Northwest Power and Conservation Council

February 1, 2007

MEMORANDUM

TO: Council Members

FROM: Doug Marker and Lynn Palensky

SUBJECT: Discussion of agenda for the Fish and Wildlife Program science/policy conference and staff-led evaluations

PURPOSE

The purpose of this memorandum is to present to Council a draft set of topics that could be addressed in a science/policy conference in advance of the next fish and wildlife program amendment process. We would like Council to confirm proposed topics for the science/policy conference. Also attached to this memo, as an addendum, is a draft request for comment on the Council's paper on ocean conditions.

BACKGROUND

1. The need for and scope of a conference on fish and wildlife science and policy

Council members suggested holding a science/policy conference that would address a limited number of topic areas. The conference would sharpen the issue(s) and foster discussions among scientists and policymakers about new science and how that science might affect management actions.

Staff developed a list of strategic topic areas to consider for program amendments. The topics represent most but not all the possible areas of the program that may need more specific guidance, updating, or inclusion into the new program. The topics include those that: 1) Council members have asked for specifically; 2) obvious topic areas such as subbasin planning and program implementation; and 3) topics discussed in the ISRP's Retrospective Report. We reviewed the topics first with an eye for those that would benefit from science/policy discussion that would help to frame specific issues ahead of calling for program amendments. Our goal for this meeting is for Council members to review the topics recommended by staff for a science/policy conference and confirm a more narrow focus, or expand the list.

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ANALYSIS

State and central staff worked on sorting and organizing the topic areas into two different groups depending on the state of the science and the related issues. One group included the highest-priority issues that would benefit from a science/policy conference and a second-tier group of topics was identified that would be suited for a staff-led summary and discussion.

To help us in this selection process, we considered whether:

- Science has evolved since the last amendment process, and the program should respond accordingly
- Management actions should respond to current scientific knowledge
- The Program guides actions and investments, and these should be informed by the best available scientific knowledge

2. Details of the proposed science and policy conference

Conference Objectives:

- Understand how science has evolved and how that should/will affect our management actions
- Sharpen the issues surrounding the topics and discuss among Council members and managers for common understanding
- Frame issues for targeted comments during the Request for Recommendations for Amendments to the Program

Who is the audience?
Council members, managers, and experts in the particular fields.

Where:
In or near downtown Portland.

When:
Sometime during the week of September 17-21, 2007 is preferred. That week follows the September Council meeting and is after the August vacation season, and it also avoids conflicts with major conferences such as the annual American Fisheries Society Conference.

Format: Science presentations and management (panel) discussions. There should be continuity among the sessions, and sessions should have discussion sideboards and guided questions. Facilitation could aid the sessions in this regard. We have discussed asking a science advisor to help organize the conference and sharpen the topics for presentation and discussion.

3. Five possible topics for the conference:

a. Habitat strategies: The Program currently invests roughly $39 million each year on on-the-ground fish habitat projects. Projects or strategies that would be included under this category are

many, such as nutrient enhancement, the water transaction program, riparian restoration, and fish passage projects, etc. The Independent Scientific Review Panel, in its Retrospective Report 1997-2005, noted that the primary strategy in the program should be to identify the current condition and biological potential of the habitat, then protect or restore it to the extent described in the biological objectives in the program. To this end, there six secondary strategies: 1) build from strength; 2) restore ecosystems, not just single species; 3) use native species wherever possible; 4) use substitution as appropriate; 5) include the estuary; and 6) address transboundary issues.

In light of this report, staff identified several key questions, including:
1) What is the state of understanding of how effective specific habitat strategies are at recovering fish (resident and anadromous)?
2) How much are we investing in monitoring, and is our monitoring focused on the uncertainties?
3) How much do we want to guide the types of habitat strategies that we will invest in?
4) Can we use this to better guide investment and priorities for project sponsors?

b. Estuary: The Program increased investment in the estuary in the 2000 program after strong recommendation from the ISRP and ISAB to understand the effects of the hydro system on the lower river below Bonneville. In the ISRP's Retrospective Report, they acknowledged a positive shift in investment and research in the estuary, but urge for more research. The two primary recommendations for estuary research being:

- The ISRP and Council should encourage innovative ecosystem-based research and monitoring in the estuary, with emphasis on the effects of the hydrosystem (altered flows, primarily) on all components of the ecosystem.
- A more thorough assessment and increased attention in regional research, monitoring, and evaluation (RME) plans are needed for the mainstem Columbia River between Puget Island (upper estuary) and Bonneville Dam.

The program's past investment in the estuary has been a relatively small part of the Council's funding recommendations:

FY	Columbia Estuary	All recommended projects	% of total of program funds
2004	$4,578,822	$126,417,880	3.6%
2005	$2,918,898	$146,037,488	2.0%
2006	$4,746,860	$146,168,092	3.2%
2007	$3,932,800	$136,297,130	2.9%
2008	$3,519,712	$132,366,053	2.7%
2009	$3,527,400	$128,833,991	2.7%

The spending prior to 2004 was even lower and not categorized in the same way, so tracking details prior to 2004 is difficult. The science/policy discussion should center on the importance of the estuary in the life cycle and survival of fish related to flow, temperature, sediments, food base changes, and loss of natural nursery habitats. This will be a lot of ground to cover in one session, but will help us to understand the need for further investment in the estuary based on current science.

c. Snake River Fall Chinook over wintering (mainstem): The purpose of this discussion topic would focus on understanding the management implications of various dam operations on survival or adult returns. A key question is: do any of the identified life histories provide a survival advantage under current operations? We know that we have different life histories of these fish, but what we don't know is are there alternative dam operations that would benefit the life histories? To answer these questions, the discussion needs to cover flow, transportation and spill; operation of removable spillway weirs and their potential affects on both sub-yearling and over wintering Snake River Fall Chinook. The outcome of this could be to identify other key research needs in this area. Last year, the Council recommended continuing a pilot life-history investigation in its basinwide recommendation at $1 million per year. The results of this research could help inform management implications for hydrosystem operations.

d. Mainstem adult and juvenile survival: The purpose of this discussion would be on what additional actions can be implemented to improve survival of both adults and juveniles through the hydrosystem. The focus would be on survival rate improvements. Some important questions to answer include: How much more survival improvement can we expect to gain? What are the costs and what are the expected benefits? Is there a survival standard? It will be important to review and present survivals by species and by life history stage as they have different survival rates; that is, it will be necessary to review survival rates project-by-project as well as dam survivals, from both PIT-tag and radio tag studies and/or modeling assumptions.

e. Ocean conditions:
The Independent Scientific Review Panel, in its retrospective review of the program writes: "Consideration of the impact of ocean conditions on fish and wildlife populations is not exclusive to the Council's Fish and Wildlife Program. A number of multidisciplinary efforts and programs, whether regional, national, or international, continue to devote significant efforts on research, monitoring, and evaluation to understand the forces driving variability in the northeastern Pacific Ocean and how these affect ecosystem productivity." In addition to natural variability of ocean conditions, the ISRP has supported projects that helped track movement of salmonids in the plume, ocean, and off the continental shelf. They state that for some species, this could provide valuable information on mortality in the ocean, migration to the open ocean, residence in areas along the coast for an extended period, and exposure to ocean fisheries. We need to further understand the relationship, significance, connection of ocean issues to our Program. The ISAB climate report will provide information relevant to this discussion as well.

The staff is also recommending seeking public comments on its paper titled *Consideration of ocean conditions in the Columbia River Basin Fish and Wildlife Program* (Council Document No. 97-6). This paper continues to guide how the Council responds to the direction to consider ocean conditions in its project funding recommendations, but it is ten years old now and should be updated. A memo requesting comment on this paper is attached for Council approval.

4. Staff-led summaries
While many of the other topics could benefit from a science/policy discussion, we found that they would also be well-suited for a staff-led summary of the science and policy issues. Topics such as subbasin planning, biological objectives, program implementation and the Water Transaction program fell into this category. We can describe existing policy, science, and management actions to accompany a set of actions based on possible management implications

to help inform the amendment process. An example of a topic that the staff could prepare a summary for is the Columbia Basin Water Transaction Program (CBWTP). In the 2000 Program the CBWTP was created, and in the 2008 Program, the CBWTP will likely be continued and institutionalized. In addition, CBWTP is undergoing a program evaluation now that will be helpful in shaping that program in the future. Subbasin planning is another area that will be very important in this amendment process, and given the status and progress of subbasin planning, staff can summarize different options for supporting and updating plans in the future.

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