

## **3. Public Education BMPs**

### **3.1. Overview**

This chapter describes the public education BMPs implemented by MDOT for staff and the public, and changes that have occurred with this program during the reporting period. Additional information on MDOT's public education BMPs is included in the Storm Water Management Plan (SWMP). The organization of this chapter is as follows:

- Section 3.2. describes the status of implementation of the BMPs that are described in the SWMP.
- Section 3.3. contains the schedule for further implementation of the BMPs.

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

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

Please note that the information in this report related to Web site hits and document downloads reflect only those hits and downloads executed during May and June of 2003 and a portion of November 2002. The counts for August, September, and October 2002 were lost due to a problem during the conversion to the [www.michigan.gov](http://www.michigan.gov) Web site format. Counts for December 2002 and January, February, March, and April of 2003 were lost due to another problem related to the aforementioned conversion. The counters on the Web site are now working properly.

#### **3.2.1. BMP Changes**

MDOT is developing a storm water NPDES Phase II informational Web site located on the MDOT Interchange, which will be accessible by all MDOT employees. This Web site will house a host of information and periodic E-mails will be sent organization-wide to notify employees of relevant additions. This Web site will also have a link to provide a method to check out information housed in the Stormwater Information Center.

New Training Modules for education of the MDOT job-related public were developed as described below. As part of these training modules, a set of questionnaires were developed to evaluate the effectiveness of the training for those who attend these sessions. Compiling this information will be added to the measurable goals tracked by MDOT.

#### **3.2.2. Internal Notification of Storm Water Management Program**

MDOT notified the staff of ongoing storm water management activities through use of the storm water Web page, distribution of storm water brochures, and through short presentations prior to meetings (see Appendix A, Table A-1: Public Education Database).

A public storm water Web site was created and launched in FY 2001 to assist in educating the general public and the job-related public on storm water issues. This Web

site is updated monthly with new relevant information and products. There is also a project team Web site that contains important storm water information including meeting minutes, maps, project pictures, and deliverable items that MDOT employees can access and download.

Additionally, the following courses were given to MDOT Staff to provide training on Soil Erosion and Sedimentation Control (SESC), including the new Phase II SESC updates. See Appendix A for the number of attendees.

- Soil Erosion & Sediment Control 3/4/2003
- Soil Erosion & Sediment Control 3/5/2003
- Soil Erosion & Sediment Control 3/5/2003
- Soil Erosion & Sediment Control 3/6/2003
- Soil Erosion & Sediment Control 3/6/2003
- Soil Erosion & Sediment Control 3/7/2003
- Soil Erosion & Sediment Control 3/10/2003
- Soil Erosion & Sediment Control 3/10/2003
- Soil Erosion & Sediment Control 3/25/2003
- Soil Erosion & Sediment Control 3/25/2003
- Soil Erosion & Sediment Control 3/28/2003
- Soil Erosion & Sediment Control 4/17/2003
- Soil Erosion & Sediment Control 4/28/2003
- Soil Erosion & Sediment Control 5/2/2003
- Soil Erosion & Sediment Control 5/5/2003
- Soil Erosion & Sediment Control 6/9/2003

### **3.2.3. Training Modules for Job-Related Public**

MDOT has finalized a series of internal training modules each approximately 15 minutes in length, which will inform the job-related public about the MDOT SWMP. The four training modules (Module 1 – Introduction, Module 2 – Best Management Practices, Module 3 – Storm Water Maintenance Considerations, and Module 4 – Illicit Discharge Elimination Program) are being presented both inside MDOT and to outside agencies and organizations. The internal training focus group workgroup met monthly to review the modules and develop an appropriate script for the presentations. The modules were distributed via CD-ROM to all the members of the MS4 Team and are posted to the project Web site. A database was developed in order to track the number of sessions undertaken, dates and number of employees in attendance (see Appendix A, Table A-1: Public Education Database). A set of questionnaires was also developed to test the effectiveness of communicating the message to attendees. A copy of the training modules and questionnaire is provided in Appendix F. The questionnaire will be added to the measurable goals monitored by MDOT.

The internal training focus group identified various types of standard MDOT meetings that could potentially have storm water issues added to the agenda in order to keep all

departments internally informed of the storm water management program. These meetings are outlined below in Table 3-1.

**Table 3-1 MDOT Standard Meetings List**

Meeting Title	Frequency	Applicable Groups
Resource Specialist Meeting	Annual	Resource Specialists
TSC Manager Meetings with Region Engineers	Bi-weekly	Metro, Grand, & Bay Regions
Individual Division Chiefs with Deputy Directors	Variable	Chiefs and Directors
Operational Executive Staff, OES	Monthly	Executive
Staff Meetings	Bi-weekly	Design and Metro
Leadership Conference	Annual	By invitation only
Engineer Operation Committee	Monthly	Division Chiefs and Mackey
Fall Maintenance Meeting	Annual	Maintenance Staff

To evaluate the effectiveness of the program, several measurable goals have been established. The results of the measurable goals are included below in Table 3-2.

**Table 3-2 Internal Notification of Storm Water Management Program Measurable Goals**

Measurable Goal	Type	Number
Type and number of media used for notification	MDOT Public Web page MDOT Project Team Web page Brochures	3
Type and number of training modules given	PowerPoint Presentation- Four Modules	26
Training module evaluation questionnaire	Survey Developed	4
Number of the job-related public that attend training modules	Attendance	518

**3.2.4. Internal Education: Illicit Discharges and Improper Waste Disposal**

As part of MDOT’s efforts to educate the job-related public and the general public about illicit discharges and improper waste disposal, an interactive educational demonstration about illicit discharge and improper waste disposal was created and presented at MDOT MS4 meetings. After revisions and approval, it was posted on MDOT’s Storm Water Management Web site. The job-related public was notified of this Web site through the strategies discussed in Section 3.2.2.

The internal training focus group developed a training and correspondence process for the Illicit Discharge and Elimination Program (IDEP), which identified three key stakeholders in the IDEP process – the Design, Construction, and Maintenance groups in MDOT. It was also determined that IDEP training should include a standard presentation outlining what to report, who to report to, and when or if the trainee should expect a response.

As discussed in Section 3.2.3, the MDOT focus group finalized a series of training modules, including Internal Training Module 4: Illicit Discharge Elimination Program. This Module was designed to address illicit discharges and improper waste disposal and the appropriate contacts if an illicit discharge is found. The module has been targeted towards divisions most likely to encounter illicit discharges or improper waste disposal during the course of their daily activities or while working in the field. Those divisions may include Planning, Design, Construction Services and Maintenance.

Through the training modules or meetings, employees are informed of and encouraged to contact their supervisor, the MS4 Team Region Resource Specialist (See Section 2.2), 911 or emergency contact number, and MDEQ's Pollution Emergency Alerting System (PEAS), if an illicit discharge or improper waste disposal discovery is made, and constitutes a major emergency according to PEAS guidelines.

Appropriate employees were trained about illicit discharges and improper waste disposal. A database has been developed in order to track the number of sessions held, dates and employees in attendance. This database is presented in Appendix A. The meetings where training occurred over this reporting period are as follows:

- Design Support Area Staff-Module 1 11/5/2002
- Region Project Prioritization Team 11/19/2002
- Utility Conference Test Module 1 & 4 11/26/2002
- Utility Coordination & Permits Conference 12/10/2002
- Utility Coordination & Permits Conference 12/11/2002
- Storm Water Internal Training 12/16/2002
- Storm Water Internal Training 1/15/2003
- Construction Site Certified SW Operator 1/16/2003
- Storm Water Presentation Module 1 4/22/2003

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

**Table 3-3 Internal Education: Illicit Discharges and Improper Waste Disposal  
Measurable Goals**

<b>Measurable Goal</b>	<b>Type</b>	<b>Quantity or Results</b>	
Type and number of media used to inform employees about Web site	MDOT Public Web site Illicit Discharge Demo- Dos/Don'ts MDOT Project Team Web page Brochures	4	
Number of Public Web site hits	N/A	July	No Count-Web Problems
		August	No Count-Web Problems
		September	No Count-Web Problems
		October	No Count-Web Problems
		November	9
		December	No Count-Web Problems
		January	1
		February	No Count Web Problems
		March	No Count-Web Problems
		April	No Count-Web Problems
		May	23
		June	28
Number of comments about Web site	None	None	
Number of the job-related public that learned something new	N/A – No survey distributed yet	N/A	
Number of behavior changes as a result of visiting Web site	N/A – No survey distributed yet	N/A	
Number of training courses given	Training Courses	25	
Number of the job-related public reached in training courses	Training Courses	504	

**3.2.5. Internal Education: Ultimate Discharge Point and Potential Impacts of Pollutants**

MDOT has begun the process of educating their employees about ultimate discharge points and potential impacts of pollutants. Information concerning the ultimate discharge

point and potential impacts of pollutants were made available to MDOT employees on the storm water management Web site over this reporting period. For example, information such as the possible composition of pollutants in runoff and how pollutants drain into rivers, creeks, or lakes are presented on the Web site.

MDOT plans to send a organization-wide E-mail directing employees to an automated Web site located on the MDOT Interchange in order to conduct a survey to discover how much was learned about discharge point and potential impacts of pollutants from this internal training BMP. This E-mail function will also be used to notify MDOT employees of new and relevant information that is posted to this Web site. This Web site is expected to become operational during FY 2004. This Web site will also have a link to provide a method to check out information housed in the Stormwater Information Center.

MDOT has finalized a new Drainage Manual to provide MDOT staff and consultants with policies and procedures for planning and 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 will also be available as a hard copy and will be referenced in consultant design contracts. MDOT is planning on producing 1000 copies of this manual in FY 2004.

Work on the Drainage Manual began in March 2002 and was completed in July 2003. Work included modifying the AASHTO Model Drainage Manual to make applications Michigan-specific. The model was condensed/edited from 21 chapters to 10 chapters in MDOT's final document. The following list outlines chapters included in the final document.

- Introduction
- Legal Policy and Procedure
- Hydrology
- Natural Channels and Roadside Ditches
- Culverts
- Bridges
- Road Storm Drainage Systems
- Stormwater Storage Facilities
- Stormwater Best Management Practices
- Pump Stations

The editing process for the Drainage Manual included two internal reviews and one public review period. This project was completed on schedule in July 2003. Once the public review period was completed for all of the chapters, the Manual was presented for Engineering Operations Committee (EOC) approval. The EOC committee approved the manual in July 2003.

The final document will continue to be updated on the public Web site (<http://www.mdot.state.mi.us/stormwater/drainagemanual.cfm>).

In order to evaluate how effective this program is, several measurable goals were established in the SWMP. The results of the measurable goals are included below in Table 3-4.

**Table 3-4 Internal Education: Ultimate Discharge Point and Potential Impacts of Pollutants Measurable Goals**

Measurable Goals	Type	Results or Quantity
Type and number of media used	MDOT Public Web page Drainage Manual	2
Number of articles published	None this Year	0
Number of the job-related public that learned something new	No Survey Performed-Manual Just Completed	N/A
Number of the job-related public that change behavior as a result of article	No Survey Performed	N/A
Number of Drainage Manuals published	Three Ring Binder	20

### 3.2.6. Internal Education: Watershed Stewardship

MDOT encourages their employees to be good stewards of their watershed. MDOT encourages participation in existing programs, such as Adopt-A-Highway, that promote good watershed stewardship.

The MDOT storm water management Web site describes the purpose of the SWMP (along with downloadable read-only copies of the plan), and features an interactive illicit discharge demonstration, and lists activities and resources for each community and links to each Phase I community Web site. A highlight on each of the Phase I Community Web pages is a section called “Getting Involved,” where local information is posted to encourage participation in local watershed groups, river clean-up activities, household hazardous waste disposal, yard waste recycling and disposal, trash management, septic tank management and other activities. Additionally, Phase I community Web sites link to the MDOT storm water management site.

A storm water management brochure, a Web site promotion business card, and storm water management litterbags have been printed and distributed to local MDOT facilities within the Phase I areas. The brochure discusses the intent of the MDOT SWMP and educates about illicit discharges. The litterbag lists several general watershed stewardship tips and can be used for automobile trash, which may otherwise be thrown out onto the highway. The Web site promotion card is out of date because the Web address is no longer accurate due to the change to the Michigan.gov format; therefore it is no longer being used. 5,000 copies of the brochure were reprinted in 2002. Examples of these items were provided in the FY2002 Annual Report and can be downloaded off the MDOT Storm Water Public Web site. Over this reporting period, these items were distributed at the following MDOT areas:

- Bay Region Office
- Cass City Transportation Service Center (TSC)
- Bay City TSC
- Brighton TSC
- Mt. Pleasant TSC
- Davison TSC
- Grand Region Office, Grand Rapids
- Taylor TSC
- Metro Region Office on 9 Mile Road in Southfield
- Macomb TSC on Mound Road in Sterling Heights

This action item also meets requirements of and is discussed in Section 3.2.7.

MDOT has established the Storm Water Resource Center, a library full of various resources related to storm water. The Storm Water Resource Center is available to all MDOT employees and will have a permanent location. A fire that occurred at MDOT headquarters in Lansing has delayed the permanent installation of the library. Currently, the Storm Water Resource Center houses the MDOT storm water management educational materials previously discussed. In addition, it houses a series of notebooks for each of the Phase I communities with organized examples of local public education materials, such as brochures, guidebooks, posters and videos.

In order to evaluate how effective this program is, several measurable goals were established in the SWMP. The results of the measurable goals are included below in Table 3-5.

**Table 3-5 Internal Education: Watershed Stewardship Measurable Goals**

Measurable Goals	Type	Results or Quantity
Number of Public Web site visits	N/A	July No Count Web Problems
		August No Count Web Problems
		September No Count Web Problems
		October No Count Web Problems
		November 9
		December No Count Web Problems
		January 1
		February No Count Web Problems
		March No Count Web Problems
		April No Count Web Problems
		May 23
		June 28
Number of documents downloaded	N/A	1759
Number of comments received from the public pertaining to the Web site	N/A	1
Number of brochures distributed (Reprinted 2002)	N/A	2,440
Number of Web site promotion business cards distributed	N/A	Discontinued, Replaced with Updated Brochure
Number of litterbags distributed	N/A	Approximately 300
Number of visitors to the Stormwater Resource Center	N/A	In Development

**3.2.7. General Public Education: Water Quality Protection and Storm Water as a Pollution Source**

MDOT has presented the general public with information about water quality protection and storm water as a pollution source through the following described activities.

MDOT developed a storm water management Web site that presents the purpose of the SWMP (along with read-only copies of the plan available to download), features an interactive illicit discharge demonstration, lists activities and resources for each community and links to Phase I community Web sites. A highlight on each of the Phase I Community Web pages is a section called, "Getting Involved," where local information is posted to encourage participation in local watershed groups, river clean-up activities, household hazardous waste disposal, yard waste recycling and disposal, trash management, septic tank management and other activities. This action item also meets requirements of and is discussed in Section 3.2.6.

A storm water management brochure and storm water management litterbags have been printed and distributed to local MDOT facilities within the Phase I areas. The brochure discusses the intent of the MDOT SWMP and educates about illicit discharges. The Web site promotion card is out of date because the Web address is no longer accurate due to the change to the Michigan.gov format; therefore it is no longer being used. 5,000 copies of the brochure were reprinted in 2002. The litterbag lists several general watershed stewardship tips and can be used for automobile trash, which may otherwise be thrown out onto the highway. Examples of these items were provided in the FY2002 Annual Report and can be downloaded off the MDOT Storm Water Public Web site. Over this reporting period, these items were distributed at the following MDOT areas:

- Bay Region Office
- Cass City TSC
- Bay City TSC
- Mt. Pleasant TSC
- Brighton TSC
- Davison TSC
- Grand Region Office, Grand Rapids TSC
- Taylor TSC
- Metro Region Office on 9 Mile Road in Southfield
- Macomb TSC on Mound Road in Sterling Heights

This action item also meets requirements of and is discussed in Section 3.2.6.

In order to evaluate how effective this program is, several measurable goals were established in the SWMP. The results of the measurable goals are included below in **Table 3-6**.

**Table 3-6 General Public Education: Water Quality Protection and Storm Water as a Pollution Source**

<b>Measurable Goals</b>	<b>Type</b>	<b>Results or Quantity</b>	
Number of activities coordinated with MDEQ	Permission to promote Pollution Emergency Alert System (PEAS)	1	
Number of Web site visits	NA	July	No Count Web Problems
		August	No Count Web Problems
		September	No Count Web Problems
		October	No Count Web Problems
		November	69
		December	No Count Web Problems
		January	1
		February	No Count Web Problems
		March	No Count Web Problems
		April	No Count Web Problems
		May	146
		June	236
Number of documents downloaded	Total Documents Downloaded from Stormwater Web site	1,759	
Number of comments received from the public pertaining to the Web site	NA	1	
Number of brochures distributed	NA	2,440	
Number of Web site promotion business cards distributed	NA	Discontinued, Replaced with Updated Brochure	
Number of litterbags distributed	NA	Approximately 300	

**3.3. Implementation Schedule**

MDOT will continue to implement these BMPs as presented in the SWMP. The following Table 3-7 is an estimated implementation schedule for all of the actions needed to fulfill the BMPs discussed in this chapter for a public education and outreach program.

**Table 3-7 Implementation Schedule for Public Education and Outreach Program**

ID No.	Action	Year of Implementation			
		2002	2003	2004	2005
3.2.1.	<b>Internal Notification of SWMP</b>				
	Notify the job-related public through MDOT media	X	X	X	X
	Develop SWMP Introduction for series of training modules	X	X	X	X
	Provide training to appropriate personnel		X	X	X
3.2.2.	<b>Internal Education: Illicit Discharge and Improper Waste Disposal</b>				
	Notify the job-related public of Web site through media	X	X	X	X
	Distribute educational pamphlet and survey	X	X	X	X
	Collect and review survey results	X	X	X	X
	Develop training courses		X	X	X
	Provide training course to appropriate personnel			X	X
3.2.3.	<b>Internal Education: Ultimate Discharge Point and Potential Impacts of Pollutants</b>				
	Develop series of articles		X	X	X
	Publish articles	X	X	X	X
	Distribute educational pamphlet and survey	X	X	X	X
	Collect and review survey results	X	X	X	X
	Develop Drainage Manual	<b>Complete</b>			
3.2.4.	<b>Internal Education: Watershed Stewardship</b>				
	Encourage participation in Adopt-A-Highway	X	X	X	X
	Continue to distribute educational materials	X	X	X	X
	Establish tracking system for Storm Water Resource Center	X	X	X	X
3.2.5.	<b>General Public Education: Water Quality and Storm Water as a Pollution Source</b>				
	Coordinate general public education with MDEQ	X	X	X	X
	Continue to distribute educational materials	X	X	X	X