in the categorical review it seems that an approach should be defined as part of this categorical review that would address not only the qualification for LCREP (Project #2003-007-00), but also address the needs of the two estuary projects. In addition, deferring to the anticipated recommendation associated with the categorical review would also allow the region time to refine the regional approach to monitoring, evaluation, research and reporting strategies in the estuary.

A possible solution would be to request a RFP (Request for Studies package) from individuals or organizations interested in providing a synthesis that includes the details necessary to address the ISRP issues in the estuary. This action needs to be initiated in the near future to ensure on the ground actions are minimally impacted and the BiOp needs are addressed.