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National Pollutant Discharge Elimination System (NPDES)

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Chlorinated Water Discharge Options

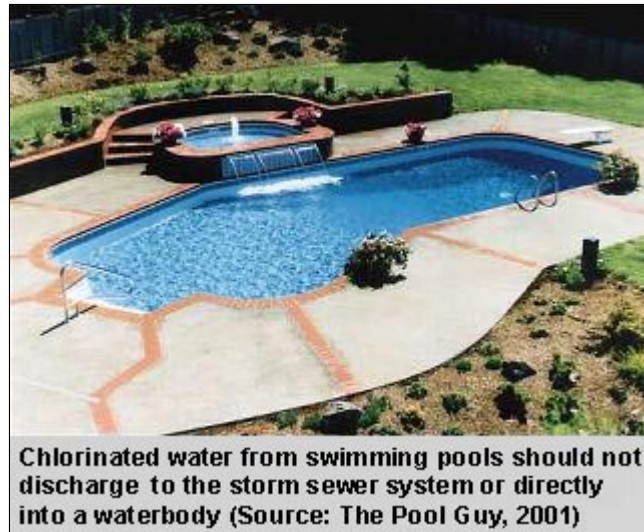
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Minimum Measure: Public Education and Outreach on Stormwater Impacts

Subcategory: Education for Homeowners

Description

Chlorinated water discharged to surface waters has an adverse effect on local water quality. Swimming pools are a major source of chlorinated water discharged into sanitary and storm sewer systems. An average swimming pool holds 19,000 gallons of highly chlorinated water, which is toxic to wildlife and fish.



Chlorinated water from swimming pools should not discharge to the storm sewer system or directly into a waterbody (Source: The Pool Guy, 2001)

Applicability

Many pool owners who live in cooler climates drain their swimming pools to reduce maintenance and potential damage from freezing during winter. Instead of discharging pool water to the storm sewer system or directly into a waterbody, these individuals should investigate alternative discharge options.

Design Considerations

There are different options available to homeowners to prevent sending chlorinated pool water into storm drains. The Oregon Department of Environmental Quality suggests the following measures:

- Pool owners obtain permission from local sanitary sewer operators or municipal treatment plant operators and discharge to the sanitary sewer system.
- Discharge the chlorinated water to land where it will not drain to local surface waters.
- Dechlorinate the water before draining the pool.

Montgomery County, Maryland's, Department of Environmental Protection (1997) provides the following guidelines to pool owners and operators:

- Community pools must discharge to the sanitary sewer using a surge tank.
- Residential pools must discharge backwash water to the sanitary sewer.
- If the only option for draining pool water is to discharge directly into the environment, water quality must comply with the applicable water quality criteria.
- Pool water must sit for at least 2 days after the addition of chlorine or bromine or until chlorine or bromine levels are below 0.1 mg/l.
- The pH of discharge water must be between 6.5 and 8.5 before it is discharged.
- Algicides such as copper or silver can interrupt normal algal and plant growth and should not be used.
- Total suspended solids must be below 60 mg/l. Suspended particles should be allowed to settle out, and the water should not appear murky. Settled material should not be discharged with pool water.
- Discharges to the environment should be directed over a land surface so that some level of filtration by soil particles can occur. The water quality requirements listed above also apply to land-applied water.

Limitations

Enforcement of safe discharge of chlorinated water from numerous private sources may be difficult to achieve.

References

MCDEP. 1997. Montgomery County NPDES Municipal Separate Storm Sewer System Annual Report. MS-MO-95-006. Montgomery County Department of Environmental Protection, Rockville, MD.

Oregon Department of Environmental Quality (ODEQ). 1997. *Environmentally Safe Methods for Draining Swimming Pools*. News release.

[<http://www.deq.state.or.us/wq/pubs/factsheets/wastewater/bmpchlorwaterdisp.pdf> EXIT Disclaimer].

The Pool Guy. 2001. *The Pool Guy's Homepage*. [www.poolandspa.com EXIT Disclaimer]. Accessed September 15, 2005.

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