

## ***Phase II Stormwater – The Six Minimum Control Measures***

Previously, we talked a little about the need for the Phase II stormwater effort, as well as the regulatory background that has launched this phase of the Clean Water Act. We also talked about the first three of the six minimum control measures.

The second three minimum control measures (MCM) are focused on construction and illicit discharges. These are:

- Pollution Prevention/Good Housekeeping
- Construction Site Runoff Control
- Post-Construction Runoff Control

Again, some of these elements are closely related to one another – for example, activities and best management practices (BMP) involving construction site runoff control will probably be able to address some of the requirements found in post-construction runoff control. An example of this might be designing stormwater detention ponds that control erosion not only in the construction phase but as a permanent structure.

Let's now take a close look at each of the minimum control measures and some suggested activities associated with them.

### ***MEASURE 4 - POLLUTION PREVENTION/GOOD HOUSEKEEPING***

**GOAL OF CONTROL MEASURE:** Municipal operations must include an awareness of stormwater management and pollution prevention.

**MUST:**

- Develop an operation & maintenance (O&M) program to prevent or reduce pollutant runoff from municipal operations
- Include employee training to prevent and reduce storm water pollution from activities such as the maintenance of park and open space, buildings, and storm water systems.

**RECOMMENDED:**

- Maintenance activities and schedules, and long-term inspection procedures
- Controls on the discharge of pollutants from streets, salt/sand storage areas, waste transfer stations, etc.
- Procedures for disposing of waste from the MS4
- Ways to ensure new flood management projects assess impacts on water quality
- Establish maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural controls to reduce floatables and other pollutants discharged from the separate storm sewers.
- Establish procedures for the proper disposal of waste removed from the separate storm sewer systems, including dredge spoil, accumulated sediments, floatables, and other debris.
- Develop programs that promote recycling, minimize pesticide use and protect salt sand storage
- Coordinate with flood control managers to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporation of additional water quality protection devices or practices.

**SUGGESTED TARGET DATE ACTIVITY**

YEAR 1	Pollution prevention plan (the new BMPs and revised procedures) completed; employee training materials gathered or developed; procedures in place for catch basin cleaning after each storm and regular street sweeping.
YEAR 2	Training for appropriate employees completed; recycling program fully implemented.
YEAR 3	Some pollution prevention BMPs incorporated into master plan; a certain percentage reduction in pesticide and sand/salt use; maintenance schedule for BMPs established.
YEAR 4	A certain percentage reduction in floatables discharged; a certain compliance rate with maintenance schedules for BMPs; controls in place for all areas of concern.

### ***MEASURE 5 - CONSTRUCTION SITE RUNOFF CONTROL***

**GOAL OF CONTROL MEASURE:** All construction projects are required to prepare a pollution prevention plan that incorporates erosion control measures to prevent damage to community waterways and adjoining property before building permits are issued. Weekly field compliance inspections of construction projects are scheduled to ensure erosion control measures are in place before earth disturbing activities begin and to ensure they are properly maintained.

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**MUST:**

- Develop a program to reduce pollutants from construction activities that disturb > 1 acre
- Use an ordinance, or other regulatory means, with penalties, that requires appropriate E&S controls and requirements to control waste
- Have procedures for:
  - site plan review
  - site inspection & enforcement
  - public input

**RECOMMENDED:**

- Procedures for site plan review should include review of individual pre-construction site plans
- Procedures for site inspections and enforcement could include steps to identify priority sites based on the nature of the site, topography, soil characteristics, and receiving water quality.
- Provide appropriate educational and training measures for construction site operators.
- Develop an ordinance that requires controls for polluted runoff from construction sites that disturb more than one acre
- Develop procedures for site plan reviews and inspections
- Develop procedures for the receipt and consideration of public inquiries, concerns, and information submitted regarding local construction activities.

**SUGGESTED TARGET DATE ACTIVITY**

- YEAR 1 Ordinance or other regulatory mechanism in place; procedures for information submitted by the public in place.
- YEAR 2 Procedures for site inspections implemented; a certain percentage rate of compliance achieved by construction operators.
- YEAR 3 Maximum compliance with ordinance; improved clarity and reduced sedimentation of local water bodies.
- YEAR 4 Increased numbers of sensitive aquatic organisms in local water bodies.

***MEASURE 6 - POST-CONSTRUCTION RUNOFF CONTROL***

**GOAL OF CONTROL MEASURE:** Develop master plans, comprehensive plans, or zoning ordinances to guide the growth of your community away from sensitive areas and restrict certain types of growth to areas that can support it without compromising water quality. Establish site-based local controls such as buffer strip and riparian zone preservation, minimization of disturbance and imperviousness, and maximization of open space.

**MUST:**

- Develop a program, using an ordinance or other regulatory means, to address runoff from new development and redevelopment projects that disturb > 1 acre
- Implement strategies with a combination of structural and/or non-structural BMPs
- Ensure adequate long-term O&M of BMPs

**RECOMMENDED:**

- The BMPs chosen should:
  - be appropriate for the local community
  - minimize water quality impacts
  - attempt to maintain pre-development runoff conditions
- Participate in watershed planning efforts
- Assess existing ordinances, policies, and programs that address storm water runoff quality
- Provide opportunities for public participation

**SUGGESTED TARGET DATE ACTIVITY**

- YEAR 1 Strategies developed that include structural and/or non-structural BMPs.
- YEAR 2 Strategies codified by use of ordinance or other regulatory mechanism.
- YEAR 3 Reduced percent of new impervious surfaces associated with new development projects.
- YEAR 4 Improved clarity and reduced sedimentation of local waterbodies.

**REMEMBER – THE DEADLINE TO SUBMIT THE PERMIT APPLICATION IS MARCH 10, 2003!!!**