

Recommendations for Private Domestic Wells Impacted by Flooding

WHAT SHOULD I DO IF MY WELL HAS BEEN FLOODED?

If you live in an area that was recently or is currently flooded, your private well may be in danger of contamination. In general, if flood waters have reached your well, or if you notice any change in the appearance or taste of your water, or even if you are unsure about the impact of flooding on water quality in your area, you should boil all the water you use for drinking, cooking or bathing. If you are unable to boil the water, you can purchase bottled water for drinking purposes or follow disinfection procedures outlined below.

WHY SHOULD I BE CONCERNED ABOUT THE SAFETY OF MY WELL WATER?

Surface waters are susceptible to many sources of contamination. This is particularly true during a flood event where sewage runoff and overflow from lakes, rivers and streams may be carrying bacteria, protozoa, or viruses.

IS THERE DANGER OF ELECTRICAL SHOCK IF MY WELL WAS SUBMERGED BY FLOODWATERS?

Yes, in addition to the danger of electrical shock you can also damage your well or pump by turning it on after it has been submerged. You will need to conduct a well and pump inspection before operating your well. After the flood waters have receded and the pump and electrical system has dried, do not turn on the equipment until the wiring system has been checked by a qualified electrician, well contractor or pump contractor.

WHAT DOES IT MEAN IF MY WELL WATER IS CLOUDY OR MUDDY?

Cloudy or muddy water is an indication that your well has been impacted by surface water. You should run water from an outside spigot with a hose attached until the water becomes clear and free of sediments.

Once the water has cleared you will need to disinfect your well by following the instructions below or contacting a qualified well or pump contractor.

CAN MY WELL BE CONTAMINATED EVEN IF IT WAS NOT FLOODED?

Yes, your well can be contaminated even if it has not been submerged by floodwaters. Older wells, wells that are less than 50 feet deep, and those located close to surface waters can become contaminated from underground water.

IS MY WATER SAFE TO DRINK AFTER THE FLOODING SUBSIDES?

No, if your well has been flooded, you must first disinfect it. You can disinfect your well by following the instructions below or by contacting a qualified well or pump contractor.

EMERGENCY DISINFECTION OF WELLS THAT HAVE BEEN IMPACTED BY FLOODING:

Materials needed:

- One gallon of recently purchased non-scented household liquid bleach
- Rubber gloves
- Eye protection
- Old clothes
- Funnel

Step 1: Determine the 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. 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.

Step 2: Take the gallon of bleach and funnel and carefully pour the bleach down into the well casing.

Step 3: 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 4: Turn on all cold water faucets inside and outside of the 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 5: Wait at least 8 hours and up 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 as it contains high amounts of chlorine.

Step 6: Once the waiting period has passed, turn on all faucets inside the house. Turn on an outside spigot with a 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 7: The system should now be disinfected.

Step 8: Have your water tested for bacteria by a licensed laboratory. For a list of licensed laboratories in your area contact the Arizona Department of Health Services at (602) 364-0720.

CAUTION: Because of the speed and direction of groundwater flow affected by flooding, your well may not be a safe source of water for many months after the flood. The well can become contaminated with bacteria or other contaminants. Waste water from malfunctioning septic tanks or chemicals seeping into the groundwater can contaminate the groundwater even after the water was tested and found to be safe. It will be necessary to take long range precautions, including repeated testing, to protect the safety of drinking water.

Surface water can also enter your well through the underground aquifer particularly during flood events. If surface water enters your well it may contaminate the water that you rely on for drinking, cooking, washing and bathing.

ADDITIONAL EPA RELATED INFORMATION

For additional EPA related information, please check the following links:

www.epa.gov/safewater/privatewells/whatdo.html

www.epa.gov/safewater/faq/emergency_septic.html

www.epa.gov/ogwdw000/faq/emerg.html