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Health Commissioner

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Fact Sheet: Disinfection of Private Water Systems that Have Undergone Flooding

When flooding surface water enters a private water system, such as a well, cistern, or hauled water storage tank, the entire system should be viewed as contaminated with bacteria. (Other contaminants could also be present, but these can only be determined on a case-by-case basis.) The Summit County Health District requires that all private water systems contaminated with bacteria be properly disinfected. To determine whether the disinfection process was successful, each system should be sampled and tested for the presence of coliform bacteria **AFTER** the appropriate process described below has been done. To request a sample, the owner or occupant of the home using the system may call our Environmental Health Division at 330-926-5600, Monday through Friday, between 8:00 a.m. and 4:00 p.m. The current fee is \$60.00.

To disinfect a well that has been contaminated by flood water, the Summit County Health District advises the system owner or user to “over-pump” the well to remove as much flood water as possible. This should only be attempted after flood waters recede and only after all electrical hazards have been assessed and corrected. Over-pumping is accomplished by simply turning on all faucets and running the water for an extended period of time—paying attention to any indications of well or pump stresses, such as reduced flow or unusual mechanical sounds from within the well casing. After over-pumping the well, the system owner should call an Ohio Department of Health-registered private water system contractor who specializes in water wells. The contractor should be hired to extend the well casing to three feet above the highest flood level to prevent future such problems and to “super-chlorinate” the well. Super-chlorination is not the standard method of disinfecting a well that most well owners are familiar with, but rather a specific technique that pushes the disinfecting chlorine compound solution out into the same reaches of the aquifer that the flood waters were able to permeate. After the system has been completely flushed of all chlorine residual for at least two days, it is time to have the water tested for the presence of bacteria.

To disinfect cisterns and hauled water storage tanks that have been flooded, pump the cistern or hauled water storage tank to remove all contaminated water and debris. The Ohio Department of Health recommends using a clean, stiff broom to scrub the interior walls and ceiling with a disinfecting solution mixed from one-quarter cup of 5.25% chlorine laundry bleach in 10 gallons of water. Remove all debris. (No person should enter a cistern or hauled water storage tank unless he or she is trained in confined space entry safety techniques!) Place as much potable water as possible in the cistern or hauled water storage tank. Mix as thoroughly as possible. Pump water through the system until the distinct odor of chlorine is present at all outlets. Retain the chlorine solution in the cistern or hauled water storage tank and distribution system for at least 24 hours. After 24 hours, check the water for chlorine residual—if no residual is found, repeat the process. After disinfection, the owner should provide continuous disinfection to help insure constant potability; and have the water tested for the presence of bacteria.

For further information, please contact Tom LaPlante at 330-926-5651.