



Department of Energy

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

ENVIRONMENT, FISH AND WILDLIFE

March 22, 2012

In reply refer to: KE-4

Mr. Will Stelle, Jr.
Regional Administrator, Northwest Region
National Oceanic & Atmospheric Administration
7600 Sandpoint Way NE
Seattle, WA 98115

Dear Mr. Stelle: *Will*

As you know, the Adaptive Management Implementation Plan (AMIP) called for the completion of a number of actions during calendar years 2010 and 2011. I am writing on behalf of the Federal Columbia River Power System (FCRPS) Action Agencies (AA) to report that we have largely fulfilled our 2010-2011 commitments under the AMIP, with appropriate regional coordination. Specifically, we have completed the following actions as described in the AMIP:

- *Complete a collaborative process for shared regional monitoring strategy. [AMIP pg. 20] Ongoing.* A draft plan was completed in July 2010. The Independent Scientific Review Panel's (ISRP) review of the Anadromous Salmonid Monitoring Strategy (ASMS) was completed in February, 2011:
<http://www.nwcouncil.org/library/report.asp?docid=37> Work to address ISRP comments is ongoing. The revised ASMS will be integrated with the Columbia Basin Fish & Wildlife Program through inclusion in the Northwest Power and Conservation Council's Monitoring, Evaluation and Research Report.
- *Complete a study plan for conducting the technical studies associated with the possible breaching of lower Snake River dams. [AMIP pgs. 36-39] Done.* The Corps published the plan of study in March 2010.
http://www.nww.usace.army.mil/amip/lrsfip/report/plan_of_study_final_03_30_10.pdf
- *Develop an appropriate safeguard, based on adult returns that would continue summer spill at Snake River projects through August 31 in the year following a year of very low adult returns. [AMIP pg. 19] Done.* A June 11, 2010, letter from Witt Anderson to Barry Thom indicated that spill would continue through August 31 in any year following a year in which 400 or fewer natural-origin adult Snake River fall Chinook salmon are counted at Lower Granite Dam.
- *Analyze existing Intensively Monitored Watersheds (IMWs) to ensure adequate treatment effect, appropriate coverage, and useful results. [AMIP pg. 24] Ongoing.* Work is

underway to assess and summarize the results from existing monitoring, including responses to 2011 comments from the ISRP. The report is under development and will be provided this spring.

- *Develop additional Early Warning Indicator(s) to evaluate whether a species is likely to have substantially reduced abundance in the future based on one to two years of adult return information, preliminary biological information, and environmental indicators. [AMIP pg.30]* Done. The Northwest Fisheries Science Center (NWFSC) has developed a forecasting tool that satisfies this requirement. It has been agreed among the respective federal agencies that the tool will be used in conjunction with existing Early Warning Indicators to help determine whether a species is likely to fall below the Significant Decline threshold within the following two years based on two years of adult return information. Data are presently available that would allow the tool to be used to analyze the Snake River spring Chinook salmon ESU. Additional data are being gathered to allow expanded coverage, initially to Snake River steelhead and Upper Columbia River spring Chinook salmon.
- *Further improve the Significant Decline trigger by incorporating a metric indicative of trend. [AMIP pg. 31]* Done. The Northwest Fisheries Science Center, NOAA and AA staff developed an approach using a trend metric similar to that used by NOAA's Biological Review Team. This approach was adopted and memorialized in a letter from Lorraine Bodi to Barry Thom dated 12/23/10.
- *Develop a Rapid Response and Long Term Contingency Plan. [AMIP pgs. 33-36]* Done. The plan was completed and delivered to NOAA 2/7/12.
- *Enhance the monitoring of juvenile production and survival for at least one population per MPG. [AMIP pgs. 11 and 23]* Ongoing. Consistent with ISRP comments, BPA is proceeding with a partial implementation and evaluation in 2011 for the Columbia Basin Habitat Monitoring Program (CHaMP) and associated paired fish population monitoring. Full implementation will follow, likely in 2013, based on additional ISRP review (see below).
- *Expand habitat status and trend monitoring for at least one population or watershed per MPG. [AMIP pg. 24]* Ongoing. Consistent with ISRP comments and discussion with NOAA, BPA is proceeding with partial implementation and evaluation of CHaMP. Full implementation will follow, likely in 2013, based on additional ISRP review. Analysis and utilization of CHaMP data is proceeding and will be provided in annual synthesis reports.
- *John Day to Minimum Operating Pool study plan. [AMIP pg. 36]* Ongoing. A draft study plan was submitted to NOAA Fisheries in December 2011 and will be out for regional review in March 2012.

- *Report that identifies the use and location of thermal refugia in the lower Columbia and lower Snake rivers. [AMIP Amendment 1]* A draft biological analysis is complete. A draft water quality analysis is expected to be available in March. Regional review and coordination will be undertaken when the complete document is available. We anticipate completion in June 2012.
- *By Feb 2011, initiate study to determine cost effective designs for adult PIT-tag detection systems at The Dalles and John Day dams; complete study by Dec 2012. By April 2013, in coordination with NOAA, determine whether installation would substantially improve inter-dam estimates of adult loss. [AMIP Amendment 2]* Ongoing. A study was initiated in 2011 to assess alternatives for PIT detection in John Day and The Dalles Dam ladders in 2011. Based on initial assessment of sites at both dams, and per regional coordination, current direction is focused on detection at The Dalles Dam ladders. The alternatives study will be complete by December 2012.
- *Ensure that data on tributary and ocean habitat conditions and on tributary and estuary action effectiveness, collected under RPA Actions 56 thru 61, is managed in a database that allows changes to be tracked over time. [AMIP pg. 25]* Done. BPA has funded the creation of the CHaMP data system for tributary habitat status and trend monitoring associated with RPAs 56 and 57 at <http://www.champmonitoring.org>. BPA and NOAA NWFSC fund tributary habitat action effectiveness monitoring for RPA 56-57 the ISEMP project 2003-017-00 found at <http://www.nwfsc.noaa.gov/research/divisions/cbd/mathbio/isemp/index.cfm> which tracks and manages data in the Status and Trend Effectiveness Monitoring (STEM) Databank at <https://www.webapps.nwfsc.noaa.gov/>.

For estuarine habitat data, the Corps has funded the AFEP “Synthesis and Evaluation” project with Battelle’s Pacific Northwest Labs (PNNL) for the development of the data system to track and maintain BPA habitat status and trends and action effectiveness. In the estuary BPA also co-funds a site of the SATURN - CMOP Science and Technology University Research Network which stores data at <http://www.stccmop.org/saturn> related to food web and water quality (flow, temp, DO, pH, plankton (non-toxic or pharmaceutical)).

For ocean habitat conditions BPA and NOAA NWFSC project “Ocean Survival of Salmonids” # 1998-014-00 data may be found at the NOAA Ocean Indicators Tool <http://www.nwfsc.noaa.gov> additional data on ocean conditions information for the BPA funded “Canada-USA Shelf Salmon Survival Study” with the Department of Fisheries and Oceans (DFO) - Pacific Region Oceanography Database at <http://www.pac.dfo-mpo.gc.ca/science/oceans/data-donnees/index-eng.htm>

- *AAs to annually provide NOAA with data from existing tributary habitat effectiveness studies and IMWs to help track climate change impacts. NOAA to include information from its enhanced life-cycle modeling (AMIP #28, 29). After 2011, new climate change*

findings to be provided to the tributary habitat expert panels to use in identifying and prioritizing habitat improvement actions. [AMIP Amendment 4] Done. See response to previous item. The NWFSC is currently developing enhanced lifecycle modeling capability with some funding assistance from the Action Agencies. In addition, the review of new climate change literature provided by NOAA under AMIP action #3 [AMIP pg. 25] is being shared with the expert panels.

- *NOAA to establish a regional [stream] temperature database. AAs to provide NOAA with past and future water temperature data from their existing monitoring stations within 6 months after the establishment of the database and annually thereafter. [AMIP Amendment 3] Done.* NOAA and the Action Agencies are satisfying this requirement by submitting data developed for FCRPS BiOp RM&E to the USFS' Rocky Mountain Research stream and air temperature database (http://www.fs.fed.us/rm/boise/AWAE/projects/stream_temperature.shtml). This project will provide "a mapping tool to help those in the western US organize temperature monitoring efforts."
- *Action Agencies to include presence of invasive species and site-specific toxicology issues in (tributary habitat) expert panel project evaluation process. To be based on information made available by the appropriate state and Federal agencies. [AMIP Amendment 5] Done.* Consistent with the AMIP, the Action Agencies will share with the expert panels any information on the presence of invasive species or site-specific toxicology that is submitted by any appropriate state or Federal agency by October 1, 2011. The information will be considered as appropriate during the EP evaluation process. Additionally, it is expected that as the local watershed groups refine and validate the limiting factors in the pertinent watersheds, the presence of invasive species or toxics will be considered as part of that effort.
- *Under RPA Action 64 and under the AMIP Hatchery Effects p. 22, the Action Agencies are supporting efforts to resolve hatchery critical uncertainties. As part of this effort, beginning in December 2010, the Action Agencies will assist NOAA to further develop or modify existing studies that address the Ad Hoc Supplementation Workgroup Recommendations Report and that additionally address potential density-dependent impacts of FCRPS hatchery releases on listed species. These studies would provide support for future hatchery management actions to reduce potential adverse hatchery effects. By December 2010, the Action Agencies will work with NOAA to convene a technical workgroup with fishery managers to discuss potential studies and potential management tools. The goal for the workgroup will be to complete its work by December 2011. (See below for due date revision.) [AMIP Amendment 6] Ongoing.* The Columbia River Hatchery Effects Evaluation Team (CHREET) was proposed, in part, to respond to the AMIP requirement to convene a technical workgroup with fishery managers. NOAA and BPA have postponed implementation of the CRHEET until 2013. NMFS, BPA, tribes, and others are undertaking an extensive ESA consultation process on FCRPS mitigation hatchery programs. These consultations require significant

involvement from many of the people proposed to participate in CRHEET. Recognizing this overlap, BPA agreed with NMFS that 2013 would be a more appropriate time for implementation of CRHEET, which can then be informed by the outcomes of the consultations.

Please do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "F. Lorraine Bodi". The signature is written in a cursive style.

F. Lorraine Bodi
Vice President, Environment, Fish & Wildlife

cc:

Rock Peters, US Army Corps of Engineers
Dave Ponganis, US Army Corps of Engineers
Gayle Lear, US Army Corps of Engineers
Kate Puckett, Bureau of Reclamation
Tim Personius, Bureau of Reclamation
Duane Mecham, Department of Interior
Bruce Suzumoto, NOAA Fisheries
Mark Eames, NOAA Fisheries
Barry Thom, NOAA Fisheries