SAN MATEO COUNTY HEALTH
ENVIRONMENTAL HEALTH SERVICES

Environmental Health Services
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smchealth.org/eh

WELLS – AFTER A WILDFIRE

Steps to take to protect your health and well after a wildfire.

GENERAL SAFETY TIPS:

- ✓ **Trips/Fall Hazards.** Be careful walking near the location of a well. Covers may be obscured by debris, missing, or damaged.
- ✓ **Rope off your well.** Mark the area near a well as a potential hazard to prevent trips/falls.
- ✓ **Shut system power off** or verify power is shut down before inspecting the area.
- ✓ **Bring drinking water.** If you think a fire may have damaged your water supply, bring bottled water back with you when you return to your home.
- ✓ **Disinfect your well.** See guidance below. Wear protective gloves, goggles, and clothing while handling bleach.
- ✓ Have your system inspected by a licensed well service professional before using it again.
- ✓ **Drawings or diagrams**. These items may be important in the debris removal program.

VISUALLY INSPECT WELL FOR:

- ✓ **Damaged and melted or exposed electrical wiring.**
  Exposed electrical wiring to the well poses a significant electrical safety hazard with potential for an electrical short to the metal casing. If the electrical wiring has been damaged by fire, do not handle the wiring or touch the casing. Flag the area around the well casing and its components.
- ✓ **Damaged and melted PVC casing, liner or pipe.**
- ✓ **Damaged well houses and pressure tanks.**
- ✓ **Debris, such as ash and sediment entering uncovered wells.**
- ✓ **Cracks in the covering** of a well may allow pollution, bacteria, insects, or animals to enter wells causing contamination.

DAMAGED SYSTEMS:

- ✓ If your well has been damaged by fire, contact a local licensed and bonded well contractor or pump installer to determine the extent of the damages and what must be done to either repair or decommission the well with permits through San Mateo County Environmental Health Services. **Well professional list can be found at**: smchealth.org/landuse.
- ✓ See disinfection procedures below.

5-STEP DISINFECTION:

- ✓ **Water testing laboratories:**
  Disinfection of a well is recommended to eliminate disease causing organisms. A well should be disinfected following a repair, maintenance, or replacement of the pump or if the power had been off for an appreciable duration possibly causing the pressure tank to lose

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pressure and the distribution system to back siphon into the well causing possible contamination. **Disinfection generally involves five (5) steps:**

1. **Carefully add bleach.** Remove the threaded inspection plug from the cap on top of the well. Place a funnel in this entry port and pour one (1) to three (3) gallons of domestic 5.25% chlorine bleach into the well. Should you wish to be more precise in this effort, introduce one gallon of bleach per 1000 gallons of water. You may calculate this as follows (a, b, and c below):
   a. Determine the amount of water in the well using the following formula:
      TOTAL WELL DEPTH – STANDING WATER LEVEL = FEET
      _____ **-** _____ **=** _____ **ft**

   b. Number of feet (from above) times the gallons per foot (gpf) using the chart below to determine capacity in gallons.
      WATER IN WELL x GALLONS PER FOOT = TOTAL GALLONS
      _____**ft X** _____**gpf =** _____ **gallons**

Well Diameter in Inches	Gallons Per Foot		Well Diameter in Inches	Gallons Per Foot
4”	0.65		7”	2.00
5”	1.04		8”	2.61
6”	1.47			

   c. To determine the gallons of chlorine bleach needed, remember you need use only **1 gallon of 5.25% bleach per thousand gallons of water.** Use total gallons water divided by 1000 to get the gallons of 5.25% bleach needed.
      TOTAL GALLONS WATER / 1000 = GALLONS OF 5.25% BLEACH
      Example: (a) 1200 ft - 200 ft =1000 ft (b) 1000 ft x 2.00 gpf = 2000 gallons
      (c) 2000 gallons/1000 = 2 gal of 5.25% bleach

2. Open all faucets until the odor of chlorine is detected at water outlets, including faucets or fittings, sprinklers, drip lines, irrigation lines, etc.
3. Then close all outlets and allow water to remain in all water lines and well, preferably overnight or longer if possible. Do not use the water system during these critical hours.
4. The next day or after an appreciable period of time, open all outlets until the odor of all chlorine has disappeared. The water supply should then be free of the added chlorine.
5. **Have the water sampled by a state certified laboratory* for bacteriological quality.**

A list of commercial laboratories approved for water analysis can be found at smchealth.org/landuse.

Note: Disposal of chlorinated water should be done away from trees, shrubs, lawns, ponds, and streams and into a sanitary sewer. It is important to avoid discharging highly chlorinated water in large volumes into septic tank systems.