WATER WELLS CONTAMINATED DUE TO FLOODING

Water wells that have been flooded or otherwise potentially contaminated must be thoroughly disinfected prior to use.

Stage I Disinfection by home owner or well driller

Step	Procedures
1	Pump well water to waste until water is free of turbidity (clear).
2	Most wells have a removable screw plug in the well cap. Pour one gallon of ordinary household bleach directly into the well.
3	Connect a hose to the nearest faucet and run the chlorinated water back into the well, to wash down the casing, and plumbing above the water level. A brass spray nozzle of $^3/_4$" diameter or smaller will fit into the chlorination port and allow chlorinated water to wash down the casing.
4	Pump the chlorinated water through the entire system. Open every faucet on the premises (inside and outside) until a distinct odor of chlorine can be detected.
5	Shut off all faucets. Allow the chlorinated water to stand in the entire system overnight. This gives the chlorine a chance to work on any contamination that may be in the system.
6	The next morning, drain all lines and continue to pump the well until the water is free of chlorine odor. This may take considerable pumping. If you have a septic system, it would be advisable to discharge the water from an outside faucet.

Positive Water Samples

If the water sample is positive for coliform bacteria, then repeat the above process and review Stage 2 water well disinfection procedures below.

Contact - If you have any questions regarding this procedure, please call and ask to speak to staff in the Environmental Compliance Division at 530-623-1459

Stage II Disinfection by well driller

Step	Procedures
1	Remove the chlorination plug and install a chlorination wand into the well. The wand is connected by a garden hose to a hose bib and sprays chlorinated water onto the interior of the well casing and also serves to circulate chlorinated water through the system. The chlorinated water should be circulated for two hours, the wand and hose removed, and the chlorination plug reinstalled (chlorination wands are usually $^1/_2$" diameter pipes 2' long with small holes drilled along the pipe length with a garden hose fitting on one end. The wands can be constructed by well drillers or others).
2	With chlorine in the system, vent all air from the pressure tank and fill the pressure tank with chlorinated water. A well driller or other qualified person should complete this step to prevent damage to any part of the water system and to reintroduce air into the pressure tank after disinfection is completed.

Bacterial counts Most probable number coliform testing or other "enumeration" testing can be used in addition to total coliform presence absence testing to quantify the bacterial contamination.

Infiltration testing Chloride, nitrate and electrical conductivity testing can also assist in identifying system flaws when bacterial tests are positive.

Air vents Air venting for wells should be located three feet or more above grade to prevent the entrance of dirt and dust during venting. For vents without valves, the vent should turn down and be screened.

Contact If you have any questions regarding disinfection procedures, please call the Trinity County Environmental Health Department at (530) 623-1459.