

Rathdrum Prairie Aquifer Facts:

- Idaho's only Sensitive Resource Aquifer
- Designated by EPA in 1978 as nation's second "Sole Source Aquifer"
- Sensitive Resource and Sole Source Aquifer designations provide for needed additional water quality protection
- Area's principal drinking water source
- About 250 square miles in area
- Composed mostly of gravel, cobbles and boulders
- Ground water flows up to 50 feet per day
- Has a volume of about 7 trillion gallons of water

Rathdrum Prairie A Q U I F E R

For more information about the
Rathdrum Prairie Aquifer see our
website at

www.deq.idaho.gov/rpa



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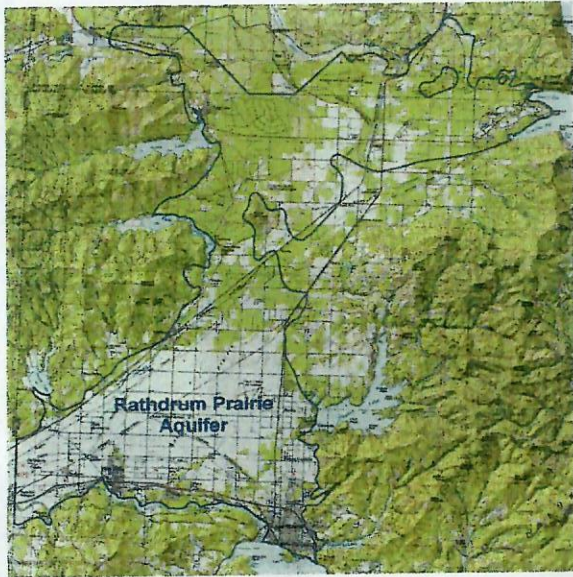
Rathdrum Prairie A Q U I F E R



Idaho's Only
Sensitive
Resource Aquifer

Rathdrum Prairie Aquifer

The Rathdrum Prairie Aquifer covers an area of about 250 square miles in Idaho and extends from Lake Pend Oreille southward to Coeur d'Alene and Post Falls and then westward to the Idaho-Washington State line. The water that recharges the aquifer comes mainly from the seepage from the adjacent lakes and the Spokane River, along with precipitation that falls on the Rathdrum Prairie.



Geology

The gravel, cobbles and boulders that form the Rathdrum Prairie Aquifer were deposited 8 to 18 thousand years ago by enormous catastrophic floods. The flood waters were created by damming of the Clark Fork River near the Idaho-Montana State line



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by a large glacial ice sheet that extended south from Canada and covered northern Idaho, Washington and western Montana. The blocked river backed water up the drainage forming Glacial Lake Missoula. Glacial Lake Missoula contained about 500 cubic miles of water and had a maximum depth of 2,000 feet. The ice dam periodically failed and catastrophically released all the stored water at a flow rate of about four billion gallons per second. The flood waters traveled through the Rathdrum Prairie into Washington State to the Columbia River and eventually to the Pacific Ocean. The large volume and flow rate deposited gravel, cobbles and boulders into the Rathdrum Prairie and carried away all the smaller silt and sand.



Water Quality Protection

Due to the coarse gravel, cobbles and boulders that compose the aquifer and the fact that it is the principal drinking water source for the area, special protection was thought necessary for the aquifer. The aquifer boundary was established by the USGS in 1978 and was used to establish the Sole Source Aquifer Designation by EPA and the Sensitive Resource Aquifer designation by the state of Idaho. These aquifer designations provide for higher water quality standards and added protection. The Rathdrum Prairie Aquifer is the only sensitive resource aquifer in Idaho. Agencies with responsibility for aquifer protection are the Idaho

Department of Environmental Quality and the Panhandle Health District. Another partner in aquifer protection is the Kootenai County Aquifer Protection District which generates fees to ensure the area can continue to pay for the programs and services necessary to protect the aquifer.



Water Use

The communities in Idaho and Washington use different amounts of water for different purposes. The chart below shows the types and quantities of water used in both Idaho and Washington. The largest use of water is for lawn irrigation. An average household in the U.S. uses 146,100 gallons per year with about 84,700 gallons for lawn watering.

