

PRIVATE DRINKING WATER IN CONNECTICUT

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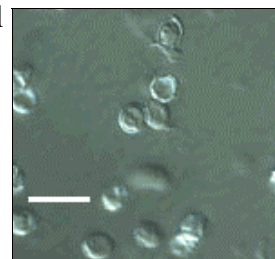
Publication No. 20: Flood and Storm Water Concerns for Private Water Systems

When heavy precipitation, be it of extended duration or sudden torrential cloudburst, causes flooding, it is important to recognize that these unusual events can affect the quality of drinking water obtained from drilled wells, shallow wells and springs. Most at risk would include water sources that are in areas where flooding has occurred and is imminent, such as drilled wells located in well pits where groundwater tables have risen in the pit above the top of the well head, and shallow wells or springs located down gradient from open pollution sources such as agricultural or animal waste run-off or nearby septic systems. Other indicators of pollution may include water discoloration or unusual taste or odor to your private water supply.



Homeowners are encouraged to frequently inspect their water sources prior to these storm events, and shortly thereafter, to determine if there may be conditions present that would make their private water sources vulnerable to pollution and possible contamination. If these conditions are present disinfection of the source followed by water sampling (both bacteriological & certain chemical parameters) is encouraged and you are advised to contact your local health department or the EHS Private Well Program @860-509-7296 for additional advice if necessary. Any unusual aesthetic changes to the water (color, taste or odor) should also trigger precautionary measures such as the use of bottled water for drinking and cooking are recommended until water testing can determine if contamination is present in the water supply.

The Environmental Health Section can recommend the appropriate types of water testing for your private water system during these events. Total coliform bacteria and E. coli bacteria are used as indicators of bacteriological contamination. The presence of E. coli bacteria indicates that the source of contamination has a fecal origin and there may be more harmful organisms present. If bacteriological contamination is present in the water supply after these storm events, you are encouraged to use bottled water for drinking, cooking, and other uses that may result in direct or indirect ingestion. Boiling the water rapidly for a minimum of one minute can also effectively disinfect water. Persons bathing or washing with water that has been contaminated with fecal matter may also experience an increased risk to health. Therefore, do not use the water for any domestic use until it has been deemed potable for human consumption.



Any private well systems that provide water treatment including continuous disinfection (chlorine or ultraviolet light) of their water supply are encouraged to test the untreated water from the well suspected of being compromised by pollution from flooding or run-off. It may be appropriate to perform untreated water



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testing of each water source as a precautionary measure even if there are no obvious signs of concern. Keep in mind that flood waters entering a well can change the quality of the water and introduce sediment, organic matter and contamination that could overwhelm a treatment system and render it ineffective as a safeguard to bacterial contamination.

In addition to the wells themselves, buried water storage tanks or other water system components can also be vulnerable to contamination. Seek the advice of a professional well driller, water treatment specialist or your local health department in you are not confident about your private water system's integrity.



Typically after floodwaters have receded, wells and storage tanks that have been impacted should be thoroughly flushed, disinfected and tested to ensure that the water is of safe sanitary quality.

See Publication **#27 Disinfection Procedure for Private Drinking Water Wells** for more information.

Private wells that are located in well pits with inadequate drainage should be considered automatically contaminated if flooded. After flooding the well should be upgraded with a pit less adapter to eliminate the pit and subsequent flooding. Other actions to improve your private water system may be suggested by a licensed well driller or plumber, your local health department or the EHS Private Well Program at 860-509-7926.

For more information please click on the following links:

EPA Office of Groundwater and Drinking Water

<http://www.epa.gov/ogwdw/>

EPA New England

<http://www.epa.gov/region01/>

Adapted from *Healthy Drinking Waters for Rhode Islanders*, University of Rhode Island Cooperative Extension, April 2003.