



## Independent Scientific Review Panel

for the Northwest Power & Conservation Council  
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**Memorandum (2022-4)**

**July 7, 2022**

**To:** Guy Norman, Chair, Northwest Power and Conservation Council

**From:** Richard Carmichael, ISRP Executive Committee Member

**Subject:** Follow-up Review for Fort Hall Habitat Restoration, Project #1992-010-00

### Background

On May 12, 2022, the Council asked the ISRP to review a second revised proposal (hereafter "[2022 proposal](#)") from the Shoshone Bannock Tribes (SBT), regarding Project #1992-010-00, *Fort Hall Habitat Restoration*. The project has three primary, overlapping goals: 1) maintain and restore ecological health and resilience in coupled river-floodplain and stream-riparian ecosystems of the Fort Hall Reservation; 2) achieve a naturally sustainable population of Yellowstone Cutthroat Trout (YCT) and maintain a fishery for Tribal members; and 3) foster place-based education for Tribal members and promote traditional ecological knowledge and culture.

This is the ISRP's third review concerning this project stemming from the [Resident Fish and Sturgeon Project Review 2019/2020 \(ISRP 2020-4\)](#), pages 237-243; April 2, 2020). This third review is specifically a follow-up to the ISRP's *Response Review of Fort Hall Habitat Restoration Project (ISRP 2021-9)*, in which the ISRP recommended "Meets Scientific Review Criteria – Conditional" based on a review of first revised proposal ("[2021 proposal](#)"). The ISRP found the 2021 proposal to be a significant improvement from the original [2020 proposal](#). However, a few issues remained, and the ISRP recommended that the SBT update their 2021 proposal to address four conditions concerning 1) the need for quantitative, time-bound (SMART) objectives; 2) a strategy to address expanded activities; 3) a timeline for major activities; and 4) details on fish and habitat sampling methods.

The ISRP's review below is organized around the four conditions.

**Final ISRP Recommendation:** Meets Scientific Review Criteria – Conditional

We thank the proponents for providing a revised proposal and cover letter. The 2022 proposal was much improved from the 2021 proposal. Much more detail is provided for specific methods

and sampling designs, a weakness of past proposals. In addition, the revision of some implementation and RM&E objectives with measurable criteria and timelines, described in Figure 11, provided additional clarity and detail. Although the response and revised proposal addressed two of the original four ISRP conditions, two important conditions remain that were not adequately addressed:

***Remaining Conditions:***

**1. Implementation and effectiveness objectives meeting SMART criteria:** Additional information is needed to fully describe important details for this project over the time period 2021 to 2025. The text in the Goals and Objectives section was not updated to reflect the new information provided in Figure 11, in the Methods section, or in the Statement of Work (SOW) in Pisces (cbfish.org). Much of the information needed for SMART objectives is presented in various places in the proposal as well as in the SOW. The proponents should provide revised SMART objectives describing key activities and outcomes that are measurable and timebound (see proposal instructions and details below). The proposal would be much improved if the information provided in Figure 11, the Methods section, and the SOW were incorporated and integrated with the current Goals and Objectives section. Completing a comprehensive set of implementation and outcome objectives is critical for this project particularly given the relatively rapid expansion of proposed work and funding over the next five years.

**2. Development of a Strategy to guide effective implementation of the significantly expanded project:** No additional information was provided regarding development or update of a strategic plan to guide significant expansion of the project over the five-year time period. Given that the proposal identifies more than a three-fold increase in funding, the proponents still need to complete a clear description of the strategic plan that will guide future project selection, development, prioritization, implementation, and evaluation of this expanding project (see details below). Specific assessments, recovery plans, implementation plans, and strategic documents that are utilized should be identified with characterization of how their guidance is used. Given the many challenges and significant planned expansion of activities and funding for the project, clearly stated and comprehensive strategic direction is needed.

The ISRP is not requesting a response to be submitted for our review to satisfy these two remaining conditions. Instead, we expect that the conditions will be addressed through deliberations and processes directed by Council staff and BPA as the project moves forward. However, we believe it is in the best interest of all for the proponents to complete a strategic plan and revise the proposal to provide clear project guidance for the near and long term in two cohesive documents. An updated, revised proposal would also serve well as a foundation for future proposals and project reviews.

## Overall Comments

The following comments are intended to provide more detail and guidance to address the remaining two conditions specified above and to generally assist the project as it moves forward in continually improving planning and implementation.

### 1. Implementation and effectiveness objectives meeting SMART criteria

New information was provided (Figure 11) that improved the detail and level of clarity for some implementation and RM&E objectives. The addition of specific measurable outcomes and timelines for some objectives improved consistency and met some of the criteria for SMART objectives. Figure 11 provided better illustration of the connectivity and continuity from the goals and objectives to desired outcomes and monitoring and evaluation. However, it lacked specific objectives to describe implementation and desired outcomes for a number of key activities. In addition, several activity descriptions provided in the Methods section of the proposal and in the SOW in Pisces describe major activities, metrics, and provide critical details that could be used to develop a core set of SMART project objectives. For example, aspects of SMART criteria that should have been explicitly stated with the objectives are presented in the Methods section (e.g., “annually conducted fish population surveys” clearly indicate a periodicity of sampling).

The text in the Goals and Objectives section of the proposal was not updated to reflect the examples that we provided in our previous review or the new information provided in Figure 11. Much of the information needed for SMART objectives is presented in various places in the proposal as well as in the SOW in Pisces. The proposal would be much improved if the information provided in Figure 11, the Methods section, and the SOW were incorporated and integrated with the current Goals and Objectives section. Such revised objectives would provide far better project guidance into the future.

The following examples are provided to assist the proponents in revising objectives. There is an ecological outcome objective to improve the quality of spring brook and mountain stream habitats. This objective could be rewritten as, “improve stream habitats in treated areas to reduce bankfull W/D ratios to less than \_\_\_ on spring brook streams and less than \_\_\_ on mountain streams by a specified year.” Another metric to describe desired outcomes of channel/riparian work could be based on past results of the sediment/silt monitoring that has been used for many years on this project. This ecological objective is followed by an implementation objective to implement 0.5 miles of fencing and planting. This could be improved by stating, “Complete at least 0.5 miles of riparian fencing and planting using standard fence design and plant species. Ensure at least \_\_\_% survival of plantings 2 years post planting.” A related outcome objective for this work could include the percent increase in the density of YCT, in treated reaches, expected by the year 2025

The approach for completing the RM&E objective to develop a linked ecosystem management/monitoring protocol connected to a Climate Change Adaptation Plan by 2025 is unclear. The current proposal does not describe what information and guidance such a plan will address or indicate that it is a planned activity in the timeline. Including this description and a timeline would strengthen the proposal significantly.

## **2. Strategy to address expanded project activities**

There is no discussion regarding current or near-term development of a strategic framework to guide significant expansion and selection of future site-specific actions for the project over the proposal's five-year time period. There are no up-to-date, adequate descriptions of the key planning, implementation, or assessment documents that are used for strategic guidance. A "decision tree" framework (Figure 13) was added that illustrates the general process for incorporating information into an adaptive management decision framework. Yet, the figure provides little new information related to strategic guidance for future project generation, selection, and implementation.

It was stated in the past proposal review that, the "Tributaries Assessment and Enhancement Strategy was completed in 2013, providing a geomorphic and habitat-based assessment of the spring brooks of the Bottoms and prioritized reaches for enhancement." The Assessment includes a comprehensive project matrix and timelines for implementation from 2013 through 2018. However, the proposal does not indicate whether this approach will be updated and used to cover the current time frame (2021-2025) or if a different approach will be used.

Given the many challenges being addressed and the significant expansion in scope and funding for this project, comprehensive and integrated strategic direction is needed. The proponents should consider this important question in developing the strategic plan and associated guidance: How will the likelihood of success change with the expansion of activities, in terms of ecological, fishery, and cultural aspects?

## **3. Timeline providing a detailed description for major project activities under each of the three goals**

Although there has been minor improvement in the Timeline section, it is still very general regarding descriptions of specific projects and activities that are planned. Future proposals and planning documents should include more specificity. For example, RM&E objectives identify development of a Climate Change Adaptation Plan and a number of monitoring protocols (Invertebrate Monitoring, Floodplain Plant and Animal Biodiversity, and Linked Ecosystem). These are not identified in the project timeline, and these activities will require significant investments of time and resources. Also, the implementation objective to "Improve the quality of spring brook/wetland and mountain stream habitats" shows an implementation objective of

0.5 miles. However, the timeline does not provide any detail on planned project locations or major treatments to be implemented. A final example is the timeline showing that a Fisheries Management Plan is to be completed in the fall of 2021, but there is no mention of what the plan is to include, how it will inform project activities or whether it was completed as planned. Will this plan provide the strategic guidance requested in condition number 2 above?

The timeline provided does not show a direct connection to the revised Implementation or RM&E objectives presented in Figure 11. There remains the need for a timeline that illustrates the connection of the tasks to goals and objectives. This information is important for fully understanding the expanded set of activities being undertaken.

#### **4. Methods for fish and habitat sampling need additional detail**

The Methods section is much improved with considerably more detail provided for abundance of dominant fish species with variance estimates, benthic invertebrates, riparian vegetation monitoring, evaluation of implementation objectives using modified BACI design, and education and outreach approaches to strengthen the linkages of youth with tribal culture and place-based knowledge.

In future proposals the methods should be improved with an organized presentation and appropriate specificity about the metrics to be derived and how they will be analyzed. The lists of methods in paragraph form are not easy to understand. It would be better to organize methods under clear and concise headers or statements directly linked to the specific goal and objective they address.

Two statements from the past ISRP review are still relevant, and we encourage the proponents to use this guidance for improving the quality of the methods descriptions:

1. “Even when specific methodologies are described (e.g., BACI design, three-pass removal method), details are lacking for evaluating their application (e.g., sampling design and sampling units) and for assessing potential rigor of results (e.g., detectability of change, power of tests, and confidence intervals).”
2. “How will improved quality of habitats be measured?”

Two examples of how the methods could be improved are provided below:

1. The proponents state that: “visually comparing 95% confidence intervals will be used to test for significant effects of habitat manipulation.” There are statistical tests that can and should be used for such a comparison.

2. The proponents state that: “Riparian planting efficacy will be assessed by estimating survivorship of seedlings and their average vertical growth following planting.” To be most useful, the estimates must be compared to something that is desirable or healthy.

In general, more information is needed about what metrics will be derived and described by outcome objectives, what precision will be targeted, and what statistical tests will be used for evaluation (beyond derivation of confidence intervals, visual inspection, and response ratios)?

Note: Under Section 13. Project Budget, there appears to be a typo under “Fringe benefits” for FY 2023. \$343,074 is listed, but the amounts for FY 2024 and FY 2025 of \$34,074 per year appear correct.