



# Ottawa County Health Department



**Public Health**  
Prevent. Promote. Protect.

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## WELLS, SEPTIC SYSTEMS AND FOOD SAFETY DURING FLOOD EVENTS

The Ottawa County Health Department is providing guidance to residents affected by recent flooding. Do not drink or use water from wells that have been submerged in flood waters. Possible disease causing contaminants may be present in flood waters causing wells to become contaminated. Contact with flood waters may also be a health hazard.

Persons in contact with flood water should wash hands with soap and disinfected or boiled water before preparing or eating food; after toilet use; after participating in flood cleanup activities and after handling articles contaminated with flood water or sewage.

If your well head is surrounded by or covered by water, do not use the water for consumption, cleaning, or cooking until it is tested and approved by the health department. Call the Environmental Health Services for details (616) 393-5645

### DRINKING WATER WELLS

If your home is served by a private well please check well for signs of contamination. If your well has been submerged by flood waters, or is currently surrounded by flood waters, you must assume that the water source is contaminated until proven safe. If your well has been submerged, the Ottawa County Health Department is advising you to purify all water used for drinking, cooking, cleaning kitchen and bathroom surfaces, and washing (eating & cooking utensils, hands, & body). For information on how to purify your water source or on how to obtain uncontaminated water please refer to the Boiling Water Advisory enclosed.

Tips to Remember:

- It is important to note that any person(s) that are exposed or have contact with flood waters should wash as soon as possible using soap and a pure water source.
- Do not use water that has a dark color, an odor, or contains floating material.
- Keep children and pets out of affected area until cleanup has been completed.
- Boil water at a rolling boil for 3 minutes to disinfect or use bottled water.

#### After a Flood Event

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 flood water. 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.
- Water Quality - After a flood has occurred in your area you will want to have your water source disinfected and tested to ensure that it is safe to use for cleaning, cooking, washing, and consumption. Licensed well drillers can disinfect your well. Residents may also obtain a test kit from any Ottawa County Health Department location. Call (616) 393-5645 for details.

The Ottawa County Health Department is advising all residents with wells submerged by flood waters to purify all water used for drinking, cooking, and washing eating and cooking utensils. Also, purify the water used for washing hands, body, and kitchen/bathroom surfaces.

Safe purified water for drinking, cooking and personal hygiene includes:

- Bottled Water
- Boiled Water
- Chemically Treated Water

#### Guidelines for Treatment of Water

- Bottled Water
  - ensure that you know the water came from a safe source
- Boiled Water
  - Boil water for 3 minutes at a rolling boil and refrigerate
  - Kills bacteria & parasites
- Chemically Treated Water
  - Unscented Chlorine Bleach:(5.25% sodium hypochlorite) (NOT lemon, sea breeze, or wildflower scents, etc)
  - Clear Water: add 1/8 teaspoon (~0.75 mL) of bleach to 1 gallon of water let stand for 30 minutes
  - Cloudy Water: add ¼ teaspoon (~1.50 mL) of bleach to 1 gallon of water let stand for 30 minutes
  - Chlorine Tablets: purchase at store and follow the directions that are provided
  - Iodine Tablets: purchase at store and follow the directions that are provided

\*NOTE: Water treatment through chemicals will NOT kill parasitic organisms

#### Personal Hygiene

- Hand washing
  - Use treated water and soap to wash your hands
- Brushing your Teeth

- Use treated water ONLY

## SEPTIC SYSTEMS

If your home is served by a private septic system, and your system has been submerged by flood waters, or is currently surrounded by flood waters, you may experience problems with system function.

### During a Flood Event

**Whenever the water table is high or your sewage system is threatened by flooding there is a risk that sewage will back up into your home. The only way to prevent this backup is to relieve pressure on the system by using it less.**

- If possible, don't use the system if the soil is saturated and flooded. The wastewater will not be treated and will become a source of pollution. Conserve water as much as possible while the system restores itself and the water table falls.
- Do not pump your septic tank during a flood event.
- Do not open the septic tank for pumping while the soil is still saturated. Mud and silt may enter the tank and end up in the drainfield damaging it.
- Pumping tank(s) could cause the tank(s) to float out of the ground and may damage the inlet and outlet pipes.
- The best solution is to plug all drains in the basement and drastically reduce water use in the house.
- Locate any electrical or mechanical devices the system may have that could be flooded to avoid contact with them until they are dry and clean.

### After a Flood Event

- Do not use the sewage system until water in the soil absorption field is lower than the water level around the house.
- Have your septic tank professionally inspected and serviced if you suspect damage.
  - Signs of damage include settling or an inability to accept water. Most septic tanks are not damaged by flooding since they are below ground and completely covered. However, septic tanks and pump chambers can fill with silt and debris, and must be professionally cleaned. If the soil absorption field is clogged with silt, a new system may have to be installed.
- Only trained specialists should clean or repair septic tanks because tanks may contain dangerous gases.
- If sewage has backed up into the basement, clean the area and disinfect the floor.
  - Use a chlorine solution of a half cup of chlorine bleach to each gallon of water to disinfect the area thoroughly.
- Pump the septic system as soon as possible after the flood.
  - Be sure to pump both the tank and lift station. This will remove silt and debris that may have washed into the system. Do not pump the tank during flooded or saturated conditions.
- Do not compact the soil over the soil absorption field by driving or operating equipment in the area.
  - Saturated soil is especially susceptible to compaction, which can reduce the soil absorption field's ability to treat wastewater and lead to system failure.
- Examine all electrical connections for damage before restoring electricity.

- Be sure the septic tank's manhole cover is secure and that inspection ports have not been blocked or damaged.
- Check the vegetation over your septic tank and soil absorption field. Repair erosion damage and sod or reseed areas as necessary to provide turf grass cover.

## FOOD SAFETY

Dispose of any spoiled or contaminated food. Contaminated food is any food that came into contact with the flood water. If you are unsure if the food came into contact with flood water it is best to dispose of the food to prevent illness.

- Throw away any food that came into contact with flood water. Undamaged commercially canned foods can be saved
  - Remove the labels
  - Wash cans with purified water
  - Disinfect the cans with a solution of 1 cup of unscented chlorine bleach (5.25% sodium hypochlorite) in 5 gallons of water
  - Relabel the cans with a marker, be sure to include the expiration date
- Food containers with screw-caps, snap-lids, crimped caps, twist caps, flip tops, and home canned foods need to be thrown away because they **CANNOT** be disinfected

### Frozen & Refrigerated Foods

If your refrigerator or freezer will be without power for a long period:

- Seek freezer space at a friend's home or a commercial freezer
- Use dry ice
  - 25lbs of dry ice will keep a 10 cubic foot freezer below freezing for 3 to 4 days
  - Be careful when handling dry ice
- Any food at room temperature for two hours or more should be discarded.
- Any food that has an unusual odor, color, or texture should be discarded
- **When in doubt, throw it out**

### Infant Formula

Use only pre-prepared, canned baby formula that requires no added water, rather than powdered formulas prepared with treated water.

## **OTHER CONCERNS ABOUT FLOOD WATERS**

Flood waters may contain fecal material from overflowing sewage systems, and agricultural and industrial byproducts. Although skin contact with flood water does not, by itself, pose a serious health risk, there is some risk of disease from eating or drinking anything contaminated with flood water. If you have any open cuts or sores that will be exposed to flood water, keep them as clean as possible by washing well with soap to control infection. If a wound develops redness, swelling, or drainage, seek immediate medical attention.

In addition, parents need to help children avoid waterborne illness. Do not allow children to play in flood water areas, wash children's hands frequently (always before meals), and do not allow children to play with flood water contaminated toys that have not been disinfected. You can disinfect toys using a solution of one cup of bleach in 5 gallons of water.

## **QUESTIONS?**

Contact the Ottawa County Health Department at (616) 393-5645