

## WHAT TO DO AFTER A FLOOD Private Water Wells

A water well that has been saturated by flood waters is most likely contaminated. The well should be properly disinfected and then tested for coliform bacteria before using the water for drinking, cooking, and bathing. A well or pump contractor may be used to clean, repair, or maintain different types of water wells and pumps.

Visit the websites listed below under the "Sampling and Testing Well Water" section or contact your county health department for specific advice on

# WARNING! DO NOT TURN ON THE PUMP

There is a danger of electrical shock and damage to your well or pump if they have been flooded.

#### DO NOT DRINK OR WASH WITH WELL WATER

People drinking or washing with water from a private well that has been flooded risk getting sick.

disinfecting your well. The suggestions below are intended to supplement flood precautions and guidance issued by local health authorities.

### **Well and Pump Inspection**

#### Flood Conditions at the Well

- Flood waters can damage hardware, dislodge well construction materials, or distort casing.
- Coarse sediments could erode pump components.
- Flood water could enter the well and contaminate it.
- Flood water may cause some wells to collapse.

#### **Pump Electrical Components**

- Do not turn on the equipment until the wiring system has been checked.
- All electrical components must be dry before electrical service can be restored.

#### **Emergency Disinfection of Wells that have been Flooded**

Before disinfection: Check the condition of your well. Make sure there is no exposed or damaged wiring. If you notice any damage, call a professional before proceeding with the disinfection process.

- 1) If your water is muddy or cloudy, run the water from an outside spigot with a hose attached until the water becomes clear and free of sediment.
- 2) Determine the type of well you have and how to pour the bleach into it.
  - a. Some wells have a sanitary seal with either an air vent or a removable plug (image a).
  - b. The entire cover can be lifted off to pour bleach into the well for bored or dug wells (<u>image b</u>).
- 3) Carefully pour a gallon of household bleach (usually about 5% chlorine) using a funnel (if needed) into the well casing.
- 4) Run water from an outside hose into the well casing until you smell chlorine coming from the hose water. Then turn off the outside hose spigot.
- 5) If you have a water treatment system, switch it to bypass before turning on the indoor faucets.
- 6) Turn on all cold-water faucets, both inside and outside the house, until a chlorine odor is detected in each faucet, then shut them all off.

## **Materials Needed**

- One gallon of non-scented household liquid bleach
- Rubber gloves
- Eye protection
- Old clothes
- A funnel.





- 7) Allow the chlorine to sit in the lines for 6 to 24 hours before turning the faucets back on.
  - a. DO NOT drink, cook, bathe, or wash with this highly chlorinated water.
- 8) Once the waiting period is up, turn on an outside spigot with a hose attached and run the water into a safe area.
  - a. Avoid discharging the water into areas near plants, lakes, streams, or septic tanks.
  - b. Run the water until the chlorine odor is no longer present.
  - c. Turn the water off.
- 9) The system should now be disinfected and can be confirmed with a coliform bacterium well water sample and test.
- 10) It's recommended to have the water tested for coliform bacteria 7 to 10 days after disinfection.

## **Sampling and Testing the Well Water**

Contact a local laboratory for complete water testing, or the county health department to have the water sampled for coliform bacteria. For additional information and a list of Georgia laboratories for well water sampling, visit these websites:

- UGA Cooperative Extension
- Georgia Department of Agriculture
- Georgia EPD Water Well Standards

After the well is back in operation, the well water should be tested at regular intervals for coliform bacteria. It is also recommended to perform a Private Well Chemical Test (W-33C). The W-33C water test includes the standard **CAUTION:** After a flood, a water well may not be a safe source of water for many months.

- The well can become contaminated with bacteria or other contaminants.
- Wastewater from malfunctioning septic systems or commercial chemicals may have seeped into the groundwater.
- It may be necessary to do repeated testing to ensure the safety of the drinking water.

W-33 test, as well as the recommended tests for arsenic and lead. The W-33C test is available through County Cooperative Extension offices for all private well owners in Georgia.

#### **Concerns and Advisories**

Follow all drinking and bathing advisories.

- Consult a certified electrician, if necessary.
  - o There is a danger of electrical shock from any electrical device that has been flooded.
  - o Rubber boots and gloves are not adequate protection from electric shock.
- Well disinfection will not protect from pesticides, heavy metals, and other types of non-biological contamination.
  - If such contamination is confirmed through testing, special treatment is required.
- If you observe chemical containers such as barrels or drums that flood waters have moved onto your property, call your county health department or the Superfund Hotline (1-800-424-9346) for guidance.
- Information on home water treatment units (also called point-of-use and point-of-entry units) is available from the U.S. EPA by emailing <a href="mailto:safewater@epa.gov">safewater@epa.gov</a>.

**Septic systems** may not function correctly until flood waters recede and the ground dries out.

- Septic drain lines become saturated and possibly damaged during a severe flood.
- Septic tanks that are pumped out while the soil is still saturated may float and become damaged.
- Identify the location of the septic tank(s) and drain field lines to avoid damage from heavy trucks driving over the system during cleanup and home repairs.
- Refer to the DPH fact sheet What to do after a Flood Private Septic System.