Eastern Idaho Public Health District

Serving Bonneville, Clark, Custer, Fremont, Jefferson, Lemhi, Madison, and Teton Counties

(208) 523-5382
www.phd7.idaho.gov

CONTAMINATED DRINKING WATER

Bacterial contamination in the water source can be eliminated by disinfecting the well. Steps can be followed to clean up the bacteria contamination. Bacteria typically are not a common occurrence in the well but sometimes a laboratory test shows the presence of bacteria.

These bacteria consist of two types of groups: Total Coliform Bacteria and Fecal Bacteria. Total coliform bacteria do not live readily in the intestinal tract of warm-blooded animals. When present they typically indicate surface water contamination of the well since they are found in soils and on vegetation.

The Fecal bacteria are indicators of sewage contamination. The bacteria live in the intestinal tract of warm blooded-animals and are of a more serious nature if in the water supply.

The presence of one or both coliform groups indicates that a pathway into your water supply exists through which disease-causing bacteria can enter. The water will be safe to drink again once the test results show no sign of contamination.

DISINFECTION OF WELLS

1. Mix 1/2 gallon household bleach with four (4) gallons of water in a large bucket.

2. Pour the mixture directly into the well casing.

3. Open all taps (hot and cold) inside and outside of your home, one at a time, until you smell the bleach. Once the bleach odor is detected, shut off that tap and move on to the next one.

4. Flush each toilet until a bleach odor is detected in the toilet's water tank.

5. Once all taps have detectable bleach odors in them, let the entire system sit unused for at least twelve (12) hours.

6. Flushing out the bleach solution:
   a. Open outside taps first and let water run several hours. This is necessary as it is undesirable to flood your sewage system with chlorine.
   b. Flush all other taps next -- hot and cold.

7. Allow three (3) days of normal water use prior to collecting another sample for bacterial testing.

SAMPLE COLLECTION

Improper sample collection can contribute to unreliable results. To collect your water sample properly:

1. Use a sterilized bottle from the lab.

2. DO NOT collect samples from swivel faucets, garden hoses, or any faucet with an aerator that cannot be removed.

3. DO NOT touch the inside of the bottle, the inside of the bottle cap, or the threads of the bottle neck. This can introduce bacteria from your hands into the water sample.

4. Let the water run for 5-10 minutes. Fill bottle 2/3 full.

5. Return sample to lab within 30 hours of collection time. Refrigerate the sample if more than a few hours lapse before the lab receives it.

COMMON CAUSES OF WATER SUPPLY CONTAMINATION

POOR WELL CONSTRUCTION -- bad sanitary seal (well cover); open holes in the well cover where wires enter; cracks in the casing or casing welds; poor grouting around your well.

POOR WELL LOCATION -- is your well within 100 feet of a sewage disposal system? Is your well located in a depression or a pit with no way to evacuate flood water? Do you flood irrigate around your well or pumphouse? Is your well located within 100 feet of an animal confinement area?

WELL DEPTH -- shallow wells typically do not produce good quality water as they are often subjected to surface contamination. If this is causing your problem, the well can be deepened or a new one should be drilled. Is your well located in heavily fractured rock-like lava or limestone? Fractures provide easy pathways for contamination to travel long distances.

* If you are still in doubt concerning the safety of your water system, please call Eastern Idaho Public Health District. A safe water supply is paramount to good health.