

## **8. Pollution Prevention/Good Housekeeping BMPs**

### **8.1. Overview**

This chapter describes the Pollution Prevention/Good Housekeeping BMPs implemented by MDOT and changes that have occurred with this program during the reporting period. Additional information on MDOT's pollution prevention/good housekeeping BMPs is included in the Storm Water Management Plan (SWMP). The organization of this chapter is as follows:

- Section 8.2. describes the status of implementation of the BMPs that were described in the SWMP.
- Section 8.3. contains the schedule for further implementation of the BMPs.

### **8.2. BMP Status and Measurable Goals**

Each of the following sections discusses the status of the BMPs identified and described in the SWMP and the measurable goals that were obtained over the reporting period.

#### **8.2.1. BMP Changes**

There were no changes to BMP Status during this reporting period.

#### **8.2.2. MDOT Manuals**

MDOT has finalized a new Drainage Manual to provide MDOT designers and consultants with policies and procedures for designing drainage facilities that comply with MDOT's Storm Water Management BMPs. This Manual is in electronic format on the MDOT Storm Water Web site. It is also available as a hard copy and will be referenced in consultant design contracts.

As stated in Section 6.2.3 of the SWMP, MDOT has the legal authority to prevent or minimize future illicit connections derived from state statutes. This legal authority, as outlined in the MDOT Construction Permit Manual Section 9.13, provides MDOT with the legal mechanisms to control construction site and other industrial discharges to the MS4. This section of the manual has been updated to reflect needed changes to assure MDOT employees all follow the same procedure when a potential illicit discharge or connection is discovered. Refer to Appendix E for a copy of the revised Section 9.13.

#### **8.2.3. Structural and Non-Structural BMPs**

Structural BMPs are physical controls that may remove pollutants from runoff. They may limit the rate of runoff from MDOT right-of-way and other facilities. There are many different types of structural BMPs that can be used for different projects as discussed in Chapter 3 of the SWMP. Additionally, a list is provided in Appendix C that is included in the Drainage Manual.

Non-structural BMPs are preventative actions that involve management and source controls. Many other non-structural BMPs, besides these few examples, are discussed

throughout this report. The list provided in Appendix C also includes many types of non-structural or operational BMPs.

With a great variety of types of BMPs available, it is very important that goals are established during planning and construction to ensure that the appropriate BMPs are used for each MDOT project. Since these BMPs are now located in an official MDOT Manual, MDOT has a procedure to ensure that these BMPs are applied on applicable projects.

At this time, no summary of newly constructed structural BMPs exists, but an Asset Management Council is currently being created by MDOT, which will allow tracking of these facilities in the future.

In order to evaluate how effective this program is, several measurable goals have been established. The results of the measurable goals are included below in Table 8-1.

**Table 8-1 Structural Controls Measurable Goals**

<b>Measurable Goals</b>	<b>Summary</b>
Summary of new programs, policies, procedures, or information	BMP materials have been added to the pay item code.
Summary of newly constructed structural BMPs including the number, location, and type installed	No record currently of BMPs constructed this recording period
Develop a process to track construction of BMPs	In Progress

**8.2.4. Operation and Maintenance**

As discussed in the SWMP, depending on location regionally around the state, local public transportation agencies working under contract for MDOT or MDOT employees will inspect BMPs on a regular basis. At this time, county contracts do not allow keeping records quantifying the inspection and maintenance work that was performed.

MDOT constructs, operates, and maintains its highways and facilities in a manner to reduce the discharge of pollutants into the drainage system. The inspection and maintenance of each BMP will be determined as it corresponds to guidelines that are described in the MDOT’s Drainage Manual and as described in the MDOT’s Operation Maintenance Handbook. The regular inspection and maintenance for the BMPs will maintain the effectiveness and structural integrity of the BMPs.

As stated in the SWMP, MDOT uses a system of calibrated salt dispensers to minimize the amount of salt applied to roadways. MDOT conducted a literature review comparing various deicing alternatives and found that salt is more cost-effective, and is no more environmentally harmful than any of the other alternatives reviewed.

In order to evaluate how effective this program is, several measurable goals have been established. The results of the measurable goals are included below in Table 8-2.

**Table 8-2 Operation and Maintenance Measurable Goals**

<b>Measurable Goals</b>	<b>Summary</b>
Summary of new programs, policies, procedures or information	MDOT is currently creating an Asset Management Division, which will allow for more accurate operation and maintenance records.
Summary of inspection/maintenance performed on structural BMPs	MDOT is currently creating an Asset Management Division, which will address this issue at a later date.

**8.2.5. Fleet Maintenance**

MDOT ensures that proper precautions are taken so that vehicle maintenance activities do not impact storm water runoff quality. A Pollution Incidence Prevention Plan (PIPP) has been written for all MDOT maintenance and storage facilities located in Phase I areas. Planning is required by the Part 5, Spillage of Oil and Polluting Materials administrative rules promulgated pursuant to Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451) MCL 324.3101 et seq. These rules were revised effective August 31, 2001.

In order to evaluate how effective this program is, several measurable goals have been established. The results of the measurable goals are included below in Table 8-3.

**Table 8-3 Fleet Maintenance Measurable Goals**

<b>Measurable Goals</b>	<b>Summary</b>
Summary of new programs, policies, procedures, or information	No new programs, policies, procedures, or information
Summary of PIPP audits conducted	Informal audits conducted for Grand Rapids Maintenance Garage and the Grand Rapids Automotive and Equipment Garage

**8.2.6. Storm Sewer Outfall Labeling**

MDOT will provide permanent identification to all outfall structures that are installed or constructed after March 10, 2004. The Phase II permit may modify this requirement. Over the last reporting period, MDOT has worked on design standards needed to meet this requirement.

In order to evaluate the effectiveness of this program, several measurable goals have been established. The results of the measurable goals are included below in Table 8-4.

**Table 8-4 Storm Sewer Labeling Measurable Goals**

<b>Measurable Goals</b>	<b>Summary</b>	<b>Number</b>
Summary of new programs, policies, procedures, or information	No new programs	N/A
Number of storm sewer outfalls labeled	N/A	No storm sewers labeled.

**8.2.7. Pesticides and Fertilizers**

Pesticides and Fertilizers are applied on MDOT rights-of-ways, as described in the SWMP. A Michigan Department of Agriculture approved pesticide-training seminar is held by the maintenance division of the MDOT to train and re-certify individuals each year. During this reporting period, the training was held on April 23, 2002, and fifty employees were trained and re-certified.

In order to evaluate how effective this program is, several measurable goals have been established. The results of the measurable goals are included below in Table 8-5.

**Table 8-5 Pesticides and Fertilizers Measurable Goals**

<b>Measurable Goals</b>	<b>Number</b>
Summary of new programs, policies, procedures, or information	None
Number of certified MDOT personnel	50
Number of individuals attending the yearly training session	50

**8.3. Implementation Schedule**

MDOT will continue work on any necessary tasks upon approval of this Annual Report and the SWMP by MDEQ and the availability of funds. The following Table 8-6 is an estimated implementation schedule for all of the actions needed to fulfill the BMPs discussed in this in the SWMP for the pollution prevention/good housekeeping projects.

**Table 8-6 Implementation Schedule for Construction Storm Water Runoff Control BMPs**

<b>ID No.</b>	<b>Action</b>	<b>Year of Implementation</b>			
		<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>8.2.2.</b>	<b>MDOT Manuals</b>				
	Drainage Design and Storm Water Management Manual		X		
<b>8.2.3.</b>	<b>Structural and Non-Structural BMPs</b>				
	Structural and Non-structural			X	X
<b>8.2.4.</b>	<b>Operation and Maintenance</b>				
	Continue existing operation and maintenance program	X	X	X	X
<b>8.2.5.</b>	<b>Fleet Maintenance</b>				
	Continue existing fleet maintenance program	X	X	X	X
<b>8.2.6.</b>	<b>Storm Sewer Outfall Labeling</b>				
	Permanently label newly constructed storm sewer outfalls			X	X
<b>8.2.7.</b>	<b>Pesticides and Fertilizers</b>				
	Continue existing pesticide and fertilizer program	X	X	X	X