Your Septic System and Effluent Filter

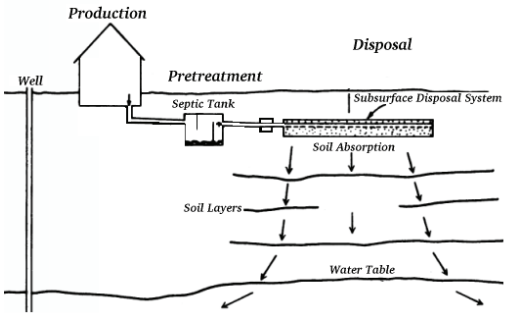
Bemidji Area IHS -Division of Sanitation Facilities Construction

Additional Helpful Hints:

• To Minimize Maintenance Costs • To Prolong the Life of Your System • To Protect Your Groundwater and Lakes

DO

- Limit the water entering your tank. Use water saving fixtures. Fix toilet float valves, leaks, and dripping faucets. Spread clothes washing over the entire week.
- Pump tank and clean effluent filter when necessary. This means every two to three years or as indicated by your regulatory agency.
- Divert surface water drainage away from the adsorption field.
- Be familiar with the location of piping, tank(s) and adsorption field. Protect these areas from heavy traffic or animal run areas.
- Keep detailed records of your system maintenance and/or problems that occurred with your system.



DON'T

- Do not connect the basement sump pump or other "clean water" discharges to the septic tank.
- Do not put material down the drains that will clog the septic tank (fats, grease, coffee grounds, paper towels, sanitary napkins, disposal diapers etc.)
- Do not use a garbage disposal.
- Do not put toxic substances in drains that might end up in the groundwater (cleaning fluids, oils, paints. Disinfectants, pesticides, etc)
- Do not use chemicals to clean or "sweeten" your system. They may interfere with the biological action in the tank, clog the drain field by flushing sludge and scum into the field, or add toxic chemicals to groundwater. "Starters" are not necessary for new tanks or after pumping existing tanks.
- Do not build anything on top of your tank(s) or adsorption field.

Effluent Filter: What you need to know

Purpose: The effluent filter installed in your septic tank helps to retain the partially digested solid material in the tank. Preventing this solid material from reaching your adsorption field is crucial to the system's proper operation.

Effluent Filter Maintenance Procedures
Effluent filter maintenance is essential to keep the septic system working properly. Failure to clean the filter can lead to slow drainage in the building, clogged drains, and backups at the septic tank. The advice here combines suggestions from effluent filter or screening product manufacturers and the experience and field reports from people whose septic system design includes filters and screens.

How often to clean the septic filter
The actual cleaning frequency needed for effluent filters may range from every few months to every few years, depending on system usage, wastewater flow, septic system design, and the type of filtration used. Typically manufacturers recommend that the filters be cleaned every time the tank is pumped or at least every three years. Manu-

facturers also recommend that filters only be serviced by a certified tank pumper or installer.

How to clean a effluent filter

A great time to clean the septic system filter is immediately after the septic tank has been pumped. The empty septic tank means that when you remove the effluent filter for cleaning, no sewage will bypass it and flow into and clog the drainfield.

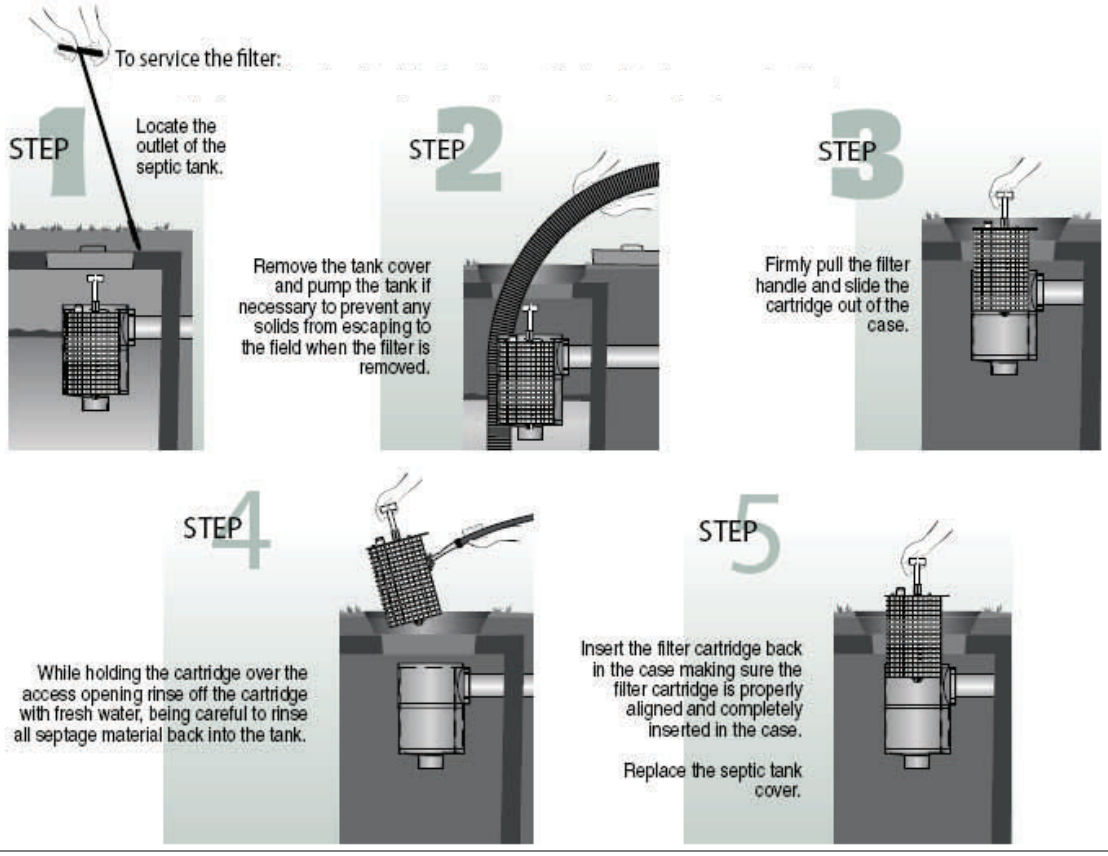
Most effluent filters will need to be inspected and cleaned more often than the septic tank is pumped out.

The access cover is opened, the effluent filter itself is removed and washed, typically by spraying it with a hose so solids fall back into tank. Avoid getting overspray on anyone as it is not sanitary. Replace the filter and wash your hands.

How to avoid damaging a drainfield when cleaning the effluent filter

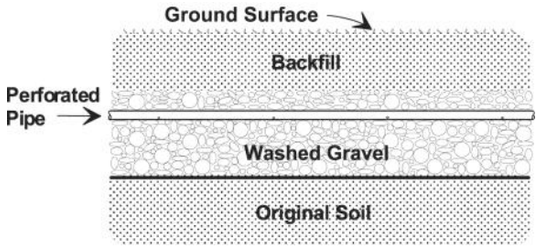
- **Temporarily stop running water in the building** served by the septic tank during the effluent filter inspection and cleaning process. By avoiding sending wastewater into the tank during this interval, you're avoiding pushing sewage out into the drainfield during the time that the filter has been removed for cleaning.
- **Check the sewage level in the septic tank**: If the septic tank is opened at the access port to inspect and clean the effluent filter, *before removing the filter cartridge or screen* check the level of sewage in the septic tank. If the tank wastewater level (floating scum, effluent, sludge) is abnormally high that indicates a system blockage (maybe a clogged filter).
- **Do not remove the filter** if the tank level is abnormally high since doing so will flush extra sewage, solids, floating scum, grease, into the drainfield, potentially clogging it or shortening its life. If the tank level is abnormally high (flowing over the inlet or outlet baffle or if the tank is filled to the very top) it would be better to have the tank pumped before removing and cleaning the filter. If even after these steps are taken (septic tank pumping and effluent filter cleaning) the tank level returns to an abnormal level, there is a further blockage in the septic system, in the distribution piping, distribution box, or drainfield, and further investigation is needed.

Typical maintenance directions for a septic tank effluent filter. Note: Your effluent filter may vary from diagram shown below. Diagram from: http://www.polylok.com/products_details.asp?Product_ID=84



WARNING: Signs of Potential Problems

- Wet spots in the yard.
- Slow draining toilets or drains.
- Gurgling sounds in your drains.
- Sewage odors.
- High water level alarm (Note: IHS only installs alarms on systems that include a pump).



To Properly Care for Your Drainfield:

1. **Know where your system and replacement areas are located and protect them.** Before you plant a garden, construct a building, or install a pool, check on the location of your system and replacement area.
2. **Practice water conservation and balance your water use throughout the week to keep from overloading the system.** The more wastewater you produce, the more wastewater the soil must treat and dispose.
3. **Divert water from surfaces such as roofs, driveways, or patios away from the drainfield and replacement area.** Soil over your system should be slightly mounded to help surface water runoff.
4. **Keep traffic, such as vehicles, heavy equipment, or livestock off the drainfield and replacement area.** The pressure can compact the soil or damage pipes.
5. **Landscape your system properly.** Do not place impermeable materials over your drainfield or replacement area. Materials such as concrete or plastic reduce evaporation and the supply of air to the soil needed for proper effluent treatment. Grass is the best cover for your entire system.
6. **Periodically inspect the drainfield and downslope areas for odors, wetspots, or surfacing sewage.** If your drainfield has inspection pipes, check them to see if there is a liquid level continually over 6 inches. This may be an early indication of a problem. Call your local health agency for assistance.

What If The Alarm Comes On?

An alarm float will trigger an alarm light to come on and a buzzer to sound if the effluent level inside the pump chamber gets too high. This could be caused by a faulty pump, float, or circuit, excessive water use, or other reasons. By using water conservatively (avoid baths, showers, and clothes washing) the reserve storage in the pump chamber should allow you enough time to get the problem corrected. To silence the alarm, push the reset light on the alarm panel. Before calling for service or repair, check to see if the problem could be:

1. **A tripped circuit breaker or blown fuse.** The pump should have a separate circuit with its own breaker or fuse. If it's on a circuit with other equipment, that equipment can cause the breaker to trip.
2. **An unplugged power cord to the pump or float switch .** If electrical connections are the plug-in type, be sure switch and pump plugs are making good contact in the outlet.
3. **Control floats that are tangled by other parts in the chamber such as the electric power cord, lifting rope, or pump screen.** Be sure floats operate freely in the chamber.
4. **Debris on floats or support cable that is causing the pump to switch off.** Lift the floats out of the chamber and clean.

CAUTION: Always turn off the power supply at the circuit breaker and unplug all power cords before handling the pump or floats.

Do not enter the pump chamber. Gases inside pump chambers are poisonous and the lack of air can be fatal. If the problem cannot be located with the above steps, call your pump service person or on-site system contractor for service or repair. The service or repair of pumps and other electrical equipment must be done by an experienced person.

Additional Information is available from the following Department of Health publications:

Pressure Distribution - Recommended Standards and Guidance for Performance, Design, and Operation and Maintenance, DOH 337-009
www.doh.wa.gov/Portals/1/Documents/Pubs/337-009.pdf

Understanding And Caring For Your Septic Tank System DOH 337-086
here.doh.wa.gov/materials/understanding-and-caring-for-your-septic-tank-system

Water Conservation Guidelines to being Waterwise DOH 331-120
www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/DrinkingWater Emergencies/DroughtInformation.aspx

On-Site Sewage System Regulations,
Chapter 246-272A WAC
apps.leg.wa.gov/WAC/default.aspx?cite=246-272A

These are available from your county health agency or by writing to:

Washington State Department of Health
Wastewater Management Section
PO Box 47824
Olympia, WA 98504-7824
Email: wastewatermgmt@doh.wa.gov

Other sources of information include your:

Local Health Agency
Soil Conservation Service Office
Cooperative Extension Office

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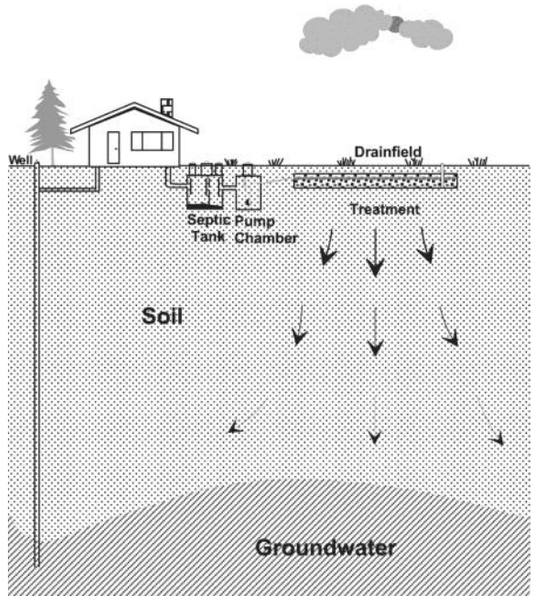
Understanding And Caring For Your Pressure Distribution System



WASHINGTON STATE
DEPARTMENT OF HEALTH

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COOPERATIVE EXTENSION SERVICE

Septic tanks with gravity flow drainfields have been used for many years in areas not served by public sewers. Unfortunately, not all soil and site conditions are well suited for these conventional systems. To protect public health and water quality, alternative systems are often used in areas where conventional systems cannot assure safe sewage treatment.

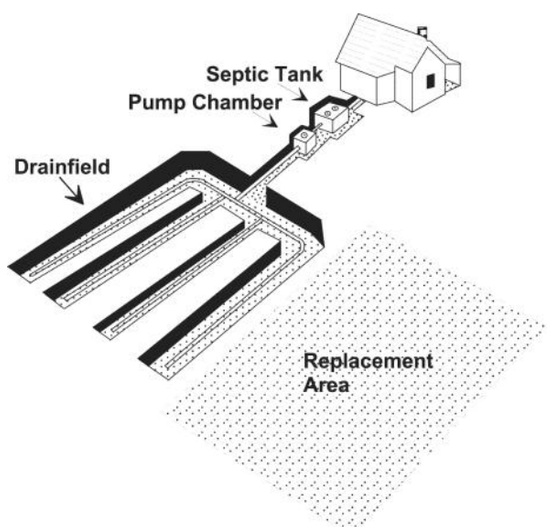
The pressure distribution system is one alterative that provides:

- Dosing and resting cycles.
- Uniform distribution of effluent.
- Shallow placement of the drainfield.

The following information will help you understand your pressure distribution system and keep it operating safely at the lowest possible cost.

A typical pressure distribution system has three working parts:

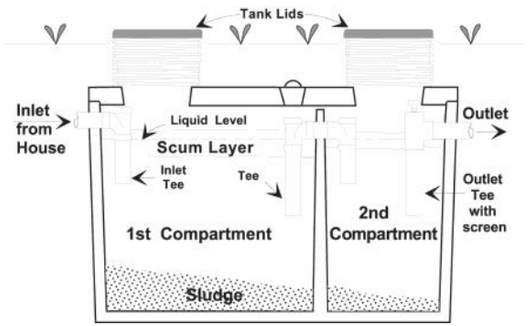
1. The septic tank.
2. The pump chamber with the pump.
3. The drainfield with its replacement area.



The Septic Tank

The typical septic tank is a large buried container made of concrete, fiberglass, or polyethylene. Wastewater from your home flows into the tank. Heavy solids settle to the bottom where bacterial action partially decomposes them. Most of the lighter solids, such as fats and grease, rise to the top and form a scum layer.

The wastewater leaving the septic tank is a liquid called effluent. It has been partially treated but still contains disease-causing bacteria and other pollutants. From the tank, the effluent flows by gravity to the pump chamber.



To Properly Care for Your Septic Tank:

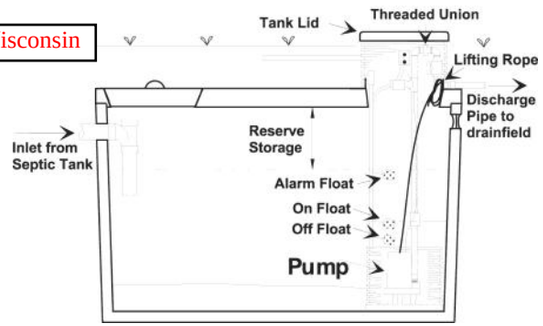
1. **Inspect your septic tank once every** three years in Wisconsin **and pump it when needed.** If the tank is not pumped periodically, solids escaping from the septic tank will clog the pump and drainfield. Using a garbage disposal will increase the amount of solids entering the tank and require more frequent pumping.
2. **Don't flush harmful material into the septic tank.** Never put materials such as grease, cooking oils, newspapers, paper towels, cigarettes, coffee grounds, sanitary napkins, solvents, oils, paint, or pesticides into the tank. For information on the proper disposal of hazardous household waste, call the Recycle Hotline, 1-800-RECYCLE.
3. **Avoid using any type of chemical or biological septic tank additive.** Such products are not necessary for the proper functioning of a septic tank, nor do they reduce the need for routine tank pumping.

The Pump Chamber

The pump chamber is a concrete, fiberglass, or polyethylene container that collects the septic tank effluent. The chamber contains a pump, pump control floats, and a high-water alarm float. The pump action can be controlled either by the use of control floats or by timer controls. Control floats are set to turn the pump "ON" and "OFF" at levels for pumping a specific volume of effluent per dose. Timer controls are set to produce both the length of the dose and the interval or rest period between doses.

The high water alarm float starts an alarm to warn you of any pump malfunction. If pump timer controls are used, the alarm also will warn you of excessive water use in the home. The float is set to start when the effluent in the pump chamber rises above the "ON" float. The alarm should consist of a buzzer and an easily visible light. It should be on an electrical circuit separate from the pump.

The pump discharge pipe should have a union and valve for easy removal of the pump. A piece of nylon rope or other non-corrosive material should be attached to the pump for taking the pump in and out of the chamber.



To Properly Care for Your Pump System:

1. **Check the pump chamber, pump, and floats every year and replace or repair worn or broken parts.** Pump maintenance should follow the manufacturer's recommendations. Electrical parts and conduits should be checked for corrosion. If the alarm panel has a "push-to-test" button, it should be checked regularly.
2. **Install a septic tank effluent filter or pump screen if your system does not have one.** Screening or filtering the septic tank effluent provides an effective way of preventing solids from clogging the pump and drainfield pipes. Inspecting a screen or filter, and cleaning it when necessary, is quick and easy and prevents costly damage from solids entering the system.
3. **Protect the drainfield from overloading after a prolonged power outage or pump failure.** Effluent will continue to collect in the pump chamber until the pump starts operation. With additional effluent in the chamber, the pump may dose a volume more than the drainfield can handle. If all of the reserve storage in the chamber is used, the plumbing in your home can backup. When the pump is controlled by float controls and is off for more than 6 hours, the following measures can be taken to help protect the drainfield (timer controls will automatically correct this problem):
   a. Reduce your water use to a minimum.
   b. Turn off the pump at the control panel.
   c. After power is restored or pump service is completed, switch the pump on and let it run for 5 minutes maximum, and turn it off again. Repeat this manual switching every 6 hours until the effluent drops to the "OFF" float level and the pump turns off automatically. If there is little water use during the problem, the pump may automatically turn off during the first manual switching.

The Drainfield

The drainfield is a network of pipes placed in gravel-filled trenches (2–3 feet wide) or beds (up to 10 feet wide) in the soil. Effluent is pumped through the pipes in controlled doses to insure uniform distribution throughout the drainfield. The effluent leaves the pipes under low pressure through small diameter holes, and trickles downward through the gravel where it reaches the soil. The soil filters and treats the effluent, removing bacteria and other pollutants before it reaches the groundwater. Every new drainfield is required to have a designated replacement area. It must be protected should the existing system need an addition or repair.