

# **Floods** Private Wells and Natural Disasters **Prepare, Respond, And Recover**

### **Safety Reminders**

Flooding can lead to contamination of your well water. Pathogens and/or chemicals carried in flood waters may pollute the ground water your well uses. Th

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p from a licensed well contractor (LWC). Contact your loc conmental quality or natural resources, or a university exte tors in your area.

ttled water or a stored water source to brush your teeth, drink, cook, and bathe drink you

our water is safe to use. You may need a safe water source for several weeks while your

undergoing testing and repairs.

 Contact your local health department or department of natural resources if fuel or chemicals hav spilled.

#### **Flood-prone Areas**

Always keep your well maintained; a maintained private well is better able to withstand the stresses of a flood. If you live in a flood prone area, take these steps to protect your private well:



- Know and document all components of your private well. Take photos of the connections and system components. These photos will be helpful if components need to be replaced or to file insurance claims. Make sure to include:
  - o Storage or pressure tanks
  - o Pump
  - Treatment system (including any filters)
  - o Electrical components
- Store all well documents in an easily accessible location.
- Store possible contaminant sources away from your well. This may include chemicals, fertilizer, and flammable materials such as paint, gasoline, solvents, or paper.
- Make sure the well has a tight-fitting waterproof cap.
- Make sure the land around the well is sloped downwards. Surface water should flow away from the well.
- Keep the well cap and sanitary seal in good condition.
- Keep extra well caps and sanitary seals on hand in case they are damaged.
- Install shut-off valves right before and after the pressure tank to prevent contaminated water from entering the tank. This also creates a spot to shut off the water line before any water storage or treatment devices.
- Install backflow prevention valves on all hydrants and outside taps.
- If your well is in a pit, cover your well pit using a sealed standpipe or valve cover/sealed manhole and fill the pit with low permeability material such as sand or gravel.
- Make sure the the well casing pipe is at least one foot above the regional flood elevation if you are in a flood zone.

### **Before a Flood**

#### **Essential Steps to Take**

- Buy and store safe water, such as bottled water, to use for drinking, cooking, and bathing for three days.
- Have contact information for a LWC, your local health department, university extension service, and water testing laboratory.
- Clear debris near the wellhead.
- Plug the vent holes.
- Turn off power to your well pump and unplug all equipment (if possible) to reduce the risk of electrical shock or electrical overloading. The power switch may be by the water pump or tank or at the main electrical panel.

Steps to Take if Tim**E**if

Temporarily cap the well if the well cap or casing are damaged. Use a sanitary seal or wrap a sheet of 6-millimeter plastic tightly around the wellhead and secure tightly with two zip ties. Contact a LWC for permanent repairs.

Remove debris around the outside of the wellhead.

Turn off the water going to the rest of the system if there is a shut-off valve and faucet before or after the pressure tank.

Turn the pump on if there are no issues.

If the pump will not start, turn off the electricity and contact a licensed well contractor. Flush the well by running the pump until the water runs clear. Use an outside faucet and a hose to direct the water away from the septic system, public sewer, nearby surface water, or animal habitats. Pumping times vary, depending on the groundwater recharge to the well, several flushes may be necessary.

If the water does not run clear after several hours, contact a licensed well contractor and continue using bottled or stored water. Do not pump water from another source into your well, doing so may damage your pump and contaminate the aquifer.

Disconnect or bypass household water filters or softeners if there is not a shut-off valve before or after the pressure tank. This will prevent those treatment systems from contamination. Check the water pressure using an outside faucet with one of the methods listed below. If the pressure is low, it may be recovered when the pump is turned on or there may be a pipe that burst. Contact a LWC if either issue occurs.

- Turn on a faucet. If you hear air escaping from the faucet with water intermittently spurting out, you may have lost pressure.
- Check your pressure gauge to see if your system is holding pressure. If you are losing pressure, your pump may come on when you are not using water.

#### Step 3: Test Well Water

You should test your well water for coliform bacteria, bacteria, and nitrate before use to make sure it is safe. Contact your local health department to ask about other contaminants of concern in your area. Getting your water tested will reveal if you need to disinfect your water system.

- Get a water sample kit. Recovery teams may be distributing water-sampling kits. If not, call your local health department, a certified water testing laboratory, or university extension service.
- Follow the instructions on the sampling kit to avoid accidental cross-contamination and inaccurate results. Return the sample to the lab as soon as.
- Consult with the manufacturer or a licensed water treatment installer if the filter or softener has been exposed to contaminated water.
- Drink, cook, and bathe with bottled water or a stored water source until the results from the lab confirm that water is safe to use, and all necessary repairs are completed.

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