

If the pumper determines that the liquid level in the pump tank is too high, the pump may not be operating properly. A high liquid level might be caused by either a tank, float, or pump problem. Your pumper can replace your pump by reinstalling exactly the same make and model. Pumpers can also reattach floats that have become disconnected.

11) **Drainfield condition.** After pumping, the pumper will listen or look for water running back into the tank from the drainfield. Backflow into the tank could indicate the drainfield is malfunctioning, the tank has settled, the grade of the outlet is incorrect, a line is broken between the outlet and the drainfield, and/or that the pump is not working.

If sewage is found to be surfacing in the yard, it could be caused by a number of problems including excess water being treated by the system causing it to overload, improper system elevations, an undersized drainfield treatment and disposal area, or a pump failure.

Sewage surfacing in the drainfield area is a serious public health risk. Many waterborne diseases exist in household sewage. Surfacing sewage requires your immediate attention and help by certified septic professionals.

12) **Sewage disposal location.** Your pumper should indicate on the receipt where the sewage was disposed. Septic wastes should go to a proper sewage disposal facility to protect public health.

13) **Abnormal findings.** Anything done to the system or conditions found by the pumper should be noted, including repairs performed or suggested. This information not

only helps document the conditions of your septic tank at the time of inspection, but also holds valuable clues for septic professionals who may respond if problems arise in the future.

Any unexplained water flow into the tank when all of the household water is shut off is an example of an important abnormal finding. Flowing water under these conditions might indicate a broken sewer line or leaky fixture that is in need of repair.

A water-tight septic tank in good working order is an essential component in most on-site sewage systems. Protection from damage and periodic inspection to determine need for scum and sludge removal is part of wise operation and maintenance, helps the long-term functioning of the system, and can prevent more costly repairs.

—Teri King and Jodie Holdcroft

About the authors:

Teri King is a marine water quality specialist with Washington Sea Grant Program. She has more than 10 years of experience in shellfish bed restoration and septic system education programming.

Jodie Holdcroft worked on septic system education as a continuing education co-ordinator for Washington Sea Grant Program.

Other septic system resources are available from:

Teri King, Washington Sea Grant Program
P.O. Box 488, Shelton, WA 98584
360.432.3054
fax-360.432.3055
guatemala@u.washington.edu
<http://www.wsg.washington.edu>
or your local health department.

Washington Sea Grant Program encourages the understanding, use and conservation of marine resources and the marine environment through research, education and technology transfer.

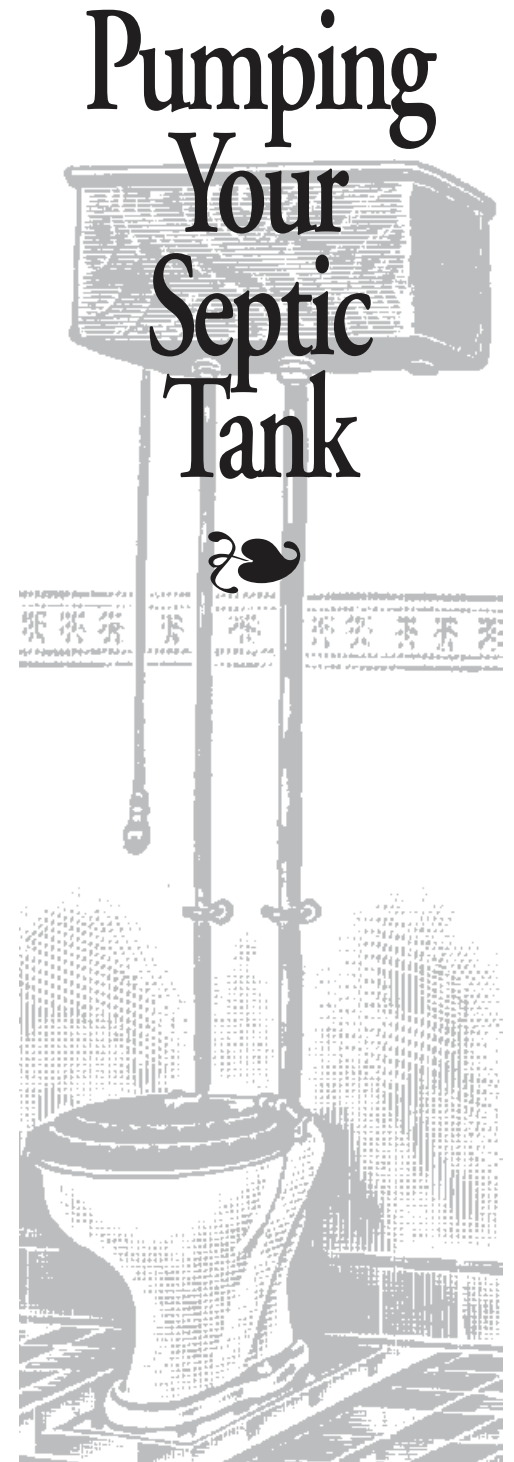
Washington Sea Grant Program services and publications are available to all without discrimination. This publication series is funded in part by grant no. NA76RG0119 to Washington Sea Grant Program from the National Oceanic and Atmospheric Administration. The views expressed herein are those of the authors and do not necessarily reflect the views of NOAA or any of its sub-agencies. Funding also provided by the State of Washington.

© 1998 University of Washington. No part of this publication series may be reproduced without written permission from the publisher.

Printed on recycled paper. Rev. 03/03
WSG-AS 98-03



Knowledge on the Marine Environment



Pumping Your Septic Tank

Septic maintenance can extend the life of your septic system, protect water quality and also help protect public health. An inspection of your septic tank by a certified septic professional will give you and your “pumper” information about the integrity of your septic tank and indicate whether your tank needs to be pumped. Commercial septic tank additives won’t eliminate the need for periodic clean-out.

Your septic pumper should provide you with a receipt that documents the inspection performed and the conditions observed in your tank. This receipt is important for your operation and maintenance records. The pumper should sign and date the receipt and provide the company name. Pumpers should give you the receipt at the time of payment. At a minimum the receipt should include the following information:

1) Your name and street address.

This information shows that you had this service performed and the site of the tank inspected.

2) Property description or parcel number. This legal description of your property is easily found on your tax records. Including it on your receipt will help link it to other official records.

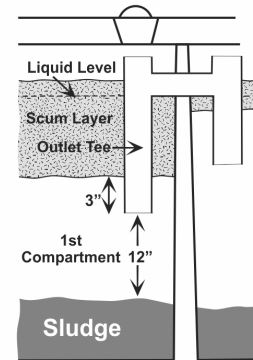
3) Tank size. This information will help you or your certified operation and maintenance professional make calculations essential to the operation and maintenance of your system.

4) Tank construction. Materials used to construct tanks have different life expectan-

cies and potential problems. By noting whether the tank is fiberglass, metal, wood, concrete or some other material, you can be prepared for problems or cleaning specifications associated with your type of tank.

5) Tank compartments. Septic tanks can be made with one or two compartments. In Washington state, newer systems are required to have two-compartment septic tanks. Both types function well, but wastewater disturbance in a single-compartment tank may be impacted more by surge water loads, causing sludge and scum to flow to the drainfield.

6) Effluent levels. The effluent level needs to be determined before the tank is pumped. The normal liquid layer in your tank should be at the bottom of the outlet pipe. If



The septic tank should be pumped when:

- the bottom of the scum layer is within 3 inches of the bottom of the outlet tee or baffle, or
- the top of the sludge layer is within 12 inches of the bottom of the outlet fitting.

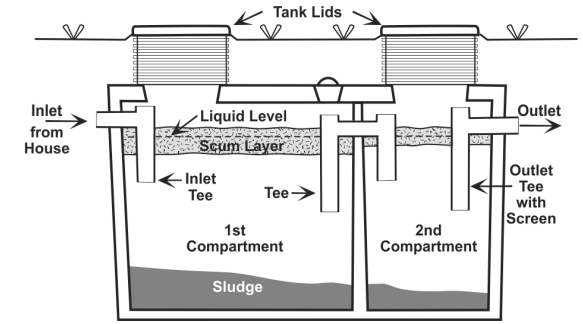
your pumper observes a high effluent level, it may indicate that your septic tank is receiving water through leaky seals, a cracked tank, or a saturated drainfield unable to accept more effluent and backing water into the septic tank. A higher level ring indicates that sometime during the operation of your system, the tank was receiving excess water through leaks in the tank system, pump or pump control failure, or that the drainfield might have been plugged and unable to transport the wastewater as it should.

Low effluent levels indicate tank cracks are allowing effluent to move from the septic tank into the surrounding soils without adequate treatment.

7) Tank condition and scum and sludge levels. There are many commercial electronic monitoring devices to determine the scum and sludge levels in your tank, or there are simple measuring devices a homeowner can make. Regardless of the device used, if the bottom of the scum layer is within 3 inches of the bottom of the outlet baffle or the top of the sludge layer is within 12 inches of the outlet baffle, the tank should be pumped. Whether or not the pumper determines the tank should be pumped, sludge and scum levels should be noted. The scum and sludge information will be helpful in determining how often pumping is necessary.

If the tank needs to be pumped, the pumper should only pump the contents of the tank through the main lids, not the baffles. The pumper should remove everything from all compartments; leaving a sludge layer as “starter” is not necessary to reactivate the tank.

The pumper should also rinse the sides of the tank with fresh water in order to observe the tank’s physical condition. The pumper will be looking for air bubbles in the tank walls that indicate a crack. In the report, the pumper should note whether the tank is in good condition or damaged. Any repairs made by the pumper at this visit should be noted. If the pumper recommends repair, but cannot perform this service, the recommendation should be noted and you should hire someone to make the necessary repairs as soon as possible.



8) Baffle condition. Baffles direct septic flow and help prevent sludge and scum from traveling into the drainfield area. The pumper should make sure the baffles are intact and functioning. In a two-compartment tank there are three baffles that should be examined: the inlet, center, and outlet. In a single-compartment tank the center baffle would not exist. Baffles can be repaired or replaced easily by your pumper.

9) Outlet baffle effluent filter. In the second compartment of your tank on the outlet side, a baffle effluent filter might be installed to help prevent solids and scum from traveling into the drainfield area. This baffle filter should be pulled and cleaned at the time of pumping. When cleaning this filter, be sure the materials are washed into the septic tank, not onto the ground. These filters can be added to almost any tank outlet.

10) Pump chamber and pump. Not all septic systems have a pump or pump chamber. The pump chamber should be inspected using the same process as for the septic tank. If the chamber has a filter or screen, it should be carefully cleaned into the tank according to the manufacturer’s instructions.