

# DRAINING POOLS AND SPAS



September 2009



## 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 to aquatic life, even at low levels.

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

**Chemicals used in pools and spas** can be toxic when released into nearby streams and lakes.

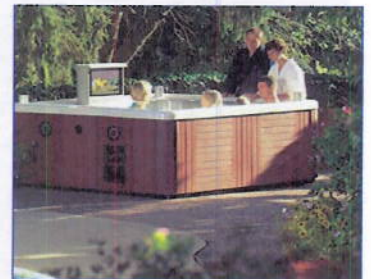
**Chlorine** is toxic to fish and other aquatic life at very low levels.

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 combines with chlorine it can form compounds called *trihalomethanes*. These compounds are persistent in the aquatic environment and pose a long-term health threat to living things.

**Copper** is found in pipes and used as an algicide 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.



Spa or Hot Tub

## Salt Water Pools

A salt water pool is a swimming pool filled with a mild salt solution.

A common 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 chlorine, and produce the chemical byproduct *bromoform*.

Bromoform is a [persistent organic pollutant](#) that accumulates in the environment and is very harmful to aquatic life.

**Always follow recommended procedures when draining your swimming pool - See Reverse Side.**



**Never drain salt water pools to street, gutter or drain!**



# Draining Pools and Spas

## Chlorine Swimming Pools and Spas

### Solutions:

- Contact the City of Urbandale Engineering & Public Works Department at 515-278-3950 or email: [engpw@urbandale.org](mailto:engpw@urbandale.org)
- 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 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 algacide 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 algacides such as sodium bromide.



## Salt Water Swimming Pools and Spas

### Solutions:

- Don't drain to street, gutter or storm drain!
- Contact the City of Urbandale Engineering & Public Works Department at 515-278-3950 or email: [engpw@urbandale.org](mailto:engpw@urbandale.org)

### IMPORTANT NOTE!

As a condition of Urbandale's federal stormwater permit, the City has adopted and will enforce an ILLICIT DISCHARGE TO STORM SEWER SYSTEM ordinance.

Discharging chlorinated pool and spa water to a storm sewer without following water quality recommendations is considered an illicit discharge, and regulated under the stormwater permit.

Discharging saltwater in any condition from a pool or spa to a storm sewer is considered an illicit discharge, and regulated under the stormwater permit.



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



[iowastormwater.org](http://iowastormwater.org)