

3. Public Education BMPs

3.1. Overview

This chapter describes the public education Best Management Practices (BMPs) implemented by MDOT for staff and the public, and any changes that have occurred with this program during the reporting period. Complete 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 obtained over the reporting period.

3.2.1. Internal Notification of Storm Water Management Program

MDOT notified the staff of ongoing storm water management activities through use of the *MDOT Today* newsletter, the *Adopt-A-Highway* newsletter, a new storm water Web page, *MDOT Monday Memos*, distribution of storm water brochures, and through short presentations prior to meetings (see Appendix A for Public Education Database).

A public storm water Web site was created and launched during the last reporting period to assist in educating the general public and the job-related public on storm water issues. 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.

The public Web site was announced to the job-related public in the September 10, 2001 *MDOT Today* newsletter, and also in a *Monday Memo*. The Winter, 2002 *MDOT Today* newsletter informed the job-related public of further storm water management work and best management practices being performed. Examples include restoring and repairing catch basins around the state and using environmentally-sensitive salt storage practices.

The *Adopt-A-Highway* newsletter printed an article in Spring, 2002 entitled, "The Silent Pollutants," presented information to the job-related public and the general public about possible storm water contaminants, and where to find MDOT's Storm Water Management Program by providing the Web address of the public Web site. Each *Adopt-A-Highway* newsletter also contained a copy of the storm water brochure developed by the Municipal Separate Storm Sewer System (MS4) team.

A *Monday Memo* was used to notify the job-related public of a new storm water information center in the Lansing Resource Center.

MDOT is currently working on the development of a series of internal training modules designed to be approximately 15 minutes in length, which would inform the job-related public of the storm water management program. The first four training modules (Module 1 – Introduction, Module 2 – Best Management Practices, Module 3 – Storm Water Maintenance Considerations, and Module 4 – Illicit Discharge Elimination Program) have already been developed and presented at a MDOT meeting. Minor changes were suggested throughout the presentations and are in the process of being implemented. Once finalized, the modules will be distributed on CD-ROM and will be posted to the project Web site. A database will be developed in order to track the number of sessions undertaken, dates and number of employees in attendance.

An internal training focus group was formed over the last reporting period. This 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 as follows:

- Resource Specialist Meeting
- Travel Service Center (TSC) Manager Meetings with Region Engineers
- Individual Division Chiefs with Deputy Directors
- Operational Executive Staff, OES
- Staff Meetings
- Leadership Conference
- Engineering Operations Committee
- Fall Maintenance Meeting
- Safety Conference

In order to evaluate the effectiveness of the program, several measurable goals have been established. The results of the measurable goals are included below in Table 3-1.

Table 3-1 Internal Notification of Storm Water Management Program Measurable Goals

Measurable Goal	Type	Number
Type and number of media used for notification	<i>MDOT Today</i> Newsletter <i>Adopt-A-Highway</i> News MDOT Public and Project Web page <i>MDOT Monday Memos</i> Brochures	5
Type and number of training modules given	In Development	4
Number of the job-related public that attend training modules	N/A	N/A

3.2.2. 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 3.2.1.

The internal training focus group developed 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/if the trainee should expect a response.

As discussed in Section 3.2.1., MDOT has begun development on a series of training modules with Internal Training Module 4 designed to address illicit discharges and improper waste disposal. The module has been targeted towards departments most likely to encounter illicit discharges or improper waste disposal during the course of their daily activities or while working in the field. Those departments may include Planning, Design, Construction Services and Maintenance.

Through the training modules or meetings, employees will be informed of and encouraged to contact 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:

- Utilities/Permits 4th Quarterly Meeting (12/6/01)
- MDOT Design Staff Meeting (12/18/01)
- Soil Erosion Control Concepts 2002 (2/2/02)
- MDOT ROW Workshop (2/6/02)
- MDOT ROW Workshop (2/14/02)
- MDOT ROW Workshop (2/20/02)
- How to Prepare ROW Plans (2/21/02)
- ROW Workshop – Saginaw Valley State University (3/14/02)
- How to Prepare ROW Plans (3/19/02)
- Soil Erosion and Sedimentation Control (3/19/02)
- MDOT ROW Workshop (3/21/02)
- MDOT ROW Workshop (4/11/02)
- MDOT ROW Workshop (4/18/02)
- MDOT ROW Workshop (4/23/02)

- Grand Region Spring Maintenance Meeting (5/8/02)
- Michigan Association of County Drain Commissioners (MACDC) Southwest District Meeting (5/8/02)
- MACDC Northwest Meeting (12-13-01)
- MACDC Southeast Meeting (9-21-01)
- MDOT ROW Workshop (5/31/02)

A memo entitled, “Background Public Education for Developing Materials for Identifying Illicit Connections and Discharges: Guidelines for MDOT Employees and Contractors,” was written and distributed among the appropriate MDOT MS4 team members, discussed and critiqued at a meeting. This memo contains background information and contact information for people who think they may have discovered an illicit discharge. This memo is currently being finalized and the formal process of how to turn it into a guidance document is being pursued.

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 3-2.

**Table 3-2 Internal Education: Illicit Discharges and Improper Waste Disposal
Measurable Goals**

Measurable Goal	Type	Quantity or Results	
Type and number of media used to inform employees about Web site	<i>MDOT Today</i> Newsletter MDOT Public and Project Web page <i>MDOT Monday Memos</i> <i>Adopt-A-Highway</i> Newsletter	5	
Number of Web site hits	N/A	July	NA
		August	30
		September	25
		October	6
		November	2
		December	No count, Web problems
		January	No count, Web problems
		February	5
		March	0
		April	8
		May	No count, Web problems
		June	No count, Web problems
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	17	N/A	
Number of the job-related public reached in training courses	1080	N/A	

3.2.3. 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 page 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. In the future, a MDOT-wide email will be sent out directing employees to an automated Web site 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.

The *Adopt-A-Highway* newsletter printed an article entitled, “The Silent Pollutants,” which informed employees and the public about the ultimate discharge point and potential impacts of pollutants. The article described where storm water ends up, what are possible contaminants, and tips to help keep lakes and streams free from runoff pollutants. A copy of this article appears in Appendix B.

MDOT is in the process of developing a Drainage Manual to provide MDOT designers and design consultants with policies and procedures for designing drainage facilities that comply with MDOT’s Storm Water Management Best Management Practices. This Manual will eventually be an electronic, interactive training device, as well as be available as a hard copy and will be referenced in consultant design contracts.

The Drainage Manual work was begun over this reporting period. A kick-off meeting was held in March 2002.. A Web site has been created where chapters are posted for review. During this reporting period, Chapters 7, 8, 10, and 12 (Hydrology, Channels, Bridges, and Storage Facilities) were posted on the Web site for review. In June, a revised chapter arrangement for the Drainage Manual was discussed.

A detailed Gantt chart of the schedule for this project is attached in Appendix C. This project is on schedule and is expected to be completed in May, 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: Ultimate Discharge Point and Potential Impacts of Pollutants Measurable Goals

Measurable Goals	Type	Results or Quantity
Type and number of media used	<i>Adopt-A-Highway</i> Newsletter MDOT Public Web page Drainage Manual	3
Number of articles published	<i>Adopt-A-Highway</i> Newsletter	1
Number of the job-related public that learned something new	No Survey Performed	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	N/A	Still in Progress

3.2.4. 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*, and as mentioned in Section 3.2.3., an article was placed in the *Adopt-A-Highway* newsletter entitled “The Silent Pollutants,” that promotes good watershed stewardship.

The MDOT storm water management Web site describes the purpose of the storm water management plan (along with downloadable read-only copies of the plan), 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. Examples of these items can be seen in Appendix D. The brochure discusses the intent of the MDOT storm water management plan (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. Over this reporting period, these items were distributed at the following MDOT areas:

- Brighton Transportation Service Center (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 3.2.5.

MDOT has established the Lansing Information Center, a library full of various resources related to storm water. The Lansing Information Center is available to all MDOT employees and will have a permanent location. It would already have a permanent location, except for a fire that occurred at MDOT headquarters in Lansing, postponing the installation of the library. Currently, the Lansing Information 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 3-4.

Table 3-4 Internal Education: Watershed Stewardship Measurable Goals

Measurable Goals	Type	Results or Quantity	
Number of Web site visits	N/A	July	N/A
		August	30
		September	25
		October	6
		November	2
		December	No count, Web problems
		January	No count, Web problems
		February	5
		March	0
		April	8
		May	No count, Web problems
		June	No count, Web problems
Number of documents downloaded	N/A	186 (prior to 2002)	
Number of comments received from the public pertaining to the Web site	N/A	1	
Number of brochures distributed	N/A	5,250	
Number of Web site promotion business cards distributed	N/A	5,800	
Number of litterbags distributed	N/A	5,500	
Number of visitors to the Lansing Information Center	N/A	2 before the fire	

3.2.5. 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 participated 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 3.2.4.

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. Examples of these items can be seen in Appendix D. 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. Over this reporting period, these items were distributed at the following MDOT areas:

- 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 3.2.4.

General Motors (GM) printed an article developed by MDOT about public education in “The Line Times,” the company newsletter on May 15, 2002. This article focused on proper methods of car washing. This article can be seen in Appendix B along with other articles developed by MDOT for public education planned for future publications.

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

Measurable Goals	Type	Results or Quantity	
Number of activities coordinated with MDEQ	Permission to promote Pollution Emergency Alert System (PEAS)	1	
Number of Web site visits	NA	July	NA
		August	11
		September	22
		October	28
		November	23
		December	No count, Web problems
		January	No count, Web problems
		February	77
		March	95
		April	0
		May	No count, Web problems
		June	No count, Web problems
Number of documents downloaded	NA	186 (prior to 2002)	
Number of comments received from the public pertaining to the Web site	NA	1	
Number of brochures distributed	NA	5,250	
Number of Web site promotion business cards distributed	NA	5,800	
Number of litterbags distributed	NA	5,500	

3.3. Implementation Schedule

MDOT will continue to implement these BMPs upon MDEQ approval of this report and the availability of funds. The following Table 3-6 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 3-6 Implementation Schedule for Public Education and Outreach Program

ID No.	Action	Year of Implementation			
		2002	2003	2004	2005
3.2.1	Internal Notification of SWMP				
	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	Internal Education: Illicit Discharge and Improper Waste Disposal				
	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	Internal Education: Ultimate Discharge Point and Potential Impacts of Pollutants				
	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				
3.2.4	Internal Education: Watershed Stewardship				
	Encourage participation in <i>Adopt-A-Highway</i>	X	X	X	X
	Continue to distribute educational materials	X	X	X	X
	Establish tracking system for Lansing Information Center	X	X	X	X
3.2.5	General Public Education: Water Quality and Storm Water as a Pollution Source				
	Coordinate general public education with MDEQ	X	X	X	X
	Continue to distribute educational materials	X	X	X	X