



WATER IN OREGON – NOT A DROP TO WASTE
PART 1: REGULATING WATER IN OREGON
EXECUTIVE SUMMARY

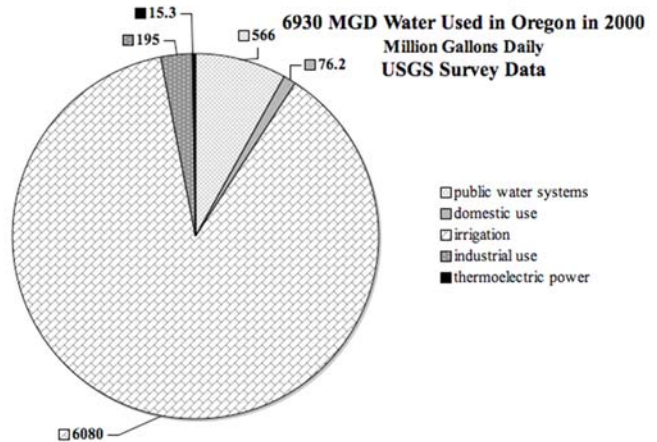
Since water has always been key to development in Oregon, the members of the League of Women Voters of Oregon recently voted to restudy it. Part One presents an overview of the current status of Oregon’s water laws and regulations. Part Two of the report, scheduled for release in 2010, will address current concerns.



In Oregon the water belongs to the people; however, rights to use water are based on the Prior Appropriation Doctrine that prioritizes water use to the first claimant (first in time, first in right). All later users must defer to the first, with some exceptions, such as emergency declarations of drought. Tribal treaty rights and court settlements can also complicate water rights.

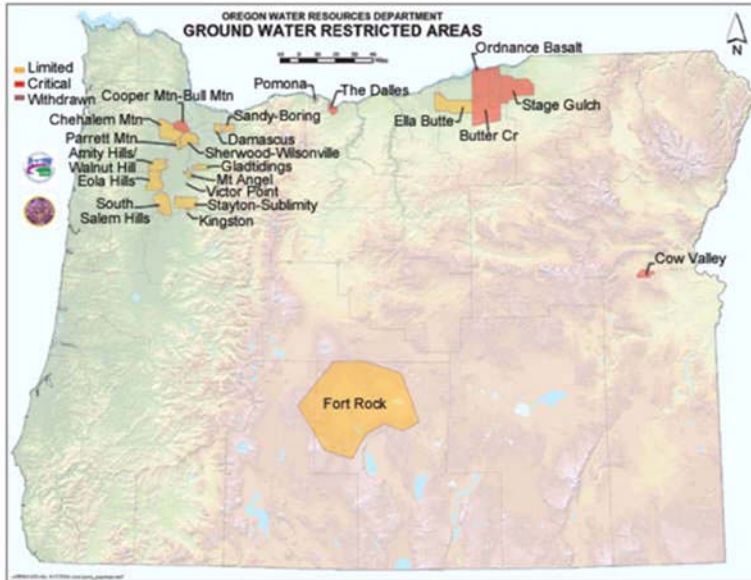
Today about 87% percent of Oregon’s water is used for irrigation and about 8% for domestic consumption. About 86% of the water used is taken from surface sources such as rivers or lakes, and 14% is from groundwater. Permits are generally required to withdraw surface water for defined beneficial uses. The Department of Water Resources (WRD) and the Water Resource Commission (WRC) administers permits. In 20 districts across the state, district watermasters work locally to enforce the laws. Recognizing the importance of fish habitat, aesthetics, and transportation, an in-stream right certificate protects the base water level in streams. Initially established for minimal stream flows in 1955, the In-Stream Water Rights Act of 1987 reinforced in-stream water rights. In the 1990s, the Scenic Waterways Act recognized the beneficial uses of fishing, recreation, and wildlife by providing more protection to scenic waters.

State and federal laws regulate wetlands, with a goal of “no-net-loss,” and require mitigation if wetland loss cannot be avoided. In 1859, Oregon had an estimate 2.4 million acres of wetland, but that had diminished to 1.4 million acres by 1995. The Army Corps of Engineers, the Department of State Lands and the Department of Land Conservation and Development and local planning departments work to prevent additional losses.



Source: <http://pubs.usgs.gov/circ/2004/circ1268/pdf/circular1268.pdf>

To address the variability of water supply, dams and reservoirs have been built to store water. Most dams are controlled by the Army Corps of Engineers and the Bureau of Land Reclamation. Twenty-four dams store approximately 1922 billion gallons of water for drinking. Approximately 15,000 reservoirs store more water, but Acts of Congress are needed to change the use of federal reservoirs. Recently, Oregon has started to examine the feasibility of aquifer storage and recovery.



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The use of groundwater from wells was regulated in 1955, with the WRD charged with safeguarding Oregon's groundwater.

Approximately 70% of Oregon's population receives some or all of its drinking water from groundwater sources, including 90% of the rural population. Groundwater is a limited resource, and its extraction may affect surrounding water sources. The state has established "critical groundwater areas" where pumping of groundwater exceeds natural replenishment and restricts water use. The WRC also has established "groundwater limited

areas" to take preventive action before declines in well levels occur.

In 2000, the WRC began to improve tracking of water use. Since 1995, new water rights permits require annual measuring and reporting of use of both surface and groundwater rights. About 46% of the diverted water is now being reported.

Significant water is used to generate hydroelectric power. The Federal Energy Regulatory Commission and the WRD regulate it and require the protection, mitigation and enhancement of wildlife.

In the 1930s, Oregon recognized that the discharge of waste into a nearby water body degraded its water quality and began regulating dischargers. By 1968, it regulated all identified sources of direct water pollution discharges. In 1972, the federal Clean Water Act (CWA) passed. In Oregon, the Department of Environmental Quality (DEQ) oversees compliance with the CWA and on-going monitoring. Its measurements provide base values to determine if water quality of a water body meets the standards for its identified use(s). If any pollutants are found at levels that prevent the waters' beneficial uses, the waters are placed on the federal 303(d) impaired waters list for the specific pollutants. As of 2006, 1,397 Oregon water bodies were listed. Once a water body is listed, the federal CWA requires that study must be completed to establish a Total Maximum Daily Load (TMDL), which is defined as the maximum amount of the specific pollutant that can enter the water without interfering

with its beneficial use. When the TMDL is set, each identified discharger to the water is allocated a portion of the TMDL, with a safety portion being maintained. The DEQ looks at the entire river or watershed as it progressively completes the TMDLs. Most are targeted to be completed by 2010. Once TMDLs are identified, plans must be made to comply with the TMDL.



Point source pollution is the direct discharge of polluted water from the ends of pipes or ditches from sources such as industrial or waste treatment plants. It must be covered by a permit from the DEQ, who administers National Pollution Discharge Elimination System Permits (NPDES) and Water Pollution Control Facility Permits (WPCF). NPDES permits are federal and are used for direct discharges to national waters. WPCF permits are issued for land irrigation and lagoon discharges. All public wastewater treatment facilities must have a permit that specifies discharge limits and requires monitoring and reporting. Permitted industries must monitor their discharges and provide monthly reports to

the DEQ. The DEQ encourages industries, if possible, to discharge through the sewers to waste treatment facilities; however, the industrial discharge must meet the waste treatment facility's standards. Authorized by the U. S. EPA, the DEQ regulates Oregon's pretreatment programs. In addition, the DEQ prioritizes pollutants and identifies sources and available strategies for pollution prevention and reduction. Although permits are not required for septic systems, the DEQ regulates them, also.

Non-point source pollution results from water flowing over surfaces, picking up contaminants and carrying them to bodies of water as the result of storms or on site activities such as irrigation. Runoff comes from agriculture, roads, industrial sites, forests, rooftops, parking lots, and other impervious surfaces. Since the early 1990s, federal CWA regulations have addressed stormwater and other runoff pollution. Agriculture accounts for as much as 41% of non-point source pollution. The Oregon Department of Agriculture (ODA) via the Agricultural Water Quality Management Act of 1993 has jurisdiction over agricultural water quality programs. ODA works with agricultural producers to encourage voluntary participation, as well as investigates complaints and works to achievement compliance. The ODA addresses animal waste through the Confined Animal Feeding Operations program and can issue NPDES and WPCF permits. All permitted facilities are required to have an animal waste management plan. Forestry practices may affect water quality, and the Board of Forestry has goals and strategies to protect it, using in part the state's Plan for Salmon and Watersheds and TMDL requirements. Much non-point source runoff comes from stormwater runoff in municipalities, industries and construction sites. Under the federal CWA, the DEQ issues NPDES stormwater permits to municipalities above a certain population density, construction sites disturbing more than one acre, and industrial sites in specific Standard Industrial Codes. All permits require yearly reporting and tracking of progress.

Knowledge of groundwater pollution is limited and regulated by the Oregon Groundwater Quality Protection Act of 1989 and the DEQ. Monitoring data from ambient groundwater studies and public water supplies shows that 35 to 45 areas have some impairment or reason

for concern. DEQ can declare Groundwater Management Areas if wide contamination due in part from non-point sources exceeds specific standards.

Drinking water must be of the highest standard, and the Department of Human Services, Public Health Division (PHD) oversees it. The Oregon Drinking Water Program sets standards for drinking water systems, and the PHD regulates public water systems. About 75% of Oregon’s citizens get their water from public systems. Source water assessments have been completed for all public water systems across the state.

Current issues

The state’s land use planning program acknowledges the need to protect the state’s waters. In 2005, the state began a review of Oregon’s planning efforts, “The Big Look,” and its report recently became available. Infrastructure needs, including drinking water and wastewater treatment systems have been reviewed. The estimated cost to repair or replace antiquated water systems or make improvements exceeds \$4.48 billion.



The state is assessing the impacts of climate change and is working to develop strategies for reducing greenhouse gases, to examine cap and trade systems, to develop educational strategies and to track its impacts in Oregon. In 2007, the Legislature funded the Oregon Water Supply and Conservation Initiative to assess existing and long-term water supply needs, inventory potential storage sites, analyze conservation opportunities, calculate basin yield and provide grant funding for community and regional-based water planning. In 2008, the Water Conservation, Reuse and Storage Grant Program funded initial planning studies that evaluate the feasibility of developing water conservation, reuse or storage projects.

Oregon has an extensive and complex network of regulations that are designed to conserve and protect its waters. An increasing population, land use plans, and climate change challenge the success and relevance of these regulations.

The full report *Water in Oregon-Not a Drop to Waste, Part 1: Regulating Water in Oregon* is available on the web at <http://www.lwvor.org/recentstudies.htm#Water> or by contacting the League of Women Voters of Oregon.

Production of this report was supported by Eugene Water and Electric Board and the League of Women Voters members and friends. Thank you.