# How to Disinfect Your Well After a Flood

FOR YOU AND YOUR FAMILY'S SAFETY, DO NOT DRINK WATER FROM YOUR PERSONAL WELL UNTIL THE WELL HAS BEEN **DISINFECTED AND TESTED.** 

# SAFE WATER ALTERNATIVES

Until your well is tested and safe:

- Use bottled water.
- If you do not have safe bottled water, boil your water to make it safe to drink. If the water is cloudy, first filter it through a clean cloth, paper towel or coffee filter. Another option is to let any particles in the water settle to the bottom, then draw off the clear water for boiling.
- Bring the clear water to a rolling boil for at least one minute (at elevations above 6,500 feet, boil for three minutes). Let the boiled water cool and store in sanitized containers.

## DISINFECTION PREPARATION

Tools Needed:

- A garden hose long enough to reach from an outdoor water faucet to the well
- Protective goggles/gloves
- · Clean five-gallon bucket
- Five gallons of water
- Funnel
- Unscented (no cleaners added) household liquid bleach containing 5.25% chlorine that is less than six months old.

# Amount of unscented liquid chlorine bleach needed for well disinfection.

		Well diameter (inches)				
		4	6	8	24	36
WATER DEPTH IN WELL	10	6 cups	7 cups	8 cups	20 cups	2.5 gal
	20	7 cups	8 cups	10 cups	2.5 gal	4.5 gal
	50	8 cups	10 cups	14 cups	5 gal	10.5 gal
	100	10 cups	16 cups	22 cups		
	150	12 cups	20 cups	30 cups		
	200	14 cups	1.5 gal	2.5 gal		
	400	22 cups	2.5 gal	4.5 gal		

4 cups = 0.25 gal; 8 cups = 0.5 gal; 12 cups = 0.75 gal; 16 cups = 1 gal

If using granular calcium hypochlorite for disinfection, please follow the table below for approximate amounts to use in your well:

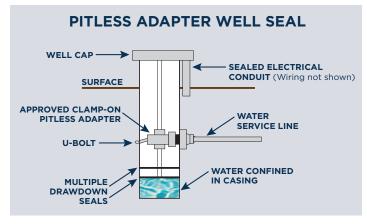
Water Depth of Well	Granular Calcium Hypochlorite (ounces)
100 ft of water	9 oz
200 ft of water	18 oz
300 ft of water	27 oz
400 ft of water	36 oz
500 ft of water	45 oz
600 ft of water	54 oz
700 ft of water	65 oz
800 ft of water	72 oz
900 ft of water	80 oz
1,000 ft of water	88 oz

## DISINFECTING INSTRUCTIONS

If your well is damaged, the following instructions **cannot** be used to disinfect your well. Contact a **licensed** well driller for assistance with well damage or help disinfecting and shock chlorinating your well. You can search for well contractors in your county at <u>Find Certified Well Contractors</u>, or contact Bryan Colvard at 336-528-0409 or email him at <u>bryan.colvard@dhhs.nc.gov</u> for assistance locating a well professional in your area.

**STEP 1 - Turn power off**. Turn off power to the pump by turning off circuit breaker.

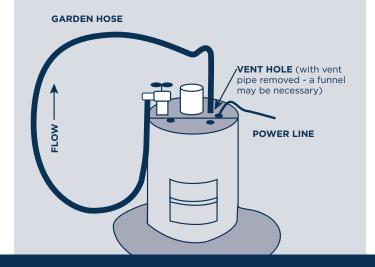
**STEP 2 - Open the well.** Check your well for damage. If there is damage, discontinue instructions and contact a licensed well driller for assistance. For a well seal, remove the threaded vent tube for access. For a pitless adapter, remove the bolts and lift for access.



**STEP 3 - Mix disinfectant.** Fill 5-gallon bucket three fourths with water. Use the above table to determine how much bleach to add to the bucket. Using a funnel, add the bleach solution into the thread access port or well casing.

**STEP 4 - Recirculate treated water.** Turn on the circuit breaker to the pump. Connect the garden hose to the outdoor faucet. Place the funnel in the well's access point and put the garden hose into the access point. Turn the water on and let it circulate for at least 30 minutes.

Wellhead set up to circulate chlorine solution within well. Adequate circulation within the well is needed prior to turning on faucets in the house.



**STEP 5 - Run disinfectant through faucets.** Turn on each tap in the house one at a time (hot water, cold water, toilets, showers, etc.) and run water until you smell chlorine. Leave water in the plumbing for at least eight hours or overnight.

**STEP 6 - Flush disinfectant.** Run disinfected water through the outside garden hose until you no longer smell chlorine. Repeat with each indoor fixture.

**STEP 7 - Reconnect devices.** Disinfect home water filters and water softeners according to manufacturer's instructions and reconnect.

DO NOT DRINK THE WATER UNTIL IT HAS BEEN TESTED.

# **NEXT STEPS**

For those who already have the necessary disinfection materials, you can begin disinfecting and sampling your well now. If you do not have these supplies or are unsure how to proceed, additional resources will be available soon. The NC State Laboratory of Public Health and the NCDHHS Environmental Health Section is working to provide both disinfection and sampling kits at Point of Distribution locations across Western North Carolina. More details will be announced.

If for any reason you are unable to disinfect your well yourself, help is available. For any questions, assistance or to schedule your free well testing after disinfection, please contact your local health department.

Please note that after your water has been tested, you will need to wait for results from the local health department before using your well for drinking. Your local health department will provide the water sample results back to the well owner as quickly as possible.



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