



TROUBLED WATERS

Stormwater Pollution

Massachusetts has a serious problem with pollution from stormwater. When it rains or snows, the water that runs off streets, parking lots and construction sites can wash sediment, oil, toxics and other pollutants over land or into nearby storm drains. The polluted water is then discharged untreated into local streams, rivers and marine waters. **This pollution degrades water quality and aquatic habitat and is a leading threat to public health and the environment today.**

Where land is forested, stormwater isn't a problem. Plants and soils filter out the pollutants. Stormwater pollution is a problem in developed areas where pavement and buildings have replaced natural vegetation. The sediment load from construction sites is 1,000 to 2,000 times worse than from forested areas.

Efforts to improve water quality in Massachusetts include controlling stormwater from construction sites as well as municipal and industrial facilities. Point sources of pollution (from conduits such as pipes and channels) are regulated under the **National Pollutant Discharge Elimination System (NPDES)** Program, which issues permits to municipalities and industries and sets limits on the discharge concentration of pollutants. In 1992, the **NPDES Phase I** program regulated stormwater in large and medium cities, industries and large construction

sites (5 acres or greater). While Phase I was a good beginning, it addressed a very small segment of the problem. Nearly 40 percent of our waters still fail to meet the water quality standards for fishing or swimming, primarily due to stormwater pollution.

Massachusetts has moved forward to aggressively control stormwater pollution and has become a national leader in this effort. Since 1997, the state **Stormwater Management Policy** has set standards for construction activities affecting wetlands, rivers, lakes and coastal waters.

In 1999, the U.S. Environmental Protection Agency (EPA) instituted the **NPDES Phase II Storm Water Regulations**. Phase II affects 189 Massachusetts communities by expanding the NPDES program to include these municipal separate small sewer systems [MS4s] and small construction site activities (1-5 acres). Included in the MS4 category are municipal systems, state and federal departments of transportation, public universities, local sewer districts, public hospitals, military bases and prisons.



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Phase II Affects

- ◆ Municipalities and other public bodies operating a separate storm drainage system located in an urbanized area (UA) with populations under 100,000 (cities with populations over 100,000 are already regulated under Phase I). Urbanized areas are defined by the Bureau of Census. Massachusetts Department of Environmental Protection (DEP) will notify the affected 189 communities and MS4 operators.
- ◆ Small construction sites disturbing 1 to 5 acres. Larger sites are already regulated under NPDES Phase I.
- ◆ All municipal discharges of stormwater from municipally owned or operated industrial facilities (e.g. vehicle maintenance and repair facilities, gravel pits). Facilities (e.g. public works yards) exempted from NPDES Phase I permits under the *Intermodal Surface Transportation Efficiency Act (ISTEA)* must obtain a permit under Phase II. Permits must be applied for by March 10, 2003.

Phase I industrial activities, including those operated by municipalities, may avoid permit requirements by "no exposure certification." This certification is achieved when the facility shows that all potential contaminants on EPA's list are kept from contact with rain or runoff. The no exposure certification has been available since February 2000.

Phase II Requirements

Cities and towns and other MS4 operators must develop and implement a stormwater program that reduces polluted discharges and protects water quality. The following minimum control measures must be in the stormwater program:

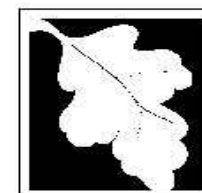
- ◆ **Public Education and Outreach:** Inform citizens about impacts of polluted stormwater runoff and steps to reduce stormwater pollution. Workshops and brochures offered by DEP can help meet this requirement.
- ◆ **Public Participation/Involvement:** Provide opportunities for citizen involvement in program development and implementation.
- ◆ **Illicit Discharge Detection and Elimination:** Develop and implement a plan to detect and eliminate illicit discharges to storm sewers.
- ◆ **Construction Site Runoff Control:** Develop, implement and enforce an erosion and sediment control program for activities that disturb one acre or more. The Massachusetts Stormwater Management Policy addresses these activities.



Competitive grant and loan programs administered by DEP are available for municipalities and others requiring NPDES Phase II permits, including: Clean Water Act, Section 604b and 319h grants; and Clean Water State Revolving loan funds. Coastal Pollution and Remediation Grant funds also are available from the Massachusetts Office of Coastal Zone Management.

State funding information can be found on these web sites: www.state.ma.us/dep/brp/wm/wmpubls/htm
www.state.ma.us/czm

Contact Ginny Scarlet at DEP for funding and other information:
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Division of Watershed Management
Outreach Services
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Workshops
Internet: www.townboard.org

Storm Water Phase II Rule Fact Sheet Series
U.S. EPA Water Resource Center at
202-260-7786 or at
waterpubs@epa.gov
Internet: www.epa.gov/owmitnet/sw/phase2/factshts.htm

U.S. EPA Office of Wastewater Management
Phone: 202-260-5816
E-mail: SW2@epa.gov
Internet: www.epa.gov/owm/sw

U.S. Bureau of the Census
American Factfinder Internet:
factfinder.census.gov/java_prod/dads.ui.homePage.HomePage



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- ◆ **Post-Construction Runoff Control:** Manage discharges of post-construction stormwater runoff from new development and redevelopment areas. The state Stormwater Management Policy contains guidance on these controls.
- ◆ **Pollution Prevention/Good Housekeeping:** Prevent or reduce pollutant runoff from municipal operations (e.g. street sweeping, erosion control, catch basin cleaning).

A regulated MS4 must submit a permit application and periodic reports that identify and assess Best Management Practices (BMPs) which have been selected to achieve stormwater management goals. In the coming year, EPA will develop its BMP options for municipalities.

By December 8, 2002, EPA and DEP will issue joint permits for MS4s. Separate permits will be issued for construction activities, town MS4s and MS4s operated by other public entities. By March 10, 2003, applicants must submit a Notice of Intent for coverage under a general permit.



Help For Communities

State agencies, municipalities and engineers are already implementing BMPs to control stormwater under existing programs. Federal and state officials are working to streamline the new federal Phase II program so that existing local and state programs can be used to meet NPDES Phase II objectives and achieve stormwater management goals.

DEP's two volume *Stormwater Management Policy and Technical Handbooks* explain state stormwater standards and provide guidance to communities on BMPs. The handbooks can be found on DEP's web site at www.state.ma.us/dep/brp/ww/wmpubls.htm#storm or purchased through the Statehouse Bookstore by calling 617-727-2834.

DEP is taking the lead on outreach efforts and is already offering training and information to all affected groups. DEP staff can respond to questions, provide technical assistance and give funding information to communities and MS4 operators.

In addition, state environmental agencies will continue to develop guidance for communities to help them adapt and use current Massachusetts programs and the watershed approach to meet Phase II permitting requirements. These programs will be adjusted, where necessary, to strengthen support for municipal efforts.