Homeowners returning to their sites affected by fires may have questions about their drinking water and septic systems.

Individuals with private wells need to be concerned about how safe the water is to drink. Have the water tested at a certified environmental testing laboratory to ensure the water is safe. Laboratory listings are in the Yellow Pages of the telephone book. Each lab will have directions how to submit the sample, the charge, and other information. You will want the laboratory to test for total coliform bacteria.

Laboratories will provide a bottle for collection and usually will have results in a few days. Instructions with the sample container must be followed carefully so results are accurate.

**Contaminated System?**

The laboratory should test for bacterial contamination – total coliform bacteria.

If there are specific concerns about chemicals in the water, talk with laboratory personnel about additional tests they could recommend.

The water should only be used for showering and flushing toilets while waiting for test results. Use bottled water for drinking, brushing teeth, or cooking. If bottled water is not available, disinfect small quantities of water by boiling it for two to five minutes. If impractical, mix 1 gallon of clear water with 6 to 8 drops of 5 percent regular household bleach (do not use scented or perfumed bleach). Regular household bleach is 5 percent to 5.25 percent. Do not use ultra bleach, which has a higher concentration. Let the mixture stand 30 minutes before drinking. If the water is cloudy and contains particulates, allow the particles to settle, drain the clear solution from the top into another clean container, and add double the amount of drops listed above.

**If Contaminated**

If the water sample comes back positive for bacteria, the well needs disinfected.

To disinfect a well, mix 2 quarts of 5.25 percent bleach (regular household bleach) with 10 gallons of water. Use only regular, unscented bleach. Pour the solution into the well, start the pump, and open all the faucets in the home. When a chlorine odor is noticeable at the faucets, close them and stop the pump. Allow the well to stand for 24 hours without pumping.
After 24 hours, open taps and flush all lines until the chlorine odor is no longer detected. A laboratory testing the water will provide more information about how to disinfect a well if results are positive for bacterial contamination.

Thoroughly flush water lines if the water tastes or smells smoky after a fire by running water through all faucets inside and outside of the home.

If there was a loss of pressure, some backflow of water and other contamination could have occurred.

Perform a visual inspection of the well. Check the following to ensure there is no damage:

1. Electrical components that supply power to the pump
2. Additional disinfecting equipment, if applicable (UV lamps, reverse osmosis filter)
3. Pressure tanks, storage tanks, and vents
4. Wellhouse, aboveground cap, and casing
5. Any pipes aboveground that bring water into the home

If damage is found, contact a professional knowledgeable with well maintenance. Listings should be in the Yellow Pages of the telephone book. If the well top was not capped or otherwise protected, call a laboratory to determine if there are additional tests to consider.

### Septic System

Homeowners need to determine if the septic system was damaged. The fire should not have affected the underground system; however, there is the possibility of damage if heavy equipment was parked on top.

Look for damage from the cleanout outside the house to the end of the drainfield. Often, firefighters dig firebreaks or dozer lines to protect a structure from a fire.

- Septic systems designed for infiltrator chambers may have damage if heavy equipment drove over the system.
- Heat may have damaged aboveground plastic PVC cleanouts on the septic tank and the distribution box.
- Piping in raised bed systems that are not buried underground may have damage from the extreme heat produced by the fire.
- Once the system is used again, there may be surfacing sewage or toilets and plumbing fixtures that may not drain properly. These are indications something is wrong.

Contact the local agency that permitted the septic system to help determine the problem. Most systems are installed in a flat area. In mountainous areas, systems are sometimes installed on slopes. Since vegetation in the area is likely gone, there is a concern the topsoil could start eroding away from the septic system.

Articles on erosion and how to deal with it are included in this guide. Be advised to only use shallow-rooted plants, such as some grasses, to revegetate around septic systems. Plants that grow long roots, such as trees, should not be planted on top of septic systems. Their roots can grow into the system and cause damage as these plants seek water and nutrients.

Contact a local health department for information about any of the above topics. You can also visit barnyard-sandbackyards.com for information about wells and septic systems.

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