

**Public Employees for Environmental Responsibility
The Center for Environmental Law and Policy
American Rivers * Sierra Club Northern Rockies Chapter
Sierra Club Cascades Chapter - Water and Salmon Committee
Olympic Forest Coalition * Olympic Park Associates**

**FY 2008-2009 Funding Request
For the Initiation of a
Washington State Groundwater Assessment Program**

Washington State needs a systematic statewide program that monitors and assesses large-scale ambient groundwater conditions.

Introduction

Presently there is little reliable information about groundwater quality, quantity or availability in Washington State. Despite this lack of information, decisions are being made regarding proposed new water uses. The groundwater measurements that are being undertaken are not well coordinated nor is the monitoring comprehensive or sufficiently in-depth to assure the accumulation of useful resource management knowledge.

In recent years the scientific community has acknowledged that groundwater and surface water represent a single, interconnected resource, yet the focus of state water managers has remained on surface water. The evaluation of the quality and quantity of groundwater has been neglected. It is important to have a basic understanding of groundwater because high rates of groundwater withdrawal can lead to significant reductions in natural discharge from aquifers and result in less instream flow -- hence impacting water quality and habitat values.

Over 60% of Washington's population relies on groundwater and the population is expected to increase by another million by the end of the decade. The growing need for water, in conjunction with variations in climate, will place considerable pressure on our resources. For example, in 2005 nearly 7000 wells were constructed in Washington State. It is therefore essential that the State develop the necessary infrastructure to have reliable data on the location and character of this precious resource. In the face of looming threats of scarcity, and without being fully advised about the nature and extent of the state's water, it is impossible to make responsible and informed policy decisions.

Currently the agency has monitoring programs for air, fresh surface water quality, stream flows, marine water and sediment quality, fish habitat, beach health, toxics in fish tissue,

stream biological conditions and invasive aquatic plants. Clearly groundwater has been overlooked and it is time to address this problem.

Legal Mandate

The State of Washington has a legal obligation to its citizens to provide information about state water resources:

*All citizens of Washington share an interest in the proper stewardship of our invaluable water resources. It is in the best interests of the state that comprehensive water resources planning be given a high priority so that water resources and associated values can be utilized and enjoyed today and protected for tomorrow.*¹

This declaration from the Water Resources Act of 1971 is followed by statutory guidelines for utilization and management of public waters – including a full recognition of the natural interrelationships of surface and ground waters in state managed allocation and use programs.² The Legislature also required in this Act that Ecology develop a comprehensive water resource data program so that the department and legislature can be fully advised with regard to all phases of water and related resources.³

The need for comprehensive water resource data persists as an unmet need for all of the citizens of the state. Despite the Legislature's mandates, the fact remains that the state, among other things, has not adequately assessed the hydrological continuity of surface and ground waters within Washington.

Both as a state management tool, and protection of public water resources, such data is intended to benefit the public. Water appropriation procedures and consultation requirements all require fundamental accurate and comprehensive data for management purposes. The state's failure to obtain and consider such information is inconsistent with informed decision making. Consequently, it is unclear how new water right applications can be approved and meet the state's burden to show: (1) a determination of water available for appropriation; (2) for a beneficial use; (3) no impairment of existing rights; and (4) no detriment to the public welfare.⁴ Information that assures accurate assessment and evaluation of water availability so that resource managers can make informed, defensible decisions is the goal of this request.

¹ RCW 90.54.01 (1) (b) Purpose.

² RCW 90.540.20 (9) General Declaration of fundamentals for utilization and management of waters of the state; RCW 90.44410. See also WAC 173-152-040 (3) Basin Assessments that include assessment of water use, availability, quantities allocated to existing rights, claims, instream flow, and the hydrology of a basin to use in making decisions on future water allocation and use.

³ RCW 90.54.030 Requiring development of a comprehensive water resource data program for ecology to be fully advised in relation to the performance of the water resources program with regard to all phases of water and related resources of the state, including collection, development and reporting of data.

⁴ RCW 90.03.290 Water Appropriation Procedures

Recommendation

We strongly recommend that the Department of Ecology begin to systematically implement a statewide groundwater assessment program that establishes long-term trend-monitoring stations. We are aware that this is a costly endeavor but it is investment that is critical for the management of water and development of water policy. The longer the State waits to develop the basic descriptive information and measurements of our groundwater systems, the more difficult it will be to address future water management and supply related problems.

In 2002, Ecology partnered with EPA to conduct a pilot assessment of the Centralia-Chehalis region. We believe this study provides a model for the approach that should be taken to systematically monitor and assess groundwater conditions across the State. Therefore, we recommend that Ecology moves forward in the next budget cycle to fund two more assessment programs - one in eastern and one in western Washington.

The table below estimates the cost of two projects for the next biennial.

Category	Estimated Cost	Comments
Salaries, Benefits, Indirect	\$1,056,726	1 western WA team (w/ program coordinator); 1 eastern WA team - ~0.5 FTE HG4 time per team available annually for technical support on other projects
Equipment/Fees	\$60,000	Cost includes purchase of major field equipment and project consumables for 2 teams
Laboratory	\$160,000	Assumes reduction in frequency of monitoring from pilot, but expansion of analyte list - lab price includes lab base funding (2 projects)
Monitoring Well Installation	\$36,000	Assumes 4 monitoring wells per project (\$4500/well)
Travel	\$18,000	8 staff * 6 weeks travel * \$375/week/staff member
Total Estimated Biennial Cost to Agency	\$1,330,726	

We ask Ecology to make the establishment of these pilot monitoring and assessment projects a priority. This commitment would represent the first step toward achievement of the long-range goal of developing a comprehensive statewide groundwater program.

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