

What to do With Your Septic System in Flooding Conditions



Before the flood...

1. Make sure you have a properly working system and the tank(s) and drainfield are well maintained.
2. Keep stormwater runoff away from septic tank and drainfield area as much as possible.
3. Check and fix leaky plumbing fixtures.
4. If the building sewer has a backwater valve, verify that it is properly working. If the backwater valve is a manual valve, ensure it is shut.
5. If you do not have a backwater valve, you may want to check both chambers of the septic tank to determine if any sewage needs to be pumped out. DO NOT completely pump out the tank if flooding or saturated conditions are expected. An empty tank may float.
6. Make plans to significantly reduce your water use during the actual flooding event.

What can I do if I am in an area prone to flooding?

- Make sure your system is properly maintained.
- Ensure all inspection access openings (i.e., cleanout caps, covers, hatches) are securely in place and sealed to prevent surface water inflow.

During the flood: If your system is covered with water...

1. AVOID use of the septic system (e.g., reduce the number of times the toilet is flushed). Turn off water softening units. Do not use the washing machine or dishwasher. Do not pump water from sump pit into your septic system. Shut off power to the septic system's electrical devices (pumps, alarms, etc.).
2. You may observe that water may flow slower out of drains and toilets. You may also experience water backing up in drains serving floors located below the ground surface (e.g., basement, cellar).
3. If you have a drinking water well that is flooded, the well water may be contaminated. Contact your local health department or a certified well contractor with questions about testing.

After the flood waters have receded...

1. DO NOT use the septic system until water over the septic tank and drainfield areas is no longer evident on the ground surface.
2. If the system is damaged and in need of repair, contact your local health department. Signs of damage to your system include:
 - a. Soil settling around tanks and in the disposal field area.
 - b. Wastewater system components have shifted (are not level) or floated (partially or completely) to the ground surface.
 - c. System not accepting wastewater, such as sewage backups or sewage surfacing on top of the ground.
3. Have your septic system inspected by a certified wastewater system inspector <https://ncowcicb.info/>.
 - a. Examine the electrical system (e.g., includes electrical connections, pumps, alarms, etc.) for damage before restoring power to the system. If your system requires an operator, check with them before operating the system.
 - b. Clean the effluent filter/screen.
 - c. The system may need to be serviced and/or pumped out to remove solids, sediment, or debris. When having the tanks pumped out, make sure to pump out both chambers.
 - d. Make sure all tank access covers are in place and secure. Check any system inspection or sampling ports/locations for damage and blockage.
 - e. Do not turn on water softening units, use the washing machine or use the dishwasher until the septic system has been determined to be operating properly.
 - f. Check for erosion at the tank and drainfield areas. Replace or repair vegetative cover as needed.
4. DO NOT compact the soils in the drainfield area. Keep vehicles and heavy equipment from driving over the drainfield area. DO NOT place dumpsters, trailers, or building materials over the wastewater system.
5. If you have had sewage backup into the facility, use rubber gloves, boots, and eye protection to clean and disinfect any impacted areas. Discard any items that cannot be cleaned and disinfected in an approved manner.
6. DO NOT dump flood waters or disinfectants into the wastewater system.

Contact your local health department if you have questions, concerns or are in need of additional advice or assistance. You may also contact the On-Site Water Protection Branch at 919-707-5854.

What to do with Your Well in Flooding Conditions



Before the Flood

How should I prepare my well for a flood?

1. Store adequate bottled water for drinking and cooking in sanitized containers because you won't be able to drink, brush teeth or cook with the well water until it is tested and found suitable.
2. Fill up the pressure tank as much as possible.
3. Turn off the electricity to the well and do not turn the electricity back on until flood waters recede.
4. If you have a septic system with a pump, turn off the electricity for the system. No special preparations are recommended for conventional septic systems.
5. If your wellhead does not have a watertight seal, clean off the well casing, cover with a heavy-duty trash bag and secure with waterproof tape.
6. Locate:
 - a. A nearby water testing lab to obtain sample collection bottles and instructions. Often, your local health department can test your water for bacterial contamination <https://ehs.ncpublichealth.com/docs/EHS-Directory.pdf>. If there is not a health department near you, your county Extension agent can help you find a lab <https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/certified-laboratory-listings>.
 - b. The well construction log/GW-1 report completed when the well was installed and store a copy in a safe place that will be accessible if you evacuate.
 - c. Contact information for certified well contractors in the area. You can find a list of certified well contractors at www.ncwelldriller.org/web/eh/find-contractor. The original well contractor's information may also be on the well tag affixed to the well casing.

What if I must evacuate?

You can take steps to prepare your well for a flood, even as you are making plans to evacuate. Simply follow the steps above and consider buying supplies for when you return. If you plan to attempt to disinfect your well yourself, have these basic well disinfection materials available before the flood, because these supplies may be difficult or time-consuming to acquire following a flood:

- a. Unscented liquid bleach or calcium hypochlorite
- b. Clean five-gallon bucket and five gallons of uncontaminated water
- c. Garden hose that reaches from an outdoor faucet to the well
- d. Protective goggles and gloves
- e. Wrench for well access
- f. Funnel
- g. Sample collection bottles from local water testing laboratory.

After the Flood

What should I do after a flood?

1. Do not turn on the electricity to your pump until flood waters recede.
2. If flooding has occurred, do not drink the water. Use your water reserves and bottled water until your well water has been tested.
3. Contact a certified well contractor/s before evacuating if you think your well will need service immediately after the flood. You can find a list of certified well contractors at www.ncwelldriller.org/web/eh/find-contractor.
4. If you haven't already, contact your Local Health Department's Environmental Health Section or nearby state certified water testing lab to have your well water analyzed for contaminants. You cannot see, taste or smell many harmful contaminants that may be in your well.
 - a. If you live near animal feeding operations, agricultural fields where pesticides are applied, a golf course, or industrial chemical factories, you should contact your local health department for additional testing, especially if you smell fuel or chemicals in your water.

If there is reason to believe your well water was compromised due to flooding, do not use the potentially contaminated water for:

- drinking
- cooking
- bathing in any form
- making ice
- washing clothes or dishes

Use an alternative water source until bacteria and other contaminants are no longer detected in your water. Alternative sources include bottled water, a source you know isn't contaminated, or boiling your water for five minutes before use.

It is strongly recommended to call your local health department or a certified well contractor for information and direction on decontaminating the well if it has been flooded. A certified well contractor will have access to more effective products and will have equipment and experience that a typical well owner will not have.

Whom can I call if I have more questions?

Contact your local health department or a certified well contractor for professional assistance. You can find a list of certified well contractors at www.ncwelldriller.org/web/eh/find-contractor.



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