

3. PLAN ELEMENTS AND ACTIVITIES

3.1. OVERVIEW

This chapter describes actions MDOT will take to fulfill the Permit requirements for Public Education, Outreach, and Participation; Illicit Discharge Elimination; Post Construction Storm Water Management for New Development and Redevelopment Projects; Construction Storm Water Runoff Control; and Pollution Prevention/Good Housekeeping for MDOT Operations. Each element of the MDOT Storm Water Management Plan is supported by a narrative and multiple activities. Each activity includes the following information:

- Activity name,
- Parties affected or targeted by the activity,
- Objective/description of the activity,
- Measurable goals associated with the activity,
- Permit requirement fulfilled by the activity,
- Specific actions,
- Implementation schedule, and
- Who is responsible for implementing or follow up on the actions.

The activities are organized into five groups; Education/Outreach (E), Training (T), Illicit Discharge Elimination Program (I), Construction, Post-Construction, and Good Housekeeping BMPs (C), and Administrative (A). Several of the activities fulfill more than one of the Permit requirements. Table 3-1 provides the text of each Permit requirement and identifies the activities to address that requirement.

Where job-related public education training programs are called for, the programs will be prepared and implemented in a manner to train employees most likely to encounter the specific SWMP activities as part of their normal work responsibilities. This targeted training will allow MDOT to use resources most effectively while ensuring compliance with the Permit.

Education/Outreach Activities

- E-1: Maintain and Use Lansing Information Center
- E-2: Publish Articles in MDOT Publications
- E-3: Provide Information on Watershed Stewardship on MDOT Public Web Site
- E-4: Provide Education Materials along with Discharge/Tap-In Permit Applications
- E-5: Notify and Invite Public to Review and Comment on the Storm Water Management Plan
- E-6: Determine Partnership Potential with MDEQ Statewide Public Education Program

Training Activities

- T-1: Present Applicable Training Modules to Lansing and Region/TSC Staff
- T-2: Certify MDOT's Staff for Pesticide/Fertilizer Application
- T-3: Train Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement; and Stormwater Operators as Required under Part 31
- T-4: Survey MDOT Staff on Storm Water Knowledge

Illicit Discharge Elimination Program Activities

- I-1: Submit and Implement Mapping Schedule for Outfalls (urbanized areas only)
- I-2: Perform Inventory and Dry Weather Screening on Outfalls
- I-3: Procedure for Receiving and Notifying MDEQ of Illicit Discharges and Actions Taken
- I-4: Report Updates and Changes to Legal Authority Status
- I-5: Map Known Outfalls (statewide)

Construction, Post Construction, and Good Housekeeping BMPs

- C-1: Maintenance Requirements for MDOT Best Management Practices (BMP)s
- C-2: Identify and Coordinate with Metropolitan Planning Organizations (MPO)s having a Storm Water Management Plan (SWMP)
- C-3: Procedure to Select and Apply Best Management Practices (BMP)s for Storm Water Management Activities (Post-Construction)
- C-4: Procedure to Work with MDEQ for Early Coordination on Initial Design Projects
- C-5: Review Projects with Storm Water Discharges to Water Bodies with a Promulgated Total Maximum Daily Load (TMDL)
- C-6: Implement Procedures to Select and Apply Best Management Practices for Storm Water Management Activities (Post-Construction)
- C-7: Internal Quality Assurance/Quality Control (QA/QC) Protocol for Construction Storm Water Control
- C-8: Periodically Update Drainage Manual
- C-9: Documentation and Tracking of Road Maintenance Activities
- C-10: Procedure for Outfall Labeling
- C-11: Review Flow Control Structures
- C-12: Audit the Pollution Incident Prevention Plan (PIPP) Requirements

Administrative Activities

- A-1: Program Assessment and Reporting

Table 3-1: Permit Requirements and Related SWMP Activities

Permit Requirements	Activities
Part I.B Storm Water Management Program - Minimum Measures	
Part I.B. paragraph 2: If a water body has a TMDL, develop, implement and enforce storm water controls to meet the responsibilities established by the TMDL.	C-5
Part I.B. paragraph 3: The MEP requirement shall be met by implementation of BMPs to comply with minimum measures for which the permittee has authority, implementation of BMPs to comply with minimum levels of storm water pollution control established in TMDLs if applicable, and a demonstration of effectiveness or environmental benefit for each BMP.	T-4 A-1
Part I.B. paragraph 3: Within areas with watershed management plans, reducing discharge to the maximum extent practicable (MEP) shall include implementation of BMPs to comply with watershed goals.	C-2
Part I.B.1 Education and Outreach on Storm Water Impacts - Public Education Program	
Part I.B.1.a(1): Educate the job-related public of hazards associated with improper disposal of waste/illicit discharges.	E-1 E-2 E-3 T-1
Part I.B.1.a(2): Instruct the job-related public to report the presence of illicit discharges or improper disposal of materials into the Permittee's [MDOT's] drainage system.	T-1
Part I.B.1.a(3): Educate the job-related public of watershed stewardship and implement a program.	E-1 E-2 E-3 T-1
Part I.B.1.b: If the Department [MDEQ] develops a statewide public education program, the permittee [MDOT] may either seek a partnership agreement with the Department [MDEQ] for implementation of Part I.B.1.b. of this permit, or develop and implement a program to increase awareness and seek positive public behavior.	E-6
Part I.B.1.b(1): [within urbanized areas] Educate the general public about water quality protection/hazards of improper disposal. Encourage public reporting of improper disposals into system. Educate the public about proper control for construction sites.	E-6
Part I.B.1.b(2): [within urbanized areas] Educate the general public about preferred car cleaning agents and procedures for non-commercial car washing.	E-6
Part I.B.1.b(3): [within urbanized areas] Educate the general public about watershed awareness, responsibilities and stewardship to the watershed.	E-6
Part I.B.1.b(4): [within urbanized areas] Educate the general public about water quality impacts of residential de-icer use.	E-6
Part I.B.1.c: Provide pollutant prevention information to applicants that apply to tap into the MDOT drainage system.	E-4
Part I.B.1.c: Train MDOT employees to provide pollution prevention education during tap-in application process.	E-4
Part I.B.2: Public Involvement/Participation	
Part I.B.2: Encourage public input.	E-5
Part I.B.2.a: Notify public of when and where preliminary and final SWMP are available for review.	E-5
Part I.B.2.b: Input shall be actively sought from NPDES watershed permit stakeholder groups and local stream or watershed protection organizations within urbanized areas for comment on	E-5

Table 3-1: Permit Requirements and Related SWMP Activities

Permit Requirements	Activities
the SWMP.	
Part I.B.2.c: Where MPOs exist, MDOT shall identify and cooperate with local storm water master planning processes and the MPO. MDOT shall implement storm water controls as necessary to cooperate with local storm water master plans.	C-2
Part I.B.3: Illicit Discharge Elimination Program	
Part I.B.3.a: Within one year, submit schedule for providing maps of known outfalls and all outfalls at roadway crossings within the urbanized areas. Maps shall be developed for outfalls at roadway crossings no later than expiration of permit.	I-1 I-5
Part I.B.3.b: Outfalls shall be prioritized and top priority outfalls (305(b) listed water bodies) shall be screened for dry weather discharges.	I-2
Part I.B.3.b: Use screening results to identify and eliminate illicit discharges as expeditiously as practicable.	I-2
Part I.B.3.b: Illicit connections that cannot be disconnected immediately shall be identified in the annual report and schedule of work to be completed during the following year.	I-2
Part I.B.3.c: Provide a system to accept and respond statewide to reports of illicit discharges received from the job-related public.	I-3
Part I.B.3.d(1): Legal authority to regulate the contribution of pollutants to the drainage system.	I-4
Part I.B.3.d(2): Legal authority to regulate the rate of water inflow.	I-4
Part I.B.3.d(3): Legal authority to prohibit illicit connections/discharges into drainage system.	I-4
Part I.B.3.d(4): Legal authority requiring compliance with conditions in permit.	I-4
Part I.B.4: Post Construction Storm Water Management Program for New Development and Redevelopment Projects	
Part I.B.4.a: Program to coordinate with local planning efforts that conforms with the cooperative planning requirements of 23CFR450.210 and 23CFR450.312 and which considers potential environmental effects of impervious surfaces.	C-2
Part I.B.4.a: MDOT shall make information available to local planning efforts.	C-2
Part I.B.4.b(1): Requirements for implementation of BMPs.	C-3 C-5 C-6
Part I.B.4.b(2): Requirements for long-term operation and maintenance of BMPs.	C-1 C-3 C-6
Part I.B.4.c: Develop and implement a process for review of BMPs.	C-8 C-11
Part I.B.4.c: Allow MDEQ review of preliminary construction plans and provide input on placement of drainage and BMPs.	C-4
Part I.B.5: Construction Storm Water Runoff Control	
Part I.B.5.a(1): Implement soil erosion and sedimentation controls.	T-3 C-7

Table 3-1: Permit Requirements and Related SWMP Activities

Permit Requirements	Activities
Part I.B.5.a(2): Control demolition and construction waste materials, concrete truck washout, chemicals, litter, and sanitary waste at construction sites.	T-3 C-7 C-8
Part I.B.5.a(3): Consider potential water quality impacts during road construction plan reviews.	T-3 C-7
Part I.B.5.a(4): Inspect sites to assure pollution control measures are appropriate.	T-3 C-7
Part I.B.5.b(1): Notify the MDEQ of non-MDOT construction activities that deposit/threaten deposition of pollutants into the MDOT drainage system.	I-3
Part I.B.5.b(2): Procedure to receive complaints regarding construction site runoff and to take corrective actions in accordance with the SESC plan.	I-3
Part I.B.6: Pollution Prevention/Good Housekeeping for MDOT Operations	
Part I.B.6: Ensure MDOT employees maintain and follow proper pollution prevention controls.	E-3 T-1 T-3 C-9 C-12
Part I.B.6: Train employees to prevent storm water pollution.	T-1 T-3
Part I.B.6.a(1): Statewide routine maintenance for structural controls.	C-1 C-8 C-12
Part I.B.6.a(1): Describe and implement procedures for proper disposal of operation and maintenance waste.	C-9
Part I.B.6.a(2): If necessary, enhance structural controls and cleaning schedules for adequate pollutant control.	C-1 C-6 C-12
Part I.B.6.b(1): Statewide, construct, operate, and maintain surfaces to reduce discharge of pollutants into system including salt, sand, and asphalt and concrete from road resurfacing activities.	C-9
Part I.B.6.b(1): Good Housekeeping implemented at salt and sand storage facilities	C-9
Part I.B.6.b(2): Maintain existing street cleaning and catch basin maintenance activities.	C-9
Part I.B.6.c: Provide permanent identification of outfalls installed after April 1, 2005 that discharge into waters of the state. The primary operator of the drainage system shall be readily identifiable by observation of the outfall.	C-10
Part I.B.6.d: Ensure new storm water flow management projects assess impacts of water quality on the receiving water and, whenever possible, examine existing projects for incorporation of water quality protection.	C-11
Part I.B.6.e: Assure vehicle maintenance activities do not pollute storm water runoff.	C-12
Part I.B.6.f: Minimize the discharge of pollutants related to storage, handling and use of herbicides/fertilizers.	T-2
Part I.B.6.f: Provide employee training for herbicides/fertilizers to protect water quality.	T-2

Table 3-1: Permit Requirements and Related SWMP Activities

Permit Requirements	Activities
Part 1.C: Program Assessment and Reporting	
Part I.C.1.a: By April 1, 2005 the first annual progress reports describing the progress toward compliance with requirements of the permit shall be submitted, by Region, to the DEQ for approval. The first year report shall include an approvable storm water management plan. Also included shall be a listing of BMPs for the minimum measures, measurable goals and a report of the program effectiveness. Subsequent progress reports shall be submitted annually by April 1.	A-1

3.2. PUBLIC EDUCATION, OUTREACH AND PARTICIPATION

This section describes activities MDOT conducts or will implement to fulfill Permit requirements for a public education, outreach, and participation program.

3.2.1. Measurable Goals

The following list summarizes activities and corresponding interim milestones and measurable goals that support the Public Education, Outreach, and Participation Plan. Details on how these activities and measurable goals will be implemented are presented in Section 3.7.

Activity E-1: Maintain and Use Lansing Storm Water Information Center

- Track the material used.
- Track the source and number of articles.

Activity E-2: Publish Articles in MDOT Publications

- Publish at least four storm water-related articles over the Permit term in various MDOT media.
- Track topics and number of articles.

Activity E-3: Provide Information on Watershed Stewardship on the MDOT Public Web Site

- Track internal and external hits and the number of SWMP document downloads on the public storm water Web site.

Activity E-4: Provide Education Materials along with Discharge/Tap-in Permit Applications

- Track quantity of educational materials distributed.

Activity E-5: Notify and Invite Public Review and Comment on the SWMP

- Document procedures used for notifying public of SWMP.
- Summarize the comments and actions were taken.
- Count number of downloads of the draft SWMP from Web site

Activity E-6: Determine Partnership Potential with MDEQ Statewide Public Education Program

- MDOT will decide whether or not to participate in statewide program.

Activity T-1: Present Training Modules to Lansing and Region/TSC Staff

- Verify appropriate Lansing and Region/TSC Staff are trained.
- Gather training module evaluation forms from at least 50% of trainees.
- Document changes made to training module.
- Document contract agencies receiving modules.

Activity T-4: Conduct Survey of MDOT Staff on Storm Water Knowledge

- Report survey results.
- Report the results of the subsequent survey and compare.

Activity C-2: Identify and Coordinate with Metropolitan Planning Organizations (MPO)s Having a Storm Water Management Plan (SWMP)

- Identify MPOs having SWMPs.
- Document completion of MDOT/MPO coordination process.
- Summarize new programs, policies, procedures and information.

3.2.2. Job-Related Public Education, Outreach and Participation

Part I.B.1 of the Permit defines "Job-Related Public" as MDOT employees and contractors in design, construction and maintenance activities, who potentially could affect the quality of storm water discharges through their job-related activities.

Notice of Storm Water Management Program

MDOT will notify the job-related public of the storm water management program. Notification will provide this audience with information on the content of the SWMP, the stated goals, and how the SWMP will affect their job. This notification will occur through various internal and public media.

MDOT will also keep its employees informed through a series of presentations on various aspects of the SWMP. Each presentation, or training module, is designed to be approximately 15 minutes in length with an approximate 15 minute question and answer session following. The number of sessions presented, dates, employees in attendance, and their work area are recorded in a database. The current training modules are:

- Module One: Introduction to Storm Water Management, is a basic introductory session.
- Module Two: Best Management Practices, educates employees about the approved MDOT BMP List (see Chapter 2).
- Module Three: Maintenance Considerations, presents BMP maintenance requirements.
- Module Four: Illicit Discharge Elimination Program (IDEP), introduces The IDEP and provides procedures to follow should employees suspect they have located an illicit discharge.

Illicit Discharges and Improper Waste Disposal

MDOT will educate targeted employees about illicit discharges and improper waste disposal. In addition, employees will be directed to visit the MDOT Storm Water Management Web Site, which features an interactive, educational demonstration about illicit discharges and improper waste disposal.

Training Module Four addresses illicit discharges and improper waste disposal. The module targets employees most likely to encounter illicit discharges or improper waste disposal during the course of their daily activities, especially while conducting field work. These areas include Planning, Design, Real Estate, Construction and Technology, and Region TSC/Maintenance Staff. Employees are instructed to follow MDOT reporting procedures if a discovery is made.

Watershed Stewardship

MDOT will encourage the job-related public to be good stewards of their watersheds and understand the ultimate outfall and discharge points and potential impacts of storm water. MDOT will encourage participation in the Adopt-A-Highway litter pick-up program and similar local programs. MDOT will also educate the job-related public about good housekeeping and pollution prevention principles.

One of the important ways that MDOT is providing information to the job-related public is through the Drainage Manual. This manual was developed to provide MDOT designers and design consultants with policies and procedures for designing drainage facilities with MDOT's storm water BMPs. A summary of changes made to improve the manual will be provided in the annual progress report.

A series of articles written on watershed stewardship will be included for publication in MDOT media. Topics include lawn and garden activities, proper disposal of household hazardous waste, travel trailer sanitary waste disposal, pet waste management and trash management. The articles discuss how pollutants are carried by storm water runoff and are eventually deposited into nearby lakes and streams. Each article provides useful resources, such as an environmental-friendly pesticide list, household hazardous waste collection centers, and businesses that accept travel trailer sanitary waste.

The MDOT Storm Water Management Web Site provides a host of useful information on storm water and watershed stewardship. This includes information on local watershed groups, river clean-up activities, household hazardous waste disposal, yard waste recycling and disposal, trash management, septic tank management and other activities. The "Links" section includes a link to each Phase II Community in Michigan with a Web site.

A storm water management brochure has been distributed to Transportation Service Centers and Region Offices across the State of Michigan. The brochure discusses the intent of the MDOT Storm Water Management Plan and educates about illicit discharges.

MDOT has established the Lansing Information Center, containing various resources related to storm water and watershed stewardship. The Lansing Information Center is part of the MDOT Library at the Murray D. Van Wagoner Building, 425 W. Ottawa Street, Lansing MI 48909. Resources from the Lansing Information Center are available to all of the job-related public upon request. In addition, the Lansing Information Center houses a series of notebooks for each of the Phase I communities with examples of local public education materials, such as brochures, guidebooks, posters, and videos including resources from the Southeast Michigan Council of Governments (SEMCOG). A complete list of the Lansing Information Center content is available from MDOT's Aquatic Resource Specialist within the Environmental Section.

3.2.3. General Public Education

Part I.B.1 of the Permit defines "General Public" as the people who travel state roadways and requires that MDOT educate the general public within urbanized areas about water quality protection and storm water as a pollution source. The Permit provides that if MDEQ develops a statewide public education program, MDOT may either seek a partnership agreement with the MDEQ for implementation of Part I.B.1.b of the Permit, or develop and implement a program to increase awareness and seek positive behavior.

Should MDOT decide to develop and implement a program, many of the activities that MDOT conducts to provide education to the job-related public will be incorporated into that program to provide information and education to the general public. These efforts include maintaining the Storm Water Management Web Site and distribution of the storm water management brochure.

Public Meetings/Hearings

Storm water-related public involvement issues can be addressed on a project specific basis through MDOT's public involvement process and project planning stages.

3.2.4. Education on Tap-In/Discharge Permit

MDOT has developed educational materials that will be provided to applicants seeking tap-in/discharge permits for accessing MDOT's drainage system. This material will focus on prohibiting the occurrence of illicit connections into MDOT's system. MDOT employees will provide the material along with the permit application packet.

3.2.5. Notification of Watershed and Environmental Protection Organizations

MDOT will follow state and federal public notice requirements when notifying the public that a storm water management plan must be implemented. MDOT will specifically target information pertaining to storm water management program activities to local stream or watershed protection and environmental protection organizations (Appendix D) and will invite them to review and comment on the storm water management plan as it is implemented.

Comments on this plan will be accepted for a 30-day period prior to the completion of the final plan. All comments will be summarized in Appendix E of this SWMP. The final plan and the annual progress reports will be made available on the MDOT Web site for public access.

3.2.6. Cooperation with Local MPOs and Storm Water Master Plans

MDOT will identify Municipal Planning Organizations (MPOs) with local comprehensive storm water master plans and will cooperate with them to ensure Permit requirements are met to the maximum extent practicable. Details of these efforts will be developed under the framework of Activity C-2.

3.3. ILLICIT DISCHARGE ELIMINATION PLAN

This section describes the strategy that MDOT will follow to implement permit requirements for an Illicit Discharge Elimination Plan (IDEP) as it applies to MDOT's drainage system and facilities.

An **illicit discharge** is the discharge or seepage of water that is not composed entirely of storm water into the drainage system, except for discharges specified in Parts I.A.1.b and c. of the Permit. Illicit discharges include dumping of motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, domestic animal wastes, litter or unauthorized discharges of sewage, industrial waste, restaurant wastes, or any other non-storm water waste into the drainage system.

An **illicit connection** is a physical connection to the drainage system that 1) primarily conveys illicit discharges into the drainage system and/or 2) is not authorized or permitted by MDOT (where MDOT requires such authorization or permit).

Illicit discharges may be conveyed to the MDOT drainage system by one of two methods 1) discharge directly from the end of a pipe or other conduit regardless of whether the pipe is an illicit connection or not and 2) non end-of-pipe discharge including overland flow or a release from a waste container. These two transmission mechanisms will be addressed separately in this plan as they will generally require different types of response.

Outfall mapping, IDEP field investigations, illicit discharge reporting, the legal authority to regulate and/or prohibit illicit discharges, and training, are each addressed by the activities and measurable goals in the following subsection and described in detail in the remaining subsections.

3.3.1. Measurable Goals

The following list summarizes activities and corresponding interim milestones and measurable goals that support the Illicit Discharge Elimination Plan (IDEP). Details on how these activities and measurable goals will be implemented are included in Section 3.7.

Activity E-4: Provide Education Materials along with Tap-In/Discharge Permit Applications

- Track quantity of educational materials distributed.

Activity T-1: Present Training Modules to Lansing and Region/TSC Staff

- Verify appropriate Lansing and Region/TSC Staff are trained.
- Gather training module evaluation forms from at least 50% of trainees.
- Document changes made to training module.
- Document contract agencies receiving modules.

- Activity I-1: Submit and Implement Mapping Schedule for Outfalls (urbanized areas only)
- Review and record completed outfall maps.
 - Establish process for including new outfalls on maps.
- Activity I-2: Perform Inventory and Dry Weather Screening on Outfalls (urbanized areas only)
- Number and location of confirmed outfalls.
 - Total number of suspected illicit connections/discharges identified.
 - Number and location of manholes tested for each suspected illicit connection/discharge.
 - Results of sample analysis.
 - Description and number of illicit connections/discharges verified.
- Activity I-3: Procedure for Receiving and Notifying MDEQ of Illicit Discharges and Actions Taken (statewide)
- Complete procedure for receiving reports and notifying MDEQ.
 - Number of reports received and the follow-up actions taken.
 - Number of illicit connections/discharges removed.
- Activity I-4: Report Updates and Changes to Legal Authority Status
- Revise Sections 9.13 and 14.01 of the Construction Permit Manual in response to any changes in legal authority.
- Activity I-5: Map Known Outfalls (statewide)
- Document the procedure to map known outfalls.
 - Update maps annually.

3.3.2. *Outfall Mapping*

MDOT has identified the location of state roads crossing 305(b)-listed water bodies, within the urbanized areas of the state, based on the 2000 Census. The crossing locations, broken out by region, are shown in the Region-specific chapters of this plan.

Approximately 25% of outfalls at road crossings in urbanized areas will be mapped per year. By April 1, 2009 MDOT will complete the outfall maps for urbanized areas where MDOT roadways cross 305(b)-listed water bodies. Additionally, known outfalls located at road crossings in the urbanized areas but not discharging to impaired water bodies will be mapped. Maps will be produced using GIS to spatially identify the location of the outfalls at these road crossings within the urbanized areas. The maps will provide the outfall identification number and the latitude and longitude coordinates. New maps will be provided to the MDEQ each year with the annual progress report beginning in 2005.

A schedule for mapping known outfalls statewide will be developed prior to April 1, 2009. As part of the assessment of interim milestones and measurable goals, MDOT will determine the best mechanism for the continued mapping of all known outfalls.

3.3.3. Conduct IDEP in Urbanized Areas

MDOT will conduct IDEP investigations in urbanized areas at outfalls that discharge to the waters of the state at roads crossing 305(b)-listed water bodies impaired by untreated sewage, bacteria, pathogens, nutrient enrichment, nuisance plant growth, nuisance algal growth, low dissolved oxygen, sediments, oil or grease, fish kills, and fish or macro-invertebrate communities rated poor.

Table 3-2 shows the preliminary schedule for conducting IDEP investigations. As IDEP activities continue, MDOT will provide updated field activity schedules to MDEQ to the extent practical. Whenever possible MDOT will provide a minimum of five days notice to the MDEQ District with storm water program oversight responsibility for the MDOT Region in which the work will be conducted prior to conducting IDEP activities in a given Region.

As IDEP field work is conducted at each of the crossings, the need for outfall investigations will be determined. If an outfall is identified at a crossing, it will be inventoried. The outfall inventory will include the outfall ID, the physical location, and the physical characteristics of the outfall. Each outfall will also be observed to document general information, flow measurements, visual and olfactory observations. If dry weather flow is observed, a water sample will be obtained. The basic analytical tests performed will include surfactants, ammonia, fluoride, hardness, and Escherichia coli. Additional analytical tests may be added if specific sources are suspected.

The results of the water quality tests and observations noted in the dry weather screening will be used to determine if follow-up investigation is required. Follow up investigations will involve additional screening and sampling of the outfall and inspection and sampling of strategic manholes within the upstream drainage system. This process will be repeated until the source is isolated within a relatively short reach of the drainage system. Video inspection of enclosed portions of the drainage system may be used to further isolate the probable source. Once the probable source is identified, MDOT will follow Section 9.13 of the Construction Permit Manual "Illicit Discharges into MDOT Storm Water Drainage Systems."

In order to ensure that this task is completed in a timely manner MDOT has hired a consultant to conduct the field investigations and data compilation for the urbanized area road crossings. The consultant will follow the IDEP Protocol Manual included in Appendix F. The MDOT Storm Water Program Manager will provide project oversight and will coordinate enforcement actions through the Region Storm Water Coordinators if illicit connections and/or discharges are found. Annual progress reports will include the results of the investigations conducted.

Table 3-2: IDEP Investigation Schedule within Urbanized Area (by Region)

Region	Urbanized Area	Investigation Schedule (by permit year)	Number of MDOT Roads Intersecting with		
			Impaired Waterbodies	Impaired Waterbodies (PCB or Mercury Only)	Non-impaired Waterbodies
Bay	Flint	1	0	2	56
	Bay City	1-2	3	2	20
	Saginaw	2-3	4	0	31
	Port Huron	2-3	0	0	25
	Subtotal	1-3	7	4	107
Grand	Grand Rapids	2-3	10	6	62
	Holland	3-4	11	0	0
	Muskegon	4-5	6	3	18
	Subtotal	2-5	27	9	80
Metro	Ann Arbor	2-3	0	1	7
	Port Huron	2-3	1	1	36
	Detroit	1-5	54	0	241
	Subtotal	1-5	55	2	309
Southwest	Benton Harbor	3-4	6	0	19
	Holland	3-4	1	0	0
	Kalamazoo	2-3	3	4	16
	Battle Creek	2	1	3	16
	Michigan City	--	0	0	0
	Elkhart	--	0	0	0
	South Bend	4-5	3	1	4
	Subtotal	2-5	14	8	55
University	Lansing	1-3	11	2	19
	Ann Arbor	2-3	7	0	28
	Jackson	1-2	1	3	17
	Monroe	2-3	4	6	34
	Toledo	--	0	0	9
	Detroit	--	0	0	8
	South Lyon- Howell- Brighton	2-3	2	18	0
	Subtotal	1-3	25	8	136
Grand Total			128	31	687

3.3.4. Illicit Discharge Reporting System

In the event that MDOT receives reports of illicit connections/discharge from the job-related or general public, the following steps will be taken to identify the source, and to abate and/or eliminate the discharge.

Discharges emanating from the end of a pipe or other conduit into either an enclosed storm sewer or into an open ditch will be treated as described in section 3.3.3 of this plan.

Discharges that do not emanate from the end of a pipe will be investigated to determine the probable source and character of the discharge; extent of the discharge in relation to the nearest storm water inlet or outfall; and potential for release to the waters of the state. With this information, the MDOT Region Storm Water Coordinator will initiate suitable measures to contain the discharge and will coordinate the investigation and identification of the discharged material.

Notification of MDEQ will be as detailed in Activity I-3.

3.3.5. Legal Authority

MDOT's legal authority to regulate and/or prohibit direct discharges to and from its drainage system is described in Chapter 2 of this plan. Updates and changes will be reported as presented in Activity I-4.

3.3.6. Training Materials

MDOT will use training Module Four to train the job-related public about IDEP issues and procedures. The education materials developed for distribution with tap-in/discharge permit applications will also be used for training on IDEP issues.

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3.4. POST CONSTRUCTION STORM WATER MANAGEMENT FOR NEW DEVELOPMENT AND REDEVELOPMENT PROJECTS

Typical transportation development and redevelopment projects may include construction of new roads, widening of existing roads, and road improvements such as resurfacing. MDOT may also permit new drainage conveyance from developments outside of the MDOT right-of-way. Post construction water quality impacts from transportation land use may include increased sedimentation and/or pollutant loading. This section describes how MDOT will fulfill permit requirements to implement a program to address post construction storm water runoff from MDOT projects and procedures for addressing post construction runoff from projects outside of the MDOT right-of-way.

3.4.1. Measurable Goals

The following list summarizes activities and corresponding interim milestones and measurable goals that support the Post Construction Storm Water Management for New Development and Redevelopment Projects aspect of this plan. Details on how these activities and measurable goals will be implemented are presented in Section 3.7.

Activity C-1: Maintenance Requirements for MDOT Best Management Practices (BMP)s

- Develop maintenance requirements for new BMPs before construction.
- Track maintenance activities on BMPs.

Activity C-2: Identify and Coordinate with Metropolitan Planning Organizations (MPO)s Having a Storm Water Management Plan (SWMP)

- Names of MPOs identified as having SWMPs.
- Document development of MDOT/MPO coordination process.
- Summarize new programs, policies, procedures and information.

Activity C-3: Procedure to Select and Apply Best Management Practices (BMP)s for Storm Water Management Activities (Post-Construction)

- Develop procedure for selecting and applying post-construction BMPs.

Activity C-4: Procedure to Work With MDEQ for Early Coordination on Initial Design Projects

- Document development of the procedure.
- Track projects where early coordination was sought with MDEQ.
- Track projects where MDEQ provided timely recommendations.
- Document actions taken based on comments received from MDEQ.

Activity C-5: Review Projects with Storm Water Discharges to Water Bodies with a Promulgated Total Maximum Daily Load (TMDL)

- Document development of the procedure.
- Number of projects reviewed and document that MDOT complied with TMDL requirements.
- Document project-specific BMPs used, revised or added to projects to meet TMDLs.

Activity C-6: Implement Procedures to Select and Apply Best Management Practices for Storm Water Management Activities (Post-Construction)

- Document the description of the post-construction BMPs selected for earth-disturbing projects.
- Estimate pollutant discharge reduction based on theoretical BMP performance.

Activity C-8: Periodically Update Drainage Manual

- Document new programs, policies, procedures and information.

Activity C-11: Review Flow Control Structures

- Document new programs, policies, procedures and information.
- Number of flow control structures reviewed and water quality benefits gained based on the theoretical pollutant removal rates.

3.4.2. Coordination with Metropolitan Planning Organizations (MPOs)

MDOT will coordinate with MPOs to determine the appropriate role, if any, of the planning agencies in implementation of MDOT's storm water management program (see Activity C-2). This activity involves cooperating with local planning agencies on storm water issues as required by 23 CFR 450.210 and 23 CFR 450.312.

3.4.3. Waterway TMDL Compliance

MDOT has developed an interactive mapping system showing the trunklines and 305(b)-listed water bodies. This system can be accessed through the MDOT Storm Water Management Web Site. MDOT will examine its projects located on impaired water bodies to determine what BMPs are appropriate for consideration in planned construction projects

3.4.4. Standards to Address Right-of-Way (ROW) Projects

Any individual, organization, business or local agency constructing a driveway or tapping into the existing MDOT separate storm water drainage system is required to obtain a permit from MDOT prior to beginning work. MDOT requires that drainage conveyed to its system not exceed pre-development runoff rates. MDOT will provide pollution prevention and good housekeeping information to persons applying to use MDOT drainage systems but will not evaluate this contributed runoff for water quality. Authorizations to utilize MDOT drainage systems specifically forbid any discharge that is in violation of water quality standards. Furthermore, MDOT will develop and implement standards to address post construction runoff from projects within the ROW.

3.4.5. Internal Training Modules for Design Engineers

MDOT will educate Design engineers on methods to minimize water quality impacts. Engineers will complete training evaluation surveys in order to evaluate its effectiveness.

3.4.6. BMP Operation and Maintenance for New and Re-Development Projects

MDOT's Maintenance Performance Guides identify current operation and maintenance requirements. MDOT will review and update the Maintenance Performance Guides as appropriate for BMPs installed on MDOT projects. Maintenance considerations will be taken into account during BMP selection, and Maintenance staff will be advised of the installation of new BMPs.

3.4.7. Review of BMPs During Initial Design

MDOT will develop a process to identify priority projects on which to allow MDEQ to review preliminary design plans and provide input on the type and placement of BMPs.

3.4.8. Review of Flow Control Structures

New flow control structures within the MDOT drainage system will be reviewed to evaluate the potential for including features to provide water quality benefits.

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3.5. CONSTRUCTION STORM WATER RUNOFF CONTROL

Control of soil erosion and sedimentation is an integral part of MDOT's construction and maintenance program. The soil erosion and sedimentation program involves two major components:

- MDOT implements soil erosion and sedimentation control procedures as an Authorized Public Agency (APA) under Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act, 1994 Public Act 451, as amended (NREPA).
- MDOT follows R 323.2101 - 323.2192, Wastewater Discharge Permits, of the Michigan Administrative Code as mandated by Part 31, Water Resources Protection, of NREPA.

The following discussion summarizes the activities MDOT will continue to conduct or will undertake to fulfill the Permit requirements.

3.5.1. Measurable Goals

The following list summarizes activities and corresponding interim milestones and measurable goals that support the Soil Erosion and Sedimentation Control Plan. Details on how these activities and measurable goals will be implemented are included in Section 3.7.

Activity T-3: Train staff responsible for administering Part 91 and those having decision-making authority for SESC Plan development or review, inspections, or enforcement; and Storm Water Operators as required under Part 31.

- Coordinate and/or provide required training.
- Total number of staff trained.

Activity I-3: Procedure for Receiving Reports and Notifying MDEQ of Illicit Discharges and Actions Taken

- Complete procedure for receiving reports and notifying MDEQ.
- Number of reports received and the follow-up actions taken.
- Number of illicit connections/discharges identified and removed.

Activity C-7: Internal Quality Assurance/Quality Control (QA/QC) Protocol for Construction Storm Water Control

- Complete QA/QC protocol for the SESC program.
- Track number and result of internal reviews and actions taken per MDOT SESC Manual.

Activity C-8: Periodically Update Drainage Manual

- Document new programs, policies, procedures and information.

3.5.2. Qualifying Local and State Erosion and Sedimentation Controls

Pursuant to Part 91 of NREPA, MDOT has established procedures for soil erosion and sedimentation control, as detailed in the approved MDOT Soil Erosion and Sedimentation Control Manual. Targeted MDOT staff are trained and certified as required under Part 91 of NREPA. MDOT utilizes Certified Storm Water Operators as required under Part 31 of NREPA.

For non-MDOT projects, MDOT requires all parties who propose driveway construction adjacent to MDOT's ROW to obtain a permit from MDOT. This permit process involves a review by MDOT of the proposed drainage for the site and requires that the runoff from the site not exceed the pre-development peak discharge rate. These non-MDOT projects within the MDOT ROW may need individual soil erosion control permits from the County Enforcing Agency (CEA) or Municipal Enforcing Agency (MEA).

In addition to subsection 107.15 "Compliance with Laws; Environmental Protection" in the MDOT Standard Specifications for Construction, MDOT used the pre-construction meeting as another opportunity to discuss the contractors' responsibility for obtaining all proper permits and meeting all of the appropriate soil erosion and sedimentation control requirements for their project both inside and outside of the MDOT ROW. Contractors are referred to the Soil Erosion and Sedimentation Control Manual, and applicable sections of the Construction Manual for more information. The MDOT Part 91 Inspector(s) assigned to the project are identified at the preconstruction meeting.

3.5.3. Notification of MDEQ of Non-Compliance

In accordance with Part 31 and Part 91 of NREPA, the Region Storm Water Coordinator will notify MDEQ verbally within 24 hours of becoming aware of any discharges to the drainage system that MDOT suspects may endanger health or the environment. If the notice is provided outside of regular working hours, MDOT will call MDEQ's 24-hour Pollution Emergency Alerting System (PEAS) at 1-800-292-4706.

If noncompliance does not pose imminent danger to health or the environment, MDOT will report either verbally or in writing within five days of the time MDOT becomes aware of the discharge.

3.5.4. Procedure to Receive and Consider Public Complaints

The approved SESC Manual includes procedures to receive and consider public complaints. The MDOT public Web site includes Region contact information. The general public may contact the MDEQ or an MDOT Region Office or Transportation Service Center (TSC) with a complaint. Complaints are referred to the Delivery Engineer in charge of the construction activity. The Delivery Engineer, or appointed representative (generally the Part 91 Inspector or the Certified Storm Water Operator), keeps a log file of the complaints received. All complaints receive appropriate attention and consideration. Corrective actions are implemented as needed.

3.6. POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MDOT OPERATIONS

This section describes how MDOT will revise and enhance the operation and maintenance of BMPs. The ultimate goal of the program is to prevent or reduce pollutant runoff from MDOT operations and properties to the maximum extent practicable. The following subsections summarize activities MDOT will carry out to fulfill the permit requirements.

3.6.1. Measurable Goals

The following list summarizes activities and corresponding interim milestones and measurable goals that support Pollution Prevention/Good Housekeeping for MDOT Operations. Details on how these activities and measurable goals will be implemented are presented in Section 3.7.

Activity E-3: Provide Information on Watershed Stewardship on the MDOT Public Web Site

- Track internal and external hits and the number of SWMP document downloads on the public storm water Web site.

Activity T-1: Present Training Modules to Lansing and Region/TSC Staff

- Verify appropriate Lansing and Region/TSC Staff are trained.
- Gather training module evaluation forms from at least 50% of trainees.
- Document changes made to training module.
- Document contract agencies receiving modules.

Activity T-2: Certify MDOT's Staff for Pesticide/Fertilizer Application

- Number of MDOT personnel certified as a pesticide applicator.
- Number of individuals attending annual training.
- Summarize evaluation and review of programs, policies, procedures and information.

Activity T-3: Train Staff Responsible for Administering Part 91 and Those having Decision Making Authority for SESC Plan Development or Review; Inspections, or Enforcement; and Stormwater Operators as Required under Part 31.

- Total number of staff trained and certified for compliance with Part 31 and Part 91 requirements.

Activity C-1: Maintenance Requirements for MDOT Best Management Practices (BMP)s

- Develop maintenance requirements for new BMPs before construction.
- Track maintenance activities on BMPs.

Activity C-3: Procedure to Select and Apply Best Management Practices (BMP)s for Storm Water Management Activities (Post-Construction)

- Develop the procedure for selecting and applying post-construction BMPs.

Activity C-6: Implement Procedures to Select and Apply Best Management Practices for Storm Water Management Activities (Post-Construction)

- Document post-construction BMPs selected for earth-disturbing projects.
- Estimate pollutant discharge reduction based on theoretical BMP performance.

Activity C-8: Periodically Update Drainage Manual

- Document new programs, policies, procedures and information.

Activity C-9: Documentation and Tracking of Road Maintenance Activities

- Document method of development and implementation.
- Document improvements made to surface runoff at maintenance buildings to prevent pollution as much as practicable.
- Estimate volume of solids generated by catch basin and street cleaning.
- Estimate actual quantity of salt used for de-icing versus maximum calculated amount.

Activity C-10: Procedure for Outfall Labeling

- Develop special provision for labeling
- Number of outfalls labeled within urbanized areas.
- Summarize new programs, policies, procedures and information.

Activity C-11: Review Flow Control Structures

- Document new programs, policies, procedures and information.
- Number of flow control structures reviewed and water quality benefits gained based on the theoretical pollutant removal rates.

Activity C-12: Audit the Pollution Incidence Prevention Plan (PIPP) Requirements

- Summary of PIPP audits
- Document new programs, policies, procedures and information.

3.6.2. MDOT Manuals

The MDOT Drainage Manual describes policies and procedures that apply to the design of drainage facilities and storm water management program BMPs. The manual provides a tool for MDOT designers and is a required resource for design consultants and contractors. The BMPs referenced in the Drainage Manual and the Soil Erosion and Sedimentation Control Manual provide guidance on the design and implementation of the BMPs. In addition, the Maintenance Performance Guides describe MDOT's procedures for operating and maintaining the various facilities.

3.6.3. Structural BMPs

Structural BMPs are physical controls designed to remove pollutants from runoff. They may limit the rate of runoff from MDOT right-of-way and other facilities. MDOT performed an extensive review of BMPs and developed an approved list of structural BMPs for use on projects (Appendix C). Regular inspection and maintenance of BMPs will maintain the effectiveness and

structural integrity of the BMPs. Neglected structural BMPs may contribute to pollutant loading if left unchecked. The inspection and maintenance requirements of each BMP is determined in accordance with guidelines contained in the Drainage Manual and as described in the Maintenance Performance Guides.

There are many different structural control options to use during and after construction to address water quality and quantity issues. Therefore, it is important that planning and construction goals are established to ensure that the appropriate structural controls are being used and that adequate funding sources are available for the BMPs.

Waste materials resulting from operation and maintenance activities, such as dredge spoil, accumulated sediments, floatables, and other debris that is removed from MDOT's drainage system will be disposed of at an appropriate site. Procedures are detailed in the MDOT Maintenance Performance Guides.

3.6.4. Roadways

MDOT constructs, operates, and maintains its streets, roads, highways, parking lots and other large paved surfaces in a manner to reduce the discharge of pollutants into the drainage system.

MDOT conducts maintenance activities that help prevent storm water pollution, such as street cleaning, catch basin maintenance programs, ditch clean out, culvert and underdrain maintenance, Adopt-a-Highway litter collection, mowing, brush control, and bank stabilization. MDOT uses deicing salts when conditions warrant, employing a system of calibrated salt dispensers to minimize the amount of salt applied. MDOT conducted a literature review comparing various deicing alternatives and found that salt is as cost-effective and is no more environmentally harmful than any of the other alternatives reviewed.

Depending on the location around the state, local public transportation agencies working under contract for MDOT will inspect BMPs on a regular basis. At this time, counties and cities do not keep records detailing the inspection and maintenance work that is performed.

In order to facilitate tracking of contract inspection and maintenance activities, it is proposed that MDOT and MDEQ partner to bring about contract revisions that would include tracking these activities.

3.6.5. Separate Storm Sewer Outfall Labeling

MDOT will require permanent identification of all outfall structures that are installed or constructed in urbanized areas after April 1, 2005. This requirement will be specified in all construction proposals that include outfalls to the waters of the state.

3.6.6. Flow Control Projects

MDOT will ensure that new flow control projects assess impacts on water quality and where possible examine existing flow control projects for inclusion of water quality BMPs.

3.6.7. Fleet Maintenance

MDOT ensures that proper precautions are taken so that vehicle maintenance activities do not

impact storm water runoff quality. Pollution Incidence Prevention Plans (PIPP) have been prepared and implemented for all applicable MDOT maintenance and storage facilities. Pollution prevention planning is required by Michigan administrative rules of Part 5, Spillage of Oil and Polluting Materials, pursuant to Part 31 of NREPA.

3.6.8. Pesticides and Fertilizers

Pesticides and fertilizers may be applied on MDOT right-of-way by certified applicators, consisting of MDOT personnel or contractors in accordance with state and federal regulations. MDOT's pesticide and herbicide program is tailored to each region based on their needs. The objectives of the program are:

- To maintain a safe traveling condition by controlling roadside vegetation with pesticides and growth regulators.
- To preserve the structures and facilities by eliminating vegetation growth in areas that cause breakup of structures.
- To protect MDOT's resources from insects and other harmful pests.

Only registered or certified Category 6 Pesticide Applicators are eligible to apply either general-use or restricted-use pesticides to a highway right-of-way. MDOT conducts a training session, approved by the Michigan Department of Agriculture, each year to certify employees. MDOT's policy is to use herbicides only on an as-needed basis. Each Region's need for herbicides is assessed annually.

3.6.9. Staff Training

Training of the job-related public in pollution prevention and good housekeeping for MDOT operations is an ongoing activity. Opportunities to enhance the available training will be evaluated and adopted as appropriate.

3.7 ACTIVITIES REFERENCED IN THE SWMP

Activity E-1: Maintain and Use Lansing Information Center

Affected Party: MDOT Employees involved with the storm water program.

Objective: To maintain a library of storm water-related materials for training and educating the job-related public, including video tapes, reference manuals, and publications.

Description: A library informational materials compiled to support activities performed for the MDOT Storm Water Management Program. The Lansing Information Center is open and located in the MDOT Library housed at the Murray D. Van Wagoner Building, 425 W. Ottawa Street, Lansing MI 48909. Materials can be checked out by contacting the Aquatic Resource Specialist within the Environmental Section or the MDOT librarian.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Track the material usage.
- Track the source and number of articles.

Permit Requirement: Part I.B.1.a(1): Educate the job-related public of hazards associated with improper disposal of waste/illicit discharges.
Part I.B.1.a(3): Educate the job-related public of watershed stewardship and implement program.

No.	Action	Schedule	Responsible
1	Actively update the Lansing Information Center with new reference materials on a quarterly basis.	As needed	Aquatic Resource Specialist from the Environmental Section or designated person
2	Post the inventory list on the public Web site.	As needed	
3	Develop and distribute announcements through the Monday Memo, to encourage MDOT employees to utilize the Lansing Information Center.	Semi-annually	

Activity E-2: Publish Articles in MDOT Publications

Affected Party: MDOT Job-Related Public

Objective: To educate the job-related public on watershed stewardship, the MDOT storm water program, illicit discharges, construction and post-construction BMPs, and/or new program announcements.

Description: Prepare storm water program articles for publication using internal MDOT publications. The articles are to provide information about the MDOT storm water program in a manner to gain understanding and support for implementing the program by the MDOT job-related public.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Publish at least four storm water-related articles over the Permit term in various MDOT media.
- Track topics and number of articles.

Permit Requirement: Part I.B.1.a(1): Educate the job-related public of hazards associated with improper disposal of waste/illicit discharges.
Part I.B.1.a(3): Educate the job-related public of watershed stewardship and implement program.

No.	Action	Schedule	Responsible
1	Publish articles in Region based newsletters.	One per year	Storm Water Program Manager, Consultant, MS4 Team, and MDOT Publications Staff.
2	Publish articles in the Adopt-a-Highway Newsletter.		
3	Publish articles in the Monday Memo.	As Needed	

Activity E-3: Provide Information on Watershed Stewardship on the MDOT Public Web Site

Affected Party: MDOT Job-Related Public and Traveling Public

Objective: To educate the job-related and traveling public on MDOT’s watershed stewardship practices and promote these practices on all projects where feasible.

Description: MDOT developed a public information Web site about the Phase II storm water program. One element of the Web site is used to provide general information about watershed stewardship practices. This information will be maintained and monitored to report use activities.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Track internal and external hits and the number of SWMP document downloads on the public storm water Web site.

Permit Requirement: Part I.B.1.a(1): Educate the job-related public of hazards associated with improper disposal of waste/illicit discharges.
 Part I.B.1.a(3): Educate the job-related public of watershed stewardship and implement program.
 Part I.B.6: Ensure MDOT employees maintain and follow proper pollution prevention controls.

No.	Action	Schedule	Responsible
1	Maintain MDOT’s public Web site and periodically update with new documents or watershed stewardship practices MDOT adopts.	Ongoing	Consultant, MS4 Team, and MDOT Information and Technology Manager.

Activity E-4: Provide Education Materials along with Tap-In/Discharge Permit Applications

Affected Party: Applicants obtaining a Discharge/Tap-In Permit and Region/TSC Staff involved with reviewing and approving permits.

Objectives: To inform applicants of acceptable discharges into the MDOT drainage system, and also of the potential negative impacts to water quality from unacceptable or illegal discharges and ways to mitigate these impacts. To inform MDOT permitting and utilities staff statewide that this education material will be distributed with the tap-in/discharge permit and that educating applicants is important to protecting water quality.

Description: Prepared education materials for typical development activities connecting to MDOT facilities. Established and implemented procedures for distributing these materials.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Track quantity of educational materials distributed.

Permit Requirement: Part I.B.1.c: Provide pollutant prevention information to applicants that apply to tap into the MDOT drainage system.
 Part I.B.1.c: Train MDOT employees to provide pollution prevention education during application process.

No.	Action	Schedule	Responsible
1	Develop materials to distribute with tap-in/discharge permit applications.	By April 1, 2005	Tap-in/Discharge Permit Workgroup
2	Distribute materials with tap-in/discharge permit applications.	Ongoing beginning April 1, 2005	MDOT Permitting Staff
3	Instruct MDOT staff to distribute materials as instructed in the revised Construction Permit Manual (CPM).	By June 1, 2005	
4	Review the adequacy of the procedure for distributing materials.	Every five years	

Activity E-5: Notify and Invite Public to Review and Comment on the Storm Water Management Plan (SWMP)

Affected Party: Traveling Public, Job-Related Public, NPDES Watershed Permit Stakeholders, Local Stream / Watershed Protection Groups

Objective: To obtain comments, statewide, from the public on the SWMP.

Description: Establish procedures for the public notice and distribution of the draft SWMP. Provide at least 30 days for public review and comment.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Document procedures used for notifying public of SWMP.
- Summarize the comments and actions were taken.
- Count number of downloads of the draft SWMP from Web site

Related Activity: Activity E-3: Provide Information on Watershed Stewardship on the MDOT Public Web Site

Permit Requirement: Part I.B.2: Encourage public input.
 Part I.B.2.a: Notify public of when and where preliminary and final SWMP are available for review.
 Part I.B.2.b: Input actively sought from stakeholder groups and local organizations for comment on SWMP

No.	Action	Schedule	Responsible
1	Place one copy of the SWMP along with a sign in sheet at the Lansing Information Center, at each TSC, and at each Region Office for review.	November 24, 2004	Consultant and MDOT MS4 Team
2	Post a copy of the SWMP on the public Web site to track site activities.		
3	Notify job-related public through a Monday Memo announcement.		
4	Notify critical stakeholders through a mailing and request that they further disseminate the information to other interested parties.		
5	Comment period closes.	January 4, 2005	
6	Review comments and prepare responses.	By January 31, 2005	

Activity E-6: Determine Partnership Potential with MDEQ Statewide Public Education Program

Affected Party: Traveling Public

Objective: To evaluate the potential for MDOT to educate the public through the MDEQ statewide public education program.

Description: As an alternative to performing a stand-alone education program for the traveling public, MDOT will evaluate providing financial support to a statewide campaign being developed by MDEQ. If MDOT decides not to support the MDEQ campaign, they would be required to perform their own program, in which case, a program plan will be developed and submitted to MDEQ for approval.

Measurable Goals: MDOT will decide whether or not to participate in statewide program.

Permit Requirement: Part I.B.1.b: If the MDEQ develops a statewide public education program, MDOT may either seek a partnership agreement with the MDEQ for implementation of Part I.B.1.b. of this Permit, or develop and implement a program to increase awareness and seek positive public behavior.

No.	Action	Schedule	Responsible
1	Attend meetings with MDEQ statewide education committee and MDEQ decision makers.	Once MDEQ finalizes their statewide public education program, MDOT will decide within 6 months whether or not to participate. A public education plan will be developed within 12 months if MDOT chooses not to participate.	Consultant and MDOT Storm water Program Manager
2	Obtain statewide campaign materials including cost to participate and evaluate the potential value of entering into a partnership with MDEQ.		MDOT MS4 Team
3	Develop participation agreement with MDEQ or develop an MDOT Public Education Plan (PEP).		

Activity T-1: Present Applicable Training Modules to Lansing and Region/TSC Staff

Target Audience: Lansing and Region/TSC Staff

Objective: Educate MDOT Employees about the Storm Water Management Program.

Description: Use the four 15 minute MDOT storm water program training modules to train Lansing and Region/TSC staff .

- Module One: Introduction to SW Management
- Module Two: Best Management Practices
- Module Three: Maintenance Considerations
- Module Four: Illicit Discharge & Maintenance

Measurable Goal: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Verify appropriate Lansing and Region/TSC Staff are trained.
- Gather training module evaluation forms from at least 50% of trainees.
- Document changes made to training module.
- Document contract agencies receiving modules.

Related Activities: Activity I-3: Procedure for Receiving and Notifying MDEQ of Non-Storm Water Discharges and Actions Taken
 Activity T-3: Train Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement; and Storm Water Operators as Required under Part 31

Permit Requirement: Part I.B.1.a(1), Part I.B.1.a(2), Part I.B.1.a(3), Part I.B.4.b(2), Part I.B.6

No.	Action	Schedule	Responsible
1	Module Four will be updated to include procedures for receiving illicit discharge reports and notifying MDEQ of illicit discharges.	By August 1, 2005	Consultant
2	Modify existing training matrix to track individual employee training history. Determine appropriate audiences for each module. Include training modules as part of employee performance evaluations.	By April 1, 2009	Consultant and the MDOT Storm Water Program Manager
3	Provide train-the-trainer preparation for presenters.	As needed	MS4 Team Members
4	Ensure modules are delivered during staff meetings and other meetings as warranted.	Ongoing	
5	Complete module evaluations and review results.	Ongoing	
6	Update modules.	As needed	Consultant
7	Provide modules to contract agencies and contracting associations with a request to use the modules. Track number of training packets distributed.	By February 1, 2006	Maintenance Environmental Team (MET)

Activity T-2: Certify MDOT's Staff for Pesticide/Fertilizer Application

Target Audience: MDOT Maintenance Staff

Objective: To reduce pollution entering waters of the state, statewide, that originates from pesticide/fertilizer application.

Description: The existing training and certification program for pesticide/fertilizer applications will be evaluated and tracked to document performance and to prevent storm water pollution. Results will be used to recommend changes if appropriate.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Number of MDOT personnel certified as a pesticide applicator.
- Number of individuals attending annual training.
- Summarize evaluation and review of programs, policies, procedures and information.

Permit Requirement: Part I.B.6.f: Minimize the discharge of pollutants related to storage, handling and use of herbicides/fertilizers. Provide employee training for herbicides/fertilizers to protect water quality.

No.	Action	Schedule	Responsible
1	Continue MDOT's routine certification of staff for pesticide/fertilizer application.	Annually	MDOT Maintenance Staff
2	Evaluate application practices and pollution prevention measures.	Annually	Maintenance Environmental Team
3	Recommend and formalize any changes if appropriate.	As needed	Maintenance Environmental Team , MDOT Maintenance Staff

Activity T-3: Train Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement; and Storm Water Operators as Required under Part 31

Affected Party: MDOT Maintenance Supervisors and Coordinators

Objective: To reduce non-storm water discharges to the maximum extent practicable to receiving water bodies.

Description: The existing MDEQ sponsored Soil Erosion and Sedimentation Control (SESC) training program will be attended by appropriate maintenance staff. Successful completion of the training and certification of storm water operators will be documented.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Total number of staff trained and certified for compliance with Part 31 and Part 91 requirements.

Related Activities: Activity C-7: Internal QA/QC Protocol for Construction Storm Water Control

Permit Requirement: Part I.B.6: The program shall include employee and contractor training to prevent and reduce storm water pollution through proper implementation and maintenance of BMPs. The program may be developed and implemented using BMP guidance and training materials that are available from federal, state or local agencies.

No.	Action	Schedule	Responsible
1	Continue MDOT's routine certification of targeted maintenance staff for Soil Erosion and Sedimentation Control (SESC).	Ongoing	MDOT Maintenance Supervisors and Coordinators
2	Began NPDES certification as a storm water operator for targeted maintenance staff.	By April 1, 2005	MDOT Maintenance Supervisors and Coordinators

Activity T-4: Survey MDOT Staff on Storm Water Knowledge

Affected Party: Representative MDOT Design Staff

Objective: To determine the current level of storm water knowledge for MDOT Design staff and evaluate how effective the education programs have been.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Report the survey results.
- Report the results of subsequent survey and compare.

Related Activities: Activity E-1: Maintain Lansing Information Center
Activity E-2: Publish Articles in MDOT Publications
Activity E-3: Provide Information on Watershed Stewardship on the MDOT Public Web Site

Permit Requirement: Part I.B paragraph 3: The MAXIMUM EXTENT PRACTICABLE requirement shall be met by implementation of BMPs to comply with minimum measures for which the permittee has authority, implementation of BMPs to comply with minimum levels of storm water pollution control established in TMDLs if applicable, and a demonstration of effectiveness or environmental benefit for each BMP.

No.	Action	Schedule	Responsible
1	Developed and prepared baseline survey for distribution.	By April 1, 2005	Consultant and MS4 Team
2	Conduct initial baseline survey.	By July 1, 2005	Storm Water Program Manager
3	Evaluate survey results.	October 1, 2005	Consultant and MS4 Team
4	Conduct second survey.	July 1, 2008	Storm Water Program Manager
5	Evaluate survey results.	October 1, 2008	Consultant and MS4 Team
6	Summarize and record the data to determine the change in storm water awareness.	October 1, 2008	
7	Recommend training improvements.	December 31, 2008	

Activity I-1: Submit and Implement Mapping Schedule for Outfalls (urbanized areas only)

Affected Party: MDOT Staff and Contractor/Consultant

Objective: To develop a mapping schedule and complete mapping of outfalls in MDOT right-of-way in urbanized areas including MDOT roads crossing 305(b)-listed water bodies and other non-impaired water bodies.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Establish process for including new outfalls on maps
- Review and record completed maps.

Permit Requirement: Part I.B.3.a: Within one year, submit schedule for maps of known outfalls. Maps shall be developed for outfalls at roadway crossings no later than expiration of Permit.

No.	Action	Schedule	Responsible
1	Complete maps of outfalls at stream crossings over impaired waters of the state within urbanized areas based on field inspection of top priority outfalls.	By April 1, 2009	Consultant
2	Complete maps of outfalls at stream crossings over waters of the state within urbanized areas that are not field screened based on a GIS analysis.	By April 1, 2006	Consultant
3	Developed process for notifying consultant of newly constructed outfalls.	By April 1, 2005	Consultant with MS4 Team
4	Linked outfall screening/investigations to the asset management team's inventory database.	By April 1, 2005	Consultant

Activity I-2: Perform Inventory and Dry Weather Screening on Outfalls

Affected Party: Contractor/Consultant

Objective: To identify illicit discharges and connections from the MDOT storm sewer system within 2000 Census urbanized areas as prioritized in the IDEP Plan.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Number and location of confirmed outfalls.
- Total number of suspected illicit connections/discharges identified.
- Number and location of manholes tested for each suspected illicit connection / discharge.
- Results of sample analysis.
- Description and number of illicit connections/discharges verified.

Permit Requirement: Part I.B.3.b: Outfalls prioritized and top priority outfalls (305(b)-listed water bodies impaired by untreated sewage, bacteria, pathogens, nutrient enrichment, nuisance plant growth, nuisance algal growth, low dissolved oxygen, sediments, oil or grease, fish kills, and fish or macroinvertebrate communities rated poor) shall be screened for dry weather discharges.
Part I.B.3.b: Use screening results to identify and eliminate illicit discharges as expeditiously as practicable.
Part I.B.3.b: Illicit connections that cannot be disconnected immediately shall be identified in annual report and eliminated as soon as possible.

No.	Action	Schedule	Responsible
1	Follow The Illicit Discharge Elimination Program (IDEP) Field Protocol Manual for conducting outfall investigations.	Ongoing Refer to Table 3-1	Contractor/ Consultant Storm Water Program Manager
2	Document all investigative work.		

Activity I-3: Procedure for Receiving and Notifying MDEQ of Illicit Discharges and Actions Taken

Affected Party: MDOT Region Storm Water Coordinators, TSC Managers, and Storm Water Program Manager

Objective: To receive reports and notify the MDEQ of illicit discharges, statewide, to the MDOT storm sewer system. To take action toward removing these discharges.

Description: Establish procedure for receiving and responding to reports of illicit discharges. Procedure for receiving reports from construction site runoff is already in place.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Complete procedure for receiving reports and notifying MDEQ.
- Number of reports received and the follow-up actions taken.
- Number of illicit connections/discharges identified and removed.

Related Activities: Activity T-1: Present Training Modules to Region/TSC staff

Permit Requirement: Part I.B.3.c: Provide a system to accept and respond statewide to reports of illicit discharges received from job-related public.
 Part I.B.5.b(1): Notify the Department of Non-MDOT construction activities that deposit/threaten deposition of pollutants into MDOT drainage system.
 Part I.B.5.b(2): Procedure to receive complaints regarding construction site runoff and to take corrective actions in accordance with the SESC plan.

No.	Action	Schedule	Responsible
1	Establish a procedure for receiving illicit discharge reports which includes finding the name, if known, of the regulated discharger, location of the discharge and outfall, nature of the discharge, and clean-up and recovery measures taken or planned.	By December 1, 2005	Consultant Region Storm Water Coordinators
2	Train staff to receive reports and follow notification requirements associated with identifying a non-storm water discharge as described in Activity T-1.	Ongoing	MS4 Team Members
3	Follow Section 9.13 of the Construction Permit Manual to eliminate illicit discharges/connections. Include follow-up actions, including a plan to correct the illicit discharge/connection, in the annual progress report.	As needed	Region Storm Water Coordinators

Activity I-4: Report Updates and Changes to Legal Authority Status

Affected Parties: Landowners discharging or planning to discharge to MDOT's drainage system, MDOT Permit & Utilities Staff

Objective: To regulate discharges to MDOT's drainage system and require compliance with its permit.

Measurable Goals: Report changes to legal authority by revising Sections 9.13 and 14.01 of the Construction Permit Manual.

Permit Requirement: Part 1.B.3.d(1): Legal authority to regulate the contribution of pollutants to the drainage system.
Part 1.B.3.d(2): Legal authority to regulate the rate of water inflow.
Part 1.B.3.d(3): Legal authority to prohibit illicit connections/discharges into drainage system.
Part 1.B.3.d(4): Legal authority requiring compliance with conditions in Permit.

No.	Action	Schedule	Responsible
1	Continue to monitor the legal authority and permitting procedures in Sections 9.13 and 14.01 of the Construction Permit Manual (CPM) and report changes in the annual progress report. No changes are currently planned.	Ongoing	Permits/ Utilities

Activity I-5: Map Known Outfalls (statewide)

Affected Parties: MDOT Region Storm Water Coordinators, Planning and Design, Construction & Technology Staff, and Asset Management

Objective: To develop and implement a procedure to map known outfalls statewide. Implementation will be conducted routinely with construction projects and will be incorporated into asset management procedures.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Establish a schedule to complete mapping
- Document the procedure to map known outfalls.
- Update maps annually.

Permit Requirement: Part 1.B.3.a: Within one year following the effective date of this Permit, the permittee shall submit a schedule for providing maps showing the location of known outfalls.

No.	Action	Schedule	Responsible
1	Evaluate procedures for mapping known outfalls.	By August 1, 2006	Outfall Mapping Workgroup
2	Review options with appropriate MDOT entities.		
3	Make a recommendation for approval.		
4	Lay out a detailed framework for the approved procedure.	By August 1, 2007	Planning and Design and C & T Staff
5	Document procedure and issue staff guidance.		
6	Notify appropriate staff of changes to manuals.		
7	Implement procedure.	By August 1, 2007	

Activity C-1: Maintenance Requirements for MDOT Best Management Practices (BMP)s

Affected Party: MDOT Maintenance, Maintenance Activity Reporting System (MARS) Team, Delivery, and Design Staff

Objective: To protect receiving water quality statewide by developing and implementing maintenance requirements for MDOT-approved BMPs.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Develop maintenance requirements for new BMPs before construction.
- Track maintenance activities on BMPs.

Related Activities: Activity C-6: Implement Procedures to Select and Apply Best Management Practices for Storm Water Management Activities (Post-Construction)

Permit Requirement: Part I.B.4.b(2): Requirements for long-term operation and maintenance of BMPs.
 Part I.B.6.a(1): Statewide routine maintenance for structural controls.
 Part I.B.6.a(2): In urbanized areas, cleaning schedules may need to be enhanced if control measures fail to adequately reduce the discharge of pollutants to or from the drainage system.

No.	Action	Schedule	Responsible
1	Review storm water BMPs and write a description of necessary maintenance practices for each BMP not already having a maintenance procedure.	By December 31, 2006	BMP Design and Maintenance Workgroup
2	Develop procedure to incorporate maintenance requirements for new BMPs.		
3	Review practices with appropriate MDOT entities.		
4	Recommend maintenance practices for approval.		
5	Document maintenance practices and issue staff guidance.		
6	Review Maintenance Performance Guides and update accordingly.		
7	Notify appropriate staff of changes to manuals.		
8	Implement BMP maintenance requirements and procedure to address maintenance for new BMPs.	By December 31, 2006	MDOT Maintenance Staff
9	Use MARS to track BMP maintenance activities.		
10	Evaluate ways to improve maintenance practices in urbanized areas if control measures fail to adequately reduce discharge of pollution.	As needed	

Activity C-2: Identify and Coordinate with Metropolitan Planning Organizations (MPO)s Having a Storm Water Management Plan (SWMP)

Affected Parties: MDOT Staff and MPOs

Objective: To identify and coordinate, statewide, with MPOs having storm water management plans to properly handle storm water management issues during construction and maintenance activities.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Identify MPOs having SWMPs.
- Document completion of MDOT/MPO coordination process.
- Document new programs, policies, procedures and information.

Permit Requirement: Part I.B paragraph 3: Within areas with watershed management plans, reducing discharge to the maximum extent practicable (MAXIMUM EXTENT PRACTICABLE) shall include implementation of BMPs to comply with watershed goals.

Part I.B.2.c: Where MPOs exist, MDOT shall identify and cooperate with local storm water master planning processes and the MPO. MDOT shall implement storm water controls as necessary to cooperate with local storm water master plans.

Part I.B.4.a: Program to coordinate with local planning efforts that conforms with the cooperative planning requirements of 23 CFR 450.210 and 23 CFR 450.312 and which considers potential environmental effects of impervious surfaces.

Part I.B.4.a: MDOT shall make information available to local planning efforts.

No.	Action	Schedule	Responsible
1	Identify MPOs having a SWMP. Conduct initial reviews of the SWMPs, and provide suggestions for the coordination process.	By December 31, 2005 or as they develop	Consultant
2	Develop a MDOT/MPO coordination process in conjunction with MPOs which addresses Best Management Practices (BMP)s for construction, post-construction and maintenance activities that fulfills both SWMPs to the maximum extent practicable.	By December 31, 2007	MDOT Region Planning and Design Staff MS4 Team
3	Revise coordination process as necessary.	As needed	Region Planning and Design Staff

Activity C-3: Procedure to Select and Apply Best Management Practices (BMP)s for Storm Water Management Activities (Post-Construction)

Affected Party: MDOT Maintenance, Planning and Design, Traffic & Safety, Maintenance Environmental Team (MET), and MS4 Team

Objective: To develop a procedure for selecting and applying post-construction BMPs for selected MDOT projects statewide.

Measurable Goals: Develop the procedure for selecting and applying post-construction BMPs.

Permit Requirement: Part I.B.4.b(1): Requirements for implementation of BMPs.
 Part I.B.4.b(2): Requirements for long-term operation and maintenance of BMPs.

No.	Action	Schedule	Responsible
1	Evaluate procedures for selecting and applying post-construction BMPs. Approved MDOT BMPs are located in the Drainage Manual. Develop a procedure to add new BMPs to the MDOT-approved BMP list.	By December 31, 2005	BMP Design and Maintenance Workgroup
2	Review options with appropriate MDOT entities including development of a funding source based on research from other states.		
3	Make a recommendation for approval.		
4	Lay out a detailed framework for the approved procedure.	By August 1, 2006	
5	Document procedure and issue staff guidance.		
6	Update the existing process in the Drainage Manual and tie the process into the scope verification procedure.	December 31, 2006	
7	Notify appropriate staff of changes to manuals.		

Activity C-4: Procedure to Work With MDEQ for Early Coordination on Initial Design Projects

Affected Parties: MDOT Development, Design, Real Estate, Environmental, and Maintenance Staff and MDEQ Staff

Objective: To have early coordination with MDEQ for input on BMP type and placement of select projects statewide.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Document development of the procedure.
- Track projects where early coordination was sought with MDEQ.
- Track projects where MDEQ provided timely recommendations.
- Document actions taken based on comments received from MDEQ.

Permit Requirement: Part I.B.4.c: Allow MDEQ review of preliminary construction plans and provide input on placement of drainage and BMPs.

No.	Action	Schedule	Responsible
1	Develop an internal procedure to evaluate various options for early coordination on initial design projects.	By February 1, 2006	MDEQ Early Coordination Workgroup
2	Meet with MDEQ to further evaluate the early coordination procedure.		
3	Review options with appropriate MDOT and MDEQ entities.	By December 1, 2006	
4	Make a recommendation for approval.		
5	Lay out a detailed framework for the approved procedure.	By August 1, 2007	Cost/Sched. Engineer, Region Permitting, Planning, and TSC Design Staff
6	Document procedure and issue staff guidance.		
7	Review manuals and update accordingly.		
8	Notify appropriate staff of changes to manuals.	By August 1, 2007	
9	Proceed with implementation of the procedure.		

Activity C-5: Review Projects with Storm Water Discharges to Water Bodies with a Promulgated Total Maximum Daily Load (TMDL)

Affected Party: MDOT Maintenance, Planning and Design, Traffic & Safety, Maintenance Environmental Team (MET), MS4 Team, and TSC Staff

Objective: To develop and implement storm water controls statewide to meet responsibilities established by TMDLs to the maximum extent practicable.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Document development of the procedure.
- Number of projects reviewed and documented that MDOT complied with TMDL requirements.
- Document project-specific Best Management Practices (BMP)s used, revised or added to projects to meet TMDLs.

Permit Requirement: Part I.B.paragraph 2: If a water body has a TMDL, the appropriate water quality requirements for that pollutant may be defined in the TMDL. In that event, implementing storm water controls includes the development, implementation and enforcement of storm water controls designed to meet the responsibilities established by the TMDL.

No.	Action	Schedule	Responsible
1	Posted interactive mapping system on the MDOT Storm Water Web Site showing MDOT trunklines crossing 305(b)-listed water bodies.	By April 1, 2005	Consultant
2	Evaluate various options to review projects discharging to TMDL water bodies.	By December 31, 2005	BMP Design and Maintenance Workgroup
3	Review options with appropriate MDOT entities.		
4	Make a recommendation for approval.		
5	Lay out a detailed framework for the approved procedure.		
6	Document procedure and issue staff guidance.	By June 1, 2006	
7	Review manuals and update accordingly.		
8	Notify appropriate staff of changes to manuals.		
9	Proceed with implementation of the approved procedure.	February 1, 2007	MDOT Planning, Design, and TSC Staff

Activity C-6: Implement Procedures to Select and Apply Best Management Practices for Storm Water Management Activities (Post-Construction)

Affected Parties: MDOT Maintenance, Traffic & Safety, Planning, Design, and Construction Staff and Contractors

Objective: To protect receiving water quality by implementing post-construction BMPs statewide.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Document the post-construction BMPs selected for earth-disturbing projects.
- Estimate pollutant discharge reduction based on theoretical BMP performance.

Related Activities: Activity T-1: Present Training Modules to Region/TSC Staff
 Activity C-1: Maintenance Requirements for MDOT Best Management Practices (BMPs)

Permit Requirement: Part I.B.4.b(1): Requirements for implementation of BMPs.
 Part I.B.4.b(2): Requirements for long-term operation and maintenance of BMPs.
 Part I.B.6.a(2): In urbanized areas, structural controls may need to be enhanced if control measures fail to adequately reduce the discharge of pollutants to or from the drainage system.

No.	Action	Schedule	Responsible
1	Upon having a BMP selection and application procedure in place (see Activity C-3), add procedural information to training modules.	By August 1, 2007	MDOT Planning, Design Staff
2	Train appropriate staff.		
3	Notify appropriate staff to begin implementing the procedure.		
4	BMPs will be modified, replaced, or enhanced if they are not properly installed, maintained, and/or applied for pollutant control.	As needed	
5	Install BMPs.	Ongoing	MDOT Contractors and Construction Staff
6	Maintain BMPs	Ongoing	MDOT Maintenance Staff

Activity C-7: Internal Quality Assurance/Quality Control (QA/QC) Protocol for Construction Storm Water Control

Affected Parties: MDOT Construction & Technology (C&T), Planning, Design, and Maintenance Supervisors

Objective: To improve the effectiveness of temporary BMPs statewide through internal QA/QC for construction storm water control.

Description: Development of the QA/QC protocol is underway and will be submitted to EC for approval.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Complete QA/QC protocol for the SESC program.
- Track number and result of internal reviews and actions taken per MDOT SESC Manual.

Related Activities: Activity T-3: Train Staff Responsible for Administering Part 91 and those having Decision Making Authority for SESC Plan Development or Review, Inspections, or Enforcement; and Storm Water Operators as Required under Part 31

Permit Requirement: Part I.B.5.a: MDOT shall meet the following requirements on MDOT construction sites statewide, but may rely on their SESC Plan and the State of Michigan’s Permit by Rule to the extent that those controls meet the requirements: 1) Implement soil erosion and sedimentation controls. 2) Control demolition and construction waste materials, concrete truck washout, chemicals, litter, and sanitary waste at construction sites that may cause adverse impacts to water quality. 3) Consider potential water quality impacts during road construction plan reviews. 4) Inspect sites to assure pollution control measures are appropriate.

No.	Action	Schedule	Responsible
1	Evaluate, review and recommend QA/QC strategies for approval.	By December 31, 2005	MDOT C&T, Design, Planning and Maintenance
2	Formally approve QA/QC protocol and update the appropriate manuals.	May 1, 2006	Environmental Committee
3	Implement protocol.		C&T

Activity C-8: Periodically Update Drainage Manual

Affected Party: MDOT Design, Construction & Technology and Region/TSC Staff

Objective: To update MDOT’s policies and procedures for the design of drainage facilities by reviewing and revising MDOT’s Drainage Manual as needed to include the latest details of the storm water management program.

Measurable Goals: Document new programs, policies, procedures and information.

Related Activity: Activity C-3: Procedure to Select and Apply Best Management Practices (BMP)s for Storm Water Management Activities (Post-Construction)

Permit Requirement: Part I.B.6.a(1): Routine maintenance on structural controls.
Part I.B.5.a(2): Control demolition and construction waste materials, concrete truck washout, chemicals, litter, and sanitary waste at construction sites that may cause adverse impacts to water quality.
Part I.B.4.c: Develop and implement a process for review of BMPs.

No.	Action	Schedule	Responsible
1	Assess the need to review and update the Drainage Manual.	Annually	MDOT Design (Hydraulics) Staff
2	Update the Drainage Manual. Changes to manual must be approved by the Engineering Operations Committee (EOC).	As needed.	
3	Notify appropriate staff of changes to the manual.		

Activity C-9: Documentation and Tracking of Road Maintenance Activities

Affected Party: MDOT Maintenance Staff, MARS Team and Maintenance Environmental Team (MET)

Objective: MDOT roadways will be operated and maintained and storage facilities will be constructed to reduce pollutants washing into surface waters statewide.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Document method of development and implementation.
- Document improvements made to surface runoff at maintenance buildings to prevent pollution as much as practicable.
- Estimate volume of solids generated by catch basin and street cleaning.
- Estimate actual quantity of salt used for de-icing versus maximum calculated amount.

Permit Requirement: Part I.B.6: Ensure MDOT employees maintain and follow proper pollution prevention controls.
 Part I.B.6.a(1): Describe and implement procedures for proper disposal of operation and maintenance waste.
 Part 1.B.6.b(1): Construct, operate, and maintain surfaces statewide to reduce discharge of pollutants into system. Salt and sand applied for improved traction shall be prevented from entering receiving streams to the maximum extent practicable.
 Part 1.B.6.b(1) Good Housekeeping implemented at salt and sand storage facilities.
 Part I.B.6.b(2): Maintain existing street cleaning and catch basin maintenance activities.

No.	Action	Schedule	Responsible
1	Evaluate methods for documenting road maintenance activities including catch basin cleaning, de-icing and street sweeping. Evaluate surface runoff at maintenance buildings for pollution prevention improvements.	By October 1, 2005	Road Maintenance Documentation and Tracking Workgroup
2	Review methods with appropriate MDOT entities. Make a recommendation for approval.		
3	Lay out a detailed framework for the approved method.	By August 1, 2006	
4	Document maintenance tracking practices and issue staff guidance.		
5	Review Maintenance Performance Guides and update accordingly.		
6	Proceed with implementation of the approved methods/improvements.	By December 31, 2006	

Activity C-10: Procedure for Outfall Labeling

Affected Parties: MDOT Construction & Technology and Maintenance Staff

Objective: MDOT will provide permanent identification for all outfall structures installed after April 1, 2005 in urbanized areas.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Develop special provision for labeling.
- Number of outfalls labeled within urbanized areas.
- Summarize new programs, policies, procedures and information.

Permit Requirement: Part I.B.6.c: Provide permanent identification of outfalls installed after April 1, 2005 that discharge into waters of the state. The primary operator of the drainage system shall be readily identifiable by observation of the outfall.

No.	Action	Schedule	Responsible
1	Assessed various procedures for labeling outfalls and conducted a label evaluation study to check for suitability.	By April 1, 2005	Outfall Labeling Workgroup
2	Included assurance that new outfalls are labeled and a standard signage scheme is created.		
	Reviewed procedures with appropriate MDOT entities.		
3	Made a recommendation for approval.		
4	Laid out a detailed framework for the approved method.		
5	Documented procedure and issued staff guidance.		
6	Reviewed and updated manuals accordingly.		
7	Notified appropriate staff of changes to manuals.	By April 1, 2005	MDOT C & T Staff
8	Proceeded with implementation of the approved procedure.		
9	Ensure that labels remain intact.	Ongoing	MDOT Maintenance Staff

Activity C-11: Review Flow Control Structures

Affected Party: MDOT Design and Planning Staff

Objective: MDOT will ensure that new flow control structures in urbanized areas assess impacts on water quality and whenever possible will examine existing flow control structures for inclusion of water quality BMPs to the maximum extent practicable.

Description: MDOT is currently reviewing all new flow control structures as part of environmental clearance and will continue to do so. Existing flow control structures will be examined whenever possible.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Document new programs, policies, procedures and information.
- Number of flow control structures reviewed and water quality benefits gained based on the theoretical pollutant removal rates.

Related Activity: Activity C-3: Procedure to Select and Apply BMPs for Storm Water Management Activities (Post-Construction)

Permit Requirement: Part I.B.4.c: Develop and implement a process for review of BMPs.
Part I.B.6.d: Ensure new storm water flow management projects assess impacts of water quality on the receiving water and, whenever possible, examine existing projects for incorporation of water quality protection.

No.	Action	Schedule	Responsible
1	Review flow control structures for new projects. Examine existing flow control structures whenever possible.	Ongoing	MDOT Planning Specialists

Activity C-12: Audit the Pollution Incident Prevention Plan (PIPP) Requirements

Affected Party: MDOT Maintenance Staff, Region Resource Analyst/Specialist, Region/TSC Storm Water Coordinator, and Safety & Homeland Security

Objective: Assure that vehicle maintenance activities statewide do not pollute storm water runoff to the maximum extent practicable.

Description: Internal auditing of the PIPP is already conducted and implemented.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Summary of PIPP audits
- Document new programs, policies, procedures and information.

Permit Requirement: Part 1.B.6. Ensure MDOT employees maintain and follow proper pollution prevention controls.
 Part 1.B.6.a(1) Routine maintenance on structural controls.
 Part 1.B.6.a(2) If necessary, enhance structural controls and cleaning schedules for adequate pollutant control.
 Part 1.B.6.e. Assure vehicle maintenance activities do not pollute storm water runoff.

No.	Action	Schedule	Responsible
1	Conduct audit and determine whether the existing plan components are successful for pollution prevention at maintenance facilities.	Once every three years.	MDOT Maintenance, Region Resource Analyst/Specialist, Region /TSC Storm Water Coordinator, or Safety & Homeland Security
2	Follow-up on any delinquent plan requirements and revise appropriately.	As needed.	
3	Formally accept the changes made to the PIPP.		

Activity A-1: Program Assessment and Reporting

Affected Party: MDOT employees involved with the storm water program.

Objective: To assess and report on the status of the MDOT Storm Water Management Program (SWMP) on an annual basis through compiling measurable goal data, perform program assessment, review auditing activities, and prepare annual report.

Description: Conduct a yearly program assessment of the MDOT Storm Water Program and conduct annual reporting.

Measurable Goals: The following will be established as interim milestones where information does not currently exist to formulate final measurable goals.

- Track and document SWMP activities.
- Complete annual progress report.
- Conduct evaluation of program and make changes as needed.

Related Activities: Activities C-11 and C-12

Permit Requirement: Part I.C: Program Assessment and Reporting

No.	Action	Schedule	Responsible
1	Developed tracking protocol for entire program to combine tracking and reporting for each activity. Coordinated with asset management program.	By April 1, 2005	Program Assessment and Reporting Workgroup
2	Review and test tracking program.	By April 1, 2006	
3	Oversee program tracking and ensure that information is provided to keep the tracking program up to date.	Ongoing	MDOT Storm Water Program Manager
4	Enter data using the SWMP tracking program	Ongoing	MDOT Staff
5	Compile data and draft the annual report.	Begin February 1 of each year	Consultant
6	Review the overall status of implementation of the SWMP to assure compliance with its requirements.		MDOT Storm Water Program Manager
7	Review interim milestones and measurable goals for applicability. Convert interim milestones to measurable goals where possible. Revise milestones as needed.		Storm Water Program Manager
8	Review the annual progress report. Provide comments and assure its accuracy.		MDOT MS4 Team
9	Conduct the final review of the annual report and issue approval for submitting to MDEQ		MDOT EC
10	Submit annual reports to MDEQ.	By April 1 of each year	Storm Water Program Mgr.