



## Independent Scientific Review Panel

for the Northwest Power & Conservation Council  
851 SW 6<sup>th</sup> Avenue, Suite 1100  
Portland, Oregon 97204  
[www.nwcouncil.org/fw/isrp](http://www.nwcouncil.org/fw/isrp)

**Memorandum (ISRP 2011-3)**

**February 18, 2011**

**To:** Bruce Measure, Chair, Northwest Power and Conservation Council

**From:** Eric Loudenslager, ISRP Chair

**Subject:** Final Review of Grande Ronde Spring Chinook on Lostine/Catherine Creek/  
Upper Grande Ronde Rivers (199800704) for the RME and Artificial Production  
Categorical Review

### **Background**

The Oregon Department of Fish and Wildlife's proposal, Grande Ronde Spring Chinook on Lostine/Catherine Creek/ Upper Grande Ronde Rivers (199800704), is part of the Council's RME and Artificial Production Categorical Review. The ISRP requested a response in its preliminary review, but the proponents missed the response deadline. When this was identified, a response was submitted and the Council requested the ISRP's review.

As described in the proposal, "The purpose of this proposal is to integrate Bonneville Power Administration (BPA) efforts with the Lower Snake River Compensation Plan (LSRCP) in the Grande Ronde subbasin program utilizing Lookingglass Hatchery as the primary rearing facility. These integrated efforts focus on holding and spawning adults, rearing juveniles, fish health, and monitoring natural production (redd counts) for Catherine Creek, Lostine River, and Upper Grande Ronde stocks."

**ISRP Final Recommendation:** Does not meet scientific review criteria

### **ISRP Final Comments:**

The ISRP acknowledges that the proponents have provided some additional information toward clarifying project objectives and actions. The proponents also addressed the ISRP's comment concerning the time frame for phasing out the captive broodstock program. The ISRP also acknowledges that "The major part of this project is straight-forward artificial propagation. The current production levels have been agreed to and incorporated into the U.S. v. Oregon Interim Management Agreement." However, the proposal does not meet scientific criteria based on the information presented.

The primary deficiency in the proposal is a lack of integration between this project and other projects in the Grande Ronde subbasin, including the LSRCP, that together function to

supplement spring Chinook. In the original proposal and the response, the proponents insisted that, in their words, “The project's goals are all production goals... The project does not have population restoration or enhancement goals.” The ISRP appreciates that this project’s tasks are limited to collecting and holding broodstock, spawning, incubating eggs, and fish health assessment. However, because this project serves as a component of a larger supplementation effort, the appropriate biological objectives for this project are the natural- and hatchery-origin adult goals from the LSRCP and subsequent co-manager agreements. The proponents should clearly present these objectives for restoration in terms of “adults-in” (hatchery and wild) and “smolts-out.” They should also have identified a clear procedure for evaluating whether supplementation is yielding an increase in natural-origin adults, and whether it is potentially compromising the density-independent productivity, even if this analysis is conducted under LSRCP contracts. This sort of analysis has been completed by ODFW for the Umatilla steelhead and for Imnaha spring Chinook. This analysis must be included here because outcomes of this project will relate to and influence outcomes of other projects in the subbasin. This project clearly has effects on and is affected by LSRCP actions and progress, on adult fish returns, on redd counts, and on natural spawning of hatchery-reared fish.

During the LSRCP symposium, one of the questions posed by the ISRP concerned the organization and inter-relationship of all the LSRCP and Fish and Wildlife Program projects in the Grande Ronde subbasin – ODFW, WDFW, CTUIR, and Nez Perce Tribe. A summary was provided at the LSRCP symposium, but it has not been adequately summarized in this proposal. As highlighted in the proposal, Figure 1, the diagram of M&E for the subbasin, failed to download. It remains unclear how the proponents are using this project to provide smolts for Catherine Creek, Upper Grande Ronde, Lostine, and the relationship of this production to LSRCP production. The primary production for the Grande Ronde subbasin is funded through the LSRCP. It is unclear where the usual LSRCP spring Chinook production is released. Is the production for off-site releases in Catherine Creek, Upper Grande Ronde, and Lostine in addition to LSRCP production? In any case, as Fish and Wildlife Program production, clearly defined expectations of adult returns are needed, not just a statement of how many smolts are to be produced. The expected and potential effects and outcomes of this project should be clearly analyzed by the proponents in relation to the LSRCP and other subbasin activities to clarify how the actions and goals dovetail among programs and projects. Nothing in this proposal indicates that this analysis has been done. We suggest that the proponents prepare such an analysis. Perhaps the LSRCP reports to be submitted later this spring may also answer some of the ISRP’s questions.

Similarly, in response to the ISRP’s comment about Objective 4 (redd counts) the proponents did not restate the objective to explain the purpose of the redd counts that will be performed but rather repeated the objective as it appeared in the original proposal. The purpose or goal of the redd counts was not restated in terms of population restoration or enhancement, as the ISRP recommended, which would have linked the project to the larger supplementation effort ongoing in the Grande Ronde basin. The proponents did present tables showing time trends in

redd counts and abundances of returning adults, as requested by the ISRP. Little discussion or interpretation of this information was provided, however.

Both the Catherine Creek and Lostine River captive broodstock programs were terminated in 2005, with the last cohort of adults spawned in 2010, because, as the proponents state in their response, adult returns in these streams consistently exceeded the goal of 150 fish for at least ten years. The Upper Grande Ronde captive brood program will continue because the returns to this section of the river have been highly variable and have not consistently exceeded the goal.

In discussing the reasons for terminating the Catherine Creek and Lostine programs, the proponents state in the text that these streams have exceeded the recovery goal of 150 fish for ten years (Lostine: range 443-4122; Catherine Creek: range 229-1533). These numbers are not consistent with the estimates of adult returns given in Table 1, which are lower but still have consistently exceeded the 150 fish goal. It is unclear which adult return estimates represent actual returns of spawners.

With respect to emerging factors, the proponents discussed currently recognized limiting factors which include out-of-basin effects, ocean conditions, and harvest. They did not, however, consider emerging factors such as climate change and invasive species.

**ISRP preliminary recommendation:** Response requested

**ISRP Preliminary Comment:**

The integration of this project with LSRCP (the set of projects) should be better described. The project needs to be integrated with CRHEET (Columbia River Hatchery Effect Evaluation Team and the Ad Hoc Supplementation Work Group).

The major part of this project is straight-forward artificial propagation. The current production levels have been agreed to and incorporated into the U.S. v. Oregon Interim Management Agreement.

In the response, the project's purpose should be restated in terms of the population restoration or enhancement goal, not as merely production and rearing of fish. (In a forthcoming report, the HSRG advocates that the purpose of hatchery programs be described in terms of the effects that the released fish are intended to have on conservation goals.)

From what was presented, the recovery goals and progress toward meeting those goals were not clear; the response should discuss those subjects. The present text contains the following: "Table 1. (revised 12/23/05) Minimum abundance thresholds by species and historical population size (spawning area) for Interior Columbia Basin stream type Chinook and steelhead populations (Table 3). Median weighted area and corresponding spawners per km (calculated as ratio with corresponding threshold) provided for populations in each size category (see

attachment B).” This seems to be where the information is supposed to be located, but the information does not seem to be there. No attachment B was found in the proposal.

Objective 4 should be restated to explain the purpose of the redd counts (when questioned during the oral presentation, the presenter said the purpose is to assess adult returns), rather than as simply performance of an operation (to summarize data). As the project is a long-term continuation of past operation, the proponents should in their response present a clear table or two outlining, based on redd counts, where the hatchery effort is in terms of progress toward rebuilding each stream’s population and its trajectory, and then they should present interpretations and conclusions from those tables in a discussion. This would better justify inclusion of the redd count objective in the proposal.

How the redd counts translate into estimated number of total spawners should be explained.

The proposal’s Problem Statement lists the 10 specific LSRCP Chinook Salmon Program objectives. The ISRP requests that the proponents describe the methods by which the project will meet each specific objective or else omit from the list those specific objectives that do not apply to the project.

The Proposal Short Description and the Executive Summary indicate objectives pertaining to Catherine Creek, Lostine River, and Upper Grande Ronde River. The Problem Statement, however, states that program’s goal is “restoration of spring/summer Chinook salmon in Catherine Creek” without mentioning the other rivers. Operations for the other rivers are then described further on in the Problem Statement, together with the implication that the project will carry out 10 specific objectives of the LSRCP Chinook Salmon Program which involve all three rivers: Catherine Creek, Lostine River, and Upper Grande Ronde River. Why then, is only Catherine Creek mentioned in the project goal?

The response should discuss emerging limiting factors.

The proposal mentions captive broodstock phase-out. The response should indicate the time frame for phase-out and the rationale for that time frame.