

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



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Governor

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Vision: To be the Healthiest State in the Nation

FLOOD INFORMATION SHEET

WHAT TO DO IF YOUR WELL IS FLOODED

Heavy rainfall from a tropical storm or hurricane may have made your well water unsafe. If you are unsure about the impact of flooding on your well water, use bottled water, boil or disinfect all the water you use for drinking, making beverages or ice, cooking, brushing your teeth, washing dishes, and washing areas of the skin that have been cut or injured.

Bring water to a rolling boil for one minute and cool before use. Common unscented household bleach (4 to 6 percent active ingredient) can be used effectively as a chlorine disinfectant.

Disinfect the water by adding 8 drops (about 1/8 teaspoon) of unscented household bleach per gallon of water, and then let it stand for 30 minutes. Repeat the procedure if the water is still cloudy.

If your well has been flooded, please call **(386) 329-1904** for information on how to sample your water and where to bring the sample for bacterial testing. If the test reveals bacteria, the well and water system need to be disinfected. It is important to disinfect both well and plumbing water with unscented household bleach to make sure all infectious organisms are destroyed. If you have water treatment devices, remove all membranes, cartridges, and filters and replace them after the chlorination process is completed. The amount of chlorine determines the length of time you allow the bleach to remain in your system.

DOH recommends the following steps to disinfect a contaminated well:

- **If the water is discolored** before adding the bleach, run the water until it is clear for up to 10 minutes.
- **Turn off and then drain** your hot water heater; bleach is not effective in water above 105 degrees.
- **Remove and replace** charcoal filters after the disinfecting process is completed.
- **To avoid adding contamination** to the well during disinfection, clean the work area around the top of the well. Then remove grease and mineral deposits from accessible parts of the well head and flush the outside surfaces with 1/2 cup of unscented household bleach in 5 gallons of water.
- **Turn off the pump.** Remove the cap or well plug on the rubber seal. There are many types of well caps and plugs. If you have questions, you should contact a licensed well driller. If you have a submersible pump, you may also want to contact a licensed well driller for advice on disinfection processes.

- **Check the bleach chart below** and pour the recommended amount of unscented bleach (4 to 6 percent active ingredient) solution into the well. Try to coat the sides of the casing as you pour. If you get bleach on the pump or wiring, flush it thoroughly with fresh water to prevent later corrosion.

Well Depth in Feet Well Diameter in Inches

2" 4" 5" 6"

20' 1 cup 1 cup 1 cup 1 cup

30' 1 cup 1 cup 1 cup 2 cups

40' 1 cup 1 cup 2 cups 2 cups

50' 1 cup 2 cups 2 cups 3 cups

80' 1 cup 2 cups 1 qt 1 qt

100' 1 cup 3 cups 1 qt 1.5 qts

150' 2 cups 1 qt 2 qts 2.5 qts

200' 3 cups 1.5 qts 2.5 qts 3 qts

Conversions 8 oz = 1 cup / 16 oz = 1 pint = 2 cups

24 oz = 3 cups / 32 oz = 1 quart / 48 oz = 1.5 quarts

64 oz = 2 quarts / 80 oz = 2.5 quarts / 96 oz = 3 quarts

- **Re-cap or plug the well** opening and wait 30 minutes.
- **Turn on and, if needed, re-prime the pump.** Open all of the faucets on the system one at a time. Allow the water to run until there is a noticeable smell of bleach. You may also want to flush the toilets. If you have outside faucets, you may want to direct the water away from sensitive plants. If you cannot detect a bleach odor, repeat the well disinfecting process.
- **Turn off all of the faucets** and allow the bleach to remain in the plumbing system for at least 8 hours.
- **Backwash water softeners**, sand filters, and iron removal filters with bleach water.
- **Again, open all the faucets** and run the water until there is no bleach smell—for up to 15 minutes.

After disinfecting your well, the water needs to be tested to verify that it is safe to drink. Although unscented household bleach is effective against microorganisms, it will not remove chemical contamination that may have gotten into your well. Contact your county health department for sampling instructions to get your water tested.

For more information, please contact your county health department or visit www.floridahealth.gov or www.FloridaDisaster.org.

What to Do After the Flood

Drilled, driven or bored wells are best disinfected by a well or pump contractor, because it is difficult for the private owner to thoroughly disinfect these wells.

If you suspect that your well may be contaminated, contact your local or state health department or agriculture extension agent for specific advice on disinfecting your well. The suggestions below are intended to supplement flood precautions issued by State and local health authorities.

WARNING!
DO NOT TURN ON THE PUMP
There is danger of electrical shock and damage to your well or pump if they have been flooded

WARNING!
DO NOT WASH WITH WELL WATER
People drinking or washing with water from a private well that has been flooded will risk getting sick.

Well and Pump Inspection

Flood Conditions at the Well - Swiftly moving flood water can carry large debris that could loosen well hardware, dislodge well construction materials or distort casing. Coarse sediment in the flood waters could erode pump components. If the well is not tightly capped, sediment and flood water could enter the well and contaminate it. Wells that are more than 10 years old or less than 50 feet deep are likely to be contaminated, even if there is no apparent damage. Floods may cause some wells to collapse.

Electrical System - After flood waters have receded and the pump and electrical system have dried, do not turn on the equipment until the wiring system has been checked by a qualified electrician, well contractor, or pump contractor. If the pump's control box was submerged during the flood all electrical components must be dry before electrical service can be restored. Get assistance in turning the pump on from a well or pump contractor.

Pump Operation - All pumps and their electrical components can be damaged by sediment and flood water. The pump including the valves and gears will need to be cleaned of silt and sand. If pumps are not cleaned and properly lubricated they can burn out. Get assistance from a well or pump contractor who will be able to clean, repair or maintain different types of pumps.

Emergency Disinfection of Wells that have been Flooded

Before Disinfection: Check the condition of your well. Make sure there is no exposed or damaged wiring. If you notice any damage, call a professional before the disinfection process.

Materials Needed:

- One gallon of non-scented household liquid bleach;
- rubber gloves;
- eye protection;
- old clothes; and
- a funnel.



Step 1

If your water is muddy or cloudy, run the water from an outside spigot with a hose attached until the water becomes clear and free of sediments.

Step 2



Determine what type of well you have and how to pour the bleach into the well. Some wells have a sanitary seal with either an air vent or a plug that can be removed (a). If it is a bored or dug well, the entire cover can be lifted off to provide a space for pouring the bleach into the well (b).



Step 3

Take the gallon of bleach and funnel (if needed) and carefully pour the bleach down into the well casing.



Step 4

After the bleach has been added, run water from an outside hose into the well casing until you smell chlorine coming from the hose. Then turn off the outside hose.

Step 5

Turn on all cold water faucets, inside and outside of house, until the chlorine odor is detected in each faucet, then shut them all off. If you have a water treatment system, switch it to bypass before turning on the indoor faucets.



Step 6

Wait 6 to 24 hours before turning the faucets back on. It is important not to drink, cook, bathe or wash with this water during the time period --- it contains high amounts of chlorine.

Step 7

Once the waiting period is up, turn on an outside spigot with hose attached and run the water into a safe area where it will not disturb plants, lakes, streams or septic tanks. Run the water until there is no longer a chlorine odor. Turn the water off.



Step 8

The system should now be disinfected, and you can now use the water.

Step 9

Have your water tested for bacteria 7 to 10 days after disinfection.