

## PROCEDURES FOR DISINFECTION OF A WATER WELL

Water in a recently drilled well is subject to contamination by the drilling operation and from pipes that convey the water throughout the house. Before the water may be used for drinking purposes, it is necessary to disinfect the well to eliminate bacteria that may have been introduced into the system. Follow-up samples can determine whether or not the contamination of the well is an ongoing concern. Disinfection of old wells is also important when a sample proves positive for bacteria. The following outlines sequential steps which should be taken to disinfect a well.

- 1) A. Mix  $\frac{1}{2}$  gallon of chlorine bleach such as Chlorox, Austin A-1, or Homebest, with ten gallons of water. (For wells with more than 150 feet of water, use one gallon of bleach)
- B. Pour the 10  $\frac{1}{2}$  gallons of solution into the well casing.
- C. Run the water at all of the water faucets (hot and cold) until the bleach odor is noticeable, and then turn the water off.
- D. Allow the solution to remain in the pipes for at least 12 hours by not running any water during this period.
- E. After 12 hours, flush the bleach out of the system by running the water. It is preferable not to discharge this solution into the septic tank.
- F. The water system should be flushed daily after the disinfection period and a sample can be taken after the chlorine has been completely removed from the system. Contact this office when the smell of bleach is no longer detected to continue sampling.

If after testing the well continues to show contamination, the procedure outlined in step 2) should be followed.

- 2) A. Chlorine tablets or granulated chlorine (*not* chlorine pool tablets) shall be placed in the well and allowed to settle to the bottom.
- B. Along with placing the tablets in the well, a chlorine bleach solution mixed as per step 1) should be poured into the well casing.
- C. Run the water at all the water faucets (hot and cold ) until the bleach odor is noticeable and then turn water off.
- D. Using a garden hose, recirculate the chlorinated water by placing the hose in the well and running the water for about one hour. Take care to wash all surfaces above the water level in the well.\*
- E. Follow steps 1) D through F above to remove the chlorine.

If after completing step 2) the well still shows contamination, step 2) should be repeated with the following addition.

- 3) A. Complete steps 2) A-B.
- B. After step 2) B, chlorinated water equal to the volume of chlorinated water in the well, but not less than 50 gallons, should be introduced into the well in order to completely displace the volume of chlorinated, standing water and force it out into the water bearing formation. (Usually performed by a well driller)
- C. Follow steps 1) C through F above to remove the chlorine.

\* This procedure will temporarily increase the cloudiness of the water. This is to be expected and will clear up.