

EASTERN MICHIGAN UNIVERSITY'S

Storm Water Pollution Prevention Initiative

(SWPPI)

EASTERN MICHIGAN UNIVERSITY
Storm Water Pollution Prevention Initiative (SWPPI)
Michigan General Permit Number MIG610000
Certificate of Coverage Number MIG610381

Permittee: Eastern Michigan University

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Date: March 31, 2011

**Signature of Authorized
Permittee Representative** _____

Kevin Abbasse
Manager-Structural Life/Safety Systems

Introduction

This document fulfills Eastern Michigan University's NPDES Phase II storm water permit requirement for a Storm Water Pollution Prevention Initiative (SWPPI). This SWPPI has been designed and will be implemented to reduce, to the maximum extent practicable, the discharge of storm water pollutants to the surface waters in our community. This document updates and integrates our Illicit Discharge Elimination Plan (IDEP) and our Public Education Plan (PEP) into our SWPPI and includes activities to be implemented consistent with the Watershed Management Plans developed for the:

- Middle Huron (Ann Arbor-Ypsilanti Metropolitan Area)

This SWPPI combines with and relies on the implementation of watershed management activities performed by Eastern Michigan University (EMU), our other watershed partner local governments, watershed councils and other agencies to protect and restore the surface waters in the Middle Huron and other watersheds.

Further, Eastern Michigan University recognizes that by working collectively with other watershed partners, Total Maximum Daily Load (TMDL) limits, illicit discharge elimination, public education and other water management activities, can be implemented more effectively and cost-efficiently.

The SWPPI tables are organized in two sections: the first comprising Eastern Michigan University's Middle Huron Watershed the only watershed to which EMU discharges.

- **Middle Huron Watershed Table 1** lists the WMP goals.
- **Middle Huron Watershed Table 2** lists the water quality impairments for which a TMDL has been established.
- **Middle Huron Watershed Table 3** lists and describes the specific activities that watershed partners have undertaken, or will undertake, to implement our SWPPI in the Middle Huron Watershed to comply with our Certificate of Coverage under the Michigan General Stormwater Permit. (Table 3 is attached to the SWPPI document.)

In addition to the contents in this document and table 3 that follows, this SWPPI includes a number of relevant attachments. Each is referenced in this SWPPI, but they are listed below for easy reference:

- Attachment A: Table 3 Storm Water Pollution Prevention Plan (SWPPI)
- Attachment B: Alternative Approach Plan for Addressing TMDLs
- Attachment C: Public Education Plan (PEP)
- Attachment D: Illicit Discharge Elimination Plan (IDEP)
- Attachment E: Post-Construction Storm Water Control Regulatory Mechanism
- Attachment F: EMU Physical Plant Storm Water Pollution Prevention Plan (SWPPP)
- Attachment G: Soil Erosion and Sediment Control (SESC) Activities

Storm Water Pollution Prevention Development

This SWPPI has been designed and will be implemented to reduce the discharge of pollutants to the maximum extent practicable. It includes those actions expected to be implemented over the term of this permit, and includes:

1. Evaluation and implementation of site appropriate, cost-effective structural and nonstructural best management practices (BMPs) to minimize the water quality impacts from areas of new development and significant redevelopment, with the understanding that the goal is to protect the designated uses in the receiving waters from the effects commonly associated with urbanization.
2. Table 3, which identifies the actions to be taken by Eastern Michigan University and others in support of the watershed management goals and consistent with the actions recommended within the WMPs. Table 3 includes activities that address all SWPPI content categories, which are described later in this document.

Assessment of Local Authority

Eastern Michigan University has reviewed its charter, ordinances and other existing authority and has determined that the Physical Plant Chief of Operations has the authorization to meet its commitments and implement the practices and programs specified in Huron River Watershed SWPPI.

Should Eastern Michigan University determine at any time during the term of this permit that existing authority is inadequate to implement the requirements of this General Storm Water Permit, it will notify the Michigan Department of Environmental Quality (MDEQ). That

notification will include those actions taken or proposed by Eastern Michigan University to secure the legal authority of meeting the permit requirements or any appropriate explanation as to why such authority cannot be obtained.

Watershed Management Plan Goals

Table 1. Prioritized Goals and Objectives for the Middle Huron Watershed, and the Designated and Desired Uses They Address

(Short Term = within five years; Long Term = Beyond five years)

Long-Term Goal	Short-Term Objective	Uses Addressed
1. Reduce flow variability	a. Adopt County and local stormwater management requirements that minimize flow fluctuations in receiving waterways, and associated bank erosion, channel widening and habitat destruction.	Designated Uses: Warm water fishery, Aquatic life and wildlife Desired Uses: Coordinated development; Hydrologic functions
	b. Encourage local ordinances, strategies and programs that: 1. Prevent unnecessary modification of the Huron River, its tributaries and adjacent riparian areas. 2. Maintain and restore hydraulic function of floodplains and floodways by discouraging their alteration and encouraging restoration.	
	c. Promote local site planning review standards that favor utilization of stormwater as an on-site resource.	
	d. Monitor flow dynamics of the river and tributaries through established monitoring program.	
	Long-Term Objectives	
	e. Preserve natural infiltration and the recharge of groundwater, by protecting and restoring open spaces and natural recharge areas, installing infiltration BMPs, and reducing the amount of impervious area.	
2. Reduce nonpoint source loading and reduce soil erosion and sedimentation	Short-Term Objective	Designated Uses: Warm water fishery; aquatic life and wildlife; partial and total body contact recreation; industrial water supply; public water supply Desired Uses: Coordinated development; hydrologic functions
	a. Adopt County and local stormwater management requirements that minimize pollutant loading to receiving waterways by capturing and treating or infiltrating the smaller, more frequent storm event.	
	b. Encourage local ordinances, strategies and programs that: 1. Minimize the adverse effects of stormwater runoff from new highways, streets and parking lots. 2. Encourage the use of native landscapes and reduced dependence on chemical applications.	
	c. Promote local site planning review standards that foster a hierarchy to guide the selection of stormwater management approaches and favors source reduction.	

	<p>d. Maintain stable oxygen levels in the hypolimnion of Ford and Belleville Lakes</p> <p>e. Improve application and enforcement of soil erosion and sediment controls both during and after construction activity.</p> <p>f. Identify and repair the most eroded and susceptible stream channels and banks.</p> <p>g. Maintain water quality monitoring programs to measure progress toward TMDL goals.</p> <p>h. Maintain baseline monitoring of sedimentation in the River and tributaries.</p> <p>i. Increase education on BMPs among property owners and developers.</p> <p>Long-Term Objectives</p> <p>k. Meet TMDL goals for phosphorus concentration in Ford and Belleville Lakes</p> <p>[Redacted]</p> <p>m. Increase clarity in surface waters.</p>	
3. Protect and mitigate loss of natural features for stormwater treatment and wildlife habitat	<p>Short-Term Objectives</p> <p>a. Encourage local ordinances, strategies and programs that:</p> <ol style="list-style-type: none"> 1. Preserve natural infiltration and the recharge of groundwater, by protecting and restoring open spaces and natural recharge areas, and reducing the amount of impervious area. 2. Promote buffering of waterways from the direct impacts of stormwater-related pollution. <p>b. Monitor water quality and biota to measure progress.</p> <p>c. Educate local decision makers and the public about the benefits of critical habitat protection.</p> <p>Long-Term Objectives</p> <p>[Redacted]</p>	<p>Designated Uses: Warm water fishery; aquatic life and wildlife; industrial water supply; public water supply</p> <p>Desired Uses: All</p>
4. Increase public awareness and involvement in protecting water resources	<p>Short-Term Objectives</p> <p>a. Conduct on-going programs to raise the public and practitioners' awareness of watershed management and nonpoint pollution issues and solutions.</p> <p>b. Increase opportunities for public involvement in the protection of watershed resources.</p> <p>Long-Term Objective</p> <p>c. Reduce pollution and hydrologic impacts to the watershed by increasing public awareness and behavior change.</p>	<p>Designated Uses: all</p> <p>Desired Uses: all</p>
5. Gain broad implementation of watershed management plan and associated plans	<p>Short-Term Objective</p> <p>a. Promote intergovernmental coordination and cooperation in land use planning, natural resource protection, non-point source pollution control and stormwater management.</p> <p>b. Establish financial and institutional arrangements for WMP fulfillment</p> <p>c. Ensure the long-term viability of the Middle</p>	<p>Designated Uses: all</p> <p>Desired Uses: all</p>

	Huron Partnership Initiative.	
	d. Increase public awareness of progress in WMP implementation.	
6. Continue monitoring and data collection for water quality, water quantity and biological indicators	Short-Term Objectives	Designated Uses: all
	a. Maintain an adaptive monitoring strategy that yields data to measure progress toward achievement of WMP goals and objectives.	Desired Uses: all
	b. Develop a comprehensive database, using the best available and most appropriate technology, to serve the stormwater management, flood control and water quality planning and monitoring information needs of the watershed.	
	c. Track and report on short- and long-term maintenance of public and private stormwater conveyance and storage facilities.	

Specific SWPPI Content Requirements

The sections below detail Eastern Michigan University’s approach to each of the standard requirements under the General Permit (MIG610000).

1. Total Maximum Daily Loads (TMDL)

The permit requires that permittees identify and prioritize actions to reduce pollutants in stormwater discharges from MS4s to meet Water Quality Standards. The impairments listed below in Table 2 have approved TMDLs as of the issuance date of our COC.

Table 2: Waterbodies requiring TMDLs for Stormwater Related Impairments in the Middle Huron Watershed

(Source: MDEQ 2008 303(d) list of nonattaining waterbodies and the City of Ypsilanti COC)

Waterbody	Pollutant or Problem	TMDL Status	Location/Area
Ford Lake/ Belleville Lake	Nutrient enrichment (phosphorus)	Approved in 2000; To be updated 2010	Impoundments of the Huron River located between the cities of Ypsilanti and Romulus.

For Middle Huron TMDLs, the watershed partners have developed an alternative approach that they will employ which will more effectively address TMDL requirements. This detailed alternative plan is included in Attachment A.

2. Public Education Plan (PEP)

The EMU PEP section of this SWPPI was developed to promote, publicize, and facilitate watershed education in the Middle Huron watershed. This PEP (included as Attachment B)

combines with and relies on the implementation of public education activities by watershed partner communities and agencies.

The purpose of the PEP section is to encourage the public within the Middle Huron Watershed to reduce the discharge of pollutants in storm water to the maximum extent practicable. Pollution prevention is encouraged and a method for determining the effectiveness of the various public education activities is described.

The “Public” is defined to include all persons who potentially could affect the quality of storm water discharges, including, but not limited to, residents, visitors to the area, businesses, commercial operations, and construction activities.

It is our position that the PEP included as Attachment B adequately addresses all the required public education elements and audiences as defined in the Phase II Permit (MIG610000). Specifically, the required message topics include:

Topic #1: Watershed Stewardship

Education for the public about responsibility and stewardship in their watershed.

Topic #2: Storm Drainage Systems and Waterways

Education for the public on the location of residential separate storm water collection system catch basins, the waters of the state where the system discharges, and potential impacts from pollutants from the separate storm water drainage system.

Topic #3: Reporting of Illicit Discharges

Encourage public reporting of the presence of illicit discharges or improper disposal of materials into the Eastern Michigan University’s separate storm water drainage system.

Topic #4: Common Home and Yard Storm Water Pollutants

Education for the public on the need to minimize the amount of residential, or non-commercial, wastes washed into nearby catch basins (this should include the preferred cleaning materials and procedures for car, pavement, or power washing; the acceptable application and disposal of pesticides and fertilizers; and the effects caused by grass clippings, leaf litter, and animal wastes that get flushed into the waterway).

Topic #5: Waste Disposal

Education of the public on the availability, location and requirements of facilities for disposal or drop-off of household hazardous wastes, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids.

Topic #6: Septic Systems

Education of property owners on proper septic system care and maintenance and how to recognize failures.

Topic #7: Native Vegetation

Public education on the stormwater and other benefits of native vegetation in comparison to non-native vegetation.

Topic #8: Riparian Land Management

Education of the public concerning the management of riparian lands to protect water quality.

Topic #9: Other Pollutants

Education on pollutants unique to commercial, industrial and institutional entities as needed.

3. Illicit Discharge Elimination Plan (IDEP)

The IDEP section of our SWPPI was developed to prohibit and effectively eliminate illicit discharges (including the discharge of sanitary wastewater) to Eastern Michigan University storm systems. The IDEP summary is included as a section in Table 3.

“Illicit Connection” means a physical connection to the separate storm water drainage system that 1) primarily conveys illicit discharges into the system and/or 2) is not authorized or permitted by the local authority (where a local authority requires such authorization or permit).

“Illicit Discharge” means any discharge (or seepage) to the separate storm water drainage system that is not composed entirely of storm water or uncontaminated groundwater. Examples of illicit discharges include dumping of motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, or animal wastes, or unauthorized discharges of sewage, industrial waste, restaurant wastes, or any other non-storm water waste into a separate storm water drainage system.

The IDEP section of Table 3 identifies and describes the activities that will be carried out to address the IDEP elements as specified in new Phase II Permit (MIG610000). Specifically the IDEP required elements are:

Required Element #1:

An ordinance or regulatory method for controlling discharges in the MS4;

Required Element #2:

Identification of areas prioritized for field screening or other investigation;

Required Element #3:

Procedures for eliminating illicit discharges, pursuing enforcement action, and a system to track the elimination status of illicit discharges and enforcement actions;

Required Element #4:

A program to train staff; and

Required Element #5:

A method for determining the effectiveness of illicit discharge elimination activities.

4. Post-Construction Storm Water Control for New Developments and Redevelopment Projects

As per Part 1.A.4.b.4. of the MS4 Watershed permit Eastern Michigan University has a process to implement and enforce a program to address post-construction storm water runoff from all new and redevelopment projects that disturb 1 acre or more. Projects that disturb less than 1 acre are also subject to the requirements if they are part of a larger common plan of development or sale that would disturb 1 acre or more. The regulatory mechanism establishes the authority to implement and enforce the post-construction storm water runoff control program.

This post-construction storm water runoff control program is being implemented across the Eastern Michigan University campus in the regulated area (watershed and urbanized area). The program is applicable to all development and redevelopment projects that disturb more than 1 acre and discharge to a surface water of the state, either directly or via a separate storm sewer system.

The post-construction storm water runoff control program includes all of the following components:

- A minimum water quality treatment volume standard
- Channel protection criteria
- Operation and maintenance requirements
- Site plan requirements
- Enforcement mechanisms
- Recordkeeping procedures

Eastern Michigan University has developed a program to address post-construction storm water runoff from new and redevelopment projects. The approved regulatory mechanism is included in Attachment D.

5. Construction Storm Water Runoff Control

To control wet weather discharges from construction activities, Eastern Michigan University has developed procedures to do the following:

- Provide notice when pollutants are discharged from construction activities and enter the MS4;
- Ensures that appropriate soil erosion and sedimentation controls are included on site plans; and
- Include a procedure for receiving and considering public notification of discharges from construction activities to the MS4.

Soil Erosion and Sediment Control activities and programs are included in Attachment G.

6. Pollution Prevention and Good Housekeeping

A set of training and maintenance activities is required for MS4 municipal operations, under the permit, to control pollution from municipal operations. These requirements include activities related to:

- Employee/contractor training,
- Structural storm water control effectiveness,
- Roadways, parking lots and bridges,
- Fleet maintenance and storage yards, and
- Managing vegetated properties.

Eastern Michigan University has addressed these requirements through activities included in Table 3 or included in the Storm Water Pollution Prevention Plan (SWPPP) - Attachment E.

7. Program Assessment

The SWPPI activities table (Table 3) list methods for assessing effectiveness. In addition, the alternative monitoring approach described for SWPPI item 1 (Attachment A) will be used to collect watershed-wide information to help determine environmental results from the combined watershed stormwater programs.

8. Implementation Schedule

The SWPPI activities tables (Table 3) include a schedule for the implementation of each activity.

Progress Reports

Pursuant to our Certificate of Coverage the first progress report shall be submitted to the Jackson Office District Supervisor, covering the first two permit years, by or on date in COC. The second report will be submitted by two years following the first report. The progress report will describe implementation status and pollution prevention progress, and shall include those items listed in Michigan General Permit Number MIG610000 including but not limited to:

- Joint watershed activities to revise the Watershed Management Plan (WMP) (first report) and implementation status of WMP activities (second report);
- Public participation activities in support of WMP revision;
- Watershed-wide activities to monitor and address water quality impairments for which a TMDL has been established (see Table 2);
- Documentation of actions taken to eliminate illicit discharges and evaluate program effectiveness. For significant discharges, the pollutant(s) of concern, the estimated volume and load discharged, and location of the discharge into the permittee's separate storm sewer system and into the receiving water shall be provided;
- Summary status of program to minimize seepage from sanitary sewers and on-site sewage disposal systems;
- Schedules for elimination of illicit connections identified but not eliminated;
- Documentation of the public education effort and evaluation of its effectiveness;

- Information on the discovery of new storm water point sources;
- Description of compliance status of the permittee-specific SWPPI actions and implementation schedules including pollution prevention/good housekeeping and post-construction BMPs; and
- Assessment of activities to reduce TSS from paved surfaces including an estimate of load reduction from current controls (first report) and methods to improve load reduction (second report).

Watershed Plan and SWPPI Revision

The SWPPI will be reviewed (and revised as necessary) pursuant to our Certificate of Coverage. The WMP will be reviewed (and revised as necessary) by date in COC.

- Revisions to date-specific activities listed in Table 3 will be made, as necessary, with approval of MDEQ. Any revisions to the SWPPI will be submitted at the time of progress reporting.

Retention of Records

Eastern Michigan University will retain the SWPPI and its associated records (including monitoring data) for a minimum of three years after the termination of the permit. If available, these records shall include, but not be limited to:

- Information regarding the effectiveness of activities,
- Records of analyses performed,
- Calibration and maintenance of instrumentation (*when/if available and applicable*), and
- Recordings from continuous monitoring instrumentation (*when/if available/applicable*).

PROGRAM APPROVALS

John Donegan, Chief of Operations, Physical Plant

Date

Greg O'Dell, Director, Public Safety

Date

Scott Storrar, Director, Facilities Planning and Construction

Date

Bilal Sarsour, P.E. Director, Facilities Maintenance

Date

Dieter Otto, Director, Custodial, Grounds Motor Pool

Date

Kevin Abbasse, Manager Structural Life/ Safety Systems

Date

Kathryn Wilhoff, Director, Health and Safety

Date

HISTORY

Rev	Change(s)
0	Initial release

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SWPPI Action Table

Table 3. Storm Water Pollution Prevention Initiative

Eastern Michigan University -- Commitments to actions for 2010 through 2014 in the Huron River Watershed

Total Maximum Daily Loads

TMDL	Implementation BMP	Timeframe	Measurable Goal (or WMP goal)	Record Keeping	Responsible Party
Phosphorous Ford Lake Huron River	Revise TMDL Implementation Plan and begin implementation of priority activities (see Appendix A)	2011, September	Achieve water quality standards for Phosphorous	Refer to Implementation Plan	Refer to Implementation Plan
	Perform Monitoring as described in Appendix A	2011, September	1. Identification and characterization of hot spots and sources. 2. Sample results and a tracking database to help prioritize and evaluate progress	Keep results and enter results data base update	WCWRC and HRWC

Public Education Plan

Topic	Implementation BMP (Message and Target Audience)	Timeframe	Measurable Goal (or WMP goal)	Record Keeping	Responsible Party (in-house use only)
All PEP topics	See PEP in Appendix B for watershed-wide BMPs	Annually	WMP goals 5, 6	See PEP	See PEP
See PEP or template for topics	EMU BMP #1	When?	WMP goals ?,?		EMU
	EMU BMP #2	When?	WMP goals ?,?		EMU
	EMU BMP #3	When?	WMP goals ?,?		EMU
	EMU BMP #4	When?	WMP goals ?,?		EMU

Public Participation Plan

Objective	Implementation BMP	Timeframe	Measurable Goal (or WMP goal)	Record Keeping	Responsible Party
Public notice of WMP	Follow local notification requirements to publicize updated WMP for review as specified in PPP	2010, October	WMP goals 4, 5	Keep copy of official notification and number of reviews, minutes, etc.	HRWC
Public access of WMP	Make WMP publically available via websites and other means as specified in PPP	2010, October	WMP goals 4, 5	Keep copy of number of reviews, minutes, etc.	HRWC and watershed & EMU
Citizen Advisory Committee (CAC)	Member of SAG, CAC	Quarterly, as needed	Continue to be active member at meetings	Keep copy of minutes and agreed upon actions	EMU
	Encourage more citizens to get involved in CAC	Ongoing	WMP goals 4, 5		HRWC and watershed & EMUs
Review WMP	Communicate with CAC, citizens and others to gain input into WMP revision.	2010, November - 2011, January	WMP goals 4, 5	Keep copy of communications, review comments and responses	HRWC and watershed & EMU
		Ongoing	Continue communication with public on WMP activities		

Illicit Discharge Elimination Program (IDEP)

Topic	Implementation BMP	Timeframe	Measurable Goal (or WMP goal)	Record Keeping	Responsible Party (in-house use only)
Prohibit illicit discharges through regulation (this should already be done from last permit cycle)	Regulate the contribution of pollutants, and prevent dumping, to the MS4	Ongoing	Measureable goal met under last permit cycle. Ordinance, authority, and policies already established. Enforcement ongoing.	1. Copy of ordinance (or other regulatory mechanism if other than CVT) 2. Copy of in-house policy for investigating discharges/dumping	EMU enforcement team
	Establish the authority to investigate, inspect, and monitor suspected illicit discharges			1. Copy of complaint, Field notes, pictures, etc 2. Copy of investigation outcome, enforcement letters, etc.	
	Require and enforce elimination of illicit discharges and connections into the MS4 owned or operated by the EMU			1. Document all complaints and incidences through tracking system 2. Outcome of investigations.	
	Investigate complaints or situations as reported or discovered, including Spill Response and Emergencies				
A program to find and eliminate illicit connections and discharges	Storm Sewer System Map	By date in COC	Completed GIS mapping system with all discharge points, receiving waters, facilities, controls, etc.	Map, field notes, etc.	Consultant and SW Coordinator
	Dry Weather screening or other investigation methods to maximize the detection of illicit discharges	4 months after map	1. Priority list developed ranking illicit discharge potential from high to low (Table 1 from permit). 2. Create inspection maps and schedule for field staff	1. Copy of priority list and reasoning 2. Copy of inspection maps and schedule	SW Coordinator, field staff, EMU enforcement agency
		2011 Summer	Inspections conducted at 40% of discharge points at high priority areas.	Documentation of annual activities in dry weather screening (Field notes, pictures, sampling, etc.)	
	2013 Fall	Inspections conducted at all discharge points (minimum 20% a year)			
Enforcement	2011, February (tracking system) - ongoing	Ordinance, authority, and policies already established. Elimination and Enforcement Tracking System to be updated to meet permit.	1. Copy of ordinance (or other regulatory mechanism if other than CVT) 2. Copy of in-house policy for eliminating discharges/dumping through compliance and enforcement	EMU enforcement team	
Environmental or Complaint Response	Maintain the Environmental Reporting Line	Ongoing	1. # of calls received per year when system is implemented 2. Outcome of calls	Tracking System	SW Coordinator
Staff Training	Provide IDEP training to all staff	2011 August	1. Provide basic training (presentation) to all staff, include field training to all field staff -- by August 2011 2. New staff to receive training within one year of hire date or immediately if field staff.	Sign in sheets and training materials	
Overall Effectiveness of IDEP	Tracking database	2011 August	Update system to track inspections, findings, illumination, & enforcement to meet permit	Tracking data base [or log] -- to include annual amount of discharges eliminated and correction dates	SW Coordinator, field staff, EMU enforcement agency
	Eliminate all obvious illicit dumping and connections found	Ongoing	Eliminate dumping within one month		
			Eliminate connections within one year		
	Identify main pollutants of concern (POC). These may be analytical or physical	2012 Aug.	Results reviewed and pollutants identified	watershed management plans, historical information, sample results, pictures, field notes, etc	SW Coordinator
	Generate map to identify the location(s) of the discharge(s) into both the MS4 and receiving waters.		Include in the GIS Map an overlay of illicit connections and dumping, both existing and fixed	Map Overlays	
Summarize the estimated amount POC eliminated if the POC is an analytical. If POC is physical, summarize other activities to eliminate problem.	Annually after POC identified	Estimation of pollutants eliminated from system	Tracking data base		

Post Construction Controls for Development and Re-development

Topic	Implementation BMP	Timeframe	Measurable Goal (or WMP goal)	Record Keeping	Responsible Party (in-house use only)
Regulate Post Construction Controls at new development sites and re-development sites	Adopt Water Quality and Channel Protection standards of permit, as agreed to in Permit Application, that are enforceable.	By date in COC (may be completed)	Board Resolution and ordinance/code updated	Copy of Resolution and updated ordinance/code	SW Coordinator and EMU
	Adopt Operation and Maintenance requirements for new PC controls				
	Develop and implement policy for site plan review and approval to meet new standards	Within 2 weeks of adopting new ordinance (may be ongoing)	Policy developed and implemented by all staff involved in site plan review.	Keep a copy of the procedure available	Site plan review team (engineer), may be WCWRC
			Use new checklist for all site plan reviews to ensure plans are in compliance with new standards. Plans cannot be approved without meeting the standards.	Copies of signed reviews, approvals, as-builts	
	Develop and implement an inspection policy to ensure PC controls are in place as approved in the site plan		Policy developed and implemented by all staff involved in site inspections.	Copies of inspections from every development site	
Develop and implement enforcement procedures if PC controls are not constructed as required or O&M is not conducted as required.	Within 4 months of new ordinance (may be ongoing)	Written procedures developed and implemented by all staff involved with site plan approvals, inspections, enforcement.	Copy, attorney approved, procedures	Attorney, SW coordinator, Inspector(s)	
Post Construction Controls at EMU owned facilities	All property owned by the MS4 EMU that has new development or substantial redevelopment will adhere to the PCC standards	Ongoing	Document all development on EMU owned property meets the requirements for PCC	Copies of signed reviews, approvals, as-builts	Site plan review team (engineer)
	All EMU owned sites with a new PCC-BMP will have an O&M plan for the BMP.		Ensure O&M requirements are met for all EMU owned BMPs. Track in O&M Tracking database.	Keep copies of O&M plans and all inspection and maintenance activities conducted by staff.	SW Coordinator and EMU

Construction Storm Water Runoff Control

Topic	Implementation BMP	Timeframe	Measurable Goal (or WMP goal)	Record Keeping	Responsible Party
Provide notice to the SESC agency and DEQ when pollutants are discharged from construction activity	Inspect construction sites	2011, August (tracking system) - Ongoing program (may be ongoing overall)	Conduct weekly inspections at 20% of construction sites	Inspection forms, pictures, enforcement letters, and copies of notices to Department	SW Coordinator, field staff, EMU enforcement agency
Complaint Process	Procedure for tracking and following up on complaints		Policy implemented by all relevant staff. 100% complaint follow-up.	Complaint record (tracking system), inspection forms, pictures, etc.	
Review and approval of preliminary site plans	Develop and implement policy for site plan review and approval to meet Part 91 standards and local standards		Use checklist for all site plan reviews to ensure plans are in compliance with standards. Plans cannot be approved without meeting the standards.	Copy of procedures, signed reviews and approvals, weekly inspection reports from every site, enforcement documents/letters.	Site plan review team (engineer), SW Coordinator, field staff, EMU enforcement agency
	Develop and implement enforcement procedures if SESC controls are not constructed and maintained as required	Enforcement staff to follow process (Stop work orders, enforcement letters etc.)			

Pollution Prevention / Good Housekeeping for Municipal Operations

Topic	Implementation BMP	Timeframe	Measurable Goal (or WMP goal)	Record Keeping	Responsible Party (in-house use only)
Employee / Contractor Training	Develop detailed list of training topics for employees and contractors	2011, January	Final list of topics necessary for employees and contractors	spreadsheet	SW coordinator
	Develop various training sessions and materials for employees	2011, April	General training provided to all existing employees regarding SW program	Training materials developed for sessions and sign-in sheets for those sessions	
		Ongoing	Training provided to new employees within first year of hire date		
		2011, September	No. of employees trained in their respective areas.		
	Provide training [or training materials] to contractors prior to conducting work for EMU	Ongoing	No. of contractors that attend training sessions given by EMU, or other acceptable session.	No. of contractors certified through XXXX program as necessary	
No. of contracts, with specific BMP requirements, signed by contractors.			Copy of Contracts		
Structural Storm Water Control Effectiveness	Develop the detailed list of campus properties and structural controls at those properties. The required summary list is attached to this SWPPI as an appendix.	by the due date of the First Progress Report	Submitted as part of First Progress Report	Spreadsheet or other database	Consultant and Physical Plant department
		by the due date of the Second Progress Report	Completed GIS mapping system with all facilities and controls mapped, with detailed database for Inspections, Operation, and Maintenance tracking	Gis Mapping System	
	Develop a schedule for inspections, and O&M for all structural controls	by the due date of the First Progress Report	Inspection schedule developed, added to the SWPPI and GIS Mapping System, and implemented		
		2012, March			
	New Facilities and SW Controls	Ongoing	New controls meet standards. Facilities and controls added to GIS Mapping System within 1 week of construction		
Waste Management from O&M	Identify sources of waste and storage	2011, April	Sources identified and staff in charge	Spreadsheet	SW coordinator and Physical Plant department
	Develop procedures for proper handling and disposal of waste		Staff following proper procedures	Written procedures/policy, Inspection reports	
Management of Vegetated Properties owned or responsibility of EMU	Develop policy regarding soil testing and fertilizer use	Ongoing	Policy adopted under last permit	copy of policy	SW coordinator
	Use existing training materials for employees and contractors regarding storage, handling, and use of pesticides, herbicides, and fertilizers		General training provided to all relevant employees and contractors. Policies read and signed by contractors and relevant employees. Scheduled with general P2 training to be included as part of developing the inspections, and O&M for all structural controls	Sign in sheets and training materials, copies of signed policies	
	Develop a program to minimize SW impacts from vegetated properties	2011, May		Gis Mapping System	Consultant and SW Coordinator
Fleet Maintenance and Storage Yard/Facilities	Certified Operator		Physical Plant Facilities Manager to pass certification test	Copy of Certified Operator License	Physical Plant Facilities Manager
	SWPPP(s) developed and implemented (see attached list of facilities where applicable)		SWPPP(s) approved and signed by SW coordinator and Physical Plant Facilities Manager	Copy of SWPPP(s) and weekly facilities inspection reports	Physical Plant Facilities Manager and SW Coordinator
	Inspection, O&M Schedules for all EMU owned vehicles and equipment		Each facility will have a schedule to do inspections and O&M or have them done by contractors.	Copy of schedule, inspection reports, and work completion receipts	

	Investigate and implement BMPs for refuse management (if problems are found)		Implement changes to refuse management as necessary	Copy of summary report of investigation and implementation and weekly inspection reports	
Parking Lots, Roadways, Bridges owned by EMU	Implement BMPs to reduce pollutant discharges (requirement from last permit)	Ongoing	Continue street sweeping catch basin cleaning and precision application of salt as previously implemented.	Copy of schedule, amount of waste collected and disposed of properly, annual summary report of salt use.	
	Proper salt storage and management (requirement from last permit)		Continue proper salt storage and management as previously implemented	Copy of weekly inspection reports	
	Reduce TSS runoff from paved surfaces to the maximum extent practicable (MEP)	by the due date of the First Progress Report	Review current controls and calculate TSS load reductions with and without controls	Final report on TSS reduction comparison	Consultant and SW Coordinator
		by the due date of the Second Progress Report	Identify needs to improve TSS removal effectiveness	Report on BMPs needed and/or changed	