A Tradition of Stewardship
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Planning, Building & Environmental Services

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Private Water Wells and Springs Impacted by Wildfire

Properties with a private water well or spring in or near a wildfire zone may have impacted water systems. After a wildfire, well components and pipelines may be damaged due to excessive heat. Plastic and some metal components can melt or be deformed, affecting the ability to deliver water and potentially impacting water quality. If the water system lost pressure, it is possible that microorganisms and volatile chemicals could have entered the system.

The County of Napa, Division of Environmental Health recommends the well owner perform a visual inspection of their well or spring and water system, including the piping and plumbing that provide water to and throughout your home. Items that you should check for include:

- Damaged and melted or exposed electrical wiring
- Damaged and melted PVC casing, liner or pipe
- Damaged spring box
- Damaged well houses, pressure tanks and equipment such as chlorinators, water treatment equipment and electronic controls
- Damage to pressure tanks which could have been caused by exposure to excessive heat
- Damage to storage tanks, vents, and overflow pipes
- Debris, such as ash and sediment entering uncovered wells, springs or storage tanks
- Loss of pressure, which may be determined by low or no water flow or bubbling or sputtering when a faucet is turned on

If any part of your system has been damaged or there was a loss of pressure, do not drink or boil the water until it is tested for the presence of any microbiological or chemical contaminants that might have been introduced as a result of the fire. Use an alternative source, such as bottled water, until water testing proves the water is safe for all uses. It is important to have repairs completed by a licensed and bonded well contractor or pump installer. The contractor will follow appropriate protocols for repressurizing the system, avoiding backflow or cross-connections, disinfecting the service lines, and confirming the quality of water by certified testing before putting the system back on-line.

Water Flushing and Testing

If your well was in an area affected by the fire, you may notice the water has an earthy, smoky, or burnt odor. If there is no odor, do not assume the well is safe. Not all contaminants have an odor. The water also may be cloudy or contain visible particles. You should avoid running the water through household piping system until you are sure it is not contaminated. If you can determine the source of the contamination, it is important to isolate it. As necessary, water lines should be flushed in only one direction, using care to

contain the runoff if possible or direct it to a channel to avoid erosion and minimize the spread of contamination.

Before you use the water, the quality of the water should be tested by a certified laboratory. It is important to verify the water is free of microbiological or chemical contamination. If the water system was in or near a wildfire, as a minimum, the water should be tested for coliform bacteria, turbidity, general geochemical parameters (pH, conductivity, color) and nitrate. If the water system serves burned structures, has fire-damaged components and/or was exposed to extreme heat and also experienced pressure loss, homeowners may want to test the water for volatile organic compounds (VOCs). VOCs are associated with ash and soot from burned structures and vegetation. VOC sampling includes specific procedures that need to be followed. The laboratory can provide detailed instructions for collecting samples. If the water system only depressurized and was not damaged by a wildfire or exposed to other contamination, VOC sampling is not necessary.

Using Your Water While You Wait for Test Results

If you are able to return to living in your home after the fire, you can use your water for outdoor uses, but avoid using it in the household plumbing or hot water tank until you are certain it is not contaminated.

Resources for Testing Your Well

A partial list of CA-approved laboratories is available on the Environmental Health website.