

Peer Review Plan

Date: 02/02/2011

Source Center: U.S Geological Survey (USGS)
Washington Water Science Center
934 Broadway, Suite 300
Tacoma, WA 98402

Title: Numerical Simulations of Groundwater Flow in the Yakima River Basin Aquifer System, Washington (preliminary).

Subject and Purpose: The subject report is the final in a series of 12 USGS reports describing the Yakima River basin groundwater assessment. Like most western United States river basins, the Yakima River basin's water supply is considered over-allocated while there is growing demand for new uses. The Washington State Department of Ecology, Bureau of Reclamation, and the Yakama Nation collectively asked USGS to conduct the assessment because USGS work is considered to be unbiased and involves the best available science. The subject report will describe: 1) how previously published components of the water budget for this 6,200 square mile basin, such as groundwater recharge, groundwater pumpage (water use) were incorporated into a detailed groundwater-flow model for the entire basin that simulates both groundwater flow and streamflow, and 2) results from using the model to estimate the extent that pumpage has effected streamflow and thus senior water rights. The model will continue to be used to evaluate alternative management strategies that may better accommodate senior surface-water rights, tribal water rights, and in-stream flows for Endangered Species Act-listed salmonids. This final product will be a USGS Scientific Investigations Report.

Impact of Dissemination: This product is considered to be Influential Scientific Information.

Timing of Review (Including Deferrals): January - April 2011. No deferrals are anticipated at this time.

Manner of Review, Selection of Reviewers, and Nomination Process: This review will be conducted via individual letters. USGS will select the peer reviewers pursuant to requirements in Survey Manual chapter 502.3 -Fundamental Science Practices: Peer Review (<http://www.usgs.gov/usgs-manual/500/502-3.html>).

Expected Number of Reviewers: Anticipates 4 reviewers.

Requisite Expertise: Hydrologist, Groundwater Modeler, Hydrogeologist (familiar with the Columbia Plateau Regional Aquifer System stratigraphy).

Opportunity for Public Comment: Yes, the opportunity for oral public comment was incorporated via three public meetings held by the USGS Washington Water Science Center during September 2010 at venues within the Yakima Basin to discuss preliminary results of the modeling. Additional information and clarifications were added to the report as a result of comments and discussions from those forums. The modeling results were also reviewed by a technical team with representatives from Bureau of Reclamation, Pacific Northwest National Laboratory, Washington State Department of Ecology, and the Yakama Nation. This team has provided input to the project throughout its time span, reviewing all technical aspects of the work and the previous reports prior to their publication.

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