

Notice

Private Sewage and Water Well Systems Recovery and Start Up After a Flood

A flood can affect the safety of your well water as well as the operation and service of your septic system. Your water may not be safe to drink if the well has been affected by the flood. Specific steps need to be taken to ensure your water supply is safe and to prevent damage to your water well and septic system.

WATER WELLS

If flood waters have reached near the level of your water well head, or covered the head of the well, your well water is likely contaminated and not safe to drink. Do not consume your water until it has been tested and confirmed to be safe. Overland flooding can bring both fecal matter and parasites into your well.

Have your water tested to ensure it is safe to drink, if you suspect the flood waters may have affected your well.

Bottles for taking water samples are available at the local public health centers in your area. The sample must be in the specific bottles supplied or it will not be tested. These bottles are sterilized and contain the specific volume needed for testing. The sampling procedure and use of the bottles is critical to getting valid test results.

Mark on the form that goes with your bottle the reason for sampling is “flooding of your well.” **If you find your well water is contaminated,** consult with a water well expert to ensure your well is effectively remediated.

Additional resources on water wells are provided at the end of this notice.

SEWAGE SYSTEMS

Do not use the septic system before it is properly checked. If the system includes a pump, shut the power to the pump off until the system is assessed. If possible, maintain power to the high level alarm in your tank as more ground water may back up into your tank.

Avoid compaction of the soil over the septic system during clean up of the site. Do not drive vehicles and equipment over the system during clean-up or restoration activities. Do not set dumpsters or building materials over the system. Fence or mark out the system to protect it while restoration activities take place. Soil is easily compacted when wet. If the soil is compacted in the area of the septic system it may never work again.

Caution before pumping out a septic tank – it may float out of the ground!! Pumping out the septic tank when the soil is saturated could cause the tank to float out of the ground, even if it is buried. A slight movement of the tank can cause damage to the tank, the inlet and outlet pipes and connections. Even though the soil away from the tank may not appear saturated, the fill soil around the tank may be very saturated and cause even concrete tanks to float.

Do not use the septic system until the soil has adequately drained to allow sewage to be absorbed. This may take several weeks after flood waters recede. The amount of soil saturation and the time needed to adequately drain the soil will depend on the length of time under water and soil conditions.

Do not have the trenches in the treatment field pumped out. Pumping out the trenches when the soil around the trench is saturated from the flood event is futile. Pumping out the trench also creates a void space where water in the saturated soil can drain. Movement of the water may carry significant amounts of silts and clays into the treatment field trench causing damage that cannot be repaired.

Flood waters that enter septic system tanks can cause long term problems for the system if flood water is not removed. Before operating the system have tanks checked to see if they were filled by floodwaters. If flooded, the tanks should be pumped by a certified professional before operation to keep the silt and clay particles from entering the soil treatment system. The professional needs to ensure the manhole cover to the septic tank is secure and that inspection ports have not been blocked or damaged. Also, have the certified professional check and clean any distribution boxes, effluent filters or other similar devices.

If the interior of your home was affected by the flood, the cleaning process will likely result in the discharge of disinfectants and cleaners into the septic tank. Pump the tank so these chemicals are not discharged into the soil-based treatment portion of the system.

Have your septic system checked out by a certified private sewage installer. Have the system checked to determine any damage and get serviced. Use of a system that has been flooded, before it is inspected and corrected, can cause irreparable damage to the function of the system.

Signs of physical damage to your septic system include: settling of the soil over the tank or treatment field, or an inability to accept water. Most septic tanks are not damaged by flooding since they are below ground and completely covered. However, flooding of the septic tank may have lifted the floating crust of fats and grease, called scum, in the septic tank. This scum may have floated and plugged the outlet tee, pump or siphon.

When returning the system to use, conserve water as much as possible. Reducing water use at start up, or pumping and hauling the wastewater, will help the system restore itself as the near-surface groundwater table falls. For example, take laundry to a laundromat if possible. Pumping and hauling the contents of your tank regularly until the soil drains sufficiently is advisable.

Parts of your septic system may have been partially or completely washed away. Do not attempt to correct problems by adding soil or "fill material" or installing new components. Contact a certified professional to discuss options that will meet standards and effectively repair your system. To decide on the most effective and cost efficient repairs, the professional needs to do a thorough investigation of your system.

If the septic system still does not accept wastewater after the floodwater has receded from the treatment field and the surrounding soil has had a chance to dry, the treatment field or soil around it might be plugged. Consult a certified professional to evaluate options.

ADDITIONAL RESOURCES:

Environmental Public Health Services – water testing and locations of local community health centers to obtain sample bottles.

<https://www.albertahealthservices.ca/eph/Page15233.aspx>

Alberta Health Services flood recovery advice –

<https://www.albertahealthservices.ca/assets/news/advisories/ne-pha-flooding-kit.pdf>

Alberta Health Services Disinfecting Private Water Supplies After Flooding -
<http://www.albertahealthservices.ca/Advisories/ne-pha-2011-04-13-private-water.pdf>

A listing of certified private sewage installers is available on the Alberta Municipal Affairs web site -
<https://www.alberta.ca/private-sewage-codes-and-standards.aspx>

Assistance in determining solutions to recover your private sewage system where there are complex situations can be sought from Safety Codes Officers that work in your area.

For further information, contact Municipal Affairs, Technical and Corporate Services toll-free at 1-866-421-6929.