

Sipping Sand Slurpies

We drink rain. Rain seeps into the Island and is stored between grains of sand and gravel. We punch big straws into the ground and suck water back up to quench our thirst. We lap up rain from streams and capture it in springs before it makes its great escape to Puget Sound. Rain is Island life.

Map Orientation, Hundreds of little straws

The map shows the service areas of the seven largest public water systems on the Island. They cover about half of the Island's area. The red and pink squares are the approximate locations of public water systems' water sources. The black dots represent private wells. We have hundreds of little straws sucking water from the Island's aquifers.

"Exempt" wells

Private residential wells using less than 5,000 gallons of water per day are "exempt" from applying for water rights from the state Department of Ecology. We estimate there are approximately 1,000 exempt wells on the Island.



Well drilling rig at work



Pump house on Beall Creek serving Water District 19. Creek water is filtered through sand and gravel and then chlorinated for drinking water at Water District 19's filtration plant on Bank Road

We drink groundwater

The median depth of exempt wells with available depth data is 100-150 feet.

We drink springs

Besides using drilled wells, most of the large water systems capture shallow groundwater, before it surfaces as a spring, using hand driven well points that are only five to 20 feet long.

We drink streams

Water District 19 has wells, but about 61 percent of its water is taken from Beall and Ellis creeks.

Vulnerable water sources

Our drinking water; our groundwater and streams are replenished only by one source: Rain. There is no evidence that we are connected to off-Island aquifers. We're self-reliant when it comes to fresh water, so keeping it clean is crucial.

Test your water

Homeowners with private water systems aren't mandated by law to test their water quality. We think it's a good idea and suggest that you test your well or spring for fecal coliform, nitrate plus nitrite and arsenic. A good time to do this is in the fall after the rains have begun.

Water System	Total Connections	Water Sources
District 19	1421	wells, streams
Heights	764	wells, springs
Burton	409	well, springs
Dockton	387	well, springs
Westside	225	well, spring, stream
Gold Beach	196	wells
Maury Mutual	95	well, spring
14 small Grp A systems	387	wells, springs
134 Grp B systems	588	wells, springs, surface water
Total Public Water Connections (approx)	4472	
*Exempt private wells approximate	1000	wells

Source: DOH, Office of Drinking Water *Eric Ferguson, King County Groundwater Program, personal communication, 7-12-10

Little water systems

Group B public water systems generally serve two to 14 households and are usually co-owned and managed by neighbors. There are approximately 134 active Group Bs on the Island.

Bigger water systems

Group A water systems generally serve 15 or more households. Because camps sometimes house a lot of people, they are often considered Group A systems, too. There are 23 Group A systems on the Island. Four of the seven largest water systems have a moratorium on issuing new water shares. They are: Burton, Maury Mutual, District 19 and Westside.

Harvesting the rain

Washington state now allows you to collect a limited amount of rainwater from your rooftop without a water right. This water can be used to irrigate and flush your toilet. King County is exploring the possibility of using rainwater for drinking water, too. More information is available at [Ecology's Rainwater Harvest](#) website.

What's the nitrogen fuss?

78 percent of the earth's atmosphere is nitrogen, so why do we care if it's in the water? Nitrates, nitrites and ammonia are all forms of nitrogen. Increasing nitrates in groundwater often reflect human inputs. This might be from fertilizers, our poop and our livestock's poop. Nitrates can reduce a baby's ability to utilize oxygen, so the U.S. Environmental Protection Agency has limited the amount that can be in drinking water.

Keep waste out of water

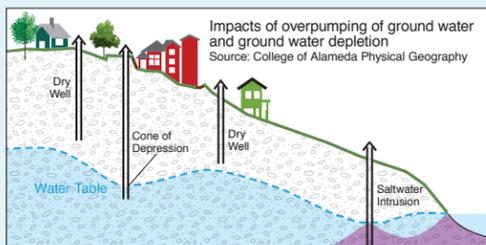
- Forget the weed and feed—join the dandelion wine club instead
- Reduce pesticide use—embrace your inner bug
- Switch to slow-release organic fertilizers
- Keep manure piles under cover
- Be septic sensible
- Fix those leaks in the old car or truck
- Dispose of household hazardous waste at drop-off events

Be below average

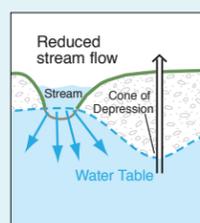
- Use less than the national average of 80-100 gallons per day of water
- Install a timed drip irrigation system
- Purchase low-flow utilities and toilets
- Install aerators on faucets and flow restrictors on showerheads
- Collect roof runoff for summer irrigation
- Fix the drips

Impacts of over pumping

This diagram illustrates how over pumping a well can reduce the water table in the vicinity of that well. This decrease in the water table is called a "cone of depression." Over pumping can cause:



- your neighbors' wells to run dry
- saltwater intrusion
- reduced summer stream flows



Want to know more?

To learn more about water supply, see the [Yashon-Maury Island Watershed Plan](#) and the [Yashon-Maury Water Resources Evaluation Project](#). Check out [USEPA's sole-source aquifer designation](#).

