

What to Do With Flooded Septic Systems

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After water recedes, don't be in a hurry to start using septic systems. The drainfield especially needs time to dry out to some degree before it can be used.

A septic system has three main components:

- a septic tank that traps and biologically degrades solid waste
- a distribution network of pipes
- a drainfield that provides additional biological treatment and infiltrates the wastewater into the ground.

Household water flows from the home's sewer system into the septic tank, then out to the drainfield.

Any situation that prevents or slows the flow of water through the septic system can cause problems. Sometimes water will back up into the house, drains in the house may run slowly or not at all, and toilets may not flush properly.

For more information,
www.ndsu.edu/flood

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Don't pump excess water from the septic tank onto the ground. This violates the North Dakota state plumbing code and poses a health hazard because children and pets can run through it or it can flow into a waterway. Waterborne diseases are the most lethal and spread from person to person quickly.

When a septic tank is inundated, water will leak in through any opening, such as the manhole cover, inlet/outlet pipes or tank cover, and fill the tank with ground water that may carry soil and silt. Floating waste already present in the tank in the form of scum will rise and could plug the inlet and outlet pipes. In addition, water from the flooded drainfield may flow into the septic tank.

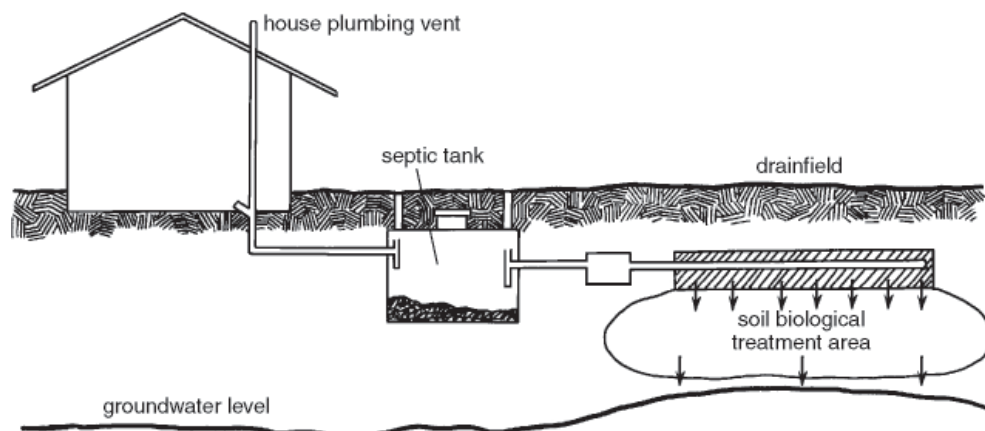
First, have some knowledge of where your septic tank and drainfield are on your property. If you don't know, contact your local health district office. Personnel there may have installation information concerning

your septic system. Know the depth to the top of the septic tank and depth of the drainfield. Measure the depth to the top of the septic tank by probing with a pointed metal rod. Most tanks are within 2 to 3 feet of the ground surface.

Next, look for signs of visible damage near the septic tank and drainfield. Holes in the ground or settling soil are the most common indicators. If you see any indications of damage, have your system inspected by a licensed professional. Avoid working around the drainfield or septic tank with heavy machinery while the soil still is saturated.

Check the depth to the ground water near the septic tank and drainfield. Do this by using a soil probe or digging a hole with an auger within 10 feet of the septic tank and about 20 feet from the drainfield.

If the water table is still above the top of the septic tank, then do not have the tank pumped and do not use the



septic system. If the water table is at least 3 feet below the top of the septic tank but the drainfield still is flooded or saturated, then you may use your septic tank as a holding tank. Have it commercially pumped, but don't pump out more than half of the volume of the tank.

Removing more than half of the contents could cause the tank to try to float out of the ground and damage the inlet or outlet pipes. While pumping, water may flow into the tank from both the house and drainfield. Make sure the pumper checks that the outlet pipe is not plugged.

Except for mound systems, most drainfields are 2 to 4 feet below the ground's surface. The groundwater will take time to recede to the level of the bottom of the drainfield. This could happen within a week or two, or require a couple of months. Therefore, to prevent damage to the drainfield, monitor the depth to the water table near the drainfield.

Septic systems that use some type of mound for infiltrating wastewater commonly have a lift station in addition to the septic tank. If the electrical control box was flooded, make sure the power is turned off, then open the cover and dry it out. Before turning it on, have a licensed electrician look at the components to make sure they are safe.

If the pumping chamber is separate from the septic tank, have that pumped out when the septic tank is pumped. Because most of the mound is above the ground's surface, it generally will dry out faster than an in-ground drainfield.

However, you still need to check the depth to the water table near the mound. If it is at least a foot below ground level, then you may use the septic system if the septic tank and/or pump chamber have been pumped out.

When you determine you can use the septic system again, help it by reducing water use in the house. Make sure you have no leaking fixtures in the house. A drop of water every 15 seconds can add a lot of water to the septic system. Check faucets, showerheads, toilets, sinks and any other water-using device for leaks, and repair them as soon as possible.

Don't put the water from a basement sump pump into the septic system. Don't let water from roof gutters or from the sump pump discharge into the drainfield area.

Reduce the number of times you flush the toilet, wash clothes at a coin-operated laundry, reduce the number of showers and/or baths your family takes each day, and only run the dishwasher when it is full.

Common sense is the key to reducing water use in the house and helping your septic system. The drainfield was designed to infiltrate the amount of water normally discharged from the house. When the water table is high in the drainfield, the ability to handle household water becomes limited.

If, after the water table has gone down, you have problems with the household plumbing, some damage may have occurred to the drainfield or septic tank.

High ground water can cause shifting or settling, which can affect the septic tank and distribution system in the drainfield. The shifting can cause the inlet and outlets from the septic tank to become partially blocked. Also, the inlet or outlet pipes could be blocked due to solids from the tank. In these cases, contact a licensed septic tank pumper or septic system installer.

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