

# Water facts

## #1 Water On The Rock

October 2006

### Welcome to Vashon-Maury Island

Water is a wonderful unifying component of Island life. Puget Sound acts as a moat, clearly defining the boundaries of our community, helping foster a sense of place. As Northwesterners, we cannot claim that rain falls only on Vashon-Maury Island, but we can claim that the rain that falls on our small piece of turf is the only source of water that feeds our streams and replenishes our groundwater. And, it is this water that we Islanders drink. As a new landowner on Vashon-Maury Island or someone who is thinking about living here, we welcome you and provide you with this introduction to *Water on the Rock*.

### Hydrogeology

It may not be glamorous, but Vashon-Maury Island is a heap of refuse left behind by glaciers. Most of the Island is topped with till, sometimes called hardpan, which is a mixture of silt, clay, sand and gravel that was compacted as the massive moving ice ran over it. As you dig in the garden or try out your new posthole digger, you may encounter hardpan within a few feet of the surface. Remember, it's not impenetrable, frustrating perhaps, but not impenetrable.

### Aquifers

Below the till, the Island is generally made up of "glacial advance outwash," a mishmash of sand and gravel that simply washed off the sides of the glacier as it advanced. Unlike till, this material is quite porous. Below it is a layer of silt and clay that is almost impermeable. As rain water percolates down, it hits the clay layer and builds up in the porous sand and gravel above. It is this underground layer of sand and gravel, storing rain drops, that is our primary aquifer. Below the clay layer are more layers of porous material that form deeper aquifers, but most of our wells are in the primary aquifer. People often think of aquifers as underground rivers or lakes. That's really not the correct image here – instead, think of the spaces between grains of sand and gravel being filled with water like a sponge.

On some parts of the Island, as the glaciers receded, they left behind piles of unconsolidated material called "glacial recessional outwash." Rainwater quickly percolates through this layer. Some shallow wells, generally less than 40 feet deep, harvest drinking water from these recessional outwash gravels. Because these deposits are not covered by a protective coating of till, water moves quickly through them so they can be particularly susceptible to contamination

## A Simplified Cross Section of Island Geology



Above: Simplified cross-section of Island geology. See "Geologic Map of Vashon Maury Islands," King County, Washington USGS Map MF-2161 available at Vashon Public Library for realistic view of the complexity of Island geology.

Islanders working together to protect our groundwater

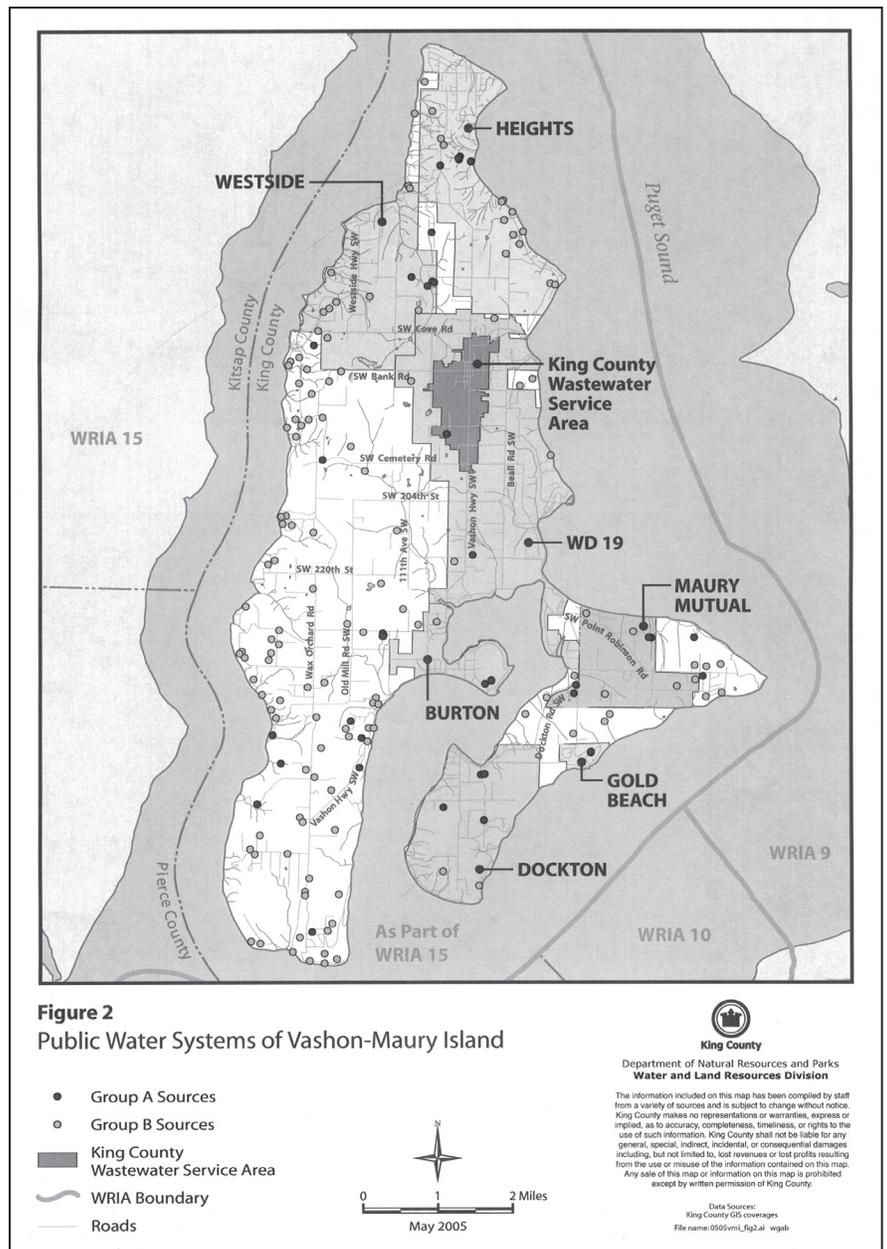
Produced by Susie Kalhorn for the Vashon-Maury Island Groundwater Protection Committee

from our activities on the land.

## Drinking Water on Vashon-Maury Island

About 70% of Islanders get their drinking water from Public Water Systems. In general, the larger Group A systems serve fifteen or more households while the smaller systems, called Group Bs, serve 2-14 households. About 1000 households on the Island have their own private systems, usually wells, but cisterns collecting spring water can still be found, particularly near the shoreline. The seven largest Group A water systems and service areas are depicted in Figure 2. Make sure you know how you'll obtain your drinking water before you buy property on the Island. Some of the public water systems do not have shares available for purchase at this time.

As a newcomer to the Island, you will have ample opportunity to help take care of our water supply. Many of the Group A systems are cooperatively-owned by the customers and are managed by an elected Board of Commissioners from the neighborhood. Most Group B systems serve a small cluster of neighbors who share the responsibility of collecting water quality samples and conducting ongoing maintenance. As co-managers of our drinking water systems, Islanders have a much more intimate relationship with our water supply than do our counterparts on the mainland and, as a result, more opportunity to protect the purity of our water.



## Resources

### Island Resources

Burton Water Company	206 567-4688
Dockton Water Association	206 463-5600
Gold Beach Water Company	206 463-9958
Heights Water Association	206 463-0014
King County Water District #19	206 463-9007
Maury Mutual Water Association	206 463-9449
Westside Water Association	206 567-4568
Island Pump and Water System Service Inc.	206 463-1650
Statewide Drilling Company (water wells)	206 772-5771
VMI Groundwater Protection Committee	206 463-2645

### Other Resources

King County Groundwater Protection Program	<a href="http://dnr.metrokc.gov/wlr/wq/groundwater.htm">http://dnr.metrokc.gov/wlr/wq/groundwater.htm</a>
	206 296-6519
Seattle-King County Department of Health Drinking Water Program	<a href="http://www.metrokc.gov/health/water/index.htm">http://www.metrokc.gov/health/water/index.htm</a>
	206 296-4932
Washington State Department of Health Office of Drinking Water	<a href="http://www.doh.wa.gov/ehp/dw/">http://www.doh.wa.gov/ehp/dw/</a>

Funded By: **PUGET SOUND ACTION TEAM**  
Office of the Governor, State of Washington