KENT COUNTY SHERIFF DEPARTMENT
Lawrence A. Stelma – Sheriff

701 Ball Avenue, N.E. • Grand Rapids • Michigan • 49503

FOR IMMEDIATE RELEASE
February 21, 2018
Contact: Lisa LaPlante – 616.632.7567

Emergency Management, County and City Agencies Respond as River Levels Rise

GRAND RAPIDS – Kent County Emergency Management, along with numerous agencies, continues to monitor and respond to flooding emergencies being seen throughout the area. Floodwaters are having a dramatic impact on transit and housing. The waters will likely continue to rise through Saturday, causing many additional concerns for businesses and residents.

"The Sheriff's Office and I are working closely with the National Weather Service, State and County agencies, the City of Grand Rapids, other impacted communities, as well as American Red Cross and Salvation Army," said Jack Stewart, Kent County Emergency Management Coordinator. "Our primary goal is the safety and well-being of our residents and first responders. While the levels are not expected to be as high as they were in 2013, we still need to be as diligent in our response."

The City of Grand Rapids is working closely with Kent County Emergency Management and the National Weather Service on monitoring water levels and is prepared to activate its flood plan, Fire Chief John Lehman said.

"We are working to communicate to all parties directly impacted if flooding occurs and who have flood protection measures in place," Lehman said. "We are well-prepared to respond if flooding occurs." The City's upgraded flood wall system provides protection up to 25 feet of river crest. **Grand Rapids residents** with concerns about the water levels and questions may call the City's 311 Customer Service at 311 or 616.456.3000.

The Kent County Road Commission (KCRC) is updating information on road closures regularly on its website as well as social media accounts. "KCRC crews continue to investigate standing water and flooded areas and are placing barricades and flashers where necessary. We are assessing roads and are closing/opening them as conditions warrant. Motorists are asked to slow down and heed warnings and closures," said Steve Warren, Managing Director of the Road Commission. "Today, our crews will continue clearing catch basins, cleaning spillways, repairing washouts and patching potholes. In these conditions, heavy grading equipment would worsen conditions on gravel roads. Therefore, crews will grade gravel roads when dryer conditions allow." (See next page for road closures.)

Again, reminders regarding flooding:

- **Turn Around, Don't Drown.** This National Weather Service motto reminds us of the danger of floodwaters. Just two feet of floodwaters can sweep away a car. If you see flood water in the road, or barricades/signs posted on roads, for your safety and that of first responders, please turn around and take a different route.

- Do not try to walk or swim through flood waters. River and creek waters can move fast and carry debris that can be dangerous. Six inches of fast-moving flood water can knock people off their feet.

- If you have water in your home/basement, it could be contaminated with pollutants. Handle items that come in contact with flood waters with care, either by disposing of wet items or when possible, cleaning wet items with a disinfectant.

- Keep pets away from flood waters.

- If you live in an area prone to flooding, make sure personal identification items (i.e. passports and birth certificates) are protected. Back up computer files and keep them in a safe place or store them in a cloud-based service.

- Stay tuned to alerts via TV, radio or weather apps for your phone.

- If you are in need of shelter, contact American Red Cross at 616.456.8661.

KCRC Roads Closed Due to Water over Road (February 21, 2018 at 8 a.m., subject to change)

Sorensen (22 Mile Rd to Sprague)
Grosvenor (west of Ritchie)
5 Mile Rd (Ashley to Montcalm)
Division Ave (Fonger to 11 Mile Rd)
Ashley (5 Mile Rd to 6 Mile Rd)
6 Mile Rd (Ashley to Montcalm)
Summit (12 Mile Rd to 13 Mile Rd)
Friske (12 Mile Rd to Rector)
Reeds Lake Blvd (East Beltline Ave to Manhattan)
Peach Ridge Ave (8 Mile Rd to 9 Mile Rd)
2 Mile Rd (Pettis to Egypt Valley)
Division Ave (7 Mile Rd to 8 Mile Rd)
Konkle (east of Jupiter)
McPherson (Lincoln Lake Ave to Alden Nash Ave)
Cherry Valley Ave (84th St to 76th St)
60th St (Bancroft to M-50)
60th St (Pratt Lake Ave to Montcalm Ave)
64th St (East of Pratt Lake Ave)
Wingeier Ave (64th St to 68th St)
Pratt Lake Ave (64th St to 68th St)
Montcalm Ave (Flat River Dr to Covered Bridge Rd)
Patterson Ave (28th St to Burton) right lane in both directions
Northbound US-131 off ramp to 54th St
Northbound US-131 off ramp to 28th St

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FACT SHEET

OFFICE OF DRINKING WATER & MUNICIPAL ASSISTANCE – ENVIRONMENTAL ASSISTANCE CENTER 800-662-9278

PROTECTING YOUR PRIVATE WATER SUPPLY IN AN EMERGENCY

Emergencies, such as power outages and flooding, can threaten the quality of drinking water from your water well system. This fact sheet reviews the potential hazards arising from emergency situations and gives advice on how to protect you and your family against illness.

Electrical power outage

Under normal operation an electric water pump draws groundwater from the well and maintains the water pressure within the storage tank and piping. Pressurization forms a physical barrier that protects the drinking water against the entrance of contaminants. During a power outage a water well system will lose pressure if faucets are opened. As a result, bacteria, viruses, and other disease-causing organisms can find their way into the water system. The water can become contaminated without any noticeable change in taste, odor, or clarity.

During extended power outages it is important to refrain from opening faucets, taking showers, or flushing toilets. While your water system may have several gallons of water in storage, withdrawing water while the power is out depressurizes the system and increases the risk of contamination.

If your water system loses all of its pressure (no water comes out of the faucet), it is a good idea to have the water checked for coliform bacteria.

Flooding

If flooding occurs around your water well, your drinking water may become contaminated. When flood waters rise over the top of the well, contaminants can enter through the well cap or vent and increase the risk of illness. The well can act as a drain as flood water cascades down the casing into the aquifer. Flood water contains bacteria and viruses from soil, organic debris, and sewage systems along with fertilizers, pesticides, and other chemical contaminants. Shallow wells and old, poorly-constructed wells (e.g. dug wells) are vulnerable to water quality changes when turbid flood waters deposit contaminants close to the well. Older wells located in below grade pits are vulnerable to contamination from flooding, even if flooding at the ground surface did not occur. Well pits are unsanitary and are prone to flooding after heavy spring rains or rapid snowmelt occur and surface water or the water level within the surrounding soil gathers within the pit.

If you use “city water”, the risk of contamination is very low. Community wells are generally well protected from flood water. All community water systems are also carefully monitored by the water supply operator and the state. If you water supply does become contaminated, you will be notified promptly.

There have even been documented cases of a homeowner’s well water becoming cloudy after a heavy rain. If you suspect your drinking water is contaminated, you should obtain water from a known safe source for drinking, cooking, and food preparation. Drinking or washing with water from a private well that has been flooded can make you sick. Use bottled water for drinking and cooking until your well is safe to use again. If you must use the well water for drinking or food preparation before the well has been disinfected and tested, the water must be boiled at a rolling boil for at least 5 minutes before use.

If your well has been flooded, you should immediately refrain from drinking the water and take the following steps:

1. After flushing the chlorine from the system, collect a water sample and submit it to a certified laboratory for coliform bacteria analysis.
2. Contact your local health department for further assistance if needed.

Inspect the well and pump

Conditions at the Well- Sediment and floodwater may enter the well through the well cap and contaminate it. Older or shallow wells are likely to be contaminated, even if there is no apparent damage. Well pits can be very hazardous- people have died from asphyxiation or electrocution in well pits. Before entering any well pit, please obtain professional help or guidance on proper safety precautions.

Electrical System- After floodwaters have receded and the pump and electrical system have dried, make certain a qualified electrician, well contractor or pump contractor checks the equipment's wiring before you turn it on. You can be shocked or damage your well or pump if they have been flooded.

Pump Operation- Sediment and floodwater can damage pumps and their electrical components. Get assistance from a well or pump contractor who will know how to clean, repair, or maintain different types of pumps.

Clean and flush the well

Once the flooding recedes, remove mud, silt, and other debris from around the top of the well. The pump may need to be removed so that mud and silt can be removed from the bottom of the well. Begin flushing the water system. Hook a hose up to an outside faucet or a faucet near the water storage tank and flush the water for at least 2 hours after the water clears up. If a large volume of flood water entered the well, several hours of pumping may be needed. Once the water is clear at the storage tank, flush the home distribution piping.

Disinfect the well

Drilled, driven, or bored wells- It is best to have a well contractor disinfect these wells because it is difficult for the private owner to thoroughly disinfect them.

Dug wells- Do not attempt to disinfect or use a dug well that has been flooded.

CAUTION: Wells can become contaminated in a number of different ways, including bacteria, wastewater from malfunctioning septic systems, or chemicals seeping into the ground. So taking long-range precautions is necessary, including repeated testing, to protect the safety of drinking water.

Water testing

After flushing the chlorine from the system, collect a water sample and submit it to a certified laboratory for coliform bacteria analysis. Homeowners should periodically test their drinking water for coliform bacteria. An annual test is recommended (or more frequently if the taste, odor, or water clarity changes). Coliform bacteria (common in the intestines of warm-blooded animals) are indicators of the potential for disease-causing organisms to be present in the water supply. Tests for metals, petroleum products, pesticides, and other chemicals are also available from state or privately operated laboratories. Water sample bottles, information about which test may be most appropriate for your situation, and interpretation of water test results are available from your local health department.

If your water system was completely depressurized during a power outage or if your well was flooded, it is especially important to check the water quality before continuing to consume the water. The water is considered safe for drinking after two consecutive samples, collected 8 hours apart, show that coliform bacteria are not present.

Temporary water supply

If your water system was depressurized during interruption of electrical power or if flooding of the well has occurred, the water should not be consumed until testing has verified that it is potable (fit to drink). Here are some alternatives to ensure that you and your family have a safe temporary drinking water supply until your water system is restored:

- Keep a supply of bottled water on hand as emergency drinking water. A few 5-gallon pails filled with water and stored in your basement are helpful for toilet flushes and other nonpotable uses during power outages.
- Water can be boiled to kill any harmful microorganisms. Bring the water to a rolling boil for at least 2 minutes; then let it cool. Pouring the water back and forth between two clean containers will reaerate the water and freshen the taste.
- Water can be disinfected with household chlorine bleach (unscented) by applying 10 drops of bleach per gallon of water. Allow at least 4 hours of contact time before drinking. Avoid attempting to disinfect turbid or cloudy water.
- A portable water filtration/purification unit (available at camping or backpacking stores) can be used to prepare small amounts of drinking water. These rely on a hand-operated pump to force the water through a filter (typically less than one quart per minute). Be sure that the unit will remove microorganisms down to 0.3 microns in size. Carefully follow the filter manufacturer's instructions.

For information or assistance on this publication, please contact the Office of Drinking Water and Municipal Assistance, through the DEQ's Environmental Assistance Center at 800-662-9278. This publication is available in alternative formats upon request.

What to do if your home floods

2/20/18

Floods, big or small, can have devastating effects on your home and your family. Floods can contaminate food and water, which can cause illness. Floods can lead to other dangers as well, like carbon monoxide poisoning, mold growth, electrical and fire hazards and more.

Sanitation and hygiene are very important during and after a flood because infections are likely to spread. Illness and outbreaks can occur long after a flood is cleaned up due to spoiled food, contaminated water, power outage or exposure to mold.

This guide addresses the main hazards associated with a flood.

Flooded wells

During and after a flood, water can become contaminated with harmful bacteria, viruses, sewage, fertilizers, pesticides and other chemicals.

If your well has been covered with flood water, bacteria can enter your well through the cap or vent, and contaminate your drinking water. If this happens, your well will need to be disinfected by a licensed well driller. You can contact the Mid-Michigan District Health Department (MMDHD) for a list of licensed well drillers in your area.

If your well has been flooded, it's important to:

- Use only bottled or boiled water for drinking, cleaning, cooking, washing hands, brushing teeth, making baby formula and bathing infants and toddlers. (See boil water information below).
- Once the flooding recedes, begin flushing the water system. Hook a hose up to an outside faucet or a faucet near the water storage tank and flush the water for at least two hours after the water clears up. If a large volume of water entered the well, several hours of pumping may be needed. Once the water is clear at the storage tank, flush the home distribution piping. Contact a state of Michigan licensed water well driller if you have any questions or difficulty with this process.
- Contact a state of Michigan licensed water well driller and ask them to disinfect your home distribution system.
- Your water will need to be tested for coliform bacteria. Contact MMDHD for instructions on how to collect a water sample.

Flooded Interior and mold

Exposure to mold can cause stuffy nose, irritated eyes, skin irritation, wheezing and difficulty breathing. When flood water recedes from your home/basement, immediately clean wet items and surfaces with detergent and water. If mold is present, you'll need to remove the mold with bleach and water solution. Be sure to wear rubber gloves, open windows and doors, and clean with a bleach solution of 1 cup of bleach in 1 gallon of water. Throw away porous items (carpet, upholstered furniture, clothes, mattresses, etc.) that cannot be dried quickly. If drywall or wallpaper comes in contact with floodwater, it should be removed to prevent mold growth. Contact your local garbage company regarding pick up of large trash items.

All hard surfaces, such as flooring, wood and metal furniture, sinks and appliances can be cleaned with hot water and detergent. Be sure to fix any leaks in roofs, walls or plumbing. If your efforts to clean up mold are unsuccessful, you will need to contact a mold remediation specialist. For more information, visit https://www.cdc.gov/disasters/floods/cleanupwater.html.

Drinking water

Local authorities will let residents know if public water is not safe and if you should use bottled or boiled water for drinking, cleaning, cooking, washing hands, brushing teeth, making baby formula and bathing infants and toddlers. (See boil water instructions below).

Food

Throw away food that may have come in contact with flood water, including any canned foods that are bulging, opened or damaged. Throw away food with an unusual odor, color or texture. Throw away perishable food (including meat, poultry, fish, eggs and leftovers) that has been above 41 degrees for two hours or more. If cans have come in contact with floodwater or storm water, remove the labels, wash the cans and dip them in a solution of one cup of bleach in five gallons of water. Re-label the cans with a marker.

While the power is out, keep the refrigerator and freezer doors closed as much as possible. Add block ice or dry ice to your refrigerator if the electricity is expected to be off longer than four hours. Wear heavy gloves when handling ice.

Carbon monoxide poisoning

Carbon monoxide is an odorless, colorless gas produced by many types of equipment and is poisonous to breathe. When power outages occur, people sometimes use alternative sources of fuel or electricity for heating, cooling, or cooking. These alternative sources can cause carbon monoxide to build up in a home, garage, or camper and poison the people and animals inside.

Symptoms of carbon monoxide poisoning include headache, dizziness, weakness, nausea, vomiting, chest pain and confusion. Exposure to Carbon monoxide can cause loss of consciousness and death.

Important carbon monoxide poisoning prevention tips:

- Never use a gas range or oven to heat a home.
- Never use a charcoal grill, hibachi, lantern, or portable camping stove inside a home (including basement and garage), tent, or camper or near a window, door or vent.
- Never run a generator or gasoline-powered engine inside a basement, garage, or other enclosed structure, even if the doors or windows are open, unless professionally installed and vented.

- Never run a motor vehicle, generator or any gasoline-powered engine outside an open window, door, or vent where exhaust can vent into an enclosed area.
- Never leave a vehicle's motor running when parked in a garage, even if the doors are open.
- If conditions are too hot or too cold, seek shelter with friends or family or at a shelter.

If a carbon monoxide detector sounds, leave the home immediately and call 9-1-1. Seek prompt medical attention if you suspect carbon monoxide poisoning and are feeling dizzy, light-headed or nauseated.

Electrical and fire hazards

Never touch a fallen power line. Instead, contact the utility company. If electrical circuits and equipment have gotten wet or are in or near water, turn off the power at the main breaker or fuse on the service panel. Do not turn the power back on until electrical equipment has been inspected by a qualified electrician. Do not burn candles near flammable items or leave a candle unattended. If possible, use flashlights or other battery-operated lights instead of candles.

Wash your hands

If you come in contact with flood water, make sure to wash your hands with soap and clean water. If water isn't available, you can use hand sanitizer.

Treat wounds

Clean all open wounds and cuts with soap and clean water. Apply an antibiotic ointment. If a wound gets red, swells or drains, contact your doctor.

Avoid floodwater

Do not drive through floodwater, no matter how shallow it may seem. The average automobile can be swept off the road in 12 inches of moving water, and roads covered by water are prone to collapse. Attempting to drive through water also may stall your engine, with the potential to cause irreparable damage if you try to restart the engine. If you come upon a flooded street, take an alternate route.

Avoid mosquito bites

Flooded areas are prime breeding grounds for mosquitos, known carriers of West Nile Virus. West Nile virus can cause serious illness in people, so it's important to protect yourself. Prevent mosquito bites by wearing long pants, socks, and long-sleeved shirt and by using insect repellent that contains DEET.

Additional Tips

If under a flood watch or warning:

- Gather emergency supplies
- Stay tuned to local radio or television stations for updates.
- Turn off all utilities at the main power switch and close the main gas valve if evacuation appears necessary.
- Have immunization records handy or be aware of your last tetanus shot, in case you receive a puncture wound or a wound becomes contaminated during or after the flood.
- Fill bathtubs, sinks and plastic soda bottles with clean water. Sanitize the sinks and tubs first by using bleach. Rinse and fill with clean water.
- Bring outdoor possessions, such as lawn furniture, grills and trash cans inside or tie them down securely.

When a flood watch is issued, you should:

- Fill your vehicle's gas tank and make sure you have an emergency kit for your car.
- If no vehicle is available, make arrangements with friends or family for transportation.
- Review your emergency plans and supplies, checking to see if items are missing.
- Stay tuned to local radio or television stations for updates.

- Put livestock and family pets in a safe area.
- Adjust the thermostat on refrigerators and freezers to the coolest possible temperature.

Boil Water Instructions

Boiling water kills microorganisms such as bacteria and viruses that can cause disease. Simply bring tap water to a full rolling boil, let it boil for one minute, and let it cool before using.

Boiling tap water is the preferred method for making sure it is safe to drink. If you can't boil your water, you should:

- Use bottled water.
- Use liquid household bleach to disinfect tap water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. If the water is clear, add 8 drops of bleach (about ¼ teaspoon) to each gallon of water. Add twice the amount of bleach (16 drops, or ½ teaspoon) to each gallon if the water is cloudy. After adding bleach, the water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used to disinfect tap water by following the manufacturer's instructions.

Boiled or bottled water should be used for drinking, cleaning, cooking, washing hands, brushing teeth, making formula and bathing infants and toddlers. Use boiled or bottled water in coffee machines. Do not use water or ice from your refrigerator's dispenser. Water treatment devices do not remove harmful microorganisms from tap water, so be sure to use bottled or boiled water.

You do not need to boil water for:

- Washing dishes: Adding a tablespoon of household bleach such as Clorox® to a sink full of tap water should be sufficient to treat the water used for washing dishes. Bleach should also be added to the water for rinsing dishes. Allow dishes and utensils to air dry before reuse. You may wash dishes in an electric dishwasher, but be sure to use it with its heating elements turned on. After washing in an electric dishwasher, dishes should be rinsed in water with a tablespoon of bleach added, and allowed to air dry before reuse.
- Bathing or showering: Adults, teens, and older children, can shower or bathe, though they should avoid getting water in the mouth or swallowing the water. Infants and toddlers should be bathed using boiled or bottled water. Care should be taken to prevent water from getting into deep open or post-surgical wounds. Consult your physician or health care provider for wound care instructions
- Doing laundry in a washing machine

If you have any questions, please contact Mid-Michigan District Health Department:

Clinton County Gratiot County Montcalm County

1307 E. Townsend Road
St. Johns, MI 48879
989-224-2195

151 Commerce Drive
Ithaca, MI 48847
989-875-3681

615 N. State Street
Stanton, MI 48888
989-831-5237

Central Michigan District Health Department
"Promoting Healthy Families, Healthy Communities"

For more information, call your local CMDHD branch office:

Arenac (989) 846-6541/Clare (989) 539-6731/Gladwin (989) 426-9431/
Isabella (989) 773-5921/Osceola (231) 832-5532/Roscommon (989) 366-9166

www.cmdhd.org

Public Health Flooding Information for Local Residents and Businesses

Well, Septic and Food Safety

The Central Michigan District Health Department also wants to reiterate concerns about well water. Contaminants such as bacteria and chemicals may enter the water supply if your well is flooded, damaged, or if there is a loss of pressure in your water supply piping. Ingesting contaminated water can cause stomach illness, which can be especially severe in the elderly, in children and those with weakened immune systems. If your well has been flooded or damaged, there are steps that you should follow to ensure that your drinking water is safe. In addition, throw away any food that came in contact with floodwater or sewage, or, if in a freezer or refrigerator, throw out food with an unusual color, odor, or if the temperature is above 41° F internally.

Residents are encouraged to visit our Central Michigan District Health Department website at www.cmdhd.org for guidance on well, septic, food safety, and prevention of mold following a flood. This information and area resources with regards to disposal of items from the flood can be found on our website under *Flood Preparedness*. For additional questions, please contact our Environmental Health Services department at one of our local branch offices.

Swimming Pools and Outdoor Spas

Swimming pools and spas that have been submerged in flood waters should be inspected for damage by a person qualified and experienced with pool maintenance.

Restaurants

Please refer to the *Emergency Action Plans for Retail Establishments* (http://www.michigan.gov/mdard/0,4610,7-125-50772_45851-105442--,00.html) from the Michigan Department of Agriculture and Rural Development (MDARD). For additional questions, please contact our Environmental Health Services department at one of our local branch offices.

Women, Infants, Children (WIC) Program Clients

Please contact our Personal Health Services department (local WIC office) if you have lost food resources as a result of flooding or other disasters.

Additional Information

Arenac County Emergency Management Facebook Page (https://www.facebook.com/arenacem/)
Clare County Emergency Management Facebook Page (https://www.facebook.com/clare.emd)
Central Michigan District Health Department Facebook Page (https://www.facebook.com/CMDHD/)
Gladwin County Emergency Management Facebook Page (https://www.facebook.com/GladwinCounty/)
Isabella County Emergency Management Facebook Page (https://www.facebook.com/Isabella-County-Emergency-Management-198137153544143/)
Osceola County Emergency Management Facebook Page (https://www.facebook.com/osceola.emd/)
Roscommon County Emergency Management Facebook Page (https://www.facebook.com/Roscommon-County-Emergency-Management-408246472654202/)

Residents are also encouraged to call 2-1-1 for information on available resources.

Allegan County Emergency Management

9-1-1/EOC Complex
3271 – 122nd Avenue
Allegan, MI 49010
Fax: 269.673.0566

INFORMATIONAL PRESS RELEASE - FLOOD TIPS

The Allegan County Emergency Management and the Allegan County Health Department would like to provide the following flood tips.

Flooding Tips: http://www.ready.gov/floods

If you live in a high flood risk area, personal preparation is the key to avoiding disaster. Take solid steps ahead of time to ensure the safety of your family and minimize property loss, even when the flood waters come lapping at your doorstep. For the latest updates on weather conditions please contact Allegan County Public Safety Hotline at 269-686-4570 or visit the web site at http://www.allegancounty.org/Government/EMD

By following this list of flood safety tips, your family and home will be ready when waters begin to rise.

1. Following a flood, there may be power outages that could last for several days or even weeks. Stay tuned to local TV and radio for constant updates on the weather forecast, flood level, and watches and warnings. **Take all advice and warnings seriously.**
2. Form a family emergency/evacuation plan, refer to http://www.ready.gov/make-a-plan . Make sure everyone knows where to go in the event of a flood warning. Make a list of those places you could go such as family or friends, shelters or other safe public buildings on higher ground. Provide each family member with a written list of the locations and phone numbers, preferably in order, from first to last resort.
3. Put together an emergency supply kit including battery-powered flashlights and radio, extra batteries, first aid kit and medications, hand sanitizers, rain gear and warm clothing, sleeping bags or bedding, and any other personal items you must have for health and safety.
4. Store at least a three-day supply of non-perishable food and bottled water. You will need one gallon of water per person per day, for drinking and sanitation. Stock canned foods, dry mixes and other staples that do not require refrigeration, cooking, water or special preparation. Be sure to include a manual can opener and eating utensils with your food supplies.
5. Contact your local fire department for sandbags. You will be required to purchase your own sand and fill your own bags.
6. Watch the Army Corp of Engineers video at SANDBAG on how to build a sandbag levee.
7. Sandbag around ground level windows, and doors.
8. Sandbag around well heads to protect your water source.
9. Secure propane or chemical storage tanks.
10. Check with your home owners insurance company prior to an event and see if your have proper coverage if your sump pump or storm sewer fails.
11. Check your sump pump and make sure it is operational. If you can afford to do so, have a back-up sump pump ready to replace one that has failed.
12. Move what furniture and valuables you can to the highest floor of the house, or in single story Homes, raise them off of the ground as much as possible. Do this at the onset of a flood watch.
13. Evacuate to higher ground as soon as a flood warning is issued. Follow your family evacuation plan while avoiding waterways at all costs. Do not drive into standing water and abandon your car immediately if it does stall in water. Search for high, dry ground, and get there as quickly as possible.

Emergency Management
Scott Corbin
Emergency Management Director
Phone: 269-673-0571
scorbin@allegancounty.org

Allegan County Health Department
Emergency Preparedness Division
Kathy Yonkers-Wright
Emergency Preparedness Coordinator
Phone: 269-673-5411
Kwright@allegancounty.org

Public Health guidance during excessive run-off and flooding:

1. With the excessive snow melting run-off and the potential for flooding, the waters may contain human fecal material and livestock manure from overflowing sewage systems and agricultural along with industrial waste.

2. Bacteria found in human fecal material and manure can cause waterborne illnesses. There is risk of disease from eating or drinking anything contaminated with floodwater. The most common waterborne illnesses are gastrointestinal and may cause vomiting, diarrhea or nausea. Less commonly, skin, ear and eye infections can result from contact with contaminated water. The public should avoid any contact with surface water due to the potential for high bacteria levels. If exposed, you should wash thoroughly to remove any potential contaminants.

3. If flood water reached your well or covered the top of the well casing, assume your well is contaminated. Water from your well should not be used for drinking, cooking, or brushing your teeth until the flood water recedes. Flooded wells must be disinfected and tested before homeowners resume using them.

4. If you have any open cuts or sores that will be exposed to floodwater, keep them as clean as possible by washing them with soap and applying an antibiotic ointment to discourage infection.

5. To reduce cold–related risks when standing or working in water which is cooler than 75 degrees F (24 degrees C), wear insulated clothes and insulated rubber boots, take frequent breaks out of the water, wash your hands thoroughly and change into dry clothing when possible.

6. Refrain from fishing in local creeks, lakes and rivers during times of flooding or excessive agriculture run-off from snow melting. Fish from local fresh waters are most likely contaminated with high bacteria levels because of sewage leakage and manure run-off during floods. NO additional fish cleaning or elevated cooking temperature can assure safety for consumption.

7. Consider what you can do ahead of time to store your food safely in an emergency. If you live in a location that could be affected by a flood, plan your food storage on shelves that will be safely out of the way of contaminated water. Do not eat or drink food contaminated with flood water!

8. Digital, dial, or instant-read food thermometers and appliance thermometers will help you know if the food is at safe temperatures. Keep appliance thermometers in the refrigerator and freezer at all times. When the power is out, an appliance thermometer will indicate the temperature in the refrigerator and freezer. The refrigerator temperature should be 40 °F or below; the freezer, 0 °F or lower. If you are not sure a particular food has been kept cold enough, do not eat it.

9. During a power outage, keep the refrigerator and freezer doors closed as much as possible to maintain the cold temperature. The refrigerator will keep food safely cold for about 4 hours if it is unopened. A full freezer will hold the temperature for approximately 48 hours (24 hours if it is half-full), if the door remains closed.

10. Obtain dry or block ice to keep your refrigerator and freezer as cold as possible if the power is going to be out for a prolonged period. Plan ahead and know where dry ice and block ice can be purchased. Continually monitor the refrigerator's temperature with a thermometer, if the temperature falls below 40 °F, discard the food. Fifty pounds of dry or block ice might hold a safe temperature of 0 °F or lower for an 18-cubic foot full freezer for several days. Monitor the freezer with the thermometer, if the temperature is above 0 °F, discard the food.

11. Remember to frequently wash your hands with soap and clean water! If clean water is not available use hand sanitizer. Wash your hands often, especially before preparing food, before eating, after using the toilet, and after cleaning. Washing your hands will help prevent sickness.