

County of Yolo

DEPARTMENT OF COMMUNITY SERVICES

Environmental Health Division

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OPTIMIZED WELL SYSTEM DISINFECTION PROCEDURES

The following procedures have been developed to provide thorough water system disinfection. It can be especially useful for wells with high or persistent coliform bacteria problems. This is not intended as a cure for water systems that are improperly maintained, poorly constructed, or deteriorated. All system defects should be <u>properly</u> corrected prior to disinfection to prevent reoccurrence of the bacterial contamination.

- 1. Repair all well or water system defects, which could possibly lead to bacterial contamination.
- 2. Install a ¼ inch copper tubing sample tap; up-stream from the pressure tank check valve.
- 3. On non-bladder tanks, install a ball valve at the top of the tank to remove air from or easily drain the pressure tank.
- 4. Fabricate a well water-recirculating device for use later.
- 5. Pump the system clear of any sand, mud or cloudiness. Thoroughly flush sediments from the pressure tank.
- 6. Shut off the pump.
- 7. Add the proper amount of 70% calcium hypochlorite into the well casing, not into the pump column. Four "dry weight" ounces of 70% calcium hypochlorite is sufficient for 100 ft of water filled casing, 6 inches in diameter.

CAUTION

Follow the manufacturer precautions when handling this dangerous chemical. Stabilized or scented chlorine must <u>not</u> be used. <u>DO NOT</u> DRINK THE WATER DURING THE DISINFECTION PROCESS. <u>DO NOT</u> DISPOSE OF CHLORINATED WATER IN AREAS HARMFUL TO FISH, ANIMALS, VEGETATION, OR INTO THE SEPTIC SYSTEM.

- 8. Insert the well water-recirculating device into the well casing and restart the pump. Allow this to recirculate for eight hours.
- 9. After circulation time is complete, saturate all system lines with chlorinated water.
- 10. Saturate the non-bladder pressure tank by opening the ball valve at the top of the tank. *It is not necessary to bleed air from the bladder type pressure tank.*
- 11. Shutdown the system for 8 hours then flush to waste all chlorinated water.
- 12. Flush the system until no chlorine residual is detected by using a test kit.
- 13. Resample the well at the sample tap and test for chlorine.

If you have any questions, regarding disinfection procedures, please contact the Environmental Health Office at (530) 666-8646.