

Private Septic Systems Flooding - What to do

If required, contact your Municipal Office as they may have information on your septic system design and location.

Your health

When flooding or saturated soil conditions persist, a private septic system cannot function properly.

Flooding of a private septic system may be a hazardous situation for homeowners. It may result in sewage backing up in your home, contaminated drinking water and the lack of sanitation until the problem is resolved.

Before flooding

- Ensure that your septic tank is full of liquid.
- Shut off power to the sewage lift pump if you have one in the house or in a pump chamber.
- Prepare for possible basement flooding.
- Have available at least 72 hours of a safe water supply located in a safe location.

Do I pump my septic tank before or during flooded / saturated septic field conditions?

No! At best, pumping the tank is only a temporary solution. Under worst conditions, pumping it out could cause the tank to float out of the ground and may damage the inlet and outlet pipes. The best solution is to plug all drains in the basement and drastically reduce water use in the house.

What do I do with my septic system after the flood?

Once floodwaters have receded, there are several things homeowners should remember:

- Do not drink your well water until it is tested and proven safe. Contact the Health Unit at 613-966-5500 for assistance.
- Do not use the sewage system until water in the septic field is lower than the water level around the house. Use a portable toilet if possible.

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- Have your septic tank professionally inspected and serviced if you suspect damage. Signs of damage include settling or an inability to accept water. Most septic tanks are not damaged by flooding since they are below ground and completely covered. However, septic tanks and pump chambers can fill with silt and debris, and must be professionally cleaned. If the septic field is clogged with silt, a new system may have to be installed.
- Only trained specialists should clean or repair septic tanks because tanks may contain dangerous gases. Contact your municipal office for direction.
- If sewage has backed up into your basement, refer to the Health Unit Fact Sheet: Cleaning up after Sewage Backup.
- Pump the septic system as soon as possible after the flood. Be sure to pump both the tank and lift station (if applicable). This will remove silt and debris that may have washed into the system. **Do not** pump out the tank during flooded or saturated septic field conditions.
- Do not compact the soil over the septic field by driving or operating equipment in the area. Saturated soil is especially susceptible to compaction, which can reduce septic field efficiency to treat wastewater and lead to system failure.
- Have all electrical connections inspected for damage before restoring electricity.
- Be sure the septic tank's manhole cover is secure and that inspection ports have not been blocked or damaged.
- Check the vegetation over your septic tank and septic field. Repair erosion damage and sod or reseed areas as necessary to provide turf grass cover.

Remember: **Whenever the water table is high or your septic system is threatened by flooding there is a risk that sewage will back up into your home. The only way to prevent this backup is to relieve pressure on the system by using it less.**

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What are some suggestions offered by experts for homeowners with flooded septic systems?

1. If possible, don't use the system if the soil is saturated and flooded. The wastewater will not be treated and will become a source of pollution. Conserve water as much as possible while the system restores itself and the water table falls.
2. Prevent silt from entering septic fields that have pump chambers. When the pump chambers are flooded, silt has a tendency to settle in the chambers and will clog the septic field if not removed.
3. Do not open the septic tank for pumping while the soil is still saturated. Mud and silt may enter the tank and end up in the septic field. Furthermore, pumping out a tank that is in saturated soil may cause it to "pop out" of the ground. (Likewise, recently installed systems may "pop out" of the ground more readily than older systems because the soil has not had enough time to settle and compact.)
4. Do not dig into the tank or septic field area while the soil is still wet or flooded. Try to avoid any work on or around the septic field with heavy machinery while the soil is still wet. These activities will ruin soil conductivity.
5. Flooding of a septic tank will have lifted the floating crust of fats and grease in the septic tank. Some of this scum may have floated and/or partially plugged the outlet tee. If the septic system backs up into the house check the tank first for outlet blockage. Clean up any floodwater in the house without dumping it into the sink or toilet and allow enough time for the water to recede. Floodwaters from the house that are passed through or pumped through the septic tank will cause higher flows through the system. This may cause solids to transfer from the septic tank to the septic field causing clogging.
6. Locate any electrical or mechanical devices the system may have that could be flooded and avoid contact with them until they are dry and clean.
7. Aerobic plants, upflow filters, trickling filters, and other media filters have a tendency to clog due to mud and sediment. These systems will need to be washed and raked.

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Outhouses

Ensure that the outhouse is still positioned over the pit. If the outhouse has shifted, cover the open pit with sturdy boards and mark the perimeter with stakes and rope / marker tape to prevent accidental falls. Reposition the outhouse over the hole or have it properly filled in.

If water is in the pit, add 2 litres of unscented liquid bleach every three to four days until the water disappears.

Development Documents:

1. United State Environmental Protection Agency, Septic Systems – What to Do after the Flood. Last Modified 28 November 2006.

http://www.epa.gov/safewater/faq/emergency_septic.html or

http://www.epa.gov/safewater/faq/pdfs/fs_whattodoafteraflood_septic_eng.pdf

2. British Columbia, Sewage Systems and Flooding: Safety, Sanitation and Clean-up

<http://www.health.gov.bc.ca/emergency/flooding.html>

http://www.health.gov.bc.ca/emergency/pdf/sewerage_systems_and_flooding.pdf