

Natural Disasters, Severe Weather, and COVID-19

Know how the COVID-19 pandemic can affect disaster preparedness and recovery, and what you can do to keep yourself and others safe.

Disinfecting Wells After a Disaster



If you suspect that your well may be contaminated by germs from flood waters or another source, contact your local, state, or tribal health department or agricultural extension agent for specific advice on inspecting and disinfecting your well. If possible, use a contractor with experience in disinfecting and servicing drinking water wells. Use this guidance after checking with local authorities for flood precautions for private wells in your area. If you do not get your water from a well, see [Use Safe Water After a Disaster or Emergency](#) for information on clean, safe drinking water during a natural disaster or emergency.

IMPORTANT: Fuel and other chemical releases and spills are common during floods. If your water smells like fuel or has a chemical odor, contact your local, state, or tribal health department to request a chemical analysis of your water before using it. Until you know the water is safe, use bottled water or some other safe supply of water. Boiling or disinfecting water contaminated with toxic chemicals or fuels will not make it safe.

Safety Precautions

Clear hazards away from wells before cleaning and disinfecting them. Follow these precautions:

- Turn off all electricity to the well area before clearing debris. Do not attempt to repair the water system unless you are experienced with this type of work: electrical shock can occur. Inspect all electric connections for breaks in insulation and for moisture. Connections must be dry and unbroken to avoid electric shock.
- Carefully inspect the area around the well for hazards such as power lines on the ground or in the water; sharp metal, glass, or wood debris; open holes; and slippery conditions.
- Do not enter the well pit. Gases and vapors can build up in well pits, creating a hazardous environment. Clear debris from dug wells using buckets, grappling hooks, nets, and long-handled scoops.
- Before the power is turned back on for the well, a qualified electrician, well contractor, or pump contractor should check the equipment wiring system.
- Wear protective goggles or a face shield when working with chlorine solutions. Chlorine solutions may cause injury to the

8. Rinse the inside of the well casing with a garden hose or bucket for 5-10 minutes.
9. Open all faucets inside the home and run the water until you notice a strong odor of chlorine (bleach) at each faucet. Turn off all faucets and allow the solution to remain in the well and plumbing for at least 12 hours.
10. After at least 12 hours, attach a hose to an outside faucet and drain the chlorinated water onto an area without plants or vegetation, such as a driveway. Continue draining until the chlorine odor disappears. Avoid draining into open sources of water (streams, ponds, etc.).
11. Turn on all indoor faucets and run water until the chlorine odor disappears.
12. Until well water has been tested, boil it (roiling boil for 1 minute) before using or use another alternative water source. Wait at least 7-10 days after disinfection, then have the water in your well tested. Water testing cannot be done until all traces of chlorine have been flushed from the system.

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Disinfection of Drilled or Driven Wells

Follow these steps:

1. If the well is equipped with an electrical pump, turn off all electricity and clear debris from around the top of the well.
2. Repair the electrical system and pump if needed. Contact a qualified electrician, well contractor, or pump contractor if you are not experienced with this type of work.
3. Start the pump and run water until it is clear. Use the outside faucet closest to the well to drain potentially contaminated water from the well and keep unsafe well water out of the interior household plumbing. If there isn't a pump, bail water from the well with a bucket or other device until the water is clear.
4. If the well is connected to interior home plumbing, close valves to any water softener units.
5. Use [Table 2](#) to determine the amount of liquid household bleach needed to disinfect the well. Use only unscented bleach. For a table in metric units, please see [Table 2.1: Approximate Amount of Bleach for Disinfection of a Drilled or Driven Well \(Metric\)](#).

Table 2. Approximate Amount of Bleach for Disinfection of a Drilled or Driven Well

Depth of Water	Diameter of Well Casing						
	2 inches	4 inches	6 inches	8 inches	10 inches	24 inches	36 inches
10 feet	3/4 tbsp	3-1/4 tbsp	1/2 cup	3/4 cup	1-1/4 cups	7 cups	1 gal
20 feet	1-1/2 tbsp	6-1/2 tbsp	1 cup	1-1/2 cups	2-1/2 cups	14 cups	2 gal
30 feet	2-1/4 tbsp	9-3/4 tbsp	1-1/2 cups	2-1/4 cups	3-3/4 cups	1-1/4 gal	3 gal
40 feet	3 tbsp	13 tbsp	2 cups	3 cups	5 cups	1-3/4 gal	4 gal
50 feet	3-3/4 tbsp	1 cup	2-1/2 cups	3-3/4 cups	6-1/4 cups	2-1/4 gal	5 gal
100 feet	7-1/2 tbsp	2 cups	5 cups	7-1/2 cups	12-1/2 cups	4-1/2 gal	10 gal

Notes:

- Use only unscented household liquid chlorine bleach.
- Bleach concentrations are generally between 5%-9%.
- Quantities given in this table are approximate and are rounded to the nearest practical measurement. Amounts given are calculated in accordance with reaching a chlorine concentration of > 100 mg/L

Key:

- tbsp: tablespoon
- gal: gallon
- 1 cup = 8 fluid ounces = 16 tablespoons
- 1 gallon = 16 cups