

What You Should Do If Your Water Well Has Been Flooded

It is best to assume water from a well that has been flooded is contaminated. Do not use the well water for drinking, cooking, making ice, brushing teeth or even bathing until you are satisfied that the water is not contaminated.

Floodwater can be contaminated by substances from upstream, such as sewage from flooded septic systems or wastewater treatment plants, manure, pesticides or fertilizer applied to cropland that was flooded. A septic system in the vicinity of a well also can cause contamination when the soil is flooded. Wells that are inside pits may be flooded even if the surface is not covered with water. In order to ensure that the water is safe, the well should be disinfected and then tested for pathogens.

Disinfecting a Well

Well contractors or drillers may be contacted to disinfect the well, or you can do it yourself in some cases. The Indiana Department of Environmental Management's illustrated guide for disinfecting a well is included in the notebook and is available on the world wide web at the following address:

<http://www.ecn.purdue.edu/SafeWater/drinkinfo/welldisinfection.pdf>

Be sure to follow the instructions carefully, which include the following steps:

- Turn off electric power to the pump and remove the well cap.
- Prepare a bleach and water solution and pour the solution into the top of the well.
- Circulate the water by connecting a hose to a faucet and spraying the water back into the well and down the sides of the well for at least 15 minutes.
- Open every faucet in the system and let the water run until the smell of chlorine can be detected, then close all the faucets and seal the top of the well.
- Keep the chlorinated water in the system for several hours, preferably overnight.
- On the following day, open all the faucets until there is no chlorine odor.

Testing Well Water

Before you resume using the well, collect a water sample and have it tested by a certified laboratory. Call your county health department to find a laboratory near you. Well disinfection will not provide protection from pesticides, heavy metals and other types of non-biological contamination. If such contamination is suspected, due to the nearness of sources for these types of contaminants, special treatment is required. Homeowners can call the EPA Well Care Hotline at (888) 395-1033 if contamination by non-biological elements is suspected.

Well Damage

Another implication flooding can have on your well is the damage or deconstruction of the well in general. Fast-moving floodwater can carry debris that could dislodge well construction materials or distort the casing. The coarse sediment in floodwater also could erode pump components. Inspect the well for physical damage or look for signs of leakage. In the case of a damaged well, consult a licensed water well contractor to find out if repairs are needed.

Additionally, flooding can damage your well pump and electrical systems. If the pump and/or electrical system have been under water, **do not turn on the pump** because of the potential danger of electrical shock or damage to your well or pump. Once floodwaters have receded and the pump and electrical system have dried, have a qualified electrician check the wiring system.

Obtaining Clean Water

Individuals with flooded wells are encouraged to find an alternative source of water for drinking, cooking and washing. For example, you may be able to get water from a neighbor's well if you know it is safe, or from a public water supply. Purchasing bottled water also is a good alternative. If you can't find a convenient source of safe water, boil your well water for five minutes before use.

Homeowners returning to their home after a flood may be eager to use the water. But remember that flooding presents special health risks and requires extra attention to protect your family's health.

Arkansas residents can contact their University of Arkansas Division of Agriculture Cooperative Extension Service county office for a copy of "Improving Home Water Quality." Of particular usefulness, when well contamination is an issue, is a section entitled "Shock Chlorination." This publication has a number of practical solutions to typical water system problems for those using their own well. Contact your local county Extension agent for more information on techniques to improve the quality of the water supplied to your home.

Adapted from Purdue "Safe Water for the Future" web site, Purdue University, Lafayette, IN.