



WALLA WALLA COUNTY
HEALTH DEPARTMENT
PO Box 1753
Walla Walla, WA 99362
Phone 509.524.2650 • Fax 509.524.2677
314 W MAIN (ROSE STREET ENTRANCE)

INSTRUCTIONS FOR DISINFECTION OF WATER SYSTEMS

The Walla Walla County Health Department recommends chlorination to remove bacterial contamination from your water system. The contamination is most commonly introduced through structural deficiencies or through work done on the system. Without determining the source of contamination this procedure will only provide temporary results. Please read all of the instructions before starting.

NOTE: During disinfection the chlorine levels in the water system may be quite high until the system has been flushed. We suggest that you have enough drinking water stocked for use during the disinfection. Refer to the "**Methods of emergency drinking water disinfection**"

Refer to the "**Methods of emergency drinking water disinfection**" **handout**.

1. Most wells have a sanitary seal. These protective caps are essential for keeping contamination out of the well. The diagrams on the backside of this handout show some of the most common sanitary seals. If your well does not have a sanitary seal, have one installed. If the existing sanitary seal is in poor condition, repair or replace it. A plumbing supply store can provide the cap.

2. To chlorinate your well, you must gain access to the inside of the well casing. This is done either by removing the sanitary seal or by removing the access plug on the sanitary seal.

3. The amount of chlorine needed depends on the type of chlorine used and the amount of water standing in the well casing. We recommend using common household bleach. A simple way to estimate (and often times as effective) the amount of bleach needed is shown in the table below.

**** When using household bleach - containing 5.25% available chlorine.**

Total Well Depth	Amount of Chlorine Bleach *6-8 inch casing
Less than 40 feet	1/2 gallon
40 - 150 feet	1 gallon
150+ feet	1 1/2 to 2 gallons

DUG WELLS -- 1 gallon

SPRINGS -- 1 gallon * ASK ABOUT INFORMATIVE HANDOUT

CISTERNS -- 2 oz. / 100 gallons water

4. Before adding chlorine to well, first mix with 5 gallons of water. Then, pour the solution down the inside of casing. Don't be tempted to pour the chlorine into the well by itself. If using a small access port, a funnel will be necessary.

5. If possible, run a hose from an outside faucet into the casing and circulate the chlorinated water for 3-4 hours. This helps mix the chlorine throughout the well casing.

6. Rinse the sanitary seal or any other parts removed to gain access to the well casing and replace.

7. Turn on all cold-water taps, run the water until you smell chlorine. Make sure the chlorinated water can be detected at all taps before turning off. **IT IS VERY IMPORTANT THAT THIS BE DONE TO ALL COLD WATER TAPS CONNECTED TO THE SYSTEM.** Let the chlorinated water set in the system at least two (2) hours, preferably overnight.

8. Next, to flush the chlorinated water out of the system, connect a hose to an outside tap and turn the water on full flow. It usually takes quite awhile; so do not saturate the septic drain field area and avoid a pond of the water where it may cause damage. When you can't smell chlorine, turn the water off.

9. Then turn on all other remaining taps and let them run until you can't smell chlorine.

10. To check the success of the disinfection process, a bacteriological analysis of the water must be done.

IT IS VERY IMPORTANT TO FLUSH ALL OF THE CHLORINE OUT OF THE WATER SYSTEM BEFORE TAKING ADDITIONAL SAMPLES

There are two options for sampling after disinfection.

- A. If the home is occupied wait at least two (2) weeks before resampling.
- B. If the home is not occupied wait at least two (2) weeks AND pump at least 5000 gallons of water before sampling.

We also suggest that, for the first year, you test the water once every three months. By testing every third month, any seasonal contamination will be detected. After the first year, one test annually is recommended.

When disinfecting cisterns, several applications may be needed together with manual scrubbing of the sides and bottom of the cistern with the chlorine solution. Then, flush the cistern thoroughly. Follow this with a standard disinfection of the system including the cistern. The final chlorine solution should be emptied into the cistern before filling so that the sides are disinfected as the water rises.

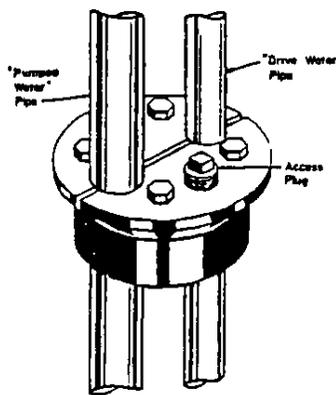
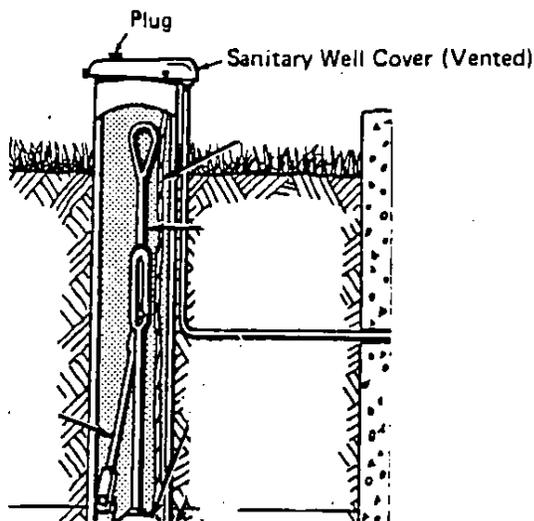


FIGURE 8. Well seal for jet pump installation.

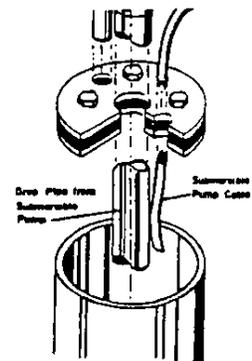


FIGURE 9. Well seal for submersible pump install.