

Water facts

#4

Island Sewage—Where Does It All GO?

October 2006

Wastewater Treatment on Vashon-Maury Island

Island wastewater only has two options. It can be collected and piped to a wastewater treatment plant or it can stay at home and be treated in your own yard. It all depends on where you live...

The town of Vashon is served by a small wastewater treatment plant located just northeast of Ober Park. A new plant, adjacent to the current site, began operations in October of 2006. The treatment plant is managed by King County while the sewer pipes that deliver the sewage to the plant are managed by the Vashon Sewer District governed by a locally-elected board of commissioners. There are currently 239 households and 125 businesses that are hooked up to the sewer lines. The wastewater treatment plant biologically treats the sewage and the effluent is disinfected with ultraviolet light before it is discharged into Puget Sound 1,450 feet off the east shore of Vashon.

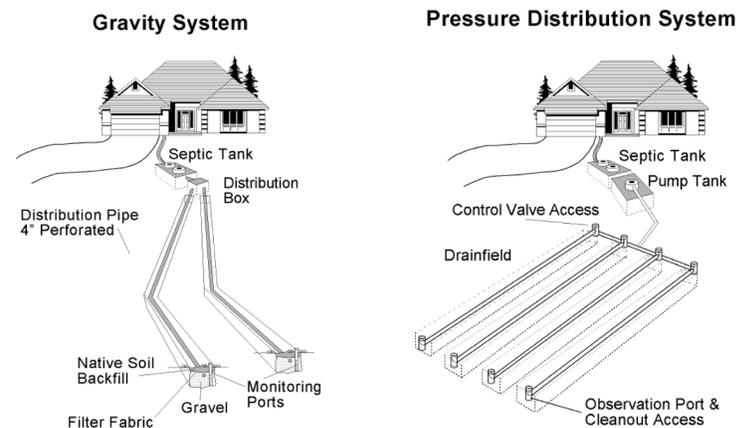
In addition to the town of Vashon, both the Beulah Park neighborhood on the west side of the Island and Bunker Trail on the north end have new community wastewater collection and/or treatment systems managed by Vashon Sewer District and King County. There are on-going efforts to try to solve wastewater treatment problems elsewhere on the Island, particularly in areas where untreated sewage enters Puget Sound.

What is a Septic System, Anyway?

There are over 4,000 households on the Island and only 239 are hooked-up to sewer. Clearly, the vast majority of us have septic systems. If you have recently moved here from a more urban environment, this may be your first experience as the owner/operator of a septic system. There are many publications available to help you better understand your system. Try downloading a homeowners' manual for your type of system from: <http://metrokc.gov/health/wastewater/owners/permits.htm#manuals>. And, for a user friendly explanation of how to take care of your septic system, download: www.wsg.washington.edu/research/ecohealth/septicsensehr.pdf

A septic system is a small wastewater treatment plant right in your own backyard. They are also referred to as on-site sewage systems (OSS). Sewage is collected into a tank where the solid

materials settle out. The liquid effluent is distributed through perforated pipes into a drainfield where it gets cleaned up by microbes as it percolates through soil. Where the native soils aren't sufficient to adequately clean the effluent, alternative systems may be used (mounds or sand filters, for example). The mounds and sand filters act as additional treatment to make up for the deficiencies of the native soils.



Two common types of On-Site Sewage Systems found on Vashon-Maury Island.

Newer technologies have been developed that inject air into the septic tank (Aerobic Treatment Units or ATUs) so that oxygen-loving microbes digest the sewage more efficiently and there are now systems that use watertight containers layered with sand and gravel in series to treat wastewater (Glendon Biofilters).

Learning to Love Your Septic System

Ok, "learning to love" maybe too strong, but you could come to admire your septic system. You just need to get to know it a bit better. If you don't have one, the King County Health Department may have an "as-built" drawing of your septic system on file. This can help you locate the different components of your system. Can you:

- Locate your septic tank?
- Locate the drainfield?
- Do you know what type of system you have? Most of the older systems are gravity feed. Newer alternatives are pressure distribution, mounds, sand filters, and aerobic treatment units (ATUs).

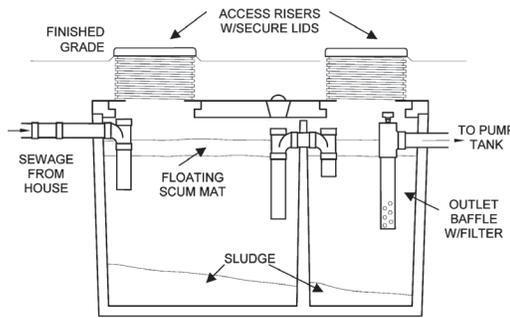
Islanders working together to protect our groundwater

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

- Do you know where your "reserve area" is?

The more you know about your septic, the better you'll be able to care for it. One important thing to remember is that you don't want to compact the soils in your drainfield by driving over it, building on top of it, or housing heavy animals on it. Some septic tanks are made of plastic and can be cracked if you drive over them, so it's a good idea to keep heavy objects off your tank as well.

The Septic Tank: A significant part of caring for your system is making sure that solids and scum doesn't get out of



your septic tank and clog up the drainfield. That can be a costly affair, so take the plunge! Find the lids to your septic tank and look in. (CAUTION: Don't stick your

head into the tank because there may be toxic gases.) Don't be surprised if the tank is full – it's supposed to be.

- Can you figure out where the wastewater from your home enters the tank?
- Where does it leave the tank?
- Are baffles working to keep the floating solids from getting into the drainfield? Are they securely in place?
- Does the outlet baffle have a filter to stop the solids and scum from getting to the drainfield?

If you aren't sure when the tank was last pumped, you may want to call a professional Septic Tank Pumper to come take a look. They can show you how to determine whether or not the tank should be pumped.

The Drainfield: If you are lucky enough to have inspection ports on your drainfield, peer down the port to see if there is standing water at the bottom. If six inches of water stays there continually, it may be an early indication of a problem. Try conserving water and consider calling a certified On-Site System Maintainer for advice.

Septics and Drinking Water

Properly designed and maintained septic systems are quite effective at treating wastewater. If a system is not properly functioning, we run the risk of getting wastewater into our drinking water. Wastewater contains a number of disease-causing agents that can make people sick.

Over the years, regulations governing the design and installation of septic systems have become more stringent to better protect our health and natural resources. The regulations require that there be a certain distance between the bottom of the drainfield trench and the water table so that when the effluent percolates through the soils and reaches groundwater, it will be free of disease-causing organisms and most chemical contaminants. Nitrate is a product of wastewater that is not always sufficiently treated and can contaminate water sources.

It's important for us all to remember that we drink water from our aquifers and they are, in turn, replenished from the water from our drainfields. Think of it as recycling!

Resources

Island Resources

Septic Tank Pumping

Niece Pumping Service	206 463-5969
Rays Island Plumbing	206 567-4392
Island Septic Service	206 463-4443

Septic Design

Niece Design	206 463-5281
Wayne Olson	206 463-5431

Septic System Installation

Ericksen Construction	206 463-2714
D&R Excavating	206 463-3457
Zellerhoff Construction	206 463-6161

Public Sewer

King County Wastewater Treatment Plant	206 463-7318
Vashon Sewer District	206 463-9219

Certified On-Site System Maintainer

Neil Drawbridge	206 463-5815
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Other Resources

Washington State Department of Health
Printable brochures on "Understanding and Caring for Your Septic Tank System" as well as mounds, sand-filters, and pressure distribution systems.
www3.doh.wa.gov/here/materials/CRA_Detail.aspx?ID=358

Washington SeaGrant Program
"Septic Sense, Scents, Cents" March 2004
www.wsg.washington.edu/research/ecohealth/septicsensehr.pdf

Homeowners Manuals for Gravity Systems, Sandfilter Systems, Pressure Distribution Systems, Proprietary Device Systems, and Mound Systems.
www.wsg.washington.edu/index.html

King County Department of Health
www.metrokc.gov/health/wastewater
206 296-4932

PUGET SOUND ACTION TEAM

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