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Memorandum (ISRP 2010-12) **May 4, 2010**

To: Tony Grover, Fish and Wildlife Division Director, Northwest Power and Conservation Council

From: Eric Loudenslager, ISRP Chair

Subject: Response Request for the Upper Columbia Programmatic Habitat Project (#2010-001-00)

Background

The Upper Columbia Programmatic Habitat Project (#2010-001-00) is designed to replace 14 Biological Opinion (BiOp) non-Accord habitat projects from the FY07-09 solicitation cycle that represent approximately $3.5 million in annual funding. The Upper Columbia Salmon Recovery Board (UCSRB) is the project proponent, and the Upper Columbia Regional Technical Team (RTT) provides guidance ranging from identification of reach-specific limiting factors through quantified evaluation of project proposals and analytical workshops.

The programmatic approach is intended to maintain an effective habitat protection and restoration effort in the Upper Columbia (Columbia Cascade Province) and address BiOp objectives. Specifically, the proposal states that the recovery of Endangered Species Act (ESA)-listed salmon and steelhead populations in the Upper Columbia (UC) Region is dependent on the implementation of habitat restoration and protection actions identified in the Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan (Recovery Plan) and the Upper Columbia Regional Technical Team's (UCRTT) Biological Strategy (UCSRB 2007; UCRTT 2008).

As described in the cover letter from BPA:

> The project's narrative proposal addresses how three of the most significant challenges will be met through a programmatic approach. First, multi-year planning and across-subbasin coordination will facilitate implementation of targeted large-scale and intensive reach-based restoration that requires substantial funds from multiple sources. Second, the annual RTT open competitive 6-step process for selecting and funding projects – the same as presently used for Salmon Recovery Funding Board and Mid-Columbia Habitat Conservation Plan Tributary funds – will provide flexibility to fund the best small-scale projects available to implement each year across all sponsors, action types, and subbasins within the Upper Columbia Evolutionarily Significant Units. Third, monitoring and evaluation also will shift to a programmatic approach that ensures implementation/compliance monitoring for all actions/projects as well as supports – through targeted restoration efforts – reach-based effectiveness monitoring by separate research,

monitoring, and evaluation (RM&E) projects in the Entiat and Methow subbasin intensively monitored watersheds.

[BPA] anticipates that this M&E plan – if acceptable to the ISRP and to the Council – would be applied also to the Yakama Nation (YN) Accord project 2009-003-00, Upper Columbia Habitat Restoration (also referred to as Columbia Cascade Province MOA Habitat Projects). That YN Accord project was recently reviewed by the ISRP (ISRP 2010-2) and recommended for funding by the Council, with the condition that the M&E plan proposed for this project receives a favorable ISRP review. Therefore, the M&E plan in this proposal would have value beyond just this project.

The ISRP's review follows.

Recommendation

Response Requested

The UCSRB has produced an ambitious proposal for how a single project would subsume and coordinate 14 current habitat projects in the Upper Columbia. The narrative provides a generally understandable description of the planning process; however, it is lacking in detail with regard to specific restoration actions. At this point, the narrative does not give scientific details, nor does it provide a summary of what has been learned from the 14 existing habitat projects that would be folded into this new umbrella project.

In order for the ISRP to provide useful input into this project's development, we would like to see:

1. a concise and brief description of how existing habitat projects have been implemented and how well they are working in the subbasins of interest

2. details about the objectives, work elements, methods, and metrics [see pages 27-36 in the narrative, especially work element F3. Work Element 174], and

3. a completed BiOp RM&E plan [see pages 41-44 in the narrative].

Once we have this information, the ISRP can give the scientific feedback needed for proceeding to the next steps. The comments below provide additional context on what we are looking for in the response.

Providing improved coordination to the projects that have already been approved for funding makes sense, but the part that is of concern to the ISRP is the assumption of technical review responsibilities for future projects by the Upper Columbia Regional Technical Team (UCRTT). This group may be eminently qualified to perform this function; however, no information on the criteria or personnel who would be involved in the review was provided. The ISRP would like more details about the review process and how potential conflicts of interest with regard to project prioritization and funding will be avoided.

Comments

1. Technical Justification, Program Significance and Consistency, and Project Relationships (sections B-D)

The intent of this project is to combine 14 Upper Columbia habitat-related projects from the FY07-09 solicitation into a single umbrella project that covers the Wenatchee, Entiat, Methow, and Okanogan subbasins (Crab Creek and Lake Chelan are not included here). The sponsors of this new umbrella project – Upper Columbia Salmon Recovery Board (UCSRB) – assert that a single, coordinated habitat project will more effectively address habitat RPAs for this region listed in the 2008 BiOp than 14 separate projects. Selection of future restoration actions for implementation under the new unified project would be coordinated by the Upper Columbia Regional Technical Team, with additional guidance from technical experts from each of the subbasins. Although the proposed project is not part of the Accord MOA package of habitat work, the project sponsors anticipate that the M&E plan would eventually be applied to monitoring habitat improvement in the Upper Columbia (Columbia Cascade) under the Yakama Nation's Accord proposal.

The ISRP recognizes that the trend toward regionalization of tributary habitat work in the Columbia River Basin will help improve coordination, streamline the prioritization process, and facilitate the exchange of information about project success or failure. Regionalization could improve habitat actions in the Upper Columbia. We do note, however, that bringing a large number of separate habitat projects under one umbrella project will not fundamentally alter the processes leading to site selection, project design, funding, and evaluation. Each of these steps will still be carried out in the same fundamental way, by the same agencies and stakeholders, using the same models, as they were before. The main difference will be that under the new project all habitat actions will be given a higher level review by the Upper Columbia Regional Technical Team to ensure that they meet the various recovery criteria specified in the BiOp and are properly prioritized.

Establishment of a regional project review process would represent a fundamental change in the review of projects under the Council's Fish and Wildlife Plan. The administrative process by which this review would be conducted is described in the proposal (the targeted and open 6-step review processes). However, the criteria that would be applied in determining which reaches or areas are most appropriate for large, restoration programs and determining which projects would be most appropriate to achieve the restoration objectives at these targeted sites were not adequately detailed. There also should be explicit requirements for the qualifications and independence of members of the UCRTT who will be conducting the scientific reviews.

A possible alternative to transferring technical review responsibilities to the UCRTT would be for future proposals to be based on the Council's Multi-year Action Plans (MYAPs). These MYAP-based proposals would seek support for large, integrated restoration programs. However, basing the proposals on the MYAPs could enable incorporation of sufficient detail to enable a thorough ISRP technical review. Ideally, the proposals derived from this process would include a description of why the selected reach was considered critical and how the projects proposed for implementation at the site will address the factors that are impacting salmon survival and

production. The current proposal contains relatively little technical information, and thus judging the technical adequacy of this project is not possible. Proposals based on completed MYAPs could be incorporated into a habitat-based major project review (Council 2006-21).

Since this programmatic proposal involves incorporating 14 projects that have had a history of funding, the technical justification and project history sections are insufficiently developed. There should be a discussion of limiting factors, integration of the habitat objectives in the subbasin plans and recovery plan, and an explanation of what assessment and analysis is needed to develop the multi-year plans. The project history section needs to describe the status of the work completed, an estimate of what portion of the work identified by the subbasin and recovery plans has been completed, and what has been learned about the efficacy of recent actions.

The multi-year plans should address individual subbasins. It is understandable that a regional approach has appeal, and that the salmon ESUs extend beyond a single subbasin. Nevertheless, each subbasin supports independent salmon populations, and actions to improve VSP parameters will be tailored to independent populations. Creating a single assessment, prioritization, and selection structure to encompass the four Upper Columbia subbasins could make project prioritization unwieldy.

The involvement of local technical experts and their role in the annual update of the implementation schedule should be explained further (page 8). The methods and models that will be employed to develop priorities, as several models (EDT, Shiraz, and PHabSim) are being used "to quantify the extent of improvements to limiting factors that could be achieved based on restoration options" (page 8). The proposal would be improved by further description of the models – in particular, do they account for out-of-basin factors such as downriver, estuary and ocean conditions? How are limiting factors in freshwater identified? The proposal would also be improved by consideration of persistent organic pollutants in addition to the standard parameters such as nutrients and sediment.

Nason Creek restoration in the Wenatchee is described as a successful project providing justification for moving forward elsewhere with similar techniques. Although the ISRP did agree this was a useful project (ISRP 2009-29), we did caution the project proponents that long-term monitoring was necessary to determine if salmonids in fact would benefit from the restoration. The proposal should include more information on the IMW work being done in the Entiat and Methow subbasins, as mentioned on page 21. The proposal would be improved by further information on the effects of watershed conditions (especially river flows) from the Canadian portion of the Okanogan Basin. Environment Canada is mentioned – is there to be any international coordination of the restoration work with Canadian authorities?

2. Objectives, Work Elements, and Methods (section F)

The project objectives given in section F1 are very high level objectives and do not relate specifically to restoration actions that will be implemented. Essentially, the goal of this proposal is to improve coordination in stream habitat restoration efforts in the Upper Columbia and move from single, often disconnected, habitat projects to a more integrated approach. The proposal contends that the most efficient method of achieving these objectives is to change the process by

which habitat restoration projects are reviewed and funded in the Upper Columbia. The project proponents should provide some rationale as to how this change in procedure will enhance the effectiveness of restoration efforts in the area. They also should provide some concrete examples of problems with the current review process and why the proposed process represents the best alternative. As noted above, there are other options for encouraging coordination in restoration planning.

The majority of information in Section F concerns planning and coordination, and as such there was little scientific content for the ISRP to review. Most of FY2010 will be devoted to assembling a plan and selecting projects/actions for implementation. Possible work elements (habitat improvement actions) are categorized in section F8, but there is insufficient information given about where these actions will occur. The ISRP will be unable to comment on the scientific adequacy of the objectives, work elements, or methods until the detailed plan is produced.

The proposal does, however, provide some information on the structure of the review process. Two, parallel proposal solicitation tracks are described: a "targeted" track for projects to be implemented at locations considered to be of highest priority, and an "open" track for other projects. The purpose of the open track was not clear. It would seem that because the targeted process will focus on the priority areas and actions, inclusion of an open process would simply serve to divert resources from the most critical actions. Two separate solicitation processes would be more efficient if one were focused on maintenance and operation of previously implemented projects and the other focused on new projects.

Appendix B provides a description of the process used to identify priority assessment units. Four categories are identified with category One representing the sites of highest priority. However, the prioritization of units appears to be based primarily on the degree of degradation. The only criterion related to biological potential appears to be the number of listed species present at a site. There should be some consideration of the capacity of a site to contribute to recovery. For example, a site in relatively pristine condition may still only support small numbers of the species of concern if the innate habitat conditions are not compatible with the needs of the fish. It might be more productive to focus projects on locations that might be more degraded but posses the underlying physical template to support high levels of production. Procedures for identifying "intrinsic potential" for fish production are being developed and would be a useful addition to this prioritization process.

3. M&E (section G, and F)

The M&E effort in this project relies heavily on studies being carried out in the Wenatchee and Entiat Intensively Monitored Watersheds through the ISEMP network of IMWs. The IMW monitoring work is scheduled to continue 10-20 years and will focus on habitat improvement efforts using treatment-control comparisons. However, little detail is provided as to how these monitoring efforts will be coordinated with other activities to be supported by this proposal. Will the availability of an existing monitoring program be part of the criteria used in selecting projects? If so, a high level of coordination between projects and monitoring could be achieved. But this assumes that the monitoring locations will coincide with sites that have the highest

priority for restoration, which may not always be the case. Expansion of the monitoring efforts in the Wenatchee and Entiat to ensure that adequate information is collected on projects implemented under this proposal would help solve this problem.

At present, there does not appear to be a similar M&E effort in the Methow or Okanogan, although both subbasins do have some ongoing monitoring activities. The monitoring programs in the Methow or Okanogan do not have the landscape integration and strength of scientific design that characterize the IMW studies in the Wenatchee and Entiat. Table D-1 in the proposal narrative mentions that some reach scale monitoring will take place in the Methow, but plans for reach scale monitoring in the Okanogan subbasin are not detailed. At a minimum, project proponents should consider implementing a reach scale habitat monitoring program for the Okanogan. It was not clear from the project narrative whether the intent was to intensify M&E in the Methow and Okanogan to levels similar to what is currently taking place in the other two subbasins.

The narrative states that M&E plans for both implementation and effectiveness monitoring will hopefully be funded as a new project, either through the Upper Columbia Salmon Recovery Board or through an "independent third-party." Appendix E gives detailed and helpful lists of the status, trend, and effectiveness monitoring efforts that are currently taking place in each subbasin. However, these are only categorical lists, and they provide no information about design, sampling, and analyses that are necessary for scientific review.

The proposal would be improved by additional narrative on the statistical methodology to be used in measuring or comparing project effectiveness. For example, there is no reference to the Crawford and Rumsey (2009)[1] guidance document which contains such important details as the putative measures of acceptable variance in population estimates. The ISRP recently flagged this as an issue in the Fast Track reviews for projects in the Entiat and Wenatchee subbasins. The proposal would also benefit from an explanation of the three levels of effectiveness monitoring from Hillman (2005) that are planned for implementation. How does this methodology relate to the other regional monitoring methods? Hillman's method is not referenced in the RIST report, for example.

4. Overall Comments - Benefit to F&W

The ISRP recognizes the value of regional habitat coordination and resource/information sharing, especially in an area such as the Upper Columbia where the status of salmon and steelhead is precarious. The project narrative, with numerous diagrams, describes the coordination pathways and identifies the entities that will have responsibility for each phase of the planning process. The overarching goal is to coordinate and integrate habitat improvement actions that will increase their benefit to anadromous fishes and satisfy the BiOp criteria. Scientific details are lacking in this narrative, but schedules for producing such details are given. Nevertheless, it is difficult for us to judge the scientific soundness of this new project (or whether it represents a

[1] The ISRP did recognize problems with the Crawford and Rumsey (2009) document, but as a key regional guide the report merits reference as a draft document.

significant improvement over the current, somewhat fragmented set of projects) without seeing the plans.

The proposal consolidates restoration efforts in four adjacent subbasins but seems to be lacking a clear scientific approach to achieve this integration. It could be improved if novel methods that deal with cumulative effects on larger scales were brought to bear on the problem. A useful reference is Wu et al (2000) – a paper which deals with resolving both economic and ecological issues. Without a systematic approach to linking the restoration efforts the proponents will have to rely on traditional coordination as a method. Such an approach depends heavily on good will and good partner relationships, but it can suffer if working relationships break down and become adversarial.

Reference

Wu, J. J., Adams, R.M., and W.G. Boggness, 2000. Cumulative effects and optimal targeting of conservation efforts: steelhead trout habitat enhancement in Oregon. Amer. J. Agricultural Economics 82:400-413.