

## **BACKGROUND TO SPRINGFIELD'S NPDES PHASE II STORM WATER PROGRAM**

In 1972, Congress amended the Federal Water Pollution Control Act [commonly referred to as the Clean Water Act (CWA)] to prohibit the discharge of any pollutant to waters of the United States unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES program is designed to track point sources and require the implementation of the controls necessary to minimize the discharge of pollutants from targeted point sources such as industrial and sewage treatment plants. As pollution control measures for industrial process wastewater and municipal sewage were implemented and refined, it became increasingly evident that more diffuse sources of water pollution were also significant causes of water quality impairment.

Although the NPDES program has been effective at improving water quality for lakes and streams in urban areas, it also became evident that additional measures were needed to target non-point sources such as soil erosion, aerially deposited particles, roadside trash and debris, automotive fluids from leaking vehicles, incomplete combustion products, food processing wastes, and transportation spills of chemicals and other pollutants.

In 1987, Congress amended the CWA to require implementation, in two phases, of a comprehensive national program for addressing non-point source discharges (e.g. storm water). The first phase of the program, commonly referred to as "Phase I," was promulgated on November 16, 1990 (55 CFR 47990). Phase I required NPDES permits for storm water discharge from medium and large municipal separate storm sewer systems (MS4s) generally serving populations of 100,000 or more and several categories of industrial activity, including construction activity that disturbed five or more acres of land.

The second phase (Phase II) of the storm water program required permits for certain small MS4s and construction activity disturbing between 1 or more acres. Specific requirements included cities/towns or counties with a population exceeding 10,000 people and/or areas with population densities exceeding 1,000 people per square mile (referred to as "urbanized areas"). The Phase II Final Rule was published in the *Federal Register* on December 8, 1999 (64 CFR 68722). EPA offers a Stormwater Phase II Final Rule Fact Sheet Series that summarizes essential elements of this rule.

Implementation of Phase II resulted in the inclusion of many cities and towns in Massachusetts, including Springfield. The City of Springfield submitted a Phase II NPDES permit "Notice of Intent" (NOI) to the U.S. Environmental Protection Agency and the Massachusetts Department of Environmental Protection. Springfield received Notice of Coverage under the Massachusetts NPDES General Permit.

In accordance with the Phase II compliance timeline, Springfield has until the end of the first permit term (March 2008) to fully implement its storm water

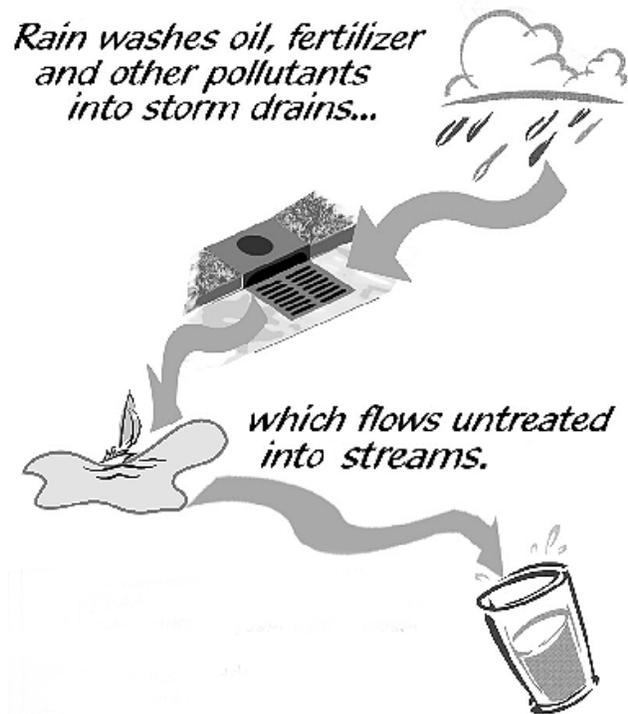
management programs. The storm water management program must include management practices; control techniques and system design and engineering methods needed to reduce the discharge of pollutants, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act (33 U.S.C. 1251, et seq.)

## Six Minimum Measures

EPA and MA DEP require that the following six minimum measures be included in all storm water programs included in the Phase II program:

1. Public Education and Outreach: An informed and knowledgeable community is crucial to the success of the storm water program since it helps to ensure the following:

- **Greater support** for the program as the public gains a better understanding of the reasons why it is necessary and important. Public support is particularly important when new funding initiatives are instituted or volunteers are sought to help implement the program.
- **Greater compliance** with the program as the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of area waters.



2. Public Participation/

Involvement: EPA believes that the public can provide valuable input and assistance and recommends that the public be given opportunities to play an active role

in both the development and implementation of the program. An active and involved community is crucial to the success of a storm water management program because it allows for:

- Broader public support
- Shorter implementation schedules
- A broader base of expertise and economic benefits

- Serves as a conduit to other programs as citizens provide important cross-connections and relationships with other community and government programs.

3. Illicit Discharge Detection and Elimination: Federal regulations define an illicit discharge as "...any discharge to a municipal separate storm water system that is not composed entirely of storm water..." with some exceptions. These exceptions include discharges from NPDES-permitted industrial sources and discharges from



fire-fighting activities. Illicit discharges are considered "illicit" because MS4s are not designed to accept, process, or discharge non-storm water wastes.

Illicit discharges enter the system through either direct connections (e.g. wastewater piping either mistakenly or deliberately connected to the storm drain system) or indirect connections such as infiltration from cracked sanitary systems, spills or discharges to the drainage system.

The EPA final rule requires that Springfield develop and implement an illicit discharge detection and elimination system. The program must include the following:

- A storm sewer map showing the location of all outfalls and the names and location of all waters of the State and/or U.S. that receive discharges from the outfalls;
- In ordinance, resolution, or other regulatory mechanism that prohibits non-storm water discharges into the MS4;
- The education of the City employees, businesses, and the general public about the hazards associated with illegal discharges and/or improper disposal of toxic and hazard wastes;
- Implementation of best management practices (BMPs) and measurable goals.

4. Construction Site Storm Water Runoff Control: This minimum measure requires that Springfield develop, implement, and enforce a program to reduce pollutants in storm water runoff from construction activities that disturb one acre or more of land. This ordinance has been drafted.



5. Control of Post-Construction Runoff: Post-Construction run-off control is similar to construction runoff control. This ordinance has been drafted.

6. Pollution Prevention/Good Housekeeping for Municipal Operations: This minimum measure requires the City to examine and subsequently alter (as necessary) actions to ensure a reduction in the pollutants that collect on streets, parking lots, and storage and vehicle maintenance areas and/or results from potentially environmentally damaging land development or flood management practices. These procedures for storm water pollution prevention from municipal activities are under active development by the Springfield Department of Public Works.

