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July 9, 2003

MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Mark Fritsch

SUBJECT: Review of Umatilla Fish Hatchery Monitoring and Evaluation (Project 1990-005-00)

Action

On May 7, 2003 the Oregon Department of Fish and Wildlife (ODFW) submitted to the Council responses to address the conditions that were placed on the *Umatilla Fish Hatchery Monitoring and Evaluation* - Project #1990-005-00 as part of Council Project Funding Recommendations for Fiscal Years 2002 through 2004 for projects in the Columbia Plateau Province[1]. On July 1, 2003 the ISRP completed its review of the submittal (Document ISRP-2003-10). At your meeting on July 15, 2003 Council staff will provide recommendations addressing the compliance to the conditions placed on this project.

Recommendation

Council staff recommends that the Comprehensive Assessment submitted by the Oregon Department of Fish and Wildlife partially addresses the conditional approval the project received during the provincial review. The remaining element requested, the study design, will be submitted for review by December 31, 2003. Funding for the project will be maintained until the efficacy of the artificial production initiatives are defined in the subbasin planning effort.

Background

Council Project Funding Recommendations for Fiscal Years 2002 through 2004 for projects in the Columbia Plateau province were subject to the in-depth province-based review.

[1] Umatilla Issue 2

This province includes the Umatilla subbasin. A principle effort in the Umatilla River Subbasin is the *Umatilla Fish Hatchery Monitoring and Evaluation Project 199000500*.

The Umatilla Hatchery Monitoring and Evaluation project started in 1991. The goal of the project is to evaluate juvenile rearing, adult survival, stock life history, straying, fish health and sport fishing and catch contribution for salmon and steelhead reared in oxygen supplemented and standard raceways at Umatilla Hatchery.

The ISRP final report for the provincial review (ISRP Document 2001-8) provided a "not fundable" recommendation, though they indicated that the monitoring should continue[2]. The ISRP needed additional information on the process and development of the experimental design and data collected to assess the goals of the project.

The Council concluded that the ISRP's concerns were severe enough that there is a need to ensure that the stated purpose for the artificial production initiative and specific goals and objectives can be assessed under the current study designs. The Council needs to make this determination prior to future commitment to the program. The Council suggests that the review be conducted by the ISRP. The review needs to address not only the overarching goal of the assessment, but also specific questions raised by the ISRP in their final review. In addition, the review should address the long-term outcome of the evaluation as it relates to the artificial production initiative being monitored.

On May 7, 2003 the ODFW submitted a draft report titled *"A Comprehensive Assessment of Salmonid Reintroduction and Enhancement Efforts in the Umatilla River Basin"* that was intended to partially address the conditions that were placed on the project as part of the Plateau decision. The submittal did not address the "evaluation process" (i.e. study plan) as was requested due to the array of philosophical, policy, and management issues that the request would raise in context to the original master plan associated with the projects in the Umatilla Basin. The co-managers, ODFW and CTUIR, feel that these policy level implications would best be addressed through upcoming the Columbia River Plateau Province subbasin planning process. Therefore, the anticipated study design will be submitted just prior to the subbasin plan.

On July 1, 2003 the ISRP completed its review of the submittal (Document ISRP-2003-10). The ISRP found the draft report to be an "impressive document" and stated that it was a

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[2] *Not fundable as stands. Fundable if a more detailed review of the project is provided that addresses the ISRP questions. ODFW responded to all of the ISRP questions. It would also assist reviewers if the goals were clearly stated based on a review of the available evidence and literature, presentation of available data, and with well-defined experimental designs to assess the achievement of these goals. What is the desired hatchery:wild ratio and why? Would wild adult returns remain constant (as they appear to have been from 1992 to 1999), increase, decrease or otherwise be unaffected by hatchery fish presence compared to controls? What is the number of replicates needed to answer this question? The monitoring should continue but there must be more effort in either the presentation of the evaluation process or in development of it. For example, an experiment to assess the contribution of hatchery fish to the natural spawning of summer steelhead (a goal of this proposal) may require some or all of the information that is proposed to be collected, but perhaps an alternative approach is available that addresses the numerical (abundance and survival) and biological (morphology and genetics) response, and population fitness in the longer term. Investigators in the Tucannon have concluded that supplementation does not work, and this study shows that survival of hatchery fish relative to wild is low. The latter may also degrade natural production. How do these results influence the goals and objectives of this program?*

step in the right direction and demonstrates a shift in emphasis from hatchery operations to the impacts on fish populations in the Umatilla subbasin. The project sponsors have assembled a large amount of data and have expressed intentions to do more. The ISRP also stated that the draft report will be valuable in assessing spring chinook, steelhead, and fall chinook programs, important for planning future actions and useful in the development of objectives for the production program during the subbasin planning process. The ISRP also stated that the co-managers should continue the assessments they have started in the draft report and to revise the study design to address uncertainties evident from the data contained within the progress report.

Analysis

The Council decision, as part of the provincial decision, called for a review of the available data and an "evaluation process" (i.e. study plan) to assess the achievement of the project. The sponsors seemed to have clearly engaged in addressing these conditions and issues. The compilation and analysis of the data in the basin will be more appropriately dealt with in the near future as the co-managers develop the subbasin plan. The information and the analysis may indicate the need for different priorities in the basin and the proper area for the discussions of the ramifications of that information is in the context of subbasin planning. The co-managers feel that they will have a study design formulated by the end of 2003 for review and approval.

It is encouraging to see the amount of work that has gone it to the production of the assessment and the positive comments received from the ISRP. This demonstrates recognition of the importance of this work and how it can be used as a foundation of the Umatilla subbasin planning and assessment effort. It should be noted that the assessment involved the gathering of information and data from two other monitoring and evaluation projects in the Umatilla basin.[3] This also shows the magnitude of the effort and the possible implications of the final study design[4].

Though the ISRP was supportive in their review, they provided issues and comments. Sponsors should address these issues in the study design, anticipated by the end of 2003. This would include the general and specific comments as provided in the ISRP review under the General Summary and Comments heading (pages 4 and 5, Document ISRP-2003-10).

[3] Project # 1990-005-00, Umatilla Basin Natural Production Monitoring and Evaluation Project, and Project 1989-024-01, Evaluate Juvenile Salmonid Outmigration and Survival in the Lower Umatilla River Basin

[4] Bonneville is working closely with CTUIR (#1990-005-00) regarding the development of the study plan and is hopeful that the co-managers will produce an acceptable plan for all parties. In addition, Bonneville understands the implications of the study plan and the how it may direct the future scope of these projects.