

**Meeting to discuss the Northwest Power and Conservation Council's
Columbia River Basin Research Plan
March 7, 2016
Draft meeting notes (3/24/2016)**

Meeting participants:

Michelle Rub-NOAA NWFSC, Bob Austin-Upper Snake River Tribes, Aja Decoteau, Laura Gephart, Dianne Baxter-CRITFC, Bruce Suzumoto-NOAA, Rich Zabel, Lynne Krasnow-NOAA Fisheries, Steve Waste, Elena Nilsen-USGS, Tom Rien-ODFW, Paul Kline-IDFG, Doug Taki-SBT, Scott Donahue, John Barco, Ben Zelinsky-BPA, Amanda Hanson, Catherine Corbett –LCEP, Mary Lou Socia, John Palmer-EPA, Dave Statler- NPT, Jen Bayer-USGS/PNAMP, Jody Lando-Stillwater Sciences, BJ Kieffer, Brent Nichols -Spokane Tribe, Tom Iverson-YIN, Joe Moroney-Kalispel Tribe, Brent Hall-CTUIR, Matt Boyer-Montana FW&P, Rochelle Beck, NWRP, John Arterburn-CCT, Tom Karier- NPCC member, Patty O'Toole, Jim Ruff, Erik Merrill, Lynn Palensky, Karl Weist, Jeff Allen, Stacy Horton-NPCC staff.

Patty O'Toole (Council staff) began the meeting with a few [slides](#) outlining the Council's task of revising the Council's research plan as described in the Council's 2014 Fish and Wildlife Program and the purpose of today's meeting.

Council member Tom Karier, in his opening remarks noted that the research program is very large and needs to be more organized. There is no overriding theme, priorities or budget structure or even a basic process. How do we all become part of organized research program in the Columbia Basin and address critical uncertainties in a prioritized way?

A number of things are changing the research world. Some having to do with the Council's Program, some with Bonneville's reporting. Bonneville, working with the Council and managers has developed a new reporting template for a report that is more concise and includes a hypothesis, methods, results, conclusion and abstract.

Every research project should have an end date. At what point do you conclude collecting data and provide a final report. You can come back for more funding and address other questions but need to address the hypothesis that you started with. We need to distinguish research and monitoring for a few reasons. Research projects should have beginning and end and a reporting process. Monitoring projects will collect data that may inform other research projects but there is value in the data itself. The Council's new program talks about importance of research leading to journal publication and we will start tracking that. These are all underway and all projects this year will be filling out a reporting template so that anyone in the region can understand the hypothesis, methods, results and conclusions.

What we don't have is a Research Plan. The key elements of a research plan are a list of important research uncertainties and sense of the priorities. The ISAB/ISRP took a first look in their report. Now we are looking for ideas from all of you. Are these the right uncertainties? Did they get it right? Is it written properly? Do you have better ideas? We also need priorities. Karier noted that when he read the report things fell into about five categories, some more important than others. Will be interesting to hear from you on what priorities others see.

For example:

- 1) Critical uncertainties that are relevant to understanding how effective our current projects are. These seem to be a very high priority. (For example: habitat and hydro (spill, flow) related effectiveness research).
- 2) Critical uncertainties that evaluate potential actions that we are not doing now, but if we know more about their effectiveness we could do more (For example: toxics, reintroduction, effects of some predators like walleye and bass, etc.). Important but may not be as important as first category.
- 3) Developing better tools and methods. This is important, but maybe we may want to limit the funds spent in this area. It may not be the Program's responsibility to create tools for the world to use.
- 4) Uncertainties that address long-term or future threats to our ecosystem such as human development and climate change. Impacts are getting worse, and there is more we could learn.
- 5) Life cycle and population structure of species in the Northwest. These uncertainties may not lead to solving immediate problem but we could learn something that could help us.

Discussion:

Rich Zabel (NOAA) asked what will happen next with the ISAB report. Council staff clarified that we will produce a draft research plan using the comments collected. Then that draft plan will undergo public review.

Dave Statler (NPT) will be looking for a priority for Pacific lamprey. Anadromous salmonids are always taking center stage. We will be looking at the draft research plan from the perspective of Pacific lamprey. It is time for ecosystem management instead of single species management (salmon).

BJ Kieffer (Spokane Tribe): What sideboards were used (Power Act, Fish and Wildlife Program)? How do you define the mainstem in this document? For a lot of people the mainstem stops at Chief Joseph Dam. There is a lot that we have worked to accomplish and yet some try to put this work in a box. For example: theme 4, hydro and passage operations: feasibility of reintroduction – describes self-sustaining populations. This does not match program language. This will affect the many preconceived notions about the feasibility of the reintroduction of anadromous fish. Also have some questions about fish encountering unfavorable ocean conditions. This seems to be mentioned specifically in the language regarding reintroduction. Staff replied that the ISAB and ISRP always perform reviews in the context of the Fish and Wildlife Program but for this review also used 144 different sources for its list of uncertainties. In terms of reintroduction – it is an uncertainty that was not in 2006 plan but is a priority in the 2014 Fish and Wildlife Program so we thought it was important to include here. Unfavorable ocean condition concerns should be applied to all species basinwide, we are not applying some kind of bar for any particular areas. The mainstem for the report is the whole mainstem past Chief Joe and including the mainstem Snake River.

Tom Iverson (YIN) noted that they will not spend a lot of time in the weeds of the ISAB/ISRP report. Their comments will take a step back and comment at a high level. He noted that the ISAB/ISRP did an excellent job of pulling all of the information together but there is almost too much. He suggests

breaking the uncertainties into groups organized by the Fish and Wildlife Program and hold science-policy exchanges to further define and prioritize for each topic and develop a work plan for this.

Steve Waste (USGS) commented that the overall report is great and aligns well with the 2006 Research Plan. He noted that durability and relevance of the report is high. Transitioning from the report to the research plan will need machinery such as funding and structure to get to real answers. He further suggest picking a few uncertainties and collecting enough information on these to get answers. Don't take on too much at once.

Iverson suggested that we capture hypotheses in a way to then build a project to bring the data together and answer the questions. We are awash with data but missing ways to connect it all.

Bruce Suzumoto (NOAA Fisheries) extended his complements to the ISAB and ISRP. It's a massive amount of information. In our written comment we won't offer specific comments on the report but will offer a view of our perspective on the most important research. There's good research going on out there, but the report shows the lack of focus in the Program. We need to focus to better make decisions. Until we know what we are doing with objectives, it's hard to know what the priorities are. As we know from the objectives exercises underway, we are all shooting for different targets.

John Barco (Bonneville) was struck that many of the same uncertainties in 2006 Research Plan are still true today. Bonneville is interested in a collaborative process and in making better use of the information we are collecting.

Waste – have to credit the overlap of the program and the report – the program gives recognition of the landscape scale stressors such as toxic contaminants, climate change, and non-native species. We used to call these “out of basin” effects, now we are addressing more fully. One criteria of prioritization could be what research can benefit all areas of the basin.

Mary Lou Socia (EPA) stated their priority is a healthy ecosystem and want to see more attention, including priority and accountability towards 1) reducing toxic contaminants and 2) water temperature. Thermal refuges are important and more could be done here, along with using pit tags to understand how thermal refuges work. This is an important link to climate change. For toxics, mapping is important. We all need to be accountable for this, stocks in trouble correlate to high DDT levels over the years. Toxics affect survival but we need to understand the relative relationships to other areas of concern, such as predation.

Zabel suggested that eulachon seem to be missing from the report. He noted that the list of uncertainties is comprehensive and agrees that we need to prioritize and agree with Council member Karier that understanding effectiveness is #1 priority. He also agrees that we have not paid much attention to toxic and non-native species in the past. The NOAA Fisheries Science Center is doing more with toxics now and is incorporating the information into life cycle modeling. He did note that the ISAB/ISRP is hit or miss on pointing to research conducted outside of the program. There are some important gaps. The 2006 Research Plan had an ecosystem focus, but this did not seem to carry over into the report. He noted little information on trophic interactions.

Paul Kline (IDFG) voiced concern that if we go right into a project review cycle we will end up in the same place as we are now, which is not on target for research priorities. He suggested that conversations be held with ISRP and project sponsors that focus on an interactive review of research projects so that they can be modified to more clearly address research plan priorities. He recommended the project sponsors sit with the ISRP and work together to get the scope right, *before* project renewals.

Tom Rien (ODFW) stated that the ODFW comments won't request a lot of changes in the report but will focus on priorities. He stated that the categories that Council member Karier outline seem about right. We need to synch up research priorities with authorizations – what decisions do we have the authority to influence and where do we have significant knowledge gaps?

Doug Taki (Shoshone Bannock Tribe) noted that the critical uncertainties reports sounds like the main driver of the research plan. He noted that in regards to Appendix D – the review synchs back to the 2006 plan, not to the current ISAB/ISRP report. Without doing that it will be hard to know where the gaps are going forward.

Kline – it would be useful in terms of Appendix D, to more directly address if projects are on target with the plan; how can projects be modified to hit the research targets more accurately?

Karier – as Council drafts a revised research plan we might be able to assess where we think projects may fall under the uncertainties and could get feedback on that during public review.

Ben Zelinsky (Bonneville) followed up on Bruce Suzumoto's comment: Research will not save fish but if it makes projects more effective it will pay for itself over time. We definitely need to prioritize.

Catherine Corbett (LCEP) shared an example of reed canary grass. Its role in the ecosystem is not well understood. Should we be doing more to combat its spread, or less? Research could help us make that decision.

John Arterburn (Confederated Colville Tribes) – There are a lot of questions in the report. In order to figure out how to get a path forward, we need to know what projects have addressed which hypotheses and what progress has been made. [Staff: Part 2 of the report describes what projects address the 2006 questions and assesses progress in terms of high, medium and low progress towards answering those questions]. There seems to be a disconnect between the people doing the research and those trying to answer the questions. It can be a question of scale and we need to figure out a way to get at this problem.

Arterburn – water temperature is a good example. We don't really have a handle on fish survival and temperature. We know from research in labs that at some point temperatures are lethal, but we don't really know how fish interact with temperature in the wild. Behavior comes into play and we don't know much about how it all interacts. This is shaping up to be a problem for us.

Jen Bayer (USGS and PNAMP) – Monitoring is long term research and could be addressed more fully in the plan. The Coordinated Assessment Project is trying to find out where the data is that has been paid

for. We don't have all the data we wish we had, especially we don't have much information from the mainstem Columbia fish assemblages. In respect to fish population monitoring it was surprising to not see the question: Can we measure the status and trends of a population of concern with appropriate statistical validity or certainty? Not addressed in this report. It is a big question.

There are some good questions in the report but perhaps we could do more in terms of methods. Can we come up with probabilistic design to address habitat and populations? Answer is yes, but are we willing? There is some unevenness in there but it is a big task so it is not surprising. The idea of breaking the basin into chunks and trying to address each is a really good idea. PNAMP can be looked upon as a way to facilitate that.

Karier – these comments highlights interesting nuances. Trying to develop new equipment or devices or methods is a research question. Monitoring itself – we are trying to keep as somewhat separate category. We monitor status and trends but it does not have an end date. Some may be indefinite with an annual reporting process. I am hopeful that after we work through a research plan we can focus on what we are monitoring and ask some of the same questions. What are we monitoring each year, and what are the priorities?

Iverson – we need to look at adaptive management or the Program. We have some pretty big assumptions built in. Could structure the plan along these lines.

Bob Austin (Upper Snake River Tribes) supports the mini-workshop idea suggested by Paul Kline. It would be great to have a rough template of what we are trying to do. The report has a lot of good ideas. Looking at landscape threats or stressors is very important. Makes sense that every three years we reconsider what questions are the most important. Uncertainties related to cold water refuges and blocked habitat are important. He agrees with others that we need to focus on what is most critical today.

Waste-We will provide some citations. The food web report and density dependence reports were on a different level. This recent report seems a little light on these topics. Looking at foodweb and density dependence could help with topics of stressors. Don't have to know everything about stressors if we can have ecosystem information through these other areas. Report calls for partnerships. These exist already in many cases. Take advantage of them.

O'Toole reviewed where the [research uncertainties database](#) is on the Council's website, and what kinds of information can be found there. Many uncertainties from over one hundred sources can be found here. All of these uncertainties were considered, however the ISAB/ISRP had to step back to a different scale and combine or roll-up the uncertainties in order to manage the sheer number. The details are all still there and trackable, if anyone is interested.

Jody Lando (Stillwater Services) works with the SRF Board. Interesting in "now what". What happens next? What is Appendix A?

Suzumoto – What are next steps? Is this group going to convene again?

Karier – a lot of good topics raised today. A number of comments we heard today are about implementation of the research plan. A lot of good ideas here. Not sure all should be included in the plan itself. Some may need to be addressed as implementation, after the plan is revised. Some require long term data collection. Some need many projects to implement, some just one or two. Some will benefit from further discussion with the panel itself. All are interesting questions. Key parts specified in the Program are critical uncertainties and priorities so let's focus on these for now. Let's get the uncertainties right and the priorities right. We will look for overlap in the comments, common ideas. Program does call for iterations of the research plan. Draft will go out for comment. We may want to hold another meeting once the draft plan is out for more discussion.

The ISRP provides the starting point. We are looking for better ideas and a sense of what priorities are. Standards are found in the Northwest Power Act. Toxics, we need to think about it. We would love to help, but not lead. We will be putting out the comments for all to read. The process is almost as important as the final product in getting to an organized research program.

Mary Lou Socia: to clarify, we don't think it is EPA's responsibility to understand the effects of toxics on fish. That is the regional responsibility. It is EPA's responsibility to reduce toxics so we have TMDLs and restoration.

If there are further questions contact Council member Karier or Patty O'Toole.

End