




Residential Pollution Prevention	RHP-10 Swimming Pools and Spas
<p>No Symbol</p> <p>Symbol</p>	
<p>Description</p> <p>Design</p>	<p>Chemical treatment of swimming pools and spas may prevent health concerns to bathers by killing organisms that live in the water. However, the chemicals that kill such organisms in pools and spas also kill aquatic life (fish, minnows, salamanders, crayfish) in creeks and streams that receive water with chemicals such as chlorine.</p> <p>Due to federal mandates, the City of Bowling Green adopted a Stormwater and Street Ordinance to prohibit discharge of non-stormwater materials (see RHP-01, Non-Stormwater Discharges to Storm Drains) such as chlorine, Baquacil, and other treatment chemicals into streets, ditches, storm drains, and natural streams. Since a wide variety of pool and spa treatment chemicals exist, it would be impossible to address proper disposal methods for every available chemical used in the treatment of pool and spa water.</p> <p>The most common pool treatment is chlorine, which dissolves in water, then slowly released to the atmosphere as chlorine gas. This process is usually inhibited by the addition of other chemicals. Bromine is another type of pool chemical that is also commonly used. There are a variety of chemical products which are frequently used to reduce algae growth, adjust pH, remove hardness or metals, remove stains, etc. Bowling Green swimming pool and spa owners should use pool testing kits to monitor water conditions, and choose environmentally friendly products if available.</p> <p>Swimming pool water will naturally release chlorine gas at a rate that is dependent upon water and air temperature, presence of chemical inhibitors, amount of sunlight, amount of wind, water depth and circulation, etc. The process typically takes many days and requires that water should be periodically tested to monitor chlorine levels.</p>



**Design
(cont'd)**

Reducing or Eliminating Discharges

- Before buying chemicals, select a method of pool treatment that has been successfully used in the Bowling Green area. Investigate and compare products to ensure that a proven method is selected. Select a method with the least toxic chemicals or chemicals that can be easily neutralized and removed from water.
- Retailers and manufacturers must make information readily available to customers, such as material safety data sheets (MSDS), with each chemical product to cover proper use of chemicals, safety issues, and safe disposal methods. All users of pool and spa chemicals should verify that the discharge and disposal process for any water treated with chemical products will be able to comply with federal and state regulations in addition to the manufacturer's recommendation.
- Do not overfill swimming pools and spas so that water is discharged with every splash and wave. Allow adequate freeboard for rainfall and storms. Splashes and waves should drain to a grassy area for ground infiltration.

Recommended Disposal Alternatives

- Any swimming pool or spa water that has been treated by chlorine only and dechlorinated may be discharged to grassy yards, streets or stormwater systems at a controlled rate. Before discharging dechlorinated pool or spa water, check the water with pool test kit to verify that it is completely dechlorinated. Dechlorinated discharges to streets and driveways should occur in dry weather when it will not contribute to flooding neighbors who live downstream. Do not discharge water during winter months for safety reasons if there is a potential for water freezing in the streets, curbs and gutters.
- Any swimming pool or spa water that has been treated by chemicals other than chlorine is expressly prohibited from discharge to the storm drain system, even if the chemical has been neutralized. Disposal options include:
 1. Discharge to the sanitary sewer system.
 2. Drain pool and spa water at a very slow rate to grassy yards where the water will soak into the ground, and
 3. Construct an infiltration well or trench to allow water to soak into ground.
- The connection to sanitary sewer system must be approved by Bowling Green Municipal Utilities (BGMU) or Warren County Water District (WCWD) prior to discharging. Do not discharge water onto or through neighbor's yard or property. Infiltration rates in some soils can be slow. A percolation test may be necessary. An infiltration system may dissolve underlying natural limestone rock; geological information and advice should be consulted.
- Backwash water cannot be discharged directly to the stormwater system unless it is completely dechlorinated and not treated with any other chemicals. Typical disposal method for backwash is to connect backwash hose from swimming pool or spa to the sanitary sewer system using a licensed plumbing contractor to install backflow prevention devices.
- Note that any connections to sanitary system must be approved by BGMU or WCWD prior to installation. Call the BGMU or WCWD offices for more information.

Limitations

Disposal methods that comply with the City of Bowling Green Stormwater Ordinance may not necessarily comply with federal, state, and county regulations. Resolve compliance



Limitations

Disposal methods that comply with the City of Bowling Green Stormwater Ordinance may not necessarily comply with federal, state, and county regulations. Resolve compliance issues prior to discharging water from swimming pool or spa.