EMERGENCIES & DISASTERS AND WATER WELLS: SPECIAL ON NATURAL DISASTERS AND MANAGING A FLOODED WELL

This is part two of our special two-part newsletter that will help you prepare for natural disasters, such as hurricanes, and help you manage a flooded well and septic system. In this newsletter, we'll cover preparing for an emergency, what to do first after an emergency has occurred, conditions you may notice at your well including flooding, the electrical system and pump operation, disinfecting your well, the importance of testing your water and how to manage your septic system after a flood.

As always, if you have any questions about your well or well water contact the wellcare® Hotline
at 1-888-395-1033 or online at www.wellcarehotline.org.

September is National Preparedness Month and the peak of hurricane activity. So now is a perfect time to prepare!

Preparing for an Emergency

Storms can form quickly leaving little or no time to prepare. If you have time to prepare before a storm, there are a few items you’ll want to gather to keep you and all family members safe. Prepare for a power outage and purchase food that won’t perish quickly, pickup batteries (C and D batteries are the most common ones used for flash lights and portable stereos), and most importantly have water and ice ready. Make sure to have at least one gallon of water per person per day and don’t forget about your pets! You can make your own ice packs or buy bags of ice to make food in your refrigerator and freezer last longer if your power goes out. To make your own ice packs, fill various size Ziploc bags 3/4 full of water and freeze at least 24 hours in advance. For insurance purposes take pictures of the inside and outside of your home. You should also take pictures of your car(s), boat, shed, pool, wellhead and any other equipment you may have. Back up all your important documents on your computer and keep a copy with you.

In case you have to evacuate pack bags for each family member and keep them close to your front door. Consider including the following: a change of clothes, medicine and any special
dietary needs, first aid kit, flashlight, portable radio, your ID, back up disk with computer files, camera with your home photos, home and auto insurance documents, blankets and pillows.

For more information on preparing for a storm, see the following websites:

Centers for Disease Control
Environmental Protection Agency
Federal Emergency Management Agency

**Warning!**

*DO NOT* turn on the pump or wash with the water if the well has been flooded or any damage has occurred to the wellhead or cap.

**First Response**

If you are a private well owner, and a natural disaster has occurred on or near your property, there are some things you should know about your drinking water supply. First, *DO NOT* turn on the pump or wash with the water. There is danger of electrical shock and damage to your well or pump could occur if they have been flooded. *DO NOT* drink, cook or wash with the water as it could be contaminated and you risk getting sick. If you suspect septic lines are damaged, avoid using sinks, showers or toilets. If water pipes are damaged turn off the water at
the main valve. Contact a well professional or septic service immediately for assistance.

CAUTION!
Risk of Electrical Shock

After a disaster, **ALWAYS** get assistance in turning the pump on from a qualified electrician, well or pump contractor.

Managing a Flooded Well

Flood waters can carry large debris that can loosen well hardware, dislodge well construction materials or distort the well casing. Coarse sediment and flood water can erode pump and electrical components. After the flood has receded, contact your well professional who will be able to clean, repair or maintain different types of pumps. If you need assistance in locating a well professional, contact your local health department or the wellcare® Hotline at 1-888-395-1033.

DO NOT turn on the equipment until the wiring system has been checked by your well professional or a qualified electrician. If the pump's control box was flooded, all electrical fittings must be dry before service can be restored. There is risk of shock and damage to

Industry News

**Virginia** ~ Minimum Well Storage Capacity and Yield Requirements for Residential Drinking Water Wells; Requirements for Express Geothermal Well Permits Rules effective on 8/16/2012

Fast-track regulations pursuant to Chapter 710 of the 2009 VA Acts of Assembly: First amendment reduces costs associated with construction of geothermal well systems and establishes an express geothermal permit via a streamlined process. Second amendment establishes minimum well yield and storage requirements for residential drinking water wells. There have been several cases where a home buyer has learned of a low-yield well only after purchasing a new home. Prior to 2009 regulations only contained recommendations. Setting minimum well yield and storage requirements protects citizens by reducing potential financial burdens associated with homes that have an inadequate supply of water.

For more information click here
your well and pump if the system is not dry and clean.

Disinfecting Your Well

After the power has been restored and your well system and components have been thoroughly inspected, you will need to disinfect your well. Bored or dug wells are best disinfected by a well professional because of how they are constructed. Disinfection will not remove pesticides, metals, and other types of non-biological contamination. Do not drink or cook with the water until a water test is performed and confirms there are no harmful contaminants in your water. Refer to our information sheet on "Disinfecting Your Well" or contact your well professional for assistance with this procedure.

Testing the Water

You should have your well water tested after disinfecting your well to confirm bacteria is gone and other contaminants are not present. Contact
your local or state health department to have your water tested or to get a referral to a state certified laboratory that can perform water testing. If you need assistance, contact the wellcare® Hotline or visit our website here.

Warnings!

**DO NOT use the septic system - have the septic tank inspected first!**

*Only trained professionals should clean and repair septic tanks because septic tanks may contact dangerous gases!*

Your Septic System: After a Flood

If you have experienced flooding, **DO NOT use the septic 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.

Important notes about your septic system and flooding:
• 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 flooding or saturated drainfield conditions. At best, pumping the tank is only a temporary solution. Under worst conditions, pumping it out could cause the tank to try to float out of the ground and may damage the inlet and outlet pipes.

• 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.

• Have all electrical connections inspected 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.

Only trained specialists should clean or repair septic tanks because they may contain dangerous gases. Contact your health department for a list of septic system contractors who work in your area.
For more information on septic systems after flooding occurs click here.

Previous newsletters with additional tips can be found here.

WSC has over 80 different welcare® information sheets that can help you and your family learn more about managing a water well and protecting your water supply. Visit our website or contact the welcare® Hotline at 888-395-1033.

Kids Place: Help Make a Disaster Supply Kit

All family members should know what to do in the event of a hurricane or other emergency. The American Red Cross has suggested every family develop a Disaster Supply Kit. The kit should have enough supplies for three days and include the Family Disaster Plan (what your family will do in the event of a disaster).

Together with your parents or guardians, assemble a Family Disaster Supply Kit and include the following:

- Family Emergency Contacts List
- Maps of area
- Food (3-day supply of nonperishable foods)
- Water (3-day supply of 1 gallon per person per day for drinking, washing and preparing food)
- First aid supplies (bandages, antibiotics, first aid manual, thermometer, pain relievers, prescription medication, etc.)
- Simple tools (radio, flashlights, can opener, utility knife, batteries, scissors, etc.)
• General supplies to stay comfortable, safe and entertained (games, books, favorite toys, paper, pencils, blankets, hygiene supplies, matches, toilet paper, garbage bags, disinfectant, etc.)
• Pet supplies

For more information click here.

Q & A from the wellcare® Hotline

Question: I am buying a home with a well and would like to know what questions I should be asking regarding the well and what should I test the water for?

Answer: First, you should research the well's history. A copy of the well log (also known as a "Well Completion Report") may be available through the seller, the company that drilled the well and/or the local health department. Review the well's condition, including location, age, capacity and yield. Ask if any water treatment equipment is installed, what type of treatment is it, what is it being used to treat (ie, iron), and if it's being regularly maintained. Finally, test the water and have a thorough well inspection completed. At a minimum, every well should be tested annually for bacteria. The U.S. Environmental Protection Agency (EPA) also recommends testing for nitrate/nitrite and pH, and recommends consulting with experts about the need to test for contaminants of local concern, such as arsenic, lead or radon. Contact the local health department, a local well professional or the wellcare® Hotline for further recommendations.
For more information see our "Buying a Home with a Well" information sheets and our Homeowner, Home Inspector and Realtor brochures here.

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