DRAINING POOLS AND SPAS

June 2011

Be aware of the impacts that swimming pool and spa water can have on streams and lakes!

Did you know…

- Draining swimming pools and spas to storm drains can pollute streams and lakes with copper, chlorine and other chemicals.
- Storm drains flow directly into our streams and lakes without treatment!
- Chlorine and copper are toxic at low levels to aquatic life.
- Bromine and peroxide are also disinfectants and oxidizers and will have the same effect in our waters as chlorine.
- All types of chemicals used in pool and spa maintenance must be neutralized before being released into the environment.

Chemicals used in pools and spas can be toxic when released into nearby streams and lakes.
Chlorine is toxic to fish and other aquatic life at very low levels.
Chlorine burns the gills and fins of fish, destroys sensory organs, interferes with the ability of fish to find food, and causes internal organ damage. If the receiving water contains a lot of decaying, organic matter (from decaying plants, algae and bacteria) and chlorine it can combine with the byproducts to form compounds called *trihalomethanes*, which are persistent in the aquatic environment and post a health threat to living things for a long time.

Copper is found in pipes and used as an algaecide in swimming pools. It is a pollutant that directly threatens aquatic life. Excess copper in water causes the formation of acid pH levels, burns the gills of fish, interferes with respiration, and causes internal organ damage.

Always follow recommended procedures when draining your swimming pool – See Reverse Side

Salt Water Pools

A salt water pool is a swimming pool filled with a mild salt solution. A public misconception is that salt water pools provide a more environmentally friendly alternative to chlorine. Salt water pools use a *chlorine generator* to produce its own chlorine by breaking down salt (sodium hypochlorite). Salt must be added to the pool to keep the salt solution strong enough for the chlorine generator to work. Salt water pools generate the chemical byproduct *bromoform.* Bromoform is a persistent organic pollutant that accumulates in the environment and is very harmful to aquatic life.

Never drain salt water pools to the street, gutter or storm drain!

Draining Pools and Spas

Swimming Pools and Spas

Solutions:

- Contact the Public Works Water Reclamation Department (319)273-8633 to find out if you can discharge to the sanitary sewer system.
- If unable to drain to the sanitary sewer, cities require that you test the pool water to ensure that the chlorine level is <1 ppm, pH is between 6.5 and 8.5 and Total Suspended Solids (TSS) are <60 mg/l.
- Chlorine levels can be reduced by three to four days of sunlight. (Leaving the pool without chlorine longer than 3-4 days may encourage growth of bacteria).
- Manage pH and water hardness to minimize copper corrosion in pipes that can stain your pool and end up in our streams.
- Copper algaecide can collect in the pool filter. Rinse cartridge filters or clean diatomaceous sand filters onto a dirt area and spade the residue into the soil.
- Consider using alternatives to copper-based algaecides such as sodium bromide.

IMPORTANT NOTE!

As a condition of the City's federal stormwater permit, the city has adopted and must enforce an ILLICIT DISCHARGE DETECTION AND ELIMINATION ordinance pertaining to the storm sewer system.

Discharging chlorinated (or other chemically saturated) pool and spa water to a storm drain without following water quality recommendations is considered an illicit discharge, and regulated under the stormwater permit.

Salt Water Pools

Solutions:

- Don't drain to the street, gutter or storm drain!
- Discharge water to a sanitary sewer clean out (see below for tips about finding your clean out).
- If you are on a septic system, or have no sanitary sewer clean out, contact the Public Works Water Reclamation Department.

Tips for Finding your Sanitary Sewer Clean Out:

- If your kitchen or bathroom is on an exterior wall of your house, look along that wall for the clean out.
- Check your property or sidewalk for a small concrete or metal cover marked "sewer".
- Look for a small circular cap on a pipe. This may be located on the ground or the side of your home.
- If you can't locate the clean out, contact the Water Reclamation Department.

Please do your part to protect Iowa's streams and lakes!

Iowa Storm Water Education Program

www.iowastormwater.org