We are thankful for the opportunity to provide comments on the report entitled Critical Uncertainties for the Columbia River Basin Fish and Wildlife Program ("Uncertainties Report"), prepared by ISAB and ISRP. This document is intended to clarify the primary functions and relative role of the Klickitat Watershed Enhancement Project (KWEP) within the Klickitat Subbasin.

KWEP is, first and foremost, a habitat restoration/protection project. It appears we were included in the programmatic review of monitoring projects because our scope does include some monitoring tasks (7 out of 39 total Work Elements) in the Statement of Work. As a result of being grouped with a pool of projects whose purview is purely R, M, &E, the critiques offered in the Uncertainties Report reflect an incomplete representation of the current project scope, funding level, and direction provided by the funding entity Bonneville Power Administration (BPA).

Background

As a component of the Yakima-Klickitat Fisheries Project; the Klickitat Watershed Enhancement Project is part of a suite of FWP projects in the Klickitat and Yakima River subbasins. The Klickitat Watershed Enhancement Project is the YKFP component responsible for implementation of watershed and habitat restoration, enhancement, and protection in the Klickitat Subbasin. The other YKFP projects in the Klickitat subbasin include:

- YKFP Klickitat Management, Data and Habitat (Project 198812035)
- YKFP Monitoring and Evaluation (Project 199506325)
- YKFP Klickitat Operations and Maintenance (Project 199701335)
- YKFP Design and Construction (Project 198811535)

Of the above projects, the closest relationships with this project are:

- Monitoring and Evaluation Project (M&E, 199506325)
 - The M&E project is the project with primary responsibility for all monitoring in the Klickitat Subbasin. Though it typically focuses on Status and Trend population-level elements, its scope includes habitat project effectiveness monitoring.
 - KWEP provides the M&E project with assistance in collecting, managing, and analyzing physical habitat data. Additionally, KWEP provides assistance with the installation of mechanical systems such as the pulley systems associated with screw traps.
 - The M&E project provides KWEP with monitoring data and information for identifying, prioritizing, and developing restoration, enhancement, and protection projects.
- YKFP Klickitat Management, Data and Habitat (Project 198812035)
 - KWEP provides watershed and habitat information to assist with management decisions, particularly identification of projects and geographic priorities. KWEP staff work closely with the Klickitat Data Manager to develop and maintain relational databases that house and report temperature, sediment, and habitat data. As the primary entity acquiring, developing, and managing spatial data in the Klickitat Subbasin, KWEP coordinates with Klickitat Management staff to make the data available to other YKFP staff.
 - Klickitat Management provides data management and computer network support as well as supervision and higher-level direction to KWEP. It also provides administrative support in the form of office expenses (utilities, etc.) and legal review of KWEP-related contracts and subcontracts.

Specific Responses to Uncertainties Report

"There is no apparent linkage between project RME activities and basinwide programs like AEM, CHaMP, and ISEMP"

KWEP personnel authored a proposal to participate in CHaMP in 2009 when BPA was considering geographic expansion. BPA decided not to implement the proposed expansion, KWEP has been on an "interested party" waiting list since 2009. Pending approval, the M&E Project will implement CHaMP in the Klickitat Subbasin. KWEP staff has participated in several meetings with BPA's AEM program staff. We have had continuing discussion and provided specific project information, treatment, and location data to AEM staff, most recently for large woody debris projects.

"It appears that the monitoring has simply evolved over time, rather than being set up to test specific hypotheses."

Most of data collection activities conducted by KWEP are for assessments of physical and biological conditions in order to inform habitat enhancement actions. They occur in priority areas identified in the 2004 Klickitat Lead Entity Salmon Recovery Strategy. These priorities are reviewed annually as information from Klickitat M&E project or other sources becomes available. KWEP staff typically design and implement data collection to be suitable as baseline data for follow-up investigation. KWEP follow-up of implementation actions focuses on physical and vegetation response. KWEP utilizes a measured approach to monitoring; conducting minimal monitoring on some projects (photos) and intensive BACI designed approaches on others (Food Web). The food web study on Tepee Creek is the first and only attempt to correlate habitat manipulation to a response in a fish population and the only KWEP participation in a study involving formal hypothesis testing. Investigations of that rigor are the domain of the M&E Project.

"A general uncertainty for restoration, in this subbasin, is what extent and magnitude of restoration-induced, habitat changes will be needed to actually increase fish production to a level that can be detected."

This is a generic critique of habitat restoration efforts focused on increasing the production of salmonids in the Columbia River Basin. Recent scientific literature has suggested that large percentages of watersheds (> 95%) have to be treated over a multi-decade time scale in order to detect a measurable change in fish populations. It is hypercritical to single-out KWEP for not being able to address this type of uncertainty.

"There is no discussion regarding any results of this study, time frame for anticipated completion, or how results will be used to inform future restoration work in the Subbasin." [in reference to Food Web study]

The intent of this study is to determine whether this type of physical treatment results in an increase in fish production. The outcome will determine whether this treatment is applied to other tributary reaches within the Klickitat Subbasin. The study will be completed in 2018. No interim results have been provided to protect against conclusions being drawn from near-term responses. Short-term responses are often poor indicators of the long-term ecological trajectory of a site; therefore, we are waiting for additional data prior to presenting results. This is particularly true since the pre-treatment condition of the reach was intermittent and discontinuous base-flow involving considerable inter-annual variability. Additional detail may be found in the 2013-2015 Annual Report of the Klickitat Subbasin Monitoring and Evaluation Project.

Summary

We respect the expertise of both ISAB and ISRP and appreciate the opportunity to respond to the Uncertainties Report and clarify roles and responsibilities of the Klickitat Watershed Enhancement Project. We ask the ISAB and ISRP to consider the conundrum project sponsors are in due to receiving contradictory guidance from the independent scientific reviewers and the funding entity BPA. Additionally, the

Uncertainties Report provides little to no commentary on projects which do not attempt to address the uncertainties identified in the 2006 Columbia River Research Plan. This effectively discourages projects from trying to address uncertainties due to concerns of encouraging increased scrutiny. We will provide additional detail into future Annual Reports on relative project roles as well as how monitoring activities are incorporated into the identification, selection, design and refinement of implemented projects.