



Independent Scientific Review Panel
for the Northwest Power & Conservation Council
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May 25, 2007

To: Umatilla Projects Review Team including Eric Quaempts, Gary James, Brian Zimmerman, Craig Contor, and Jim Webster (CTUIR); Tim Bailey, Rich Carmichael, Scott Patterson, Will Cameron, and Kevin Blakely (ODFW); Chet Sater (BOR)

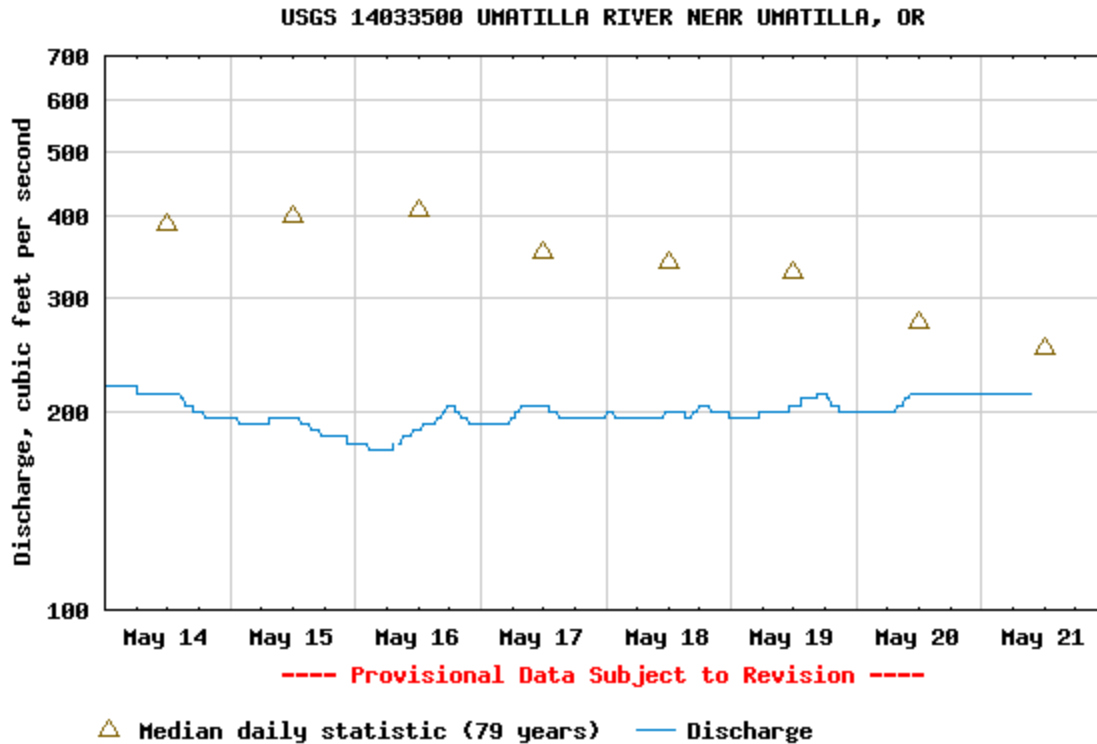
From: Eric Loudenslager, ISRP Chair

Subject: ISRP Follow-up Questions for the *Umatilla Projects Review*

As discussed at last week's Umatilla Project Review meeting, rather than raise questions in a final ISRP report that would require Council action and a sponsor response, the ISRP has six follow-up questions/requests intended to generate the information needed for us to effectively and efficiently complete our final report. The ISRP envisions that the answers to our requests be provided as addenda or appendices to the primary *Umatilla Projects Review* document.

The questions/requests for information are:

1. While Figures 3 and 4 presented to the Northwest Power Council and the ISRP in the *Umatilla Projects Review* document of May 1, 2007 clearly illustrate that the need to transport juvenile and adult salmon around dewatered reaches of the river has been reduced as a result of increased acre feet of water available due to storage of water pumped from the Columbia River, it would be helpful to know the particular stream discharges faced by fish migrating through the lower river. Although the target flows were well described in the review, the actual flow conditions throughout the fish migration/irrigation seasons were not presented. As we were told during Brian Zimmerman's oral presentation, the USGS has been operating a stream gauge at Umatilla since 1903 just downstream from the West Division canal (but above Brownell canal). This gauging station may be the best source of information on flows in the lower river, as affected by the flow enhancement (water exchange) projects (Phase I and Phase II). For example, the following is a graph of the Umatilla River discharge from 5/14/07-5/21/07:



Can you present graphs of flows in the lower Umatilla during an unusually wet year (e.g., 1991 or 1998) and an unusually dry year (e.g., 2001)? The purpose of this comparison is to see if flow targets were met during relatively extreme weather conditions.

Figure 29 on page 3-58 of the (draft) Umatilla/Willow Subbasin Plan shows discharge in cfs at Yoakum plotted by month in the years prior to availability of pumped storage at McKay Reservoir and the years after storage. This is an excellent illustration of the effects of pumped storage on flow enhancement in the Umatilla River. But, it leaves undocumented a question about benefits to fish. It would be instructive, for the purpose of identifying benefits to fish, to provide the ISRP with a set of graphs showing flows in cfs at the gauging station at Umatilla during the months of adult and juvenile salmonid migrations in the years prior to Phase I, the years during Phase I alone, and during the years after both Phases I and II went into effect. The same graphs could also show the corresponding migration timing of natural and hatchery spring Chinook, steelhead, and other fishes. As part of that analysis, would it be helpful to provide corresponding information on numbers of fish transported at times (months?) relative to the flows illustrated.

2. This question was raised in the review, but it would be helpful to have more information on the criteria for establishing the flow targets. Were there critical fish habitat thresholds associated with the flow targets given in Table 2 (p. 10) of the review document, and what would be the consequences of failing to meet these targets? During discussion, the ISRP was referred to the U.S. Fish and Wildlife Service IFIM analysis. It would help to summarize the basis the USFWS used to

arrive at the flow numbers. Do these flow targets deserve to be revisited? What new data could serve to inform revision of the flow targets?

3. Please provide the ISRP with electronic copies of, or links to, the water use plan for the Umatilla subbasin (if one exists) and the associated irrigation flows (mean and annual variation). As discussed, a modeling exercise should be possible to help guide management in the future. If such a model currently exists, please provide it.
4. There was very little discussion of restoration in the Butter Creek watershed, although this is one of the major Umatilla River tributaries, and it was identified by EDT as a site of significant habitat degradation. Was the lack of emphasis on Butter Creek related to an agreement with the agricultural community that restoration would be focused on the upper watershed in tributaries such as Meacham Creek, instead of streams in the lower subbasin?
5. Please provide the ISRP with electronic copies of, or links to, the updated monitoring and evaluation document referenced during the presentations.
6. Please provide the ISRP with electronic copies of, or links to, Grant, J., J. D. M. Schwartz, D. W. Cameron, R. Stonecypher, Jr., and R. Carmichael. 2007. Comprehensive assessment of salmonid restoration and enhancement efforts in the Umatilla River Basin. CTUIR, Pendleton, OR and ODFW Portland, OR.

Thank you for your presentations and project site tours in the Umatilla subbasin May 16, and 17, 2007, and for responses to the above queries.