

Water Recreation Program

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Public Health
Seattle & King County



FLOOD PREPAREDNESS FOR POOL FACILITIES

Public swimming pools, hot tubs, whirl pools, spas, and spray pools in the Green River Valley are at risk of flooding if the Green River floods this winter and should prepare now for the winter season. Parts of Auburn, Kent, Renton, and Tukwila could be flooded and evacuations in some communities are possible. Floodwaters are contaminated and items coming into contact with floodwater must be handled properly. Flooding may result in the loss of power, loss of safe water supply, and cause sewer back-ups that create the potential for an imminent health and safety hazard.

BEFORE A FLOOD

The best way to minimize flood damage is to prepare in advance.

- Make an emergency response plan. The plan should include a list of people to help in an emergency, such as a contractor, plumber, electrician, and insurance agent. You should anticipate problems and possible solutions to help protect your swimming pool and hot tub and reduce damage to the equipment, inventory and operation. This contingency planning will help you speed up recovery after a flood.
- Buy flood insurance now; it takes 30 days for a policy to take effect. Standard insurance policies do not cover flood damage.
- Reduce inventory of supplies to minimal levels in order to reduce losses. Discard old or unnecessary items.
- Move as much of your inventory as possible to a secure area above the anticipated flood level or to an off-site commercial location. These include disinfection chemicals, acids, agents, and supplies used in the operation (chemicals must be kept dry and not mix together due to risk of explosion); filter media; furniture, tables, chairs, carpets, and furnishing that are porous; electrical equipment, computers, televisions, and tools; fitness equipment, play equipment, life jackets, flotation mats and boards; and any other portable equipment or items.
- Tie down loose items that can float to prevent them from being carried away by floodwaters.
- Recycle at collection facilities or at the Wastemobile. Qualifying small businesses in King County may use household disposal facilities. Contact the Business Waste Line at 206-263-8899, toll free 800-325-6165, ext. 3-8899, Monday through Friday, 9 a.m. to 4 p.m.
- Learn about sandbags and where to get them. Call the Flood Warning Center at 206-296-4535
- Safeguard electrical, natural gas, or propane heating equipment. Know how to properly turn off equipment, outside main gas valve, electricity at the main breaker, and the main water valve when flooding is imminent.
- Develop a plan for monitoring and maintaining sump pumps, downspouts, plumbing, exterior surface grading, storm drains, and other facilities that can contribute to flooding.
- Install sewer backflow valves. Flooding can cause sewage from sanitary sewer lines to back up into your facilities through plumbing drain pipes. Sewer backflow valves are designed to block drain pipes temporarily and prevent reverse flow of sewage in the lines. They should be

installed by a licensed plumber or contractor who will ensure the work is done correctly with the appropriate permits and according to local codes.

- Know who to call and how to protect yourself in a flood emergency. Post a sign in a prominent location identifying the names and phone numbers of key personnel who can be contacted in the event of an emergency.
- Consider a plan to continue operation (a business continuity plan). The first public alert may be 4 to 5 days before a potential flood, when the weather forecast is predicting heavy rain for more than 4 days. The second stage of a public alert may come 1 to 2 days before a possible flood when you may need to start implementing more of your plan. The third and final stage of public alert may be the direction to evacuate the area and you have to close your facilities and leave the area.

DURING A FLOOD

Your pool facilities must immediately close if you have a flood, fire, no electricity, no running water, contaminated water, sewage back-up, or any circumstance that may endanger the public's health. Floodwaters will carry many contaminants that are hazardous to your health. Facilities that have been impacted by the effects of flooding cannot operate until the health department grants approval.

- Stay tuned to area news media for current flood and weather information. Follow emergency instructions. Evacuate when told to do so.
- If you do have electricity, do not turn on wet electrical equipment to avoid electric shock, overheat, or fire.

If you do not have electricity:

- Never use a generator, charcoal or gas grill, or a camp stove indoors. Without proper ventilation, there may be toxic fumes (carbon monoxide) that may cause injury or death.
- As a safety precaution for utility workers, notify your utility company that you are using a generator.

AFTER A FLOOD

Once floodwaters have receded and clean-up begins, take the following safety precautions before re-entering your facilities.

RE-ENTRY PROCEDURES

Buildings affected by floods can pose serious hazards to re-entry, even when waters have receded. Wet equipment and damaged gas lines can cause electrocution, burns, and fires. It is safest to have professional technicians and your local building department check out the building before re-entry.

- Return only when notified to do so by officials.

- Check your building for structural safety before entering.
- If you smell gas or suspect a leak, leave immediately. Call the gas company or the local fire department.
- Do not turn on the main gas valve. The main gas valve must be turned on by a licensed gas service technician.
- Do not use flooded equipment (gas/electrical), electrical outlets, switch boxes, or power breaker panels until your local utility or other qualified personnel have checked them.
- Do not use gas or electrical hot water systems until they have been thoroughly inspected by a qualified technician.
- Do not use any equipment used in the operation unless directed by the manufacturer or a qualified service technician that the equipment can be cleaned and sanitized and put back into operation.
- Avoid wading in standing water as it may contain unseen hazards.

FLOOD CLEAN-UP

The basic steps to cleaning up after a flood are listed below. The physical structure should be dried quickly in order to minimize the growth of bacteria and mold. You should not clean your facilities until you have a safe water supply and a functioning waste disposal system. Consider hiring a professional water damage restoration company.

- Wear personal protective equipment, such as a face mask, rubber gloves and boots.
- Increase ventilation and decrease humidity by opening windows and doors. This will reduce odors and minimize mold and mildew growth. Fans, heaters, and dehumidifiers can speed this process.
- Remove all water, mud, and other flood debris.
- Break out walls and remove drywall, wood paneling, and insulation at least 50 cm (20 inches) above the high water line.
- Before cleaning floors, remove and discard soaked carpets and carpet pads.
- Wash using soap and water, rinse and sanitize all equipment and surfaces, such as pool decks, change rooms, and shower surfaces, weights, fitness equipment, mats, tables, workstations, counter tops, floors, walls, and equipment. Take apart any equipment that can be dismantled and cleaned in pieces.
- Sanitize using an unscented bleach water solution by mixing 1 teaspoon of bleach to 1 gallon of water, or use a commercial sanitizer, soaking for 15 minutes, and allowing to air dry.
- Porous plastic or wood items saturated by floodwater cannot be effectively cleaned and sanitized and should be discarded.
- Flush and clear pipes and faucets for at least 5 minutes. Flush hot water tank.
- Clean and disinfect your pool facilities by removing flood debris from the pool basin, then attaching a sump pump and pumping the water out directly to the sewer. Do not drain the pool by backwashing the filter. After the pool is drained, scrub the sides and bottom, then rinse and pump the dirty water until the silt and mud is gone. Hose down the deck area and equipment and rinse with a chlorine solution. Follow the fecal accident cleanup procedure. After the pool basin is disinfected, replace the filter media (cartridge), and refill and balance the pool water chemistry.

- Do not use flooded equipment, such as sand and DE filters, unless directed by the manufacturer or a qualified service technician that the equipment can be cleaned and sanitized and put back into operation.

RE-OPENING GUIDELINES

Pool facilities that have voluntarily closed during a flood should verify the following conditions before resuming operation.

- Electricity and natural gas (if applicable) services are available.
- All power breakers have been properly reset as needed (especially at the hot water heater and automatic gas supply solenoid).
- Sanitary wastewater disposal system is available.
- Toilet facilities are fully operable.
- Safe drinking water supply is available.
- Hot (minimum 100°F) and cold drinking water under pressure are available for hand washing.
- Hand washing facilities are fully operable and provided with soap and paper towels.
- All pool equipment are in proper working order. If there are any questions about pool safety and health, contact Public Health at 206-296-4632.
- All surfaces exposed to floodwaters are washed, rinsed, and sanitized.
- Adequate and approved ventilation and lighting are available.
- Adequate and approved ventilation for gas-powered equipment is operable.

All pool facilities must be in compliance with the Pool Code prior to re-opening. If the Health & Environmental Investigator closed your facilities, you must remain closed until you obtain approval to re-open.

OTHER EMERGENCIES THAT MAY ARISE

Your pool facilities may not be directly affected by floodwaters; however, you may still be affected by other flood-related problems, such as no power, no water, no sanitary sewage disposal, etc.

- **Limited Water Usage** - Many areas outside of the flood zone may be issued orders to cut back on water usage so that the ‘downstream’ effect of overflowing sewage is reduced in the flood zone surrounding the Renton Metro Sewage Treatment Plant. It is normally difficult for public pool facilities to reduce water usage; however, if there are no other choices, use water wisely.
- **Boil Water Order** - If the water district issues a ‘boil water order’, it is not safe to open your pool facilities.
- **Power Outage** - If you have no electricity or no gas, it is not safe to operate.

USEFUL GOVERNMENT WEBSITES

Public Health - Seattle & King County - www.kingcounty.gov/health

King County Office of Emergency Management - www.kingcounty.gov/safety/prepare.aspx

King County Regional Flood Preparedness - www.kingcounty.gov/safety/FloodPlan.aspx

King County Flood Warning System -

www.kingcounty.gov/environment/waterandland/flooding/warning-system.aspx