



PRIVATE WELLS - GUIDANCE FOR WHAT TO DO AFTER THE FLOOD

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 DRINK OR WASH WITH WELL WATER

People drinking or washing with water from a private well that has been flooded will risk getting sick.

This Guidance is intended to supplement flood precautions issued by State and local health and environmental departments.

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 floodwater. 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.

CLEANING THE WELL

- **Drilled, driven or bored wells** - To avoid damage to the well, contact a well or pump contractor to remove mud, silt and other debris from around the top of the well. Consult the contractor if you suspect that excessive mud, silt or sediment has entered the well. The pump may need to be removed for bailers to remove mud and silt from the bottom of the well.

Dug wells - It is not recommended to attempt to disinfect or use a dug well that has been flooded.

PUMPING THE WELL

- After the contractor services and cleans the well, pump the well until the water runs clear to rid the well of flood water. Depending on the size and depth of the well and extent of contamination, pumping times will vary. If the water does not run clear, get advice from the county or state health department or extension service.

EMERGENCY DISINFECTION OF WELLS THAT HAVE BEEN FLOODED

- **Drilled, driven or bored wells** - These wells are best disinfected by the well or pump contractor because it is difficult for the private owner to thoroughly disinfect these wells. However one method that can be tried is:
 1. After you are sure that the pump unit and electrical components are in operating order, pump the well for several hours to reduce cloudiness and contaminant levels in the water.
 2. Pour about four gallons of chlorine bleach solution into the well (one gallon of bleach mixed with three gallons of clean water). Use bottles of chlorine bleach that have not been previously opened. Chlorine bleach substitutes cannot be used. Calcium hypochlorite may also be used (contact your state or county officials for amount to use). Pump water through all outlets in the plumbing by opening faucets until water smells of chlorine. If it does not, add more chlorine bleach to the well.

3. With all faucets off, let system sit for 24 hours.
4. Turn on the pump by running water from all faucets until the chlorine odor disappears. Adjust the flow of water faucets or fixtures that discharge to septic tank systems to low flow to avoid overloading the septic system.
5. After 10 days, have the water sampled and tested by an approved laboratory or health department. This water is not safe for drinking.
6. If the testing indicates contamination, do not use the water for any purpose unless the water is first disinfected. If testing indicates no contamination is present, water should be used only for bathing and washing, not letting the water enter the mouth. This water can be used for drinking or cooking by disinfecting it. To do this, boil the water for 3 - 5 minutes or add 10 drops of bleach to one gallon of water (Mix and let stand for 30 minutes before drinking).

CAUTION: Because of the extensive flood area and the speed and direction of ground water flow, 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 ground can contaminate the ground water 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.

SAMPLING AND TESTING THE WELL WATER

- Contact the local health department to have well water sampled and tested for contamination.
- If the health department issues sterile bottles for the private well owner to collect water samples, follow all instructions for the use of these bottles.
- After the pump is back in operation, the health department should sample and test the water at regular intervals.

CONCERNS AND ADVISORIES

If in doubt about the well water supply, follow health department drinking and bathing advisories.

Remember that there is a danger of **electrical shock** from any electrical device that has been flooded; consult a certified electrician. Rubber boots and gloves are not adequate protection from electric shock.

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 these contaminant sources, special treatment is required. Information on home water treatment units (also called point-of-use and point-of-entry units) is available from U.S. EPA by phoning the **Safe Drinking Water Hotline (1-800-426-4791)**. If you observe chemical containers (including barrels and drums) that have moved to your property, call your state or county health department or the EPA Superfund Hotline (1-800-424-9346).

For information on long-term water quality conditions in the area, consult the state or county health department. Well owners may have information about the construction, or testing of their well and this information will be helpful to the health department in determining water quality conditions.

Septic systems should not be used immediately after floods. Drain fields will not work until underground water has receded. Septic lines may have broken during the flood.

Listed below are State flood hotline numbers to call for assistance:

(Note that some states have the same number)

Minnesota	800-621-3362	
Wisconsin	800-621-3362	
Missouri	800-853-3362	
Iowa	800-858-6918	
Illinois	800-820-1125	
Nebraska	800-853-3362	
South Dakota	800-330-4250	
Kansas	800-853-3362	
North Dakota	701-250-4501	(Disaster Field Office number to use until hotline number established)

