



Placer County Health and Human Services Department

Jeffrey S. Brown, M.P.H., M.S.W.
Department Director

Wesley G. Nicks, R.E.H.S.
Environmental Health, Director

Well Disinfection Procedure

1. Pump the well or water system thoroughly until the water is clear and free from turbidity, being sure to flush out all distribution piping.
2. Pour unscented household bleach (Clorox, Purex, etc. 5.25% solution) directly into the well. Do not use "stabilized" swimming pool chlorine or "Burn Out" as they are unsuitable for use in drinking water. The disinfectant (chlorine) can be added directly into the well casing through the casing vent or other casing access.) Do not introduce chlorine into the pump column, drop pipe or electrical conduits.) Use a gallon of household bleach for every 500 gallons of water in the system. For example, you would need about 1/2 gallon of household bleach to disinfect a well that is 200 feet deep with a static water level of 30 feet (see table below for more info).
3. With wells, chlorinated water can be circulated by pumping it from the well and discharging it back into the well through a hose. This serves to clean parts of the well above the water line, as well as to aid in mixing.
4. Pump the chlorinated water throughout the entire system. Do this by opening each tap until you can smell the chlorine coming through, shut off the tap and go on to the next one. Leaving a line undisinfected can recontaminate a system, so be sure to flush all toilets and open every tap, including hot water and irrigation taps.
5. Allow the chlorinated water to stand in the entire system for as long as possible. Overnight is adequate, but 24 hours is better. This gives the chlorine a chance to work on any contamination that may be in the system.
6. Flush out the system until the chlorine is gone. This can take several hours and it can be difficult to determine if all the chlorine has been removed. The best results are obtained with a chlorine test kit (like a swimming pool test kit). If you have a septic system, it would be advisable to discharge the water from an outside faucet. In addition, discharged water should be disposed of in areas where no harm will occur to animals, fish or vegetation.
7. Once the chlorine has been removed and it has been at least 96 hours since completing the above procedures, then the water supply should be retested for bacteriological quality. Only a laboratory analysis can determine if the water is free from contamination. It is also recommended that you do not drink the water or use it for culinary purposes during the entire disinfection process.
8. If the contamination is not corrected, repeat the above procedure. Please be advised that wells must be constructed so as to protect the groundwater from any surface contamination. To disinfect a well or water storage tank that is not protected from surface contamination is wasted effort.

Chlorine Required to Dose 100 Feet (30 Meters) of Water-Filled Casing to 50 milligrams per liter *

Diameter of Casing	Chlorine Compounds		
	(70%) Calcium Hypochlorite (Dry weight)**	(25%) Chloride of Lime (Dry Weight)***	(5.25%) Sodium Hypochlorite (Liquid Measure)****
2in (50mm)	1/4 oz (7 g)	1/2 oz (14 g)	2 oz (59 ml)
4in (100mm)	1 oz (28 g)	2 oz (57 g)	9 oz (266 ml)
6in (150mm)	2 oz (57 g)	4 oz (113 g)	20 oz (0.6 liter)
8in (200mm)	3 oz (85 g)	7 oz (0.2 kg)	2-1/8 pts (1.0 liter)
10in (250mm)	4 oz (113 g)	11 oz (0.3 kg)	3-1/2 pts (1.7 liters)
12in (300mm)	6 oz (0.2 kg)	1 lb (0.45 kg)	5 pints (2.4 liters)
16in (400mm)	10 oz (0.3 kg)	2 lb (0.9 kg)	1 gal (3.8 liters)
20in (510mm)	1 lb (0.45 kg)	3 lb (1.4 kg)	1-2/3 gal (6.3 liters)
24in (610mm)	1-1/2 lb (0.7 kg)	4 lb (1.8 kg)	2-1/3 gal (8.8 liters)

**Some authorities recommend a minimum concentration of 100 mg/l. To obtain this concentration, double the amounts shown above.*

***HTH, Perchloron, Pittchlor, etc*

****Where dry chlorine is used, it should be mixed with water to form a chlorine solution prior to placing it into the well. Note: dry chlorine should always be added to water, not vice versa.*

*****Household bleaches such as Clorox, Purex, etc*

If contamination is not resolved by protection of the water source and repeated disinfection efforts, you may be required to drill a new well or connect to an approved public water supply.

If you wish to have your water supply analyzed for bacteriological quality, please contact the Placer County Public Health Lab (530) 889-7205

NOTE: There is a fee for this service.