## Water Safety Information

Water sources that have come into contact with flood water should be considered unsafe for ANY consumption purposes.

Flood waters pose various risks, including infectious disease, chemical hazards and injuries. To protect yourself and your family:

- Wash your hands after any contact with flood waters.
- Do not allow children to play in flood water areas.
- Wash children's hands frequently (always before meals).
- Do not allow children to play with toys that have touched flood water and have not been disinfected.
- For information on disinfecting certain nonporous toys, visit CDC Healthy Water's Cleaning and Sanitizing with Bleach section.

> Use Clean Water for Everything

## Drinking Water

## All water possibly contaminated by

 flooding must be disinfected, whether from wells, springs, or cisterns. Bottled water which has not been in contact with flood water may be used for drinking, hand washing, and cooking/ware utensils. Water should be treated by one of the two methods given below (Note: cloudy or colored water may be difficult to sanitize.)1. Boil water for five minutes and store in a clean container. The flat taste can be eliminated by shaking the water in a bottle or pouring it from one container to another. 2. Mix $\underline{5 \text { drops of household bleach with } 1}$ quart of water (or 20 drops per gallon) and let stand for 5 minutes minimum, preferably 30 minutes or longer, before drinking.

Bleach should be unscented and free of detergents or additives. This water will be suitable for drinking, hand washing, and for washing pots and utensils.
An insulated beverage container with a bottom spigot is useful for storing a small supply of clean water for drinking and cooking.

## Questions

If you have any questions regarding well water quality, please contact FCCHD at (406) 751-8130 and request to speak to a Sanitarian.
Emergency information will be distributed via radio, flatheadhealth.org, FCCHD Facebook page, television and newspaper.

## Guide on Disinfecting Drinking Water After a Flood

Wells \& Cisterns



1035 1st Ave West
Kalispell, MT 59901
406-751-8101
flatheadhealth.org

# Well and Pump Inspection 

## Flood Conditions at the Well

Flood water can carry large debris which can 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

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 service can be restored.

## 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.

## Well Disinfection

Step 1 If your water is muddy or cloudy, run the water from an outside spigot with a hose attached until the water becomes clear and free of sediments.

Step 2 Materials needed: non-scented household liquid bleach, according to directions, rubber gloves, eye protection, old clothes and a funnel.

Step 3 Determine what 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 (a). 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 (b).

Step 4 Take the gallon of bleach and funnel (if needed) and carefully pour the bleach down into the well casing.

Step 5 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. If hose is not available dilute bleach with at least 5 gallons of water.

Step 6 Turn on all cold water faucets, inside and outside of 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 7 Wait 6 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 --- it contains high amounts of chlorine.

Step 8 Once the waiting period is up, turn on an outside spigot with 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.

Step 9 The system should now be disinfected, and you can now use the water.

Step 10 Have your water tested for bacteria 7 to 10 days after disinfection.

For more information: www.epa.gov/safewater

WARNING! DO NOT TURN ON THE PUMP
There is a danger of electrical shock and damage to your well or pump if they have been flooded.

## WARNING! DO NOT WASH WITH WELL WATER

People drinking or washing with water from a well that has been flooded are at risk of becoming ill.

## Disinfectant Solutions Summary:

(Household bleach $5.25 \%--6 \%$ sodium hypochlorite)_

| Depth of water in Well (ft) | 4" Casing | 6" Casing | 8" Casing |
| :---: | :---: | :---: | :---: |
| 5 feet | 1 cup | 1 cup | $11 / 2$ cup |
| 10 | 1 cup | 1 cup | $11 / 2$ cup |
| 15 | 1 cup | 1 cup | $11 / 2$ cup |
| 20 | 1 cup | 1 cup | 2 cups |
| 30 | 1 cup | 2 cups | 4 cups |
| 40 | $11 / 2$ cups | 2 cups | 1 qt |
| 60 | 2 cups | 4 cups | 2 qt |
| 80 | 2 cups | 1 qt | 2 qt |
| 100 | 3 cups | $11 / 2 \mathrm{qt}$ | $21 / 2 \mathrm{qt}$ |
| 150 | 4 cups | $21 / 2 \mathrm{qt}$ | 4 qt |


| Depth of <br> water in <br> Well (ft) | 24" Dug <br> Well | $36^{\prime \prime}$ Dug <br> Well | $48^{\prime \prime}$ Dug Well |
| :---: | :---: | :---: | :---: |
| 5 feet | 4 cups | 3 qt | 5 qt |
| 10 | 3 qt | 6 qt | $21 / 2 \mathrm{gal}$ |
| 15 | 4 qt | 2 gal | 4 gal |
| 20 | 5 qt | -- | - |

