

Stormwater Management – A National Priority to Reduce Water Pollution

What is stormwater? What type of management is required of municipalities? How is the CNY Regional Planning & Development Board assisting the community? Can the public make a difference?

The U.S. Environmental Protection Agency (EPA) estimates that one half of all impaired waterways are affected by nonpoint sources of pollution, such as stormwater runoff. As a result, stormwater management has become a national and Central New York priority in the effort to further reduce water pollution.

Stormwater is water from rain or melting snow that doesn't soak into the ground, but runs off into waterways. It flows from rooftops, over paved areas and bare soil, and through sloped lawns, collecting and transporting soil, animal wastes, pesticides, fertilizers, oil and grease, debris and other potential pollutants as it goes.

There are two main stormwater pollution issues of concern: the increased volume and rate of runoff from impervious surfaces and the concentration of pollutants in the runoff. The intensity of both issues can be directly correlated to the degree of development in an area. Changes in the natural quantity, quality and movement of local waters resulting from increased development can cause or contribute to a variety of problems, including aquatic habitat modification and loss, flooding, decreased biological diversity, sedimentation and erosion, loss of aesthetic values and recreational uses, contamination of drinking water supplies and other public health threats.

Uncontained stormwater runoff from construction sites may also have devastating effects on local waterbodies, particularly smaller streams, lakes and wetlands. During storms, construction sites may contribute chemical pollutants such as pesticides, petroleum products and solvents or serve as major source of sediment-laden runoff, which can scour streambeds, erode streambanks and destroy near stream vegetation. Sediment-laden runoff is a principal contributor to reductions in flood storage capacity and the loss of fish spawning and other in-stream aquatic habitat.

Federal and State Stormwater Management Regulations

In 1990, under Phase I of the National Pollutant Discharge Elimination System (NPDES) Stormwater Program, the U.S. Environmental Protection Agency (EPA) addressed stormwater runoff sources having the greatest potential to negatively impact water quality. The Department of Environmental Conservation (DEC) was charged with administering the Phase I program in New York State as part of the State Pollutant Discharge Elimination System (SPDES). Under Phase I, SPDES permit coverage was required for stormwater discharges from medium and large municipal separate storm sewer systems (MS4s) located in incorporated places or counties, eleven categories of industrial activity and construction activity that disturbed five or more acres of land.

In March 2003, again under the direction of the Federal EPA, the SPDES Phase I program was expanded to include stormwater discharges from designated small MS4s and construction activity disturbing 1 or more acres of land. The expanded program, known as Phase II, led to the development of 2 new DEC administered SPDES stormwater discharge permits: the small MS4 and small construction permits.

The MS4 permit requires regulated municipal MS4s (those with a minimum population density of 1,000 people per square mile and are located in urban areas as defined by the U.S. Census Bureau) to develop and implement stormwater management programs to address local water quality problems. Stormwater management programs must contain management practices in each of the following control categories: Public Education and Outreach; Public Involvement and Participation; Illicit Discharge Detection and Elimination; Construction Site Stormwater Runoff Control; Post-Construction Site Stormwater Runoff Control; and Pollution Prevention for Municipal Employees.

As a first step toward obtaining SPDES permit coverage, regulated MS4s were required to submit a Notice of Intent (NOI) form to DEC outlining the management practices it intends to implement. MS4s also used the NOI to identify measurable goals that DEC can use to assess the progress being made toward full implementation of individual management plans by 2008. DEC did not specify which management practices or a minimum number of management practices that needed to be incorporated into each MS4s stormwater management plan, but it did require that selected management practices originate from a DEC approved list of options. Furthermore, DEC strongly encouraged MS4s to take a watershed approach in the design of their management plans by working with neighboring MS4s to develop complementary or cooperative programs for solving shared problems.

Regional Assistance Program

To assist the regulated municipalities in the Syracuse Urban Area comply with the new regulations, the Central New York Regional Planning Board (CNY RPDB) has launched a unified, regional assistance program. The goal of the program is to help municipalities identify and develop intermunicipal compliance strategies to lower their program costs while maximizing regional water quality improvements. The CNY RPDB is also providing assistance in the areas of public education, outreach and participation, municipal training, research assistance and efforts to secure funding for compliance.

Twenty-six of the twenty-seven automatically designated municipalities in Onondaga and Madison Counties are participating in the CNY RPDB's program. Four Oswego County municipalities are participating in a similar assistance program being conducted by the Oswego County Planning Department. Because intermunicipal cooperation and the development of complimentary stormwater management programs are critical to the overall success of Phase II regulations, widespread participation in regional assistance programs bodes well for the future of the region.

Become Part of the Pollution Solution

The success of the Phase II program depends on voluntary cooperation from homeowners, local interest groups, municipal governments officials and you. Opportunities to make a difference in local water quality are everywhere Simple actions such as picking up after your dog, joining an organized stream clean up, or attending a municipal board meeting to learn more about efforts in your community will make a difference.

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