



**Independent Scientific Review Panel**  
for the Northwest Power & Conservation Council  
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**Memorandum (ISRP 2009-36)**

**August 26, 2009**

**To:** Tony Grover, Fish and Wildlife Division Director, Northwest Power and Conservation Council

**From:** Eric Loudenslager, ISRP Chair

**Subject:** Follow-up Review of FY 2007 – 09 Proposal 2007-034-00: *Columbia Cascade Pump Screen Correction*. Response Requested

### **Background**

At the Council’s July 29, 2009 request, the ISRP reviewed documentation submitted by the Washington Department of Fish and Wildlife (WDFW) to justify habitat restoration actions proposed in the proposal, *Columbia Cascade Pump Screen Correction* (2007-034-00). The project’s purpose is to implement a pump screen correction program in the Methow, Entiat, and Wenatchee river basins in order to reduce juvenile fish losses due to entrapment in water diversions.

This is the third review in an iterative review process. Specifically, WDFW’s submittal, titled *Okanogan Watershed Assessment, Final Inventory Assessment for Columbia Cascade Pump Screen Project* is intended to address the Council’s April 2007 recommendation responding to the ISRP review and recommendation in March 2007 (see [ISRP 2007-2](http://www.nwcouncil.org/library/isrp/isrp2007-2.htm)<sup>1</sup>). The Council recommended that “the initial contracting for this proposal address only the work elements necessary to accomplish the inventory and assessment as requested by the ISRP. Included with this assessment plan, WDFW will also need to address the concerns raised by the ISRP regarding screen monitoring.”

The ISRP’s March 2007 recommendation was:

Meets Scientific Review Criteria – In Part (qualified).

In the preliminary 2007 – 09 proposal review the ISRP concluded “the proposal could be restructured to focus on the assessment portions of the project. More detail should be provided on how the assessment will be conducted. Once the assessment is complete and the pump sites prioritized, a proposal for funding to correct the screens and evaluate the effectiveness of the screens could be submitted.”

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<sup>1</sup> <http://www.nwcouncil.org/library/isrp/isrp2007-2.htm>

In the response to the ISRP, the proposal sponsor provided some additional information on how the assessment will be conducted, but otherwise did not adequately address the ISRP concerns, and continued to provide an inadequate plan for monitoring and evaluation. Consequently, the ISRP concludes that only the tasks associated with inventory and assessment of the pump diversion sites meets the ISRP scientific review criteria. Further consideration of moving forward with pump screen replacement proposal should be based on this inventory and assessment and include an adequate plan for monitoring and evaluating screen effectiveness.

Below is our evaluation of the Final Inventory Assessment.

## **Recommendation**

### *Response requested*

The ISRP feels the material in the tables and maps is worthwhile, but several aspects of the project require additional description:

1. The overall assessment process and, in particular, the procedure for ranking the screens in terms of priority should be explained. For example, we could not understand why the top two priority sites were assigned the highest importance when the intakes were not directly observed (we agree that these probably are very important intakes in need of remediation, but without understanding the ranking system we could not evaluate the scientific basis for their getting top billing, especially when the intakes haven't actually been seen). If the ranking was done subjectively, it would be helpful to at least supply narrative criteria that formed the basis for the ranking judgments. For instance, were the priority ratings influenced by salmon and steelhead use of the immediate area for migration, spawning, and rearing?
2. The project proponents state that land owners will be contacted in 2009 regarding their willingness to implement the screening improvements. What has been the result of these contacts, and how might land owner willingness affect the priority screen selection?
3. No information was provided on a monitoring and effectiveness evaluation program. What will be done to assess the effectiveness of the improved screens?

## **Specific Comments**

An earlier iteration of the project proposal mentioned a screening priority index (SPI), but the supporting documents provided to the ISRP did not mention this index explicitly this time. We assume it was used to rank the screens in the table, but without knowing how the prioritization was accomplished we have no basis for a scientific review of the technique. If the procedure is described in the Okanogan Watershed Assessment it should

be described in the supporting material, not referenced in the cover letter as a web document.

Relatively little narrative was associated with the high elevation site photographs. It was useful to view the overall distribution of the screen locations, but it was unclear why some locations had expanded views (other than to show the high density of pumps), and more importantly, how the expanded views related to some important salmon or steelhead spawning site or migration pathway. Additional description is needed of why some locations along the Okanogan River should receive priority attention.

The maps showing Chinook and steelhead use of the areas were somewhat confusing. Does “migration” refer only to adults or to both adults and juveniles? Since we assume the screen improvements are primarily to reduce juvenile impingement or entrainment, shouldn’t juvenile migration corridors be highlighted? The maps indicate that there is no Chinook or steelhead rearing in this reach of the Okanogan River and its tributaries. Is this really true, or do the maps reflect a lack of available survey information?