

Private Wells After a Wildfire

Health departments: Learn about threats to well water after a wildfire and potential solutions to common problems.

After a wildfire, private wells can be contaminated and unsafe to use for drinking water and other purposes. Types of issues and solutions vary by geographic region. This page compiles best practices from state and local programs addressing private wells. You can also explore [CDC's Rapid Assessment Form for Wells Affected by Wildfire](#). If you are a private well owner looking for help, talk to your local health department for guidance based on local conditions.



Burned well head after a wildfire. Photo used by permission from the Tennessee Department of Health.

Loss of power or water pressure can lead to contaminated well water.

If the home lost power, determine if the well lost pressure. This is important even if the power is now back on.

1. Turn on a faucet in the home to see if water comes out.
2. Observe whether water intermittently spurts out because of air escaping from the open faucet. Spurting water indicates a loss of pressure in the well and the household plumbing.

What should be done if the well lost pressure?

- Warn users not to drink the water until the well water tests negative for bacterial contamination.
- Test water for bacterial contamination at a minimum. Water may need to be tested for nitrates and other local contaminants of concern using a certified laboratory.
- Prime the well pump.
- Disinfect* and flush the well. Consult with a well contractor if needed.

! NOTE: Turn off power to the pump before inspecting to avoid electrical shock.

Even if the home still has power, it's important to see if the well has pressure.

1. Turn on a faucet in the home. If the water comes out at steady flow, the well has pressure.
2. Notice whether the water has a different color or odor than normal. For example, does it smell earthy, smoky, or burnt? If it does, damage to the well components could affect the safety of the water.



What should be done if the home has power and the well has pressure but the water smells or looks different?

- Flush the water lines until the smell is gone and the color returns to normal. Flow should be steady and uninterrupted.
- Inform residents NOT to drink the water until it has been tested.

Check for damage to the well house and equipment (for example, chlorinators, water softeners, filters, electronic controls, pressure tanks, overflow pipes, cisterns, and other equipment). Look for visible damage, like charring or melting, and any odor of burned equipment.

What should be done if there is damage to the well house and equipment?

- Recommend the resident contact a licensed well contractor or driller to make repairs or replace damaged well components.
- Disinfect* and flush well water.
- Test water for bacterial contamination at a minimum. Water may need to be tested for nitrates and other local contaminants of concern using a certified laboratory. If the damaged equipment is synthetic (PVC, HDPE, rubber), test the water for VOCs. BTEX testing is commonly available, relatively inexpensive, and can suggest the need for additional VOC testing.

! NOTE: Turn off power to the pump before inspecting to avoid electrical shock.

Areas near the home can affect water quality.

Consider the possibility of damaged fuel and chemical storage facilities. Visually check for potential sources of contamination (for example, household fuels and chemicals, aboveground and belowground storage tanks, and potential industrial chemical and fuel spills).

What should be done if there is a chemical spill or other possible chemical contamination?

- Make a note of the spill location.
- Work with the resident and a certified lab to determine what the water should be tested for (for example, petroleum products and other chemicals).



Check for signs of damage where the septic system is located.

- Observe whether plastic (PVC, HDPE) piping above ground, PVC risers/covers, cleanouts, and drain field inspection ports are melted or otherwise damaged.
- Look for evidence of vehicle traffic near the septic system, especially the drain field area.
- Look for damage where the septic system pipe enters the home. This could create a reverse flow problem.

What should be done if the septic system is damaged?

- Discontinue or limit water use in the home until the system is inspected.
- Keep pets and people away from the septic system area until it is inspected.
- Contact a septic system professional to inspect the system.

*Well Disinfection

Well water is NOT drinkable during the disinfection procedure.

- Residents should have a 24-hour supply of safe drinking water (bottled water) before starting the procedure.
- Residents should plan to disinfect the water well late at night or other times when there is less need for water.

Review the [step-by-step instructions](#).