



Butte County Private Well Information

Post-fire well safety and testing guidelines.

WARNING: Recent testing conducted by the California State Water Board of creeks and rivers flowing from the fire affected areas indicate elevated levels of heavy metals and bacteria, including: E-coli, Aluminum, Antimony, Poly Aromatic Hydrocarbons (PAH) and Iron. Property owners who have private wells and live near creeks or rivers should test for the presence of heavy metals in their well water. Residents in these areas should drink bottled water until well water is tested, treated and free of contamination.

How to determine well water safety

- If the water quality of the well is in question, it should be tested at a minimum for - bacteriological quality (i.e. Total and Fecal Coliform Bacteria).
- If you live near a creek or river that flows from the fire affected area, you should have your well tested for heavy metals, including: Aluminum, Antimony, Poly Aromatic Hydrocarbons (PAH) and Iron.
- If there was damage to plastics (i.e. well head, plumbing from well, storage tank), it is recommended to test for the presence of Benzene. Benzene is a good indicator of the decomposition of plastics brought on by high temperatures.
- If there is further concern and/or need for additional water quality testing, especially for heavily impacted burn areas, we recommend running the entire panel of Volatile Organic Chemicals.
- If there is concern regarding ash debris contaminating a well, we recommend running a test for heavy metals. There is little science to demonstrate if and how much the fire debris could contaminate groundwater. Little information is available regarding how long the contamination could take to enter the groundwater and would depend on a host of things, such as geological formation, depth of well, etc.

Water testing laboratories

Please note, the Public Health Laboratory only tests water for bacteria. If chemical or heavy metal testing is needed, please contact one of the other labs listed below.

- **(Bacterial Only)** Butte County Public Health Laboratory: (530) 891-2747 | Oleander Ave. in Chico
- Fruit Growers Laboratory: (530) 343-5818 | 563 E Lindo Ave. in Chico
- Basic Laboratory: (530) 894-8966 | 3860 Morrow Ln. F in Chico

Sampling water for Bacteria

Well water must be sampled correctly in order to get accurate results. Special care must be taken to assure that bacteria are not introduced into the sample when it is taken:

- Only use sterile bottles obtained from the approved laboratory; do not pre-rinse the bottle;
- Check that the well is tightly sealed to prevent the entrance of any surface contamination, either solid or liquid, to the water supply; vents should be screened, opening downward and above flooding; if the well is not sealed, take measures to have it sealed properly but allow for chlorine to be added to well now and in the future;
- Collect the sample from an outlet tap as close to the well as possible; the valve stem of the hose bib should not be leaking and the should not be rusty or corroded; if a faucet is chosen inside the house the aeration screen, if present, needs to be removed from the end of the faucet;
- The water should be turned on and allowed to run full strength for 5 minutes; then adjust the water flow so that the sample bottle can be filled without splashing, but not so slow that the water curls back over the outlet of the hose bib;
- Remove the bottle's lid, fill the bottle to the line on the bottle's neck, and recap the bottle without touching the inside of the lid or bottle; Don't over or under fill the bottle or the sample might have to be rejected by the laboratory;
- Complete the laboratory's water report;
- Transport water samples immediately to the laboratory, or refrigerate and submit to the laboratory less than 24 hours from the time the sample was taken.

Lab results and treatment

- For bacteriological contaminants, the well can be disinfected by adding chlorine at the water source and allowing the chlorinated water to flow throughout the distribution system (turn all faucets and hose bibs on until chlorine is smelled, shut off all faucets and hose bibs and allow the chlorinated water to sit in the distribution system for 8-12 hours). After 8-12 hours, flush all of the chlorinated water and then take follow-up samples for bacteriological contaminants. Note: for some wells, it may take time to flush all of the chlorinated water out of the system. If samples are taken before all chlorine has cleared the system, a false negative result could occur.
- For assistance with disinfection and other treatment concerns, contact a [Certified Distribution professional](#) for small water systems.
- To obtain permits for new or replacement well construction, contact Butte County Environmental Health: (530) 552-3880
- Learn more about [private well disinfection and sampling](#).