



# Power Outages and Private Water Systems (PWS)

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The impact to your drinking water supply during a power outage depends on the source of your water and the type of system. Most private water systems use water wells for the source of drinking water. Other water systems in use in Ohio include springs, rainwater cisterns and ponds. All of these systems use pumps, and some systems such as springs, rainwater cisterns and ponds, use treatment equipment to filter and disinfect the water supply to remove harmful bacteria and protozoans. During a power outage, the pumping systems will not operate and a limited quantity of water is stored in the pressure tank and water lines. Treatment units also need electricity and will not perform the function of treating the water, making the water unsafe for drinking.

## Can I use and treat alternative sources of water from a rainwater cistern or spring?

- Do not use contaminated or untreated water to wash dishes, brush teeth, wash and prepare food, wash your hands, make ice, or make baby formula. If possible, use baby formula that does not need to have water added. You can use an alcohol-based hand sanitizer to wash your hands.
- If you have a spring or rainwater cistern, you may withdraw water directly from the storage tank. Use a clean, washed container to withdraw the water. Submerge the container to at least 6 inches below the water level to avoid drawing water near the surface.
- Water removed from a spring or rainwater cistern prior to the filtration and disinfection unit will need to be treated manually prior to use. Boiling water, when practical, is the preferred way to kill harmful bacteria and parasites. Bringing water to a rolling boil for 1 minute will kill most organisms.
- When boiling is not practical, you can treat water with chlorine tablets, iodine tablets, or unscented household chlorine bleach (5.25% sodium hypochlorite). If you use chlorine tablets or iodine tablets, follow the directions that come with the tablets.
- If you use household chlorine bleach, add 1/8 teaspoon (~0.75 mL) of bleach per gallon of water if the water is clear. For cloudy water, add ¼ teaspoon (~1.50 mL) of bleach per gallon. Mix the solution thoroughly and let it stand for about 30 minutes before using.

Note: Treating water with chlorine tablets, iodine tablets, or liquid bleach will not kill protozoans.

## What if I need to evacuate the home?

Evacuation is more likely during the winter months, when plummeting temperatures can make a house inhabitable. Although a house can be damaged by low temperatures, the major threat is to the plumbing system.

If the house must be evacuated, protect it by taking the following precautions:

- Turn off the main breaker or switch off the circuit-breaker panel or power-supply box, or unplug the pump from the power supply.
- Turn off and unplug all treatment equipment, if present.
- Drain the water from your plumbing system. Starting at the top of the house, open all taps, and flush toilets several times. Go to the basement and open the drain valve on the pressure tank. Drain your hot water tank by attaching a hose to the tank drain valve and running it to the basement floor drain or outside.
- Note: If you drain a gas-fired water tank, the pilot light should be turned out – call the local gas supplier to re-light it.
- Unhook washing machine hoses and drain.
- Do not worry about small amounts of water trapped in horizontal pipes. Add a small amount of glycol or antifreeze to water left in the toilet bowl, and the sink and bathtub traps.

- If your house is protected from ground water by a sump pump, clear valuables from the basement floor in case of flooding.

**What should I do when the power is restored?**

- Plug the pump back into the power supply or turn the main breaker back on to the house.
- Plug in and turn on all water treatment equipment.
- Close lowest valves/taps first and allow air to escape from upper taps.
- Make sure that the hot water heater is filled before turning on the power to it.
- Run water for at least 10 minutes from all faucets to flush out residual water sitting in the lines, and flush old water remaining in any treatment equipment while the power was off.

**Where can I get more information?**

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