



**Independent Scientific Review Panel**

for the Northwest Power & Conservation Council  
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**Memorandum (ISRP 2007-12)**

**August 28, 2007**

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

**From:** Eric Loudenslager, ISRP Chair

**Subject:** Results Report of the Grand Ronde Model Watershed Program Habitat Restoration - Planning, Coordination, and Implementation Project, 1992-026-01

**Background**

At the Council's July 2007 request, the ISRP reviewed the Grande Ronde Model Watershed Program's (GRMWP) results report submitted in response to the ISRP's final FY 2007-09 review<sup>1</sup> of the Grand Ronde Model Watershed Program Habitat Restoration - Planning, Coordination and Implementation Project, 1992-026-01. Although we found the FY 2007-09 proposal "fundable" with an excellent record of success in coordination and project implementation, we qualified our recommendation because the proposal did not provide an adequate summary of project effectiveness and monitoring. Specifically, we called for "a report presenting quantitative and qualitative results to date pertaining to the effectiveness of the projects under their domain, a general summary and conclusions about overall project effectiveness, and the application of the results to management." The full ISRP 2007-09 recommendation is attached below.

Subsequently, the Council recommended the project for FY 2007 funding with FY 2008-09 funding contingent on the sponsor completing the report as called for in the ISRP's recommendation and receiving favorable ISRP and Council reviews. The GRMWP submitted the called-for report on July 12, 2007. The ISRP's review of that report follows.

**ISRP Recommendation and Summary**

Meets scientific review criteria (qualified)

The individual habitat improvement projects undertaken by the Grande Ronde Model Watershed Program are based on sound science principles and are consistent with the Council's Fish and Wildlife Program. The individual projects' objectives, however, often are in general rather than quantifiable terms. For many projects, benefits to fish and wildlife are likely, but based on presumption rather than quantified. Past provisions for monitoring and evaluation of results have been insufficient to establish the program's benefits. The ISRP

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<sup>1</sup> ISRP Final Review of Proposals Submitted for Funding through the Columbia River Fish and Wildlife Program (ISRP 2006-6, August 31, 2006): [www.nwcouncil.org/library/isrp/isrp2006-6.htm](http://www.nwcouncil.org/library/isrp/isrp2006-6.htm).

concludes that additional monitoring and evaluation (M&E) is warranted and will likely lead to improved adaptive management by the project. The ISRP qualifies its recommendation on development of a more complete plan for improved effectiveness monitoring -- perhaps through collaboration with ISEMP, CSMEP, or PNAMP -- that includes an improved biological assessment program for fish.

### **Specific Review Comments**

The ISRP appreciates the effort that the Grand Ronde Model Watershed Program (GRMWP) expended in preparing this response to the ISRP's questions. The response improved the ISRP's understanding of the state of effectiveness monitoring and results reporting for GRMWP projects. The GRMWP has been highly successful in implementing projects, including many on private lands, and has an outstanding record of cooperative work among varied government agencies, tribes, and stakeholders. The material presented to the ISRP in response to a request for information about project effectiveness monitoring represents a good-faith effort to address questions about how well these restoration projects are working. The report is frank about the M&E limitations of many of their projects and about their initial selection of projects to build trust with landowners. The ISRP appreciates that the project sponsors have been honest and candid about the lack of effectiveness monitoring, especially biological response monitoring, at most project sites. We suspect this is true of most coordinated watershed restoration efforts throughout the Columbia River Basin. We are also sympathetic to the need for a funded, long-term, landscape-scale monitoring effort that can track habitat improvement in subbasins where there has been a lengthy history of restoration projects.

The GRMWP acknowledged that the qualitative effectiveness monitoring and evaluation by GRMWP revealed many successful projects but also several that failed to meet expectations or even had adverse effects on habitat. For projects that did not meet expectations, often changes were made to improve the project, illustrating the adaptive nature of the GRMWP. It is worth noting that had some level of monitoring not taken place, these failures would not have been identified and appropriate project modifications could not have been implemented. It is clear that monitoring has led to adaptive changes in the program. For example, the GRMWP concluded that projects improving instream flow were only successful for a short distance downstream because the conserved water was not protected and could be withdrawn downstream. As a consequence they no longer fund projects intended to increase flow unless there are provisions, made through the Oregon Conserved Water Statute, that guarantee that conserved water would remain in the stream and not be withdrawn further downstream. The sponsors cite several examples of this kind where obvious adaptive changes have been made.

The GRMWP has evolved over the years since its inception in 1994. It originally funded site-specific projects mostly related to stream bank stabilization. As the program matured, work shifted from funding small scale projects to larger scale, more holistic projects such as the Longley Meadow Project (#1616) which undertook complete historic channel reconstruction. The GRMWP has teamed with the CTUIR (Project # 199608300 - Grande Ronde Subbasin Restoration and ODFW (198402500 - ODFW Blue Mountain Oregon Fish Habitat Improvement Project) to implement large scale wetland and stream restoration projects. Moreover, the projects have moved toward funding projects that address causes of habitat degradation and limiting factors, not just the symptoms. These changes again illustrate the adaptive nature of the program. The ISRP commends and supports the current direction of the program.

Implementation and short-term effectiveness monitoring plans are required for projects, although only limited monitoring is required for some projects such as road crossing and irrigation diversion projects. Tables 2-9 indicate that no monitoring was required for 20 projects out of a total of 208 and no monitoring results were reported for 10 projects. Each proposal, including the monitoring component, is reviewed by a Technical Committee composed primarily of agency biologists and resource specialists. The Technical Committee determines the adequacy of the monitoring plan relative to the objectives and complexity of the project. Annual reports are required of most projects.

Reporting of results of effectiveness monitoring was quite variable. Most projects briefly noted results (e.g., sediment reduction, temperature decrease) without providing any detailed or quantitative information to support the conclusions (Tables 2-9). Others provided reasonably detailed descriptions of results without quantitative support (e.g., #1370 Five Points Creek Whole Tree Additions; #1413 Little Fly Meadow Headcut Rehabilitation; #1477 Chicken-Dry Creek Wet Meadow, Restoration; #1551 McCoy Meadows Meadow Restoration Project - Phase II and III; and #1616 Longley Meadow Restoration). These descriptions were useful in understanding habitat changes that resulted from the project but would have been improved if supporting data and interpretation were included. Some projects presented quantitative information, e.g., how much water temperature had changed after project inception (#31495 North Fork Catherine Watershed Restoration; #1525 Imnaha/Parks Ditch Water Conservation Project; #1406 Meadow Creek/Cunha Ranches Riparian Restoration).

While the materials provided to the ISRP make it clear that biological effectiveness monitoring has been very limited in the Grande Ronde and Imnaha, we were somewhat surprised to see how little has apparently been done. For example, of the many restoration projects described in Tables 2-9, only 17 included "Fish Population" monitoring, and of those 17 projects only four included any qualitative, semi-quantitative, or quantitative results; the others were often vague about what type of monitoring had been carried out. Those four project results are summarized in the following table.

Project No.	Results to date
1375	Snorkel surveys indicate "populations remained stable."
1551	"Number of rainbow trout per stream length increased" while trout densities in similar but unrestored reaches or control reaches remained stable or decreased.
1658	Tables refer to an online report. The report itself, however, includes only qualitative information (fish species present) in electrofishing surveys of several streams. However, this is a recent project and it is too early to present results of habitat restoration.
1664	"240 juveniles" [species not specified] were counted in winter snorkeling in off-channel ponds.

As project sponsors are aware, more complete data are needed. The apparent lack of information on fish populations suggests that biological surveys have either not been done in the vicinity of restoration project sites or insufficient effort has been devoted to compiling existing survey data. In either event, the ISRP concludes that an improved biological assessment program is needed for the Grande Ronde and Imnaha subbasins.

Much of the material provided by project sponsors described implementation monitoring. While this was helpful, we urge them to review the ISRP's 2006 Retrospective Report for additional suggestions about designing M&E programs for habitat projects (ISRP 2007-1: [www.nwcouncil.org/library/isrp/isrp2007-1.pdf](http://www.nwcouncil.org/library/isrp/isrp2007-1.pdf); especially see Section III).<sup>2</sup> In addition to photo documentation, which has been heavily used in GRMWP projects, project sponsors will find lists of implementation metrics appropriate to different project types. Likewise, the 2006 Retrospective Report contains guidance for effectiveness monitoring that should be useful in incorporating better monitoring into new and existing restoration projects.

Although there may be some potential for collaboration with larger-scale monitoring efforts, site specific monitoring may also be appropriate, for example to evaluate revegetation success where activities on the site would not be expected to change fish populations. We should expect to see appropriate, detailed M&E plans for each type of project for which a group seeks funding in the future, followed by improved effectiveness monitoring within the next few years.

Unfortunately, it is impossible to go back and monitor after the fact. However, there may be value in retrospective evaluation and reporting of effectiveness, even at a gross level, for the most common project types (e.g., instream structures, riparian fencing, and stock water development). There are many lessons to be learned from the work to date in this watershed, and the current analysis has probably not captured many of them as yet. Visits to previous project sites should be able to establish if the project improved, partially improved or abetted the conditions that initially justified the project. Existing photopoint records would be useful for this effort. A field evaluation might be done most objectively by an outside team. The degree to which collaborators have maintained fences, weed control, and other improvements is important to understand and might even be a criterion for future funding for that group.

Now that the model watershed project is operating through a foundation and making its own project selections, it is critical that appropriate effectiveness monitoring be included in proposals for future projects. The ISRP therefore recommends that GRMW sponsors explore collaborative opportunities with ISEMP, CSMEP, and PNAMP to improve habitat effectiveness monitoring. Because of the large investment in habitat restoration and an outstanding record of gaining local support for habitat improvement, the GRMWP effort should be supported. If project sponsors could be proactive in improving effectiveness monitoring it would be an excellent example to other subbasins where effectiveness monitoring is still generally lacking.

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<sup>2</sup> Also see the ISRP's 1997-2005 Retrospective Report for a general discussion of monitoring and evaluation (ISRP 2005-14; [www.nwcouncil.org/library/isrp/isrp2005-14.htm](http://www.nwcouncil.org/library/isrp/isrp2005-14.htm)).

**Attachment: ISRP Final FY 2007-09 Recommendation and Comments (from ISRP 2006-6, August 31, 2006)**

ISRP final recommendation: Fundable (Qualified)

Comment:

The sponsors have satisfactorily addressed the ISRP's concerns and we thank them for clarifying several important issues regarding the operation of the Grand Ronde Model Watershed Program (GRMWP). The ISRP reiterates that the GRMWP has been highly successful in implementing projects and has an outstanding record of cooperative work among government and private entities. A central ISRP concern about the GRMWP was that the proposal did not provide an adequate summary of project effectiveness and monitoring. The sponsors make the point that compiling the results of 150 projects would yield benefits but is precluded due to fiscal limitations related to the 5% budget limitation imposed by BPA. The ISRP appreciates the sponsor's willingness to undertake this assessment, which apparently would largely require compilation of existing records, and encourages the NPCC and BPA to provide funds for this effort. This expenditure would be appropriate because the GRMWP is the largest program of its type in the basin -- truly a "model" as the name implies -- and the assessment would allow a better evaluation of the success of the program.

Qualification: The sponsors should develop a report presenting quantitative and qualitative results to date pertaining to the effectiveness of the projects under their domain, a general summary and conclusions about overall project effectiveness, and the application of the results to management. The sponsors should report positive results as well as results from projects that to date may not yet have produced significant effects. This effort should be funded by BPA and reviewed by the ISRP in FY07. The response of the sponsors of project # 199608300 may provide some guidance for preparation of the report.