NUMERICAL GROUNDWATER MODEL TO SUPPORT STREAM FLOW MANAGEMENT NEEDS IN WRIA 1

Overview
In WRIA 1, instream flows have minimum requirements under the Instream Flow Rule. This poses a management challenge because while flows were established to protect instream uses, out of stream water rights and uses are also impacted. A coupled surface-groundwater model was determined to be the appropriate tool to evaluate approaches for protecting instream resources while also determining the current and future out-of-stream needs.

Developing the Model
The development of the numerical groundwater model builds upon baseline data and a completed conceptual model. The numerical model will estimate temporal and spatial impacts to surface water resources due to a wide range of activities (e.g. land use change, local irrigation). The model’s initial focus will be on the Lynden, Everson, Nooksack, Sumas (LENS) study area with an extension to the major hydrologic boundaries of interest for WRIA 1 water management.

WHY IS THIS IMPORTANT
The outcomes of the model will support negotiated water settlements in WRIA 1, assist in determining the current and future out-of-stream needs, and inform instream flow updates. It will also provide a better understanding to stakeholders of why ground and surface water should be managed as one resource and its importance to land use.

WHAT YOU CAN DO
Stakeholders and general public can engage and provide feedback through public outreach opportunities to and at WRIA 1 Management Board meetings. Additional data collection of groundwater information is desired and providing access to private wells will enhance the knowledge of new sources of groundwater and improve the resolution of the groundwater model.

Lead Agency for the Project
The PUD No. 1 of Whatcom County is acting as agent for the WRIA 1 Management Board, which includes Lummi Nation, Nooksack Tribe, Whatcom County, Bellingham, all small cities, the PUD, and WA Dept. of Fish & Wildlife. The Management Board has shared responsibilities including technical input to project scoping, consultant selection and task oversight. The PUD is responsible for fiscal management and reporting. The Management Board is designated as the Whatcom LIO.

FOR MORE INFORMATION
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