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January 8, 2013

## MEMORANDUM

**TO:** Fish and Wildlife Committee

**FROM:** Nancy Leonard, Fish, Wildlife, Ecosystem Monitoring and Evaluation Manager

**SUBJECT:** Overview of RM&E programs and 2013-2014 Initiatives

Jason Sweet from Bonneville and Chris Jordan and Phil Roni from NOAA will present an overview of several key RM&E programs in the Fish and Wildlife Program. This presentation will include a high level overview of BPA's ongoing RM&E efforts followed by an update on CHaMP implementation through the first two years of pilot level implementation. The presentation will then shift to cover the proposed approach for conducting action effectiveness monitoring in the Columbia River Basin tributaries. This is a holistic approach that integrates both existing and new monitoring efforts (e.g., programmatic approach to habitat effectiveness monitoring) as well as a post treatment evaluation of some types of habitat actions that have previously been completed to better evaluate and report on the effectiveness of actions funded through the Fish and Wildlife Program. This approach includes a pilot implementation for monitoring habitat actions that transforms that effort away from monitoring work elements on individual projects into a cost-effective, standardized, and statistically valid method for evaluating project-level effectiveness.

As recommended by the Council, Bonneville has developed this approach in time to potentially inform the Geographic Review Category. Bonneville has presented this approach to the ISAB on January 11, 2013 and have requested an ISAB review. Bonneville intends to implement this new approach, after considering ISAB suggested improvements, as a pilot during 2014. This pilot will potentially include a subset of habitat action projects being reviewed as part of the Geographic Review Category. During their presentation to the ISAB, Bonneville also presented an updated response to questions generated during the ISAB's review of the CHaMP prior to its initial year of implementation in 2010. The January 11th presentation to the ISAB addressed recommendations in the third bullet of recommendation number two and will be summarized in this presentation for the Fish and Wildlife Committee. The proposed, integrated, Bonneville approach for conducting individual project action effectiveness monitoring in the Columbia River Basin tributaries also serves to address the fifth bullet of the [Council's June 2011](#)

[recommendation](#) number two. The relevant components of recommendation number two are presented below:

- *[3<sup>rd</sup> bullet] Within one year, NOAA and Bonneville, working with other relevant participants, should further develop the analytical, evaluation and reporting elements of the habitat effectiveness monitoring and evaluation effort to accompany the CHaMP monitoring, consistent with the ISRP's review conclusions. The agencies should then produce a clear statement about those elements for the ISRP and Council to review. The statement should include:*
  - *A description of the analytical methods and models to be used to evaluate the monitoring data relevant to habitat effectiveness and how these methods and models will be used so as to incorporate or respond to the ISRP's review conclusions. Include an evaluation of how the different models and methodologies compare, such as SHIRAZ and EDT and the use of expert panels, and how the output of these methods and models will be used in further decisions on the implementation of habitat actions.*
  - *Explain how, within these analytical methods and models, the habitat status and trend monitoring data will be related to and integrated with the status and trends of fish population data in order to evaluate the effectiveness of specific restoration strategies or general restoration effectiveness in a geographic area. Explain how the analysis will develop robust, accurate relationships between the VSP parameters for target fish species and changes in habitat condition that are related to restoration, or continued habitat degradation, in the CHaMP watersheds.*
  - *Explain how the results of the ISEMP Intensively Monitored Watershed research efforts will be integrated into this analysis. Consider whether and to what extent it is important to continue the distinct IMW effort and at what scale.*
  - *Explain how the evaluation results will be regularly and publicly reported and used to guide decisions on the implementation of habitat actions in the future.*
  - *During the development phase, Bonneville and NOAA Fisheries will meet at least quarterly with the Council's Fish and Wildlife Committee to report on progress with developing the analytical, evaluation and reporting elements of the CHaMP monitoring protocols.*
- *[5th bullet] With regard to the monitoring and evaluation of how effective specific habitat projects are at obtaining and sustaining targeted changes in habitat characteristics (project effectiveness): Within the year Bonneville and its partners should develop for ISRP review a proposal to transform that effort away from monitoring work elements on individual projects into a cost-effective, independent third-party, standardized, and statistically valid method for evaluating project-level effectiveness. This transformation should be ready in time for the geographic review of habitat actions. Also, the development and review of analytical methods and models called for above should include consideration of how to use information on project or site-level effectiveness in the overall evaluation of the effectiveness of our collective habitat work in realizing improvements in habitat and fish characteristics at the population and watershed level.*