Well Flooding Guidance

Wells located in areas that have been flooded or wells with sources influenced by flood waters should view this guidance. **In general, wells should be inspected, disinfected, and sampled after flooding and prior to being used.**

Steps to Take following Flooding

- Do not drink or use the well water until the water is proven safe.
- Switch to an alternate water source, such as bottled water for drinking, brushing teeth, cooking, etc., until your well is proven safe.
- If no alternate water is source is available, and the well water is clear, boil it for a minimum of 1 minute to remove bacteria, protozoa, and viruses. Note that boiling water can increase concentrations of inorganic chemicals such as nitrates. Do not boil and consume muddy, discolored, or sediment laden water.
- Muddy or discolored water means your well has been influenced by surface water or flood waters. Run a hose from an outside spigot until it runs clear and free of sediment.
- Contact your local county health department to sample your well for bacteria and nitrates.
- Contact a certified well contractor to perform a well assessment and disinfection of the well system.
- DO NOT attempt to repair the pump or any electrical parts on your own, especially during flooding. This must be done by a certified well contractor and there are large electrocution risks associated with well pumps.
- If you are in a water emergency and you cannot get in touch with a certified well contractor, you can perform **emergency shock chlorination**.

Image source: https://investigatemidwest.org/2019/06/09/sw-iowa-flood-adds-to-safe-drinking-water-challenges/

Emergency Shock Chlorination

See page 2 for directions on measuring and mixing bleach for your well.

1. Run the well water from a hose away from the well until it's the water is clear.
2. Turn off all electricity to the well. Call a professional if needed.
3. Remove the well cap or seal and use the funnel or the bucket to pour the bleach mixture down the well (see table on back for bleach mixing instructions)
4. Run a hose from an outside spigot into the well casing (where you added bleach).
5. Turn on the spigot and wait until you start to smell bleach coming from the hose.
6. Coat all sides of the interior well casing with the bleach water, then shut off the hose spigot.
7. If you have water treatment system, turn on the bypass valve. Do not run bleach water through your treatment system.
8. Turn on all interior and exterior COLD water faucets until the chlorine smell can be detected coming from all faucets.
9. Immediately shut off all faucets and wait at least 12 hours before turning the faucets back on. Do not turn on or consume any water during that time.
10. After the waiting period, turn on all cold water faucets and run until chlorine is no longer detected.
11. Have the water tested as soon as possible to determine if the water is safe.

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Proper disinfection requires bleach concentrations 100 mg/L or greater and a minimum of 12 hours contact time with the whole water system. The tables below show amount of bleach needed based on your well diameter and water column depth. If you do not know the depth of your well and the depth to your water, you cannot calculate the correct amount. In that case, please contact a certified well contractor to perform the work. These concentrations require a minimum 12 hour contact time. Mix the amounts below into a 5 gallon bucket with clean water, then use the procedure stated on page 1. You will need a 5 gallon bucket, hose, outside spigot, wrench, latex gloves, and eye protection.

Dug or Bored Well

	Diameter of Well					
Depth of Water	0.5 foot	1 foot	2 feet	3 feet	4 feet	5 feet
10 feet	1/2 cup	1-3/4 cups	7 cups	1 gal	1-3/4 gal	2-3/4 gal
20 feet	1 cup	3-1/2 cups	14 cups	2 gal	3-1/2 gal	5-1/2 gal
30 feet	1-1/2 cups	5-1/4 cups	1-1/4 gal	3 gal	5-1/4 gal	8-1/4 gal
40 feet	2 cups	7 cups	1-3/4 gal	4 gal	7 gal	11 gal
50 feet	2-1/2 cups	8-3/4 cups	2-1/4 gal	5 gal	8-3/4 gal	13-3/4 gal

Drilled or Sandpoint Well

	Diameter of Well Casing						
Depth of Water	2 inches	4 inches	6 inches	8 inches	10 inches	24 inches	36 inches
10 feet	3/4 tbsp	3-1/4 tbsp	1/2 cup	3/4 cup	1-1/4 cups	7 cups	1 gal
20 feet	1-1/2 tbsp	6-1/2 tbsp	1 cup	1-1/2 cups	2-1/2 cups	14 cups	2 gal
30 feet	2-1/4 tbsp	9-3/4 tbsp	1-1/2 cups	2-1/4 cups	3-3/4 cups	1-1/4 gal	3 gal
40 feet	3 tbsp	13 tbsp	2 cups	3 cups	5 cups	1-3/4 gal	4 gal
50 feet	3-3/4 tbsp	1 cup	2-1/2 cups	3-3/4 cups	6-1/4 cups	2-1/4 gal	5 gal
100 feet	7-1/2 tbsp	2 cups	5 cups	7-1/2 cups	12-1/2 cups	4-1/2 gal	10 gal

Source: https://www.cdc.gov/healthywater/emergency/drinking/private-drinking-wells.html