



REPLY TO THE
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, PORTLAND DISTRICT
PO BOX 2946
PORTLAND OR 97208-2946

Planning, Programs and Project
Management Division

SEP 07 2012

Ritchie Graves
NOAA, Northwest Regional Office
1201 NE Lloyd Blvd, Suite 1100
Portland, OR 97232

Dear Mr. Graves:

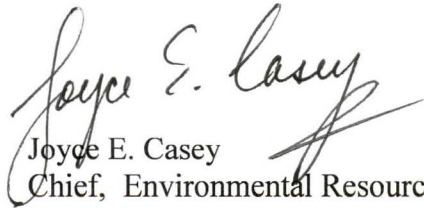
Thanks to you and your staff for reading and commenting on the *U.S. Army Corps of Engineers, Portland District (Corps) draft 90% Alternatives Report, BONNEVILLE SECOND POWERHOUSE ORIFICE IMPROVEMENTS*. This alternatives report is part of the Corps ongoing efforts to understand and improve downstream passage conditions within the Bonneville Dam Second Powerhouse Juvenile Bypass System in response to RPA 18 in the FCRPS Biological Opinion. We concur with many of your comments and will incorporate them into the 100% document. Specific responses to your comments are provided in the enclosure.

For all major alternatives considered, alternatives A11 (Minimize Overall Length of Pipe and Mounting Flange) and A12 (Replace Existing Orifice Ring with Lighted Orifice Ring) are assumed to be included as part of the Alternatives Evaluation. We are currently pursuing a proof of concept test with a prototype orifice light ring in 2013. Additionally, a gatewell turbulence reduction device (TRD) will be proof of concept tested in the same gatewell as part of the FGE program. Alternative A4 (Reduce Orifice Ring Size to 12 inch Diameter and Open Additional Orifices as Needed) was ranked high in the alternatives matrix. NOAA and Fish Facility Design Review Work Group (FFDRWG) participants expressed strong reluctance to reduce orifice ring size due to the possible biological risks to adult fish. This occurred during the Special FFDRWG discussion that took place on April 30, 2012 and through the May 9, 2012 NOAA File Memorandum. Possible biological risks to adult fish have been weighed versus the juvenile salmonid impact at the orifices and expense needed to achieve all stated goals in the EDR. The 100% EDR will recommend a phased approach to the study and testing of alternatives in conjunction with the FGE program. Further investigation of these alternatives is expected to contribute to overall improved jet quality, inspection efficiency, and orifice lighting at the Second Powerhouse. We look forward to your collaboration in further discussion.

A hard copy of this letter is being sent to Gary Fredricks, Ed Meyer, and Trevor Conder, NMFS, 1201 NE Lloyd Blvd, Suite 1100, Portland, OR 97232. Electronic mailed copies have been sent to FFDRWG members. Your comments on this draft report are appreciated. You may

contact Jon Rerecich at Jonathan.G.Rerecich@usace.army.mil or at 503-808-4779 for further discussion. Thank you for your continued participation in the fish facility improvement review process.

Sincerely,

A handwritten signature in black ink that reads "Joyce E. Casey". The signature is written in a cursive style with a large, sweeping flourish at the end.

Joyce E. Casey
Chief, Environmental Resources Branch

Enclosure