

Chapter 6. Storm Water and Septic Systems

Element 5. Storm Water and Septic Systems

6.1 EPA and Gulf Hypoxia Task Force Expectations

Quoted from EPA's recommended elements:

“Identify how the State will use state, county and local government tools to assure N and P reductions from developed communities not covered by the Municipal Separate Storm Sewer Systems (MS4) program, including an evaluation of minimum criteria for septic systems, use of low impact development/ green infrastructure approaches, and/or limits on phosphorus in detergents and lawn fertilizers.”

6.2 Wisconsin's Approach

Wisconsin has programs in place to address communities not covered by the MS4 storm water system, septic systems, and the use of phosphorus in detergents and lawn fertilizers. Programs entail a mixture of regulatory controls and financial incentives to address potential nutrient sources that are not covered under a WPDES permit structure. Construction and post-construction sites are subject to performance-based standards while certain municipalities must meet minimum standards designed to reduce pollution potential. Septic systems are regulated through county ordinances and through state regulations administered by the Department of Safety and Professional Services (DSPS), which also administers a financial assistance program for failing septic systems. Wisconsin state law also restricts phosphorus in lawn fertilizers and household detergents.

6.2.1 Construction Sites, Post-Construction Sites, and Non-Permitted Municipalities

Construction sites not covered under a Municipal Separate Storm Sewer System (MS4) permit may be regulated by:

- A general construction site permit issued by the DNR, if the site has a disturbed areas of more than one acre;
- The Uniform Dwelling Code for one and two family residential construction administered by the Department of Safety and Professional Services, regardless of size;
- By technical standards of the Department of Transportation for highway construction sites; or
- By local government ordinance.

Under the general construction site permit program, ch. NR 151, Wis. Adm. Code, requirements include the following:

- Construction on any size site shall limit sediment losses to a maximum of 5 tons/acre/year.
- Construction site erosion control BMPs (Best Management Practices) located in navigable waters or wetlands are disallowed, except for re-development sites where the BMP is on an intermittent waterway and all applicable permits are received.
- Storm water management plans are required to be implemented following construction on sites of one acre or more. The plans shall include BMPs to:
 - Reduce total suspended solids losses.
 - Reduce peak runoff discharge rates to match the pre-development peak flow rates, using the 1-year 24 hour design storm and the 2-year, 24 hour design storm as peak flow rates.
 - Infiltrate initial runoff except where groundwater contamination could occur. (The rule specifies 3 levels of connected impervious conditions and assigns an infiltration percentage to each level, reflecting the ability of the development to meet the goal.)
 - Maintain a permanent 50 foot vegetative buffer area around lakes, rivers, streams and wetlands in the construction area.
 - Maintain a permanent 75 foot vegetative buffer zone around high quality wetlands such as sedge meadows, open and coniferous bogs, low prairies, calcareous fens, coniferous swamps, lowland hardwood swamps, and ephemeral ponds.
 - Control petroleum products in runoff from fueling and vehicle maintenance areas.

The construction site requirements in the Uniform Dwelling Code, s. SPS 321.125, Wis. Adm. Code, parallel and reference the requirements in ch. NR 151, Wis. Adm. Code. Similarly, performance standards for highway construction used by the Wisconsin Department of Transportation and identified in ch. NR 151, Wis. Adm. Code. More information on these regulations can be found at <http://dnr.wi.gov/topic/stormwater/construction/overview.html>

6.2.2 Septic Systems

Septic Systems, formally called private onsite waste treatment systems (POWTS), are under the purview of the DSPS (formerly the Department of Commerce). Chapter SPS 383, Wis. Adm. Code contains policies and procedures to establish uniform standards and criteria for the location, design, installation, inspection and management of septic system to ensure that systems will not harm public health and the waters of the state. Standards are based on the premise that soil column properties will treat the wastewater to a point where adverse impacts to surface and groundwater are minimized. Specifically:

- Soil percolation rates or soil morphological features (texture, shape, grade) dictate the maximum application rate in gallons per square foot per day. Five-day biological oxygen demand and total suspended solids of the influent also factor into the maximum application rate.
 - Soil texture, percent coarse fragments, and fecal coliform levels dictate whether 24, 36, or 60 inches of unsaturated soils are required for discharge.
 - Soil profile borings instead of previous “perc” tests are required to determine drain field siting.
- County Sanitarians administer the program at the local level.

Failing septic systems that were installed prior to July 1, 1978, are eligible for financial assistance to replace or rehabilitate the system. Chapter SPS 387, Wis. Adm. Code, governs this assistance program. A failing septic system is defined in s. 145.245 (4), Stats, and is one which causes or results in any of the following conditions:

- The discharge of sewage into surface water or groundwater.
- The introduction of sewage into zones of saturation, which adversely affects the operation of a private sewage system.
- The discharge of sewage to a drain tile or into zones of bedrock.
- The discharge of sewage to the surface of the ground.
- The failure to accept sewage discharges and the back up of sewage into the structure served by the private sewage system.

6.2.3 Lawn Fertilizer

Wisconsin prohibits the use and sale of fertilizer containing phosphorus except under certain conditions. State law restricts the use and sale of phosphorus containing fertilizer to only those establishing new lawn or those whose soil tests indicate a need for applied phosphorus. The statutes also restrict the retail display of fertilizer to only those products not containing phosphorus. Agricultural fertilizer use is exempted from these restrictions. The term "fertilizer" does not include manipulated animal or vegetable manure or finished sewage sludge product. Restrictions are administered by DATCP under the authorities of s. 94.643 Wisconsin Stats.

The use restrictions are:

- fertilizer containing phosphorus may not be used unless the person is establishing grass or if a soil test (taken within the last 36 months) indicates a phosphorus deficiency in the soil.
- fertilizer, manipulated animal or vegetable manure, or finished sewage sludge product may not be applied to turf when the ground is frozen.
- fertilizer, manipulated animal or vegetable manure, or finished sewage sludge product may not be intentionally applied to an impervious surface.

The sales restrictions are:

- No person may sell a retail turf fertilizer that is labeled as containing phosphorus or available phosphate if the person knows that the purchaser intends to use the fertilizer for a purpose other than one of the following:
 - For establishing grass, using seed or sod, during the growing season in which the purchaser began establishing the grass.
 - For application to an area if the soil in the area is deficient in phosphorus, as shown by a soil test performed no more than 36 months before the application by a laboratory.
 - For application to pasture, land used to grow grass for sod, or any other land used for agricultural production.

More information on the restrictions for use and sale of lawn fertilizer is available here:

http://datcp.wi.gov/Environment/Fertilizer/Turf_Fertilizer/Retailers/

6.2.4 Phosphorus in Detergents.

Wisconsin limits phosphate in detergents for washing machines and automatic dishwashers. Regulations restricting the sale of detergent products are enforced through DATCP Consumer Protection Division. Specific restrictions and exemptions are included in section 110.28 Wisconsin Statutes found, here: <http://docs.legis.wisconsin.gov/statutes/statutes/100/28>.

6.3 Future Directions

Wisconsin will continue to implement existing programs and emphasize improving their integration with watershed planning and management efforts.