



MS4 Permitting

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What to expect today

- Walk through the application
- Ask application-related questions
- Understand the process and next steps



MS4 Individual Permits

- Specific to the type of permittee and complexity of the MS4
- Builds on existing efforts
- Alternatives/Innovative ideas are encouraged and can be approved at the time of application
- Application process aligns with audit process

Reissuance Timing

FY16 Basin Year Cycle

Mid-November	Application notice letters mailed
April 1, 2015	Application due
April 2015 – October 2016	Application reviewed and approved Permit issued

Application Format

- Application designed to develop a Stormwater Management Program (SWMP)
- Application requirements follow the 6 minimum control measures and water quality requirements
- Build on existing documents (e.g., approved SWPPI)

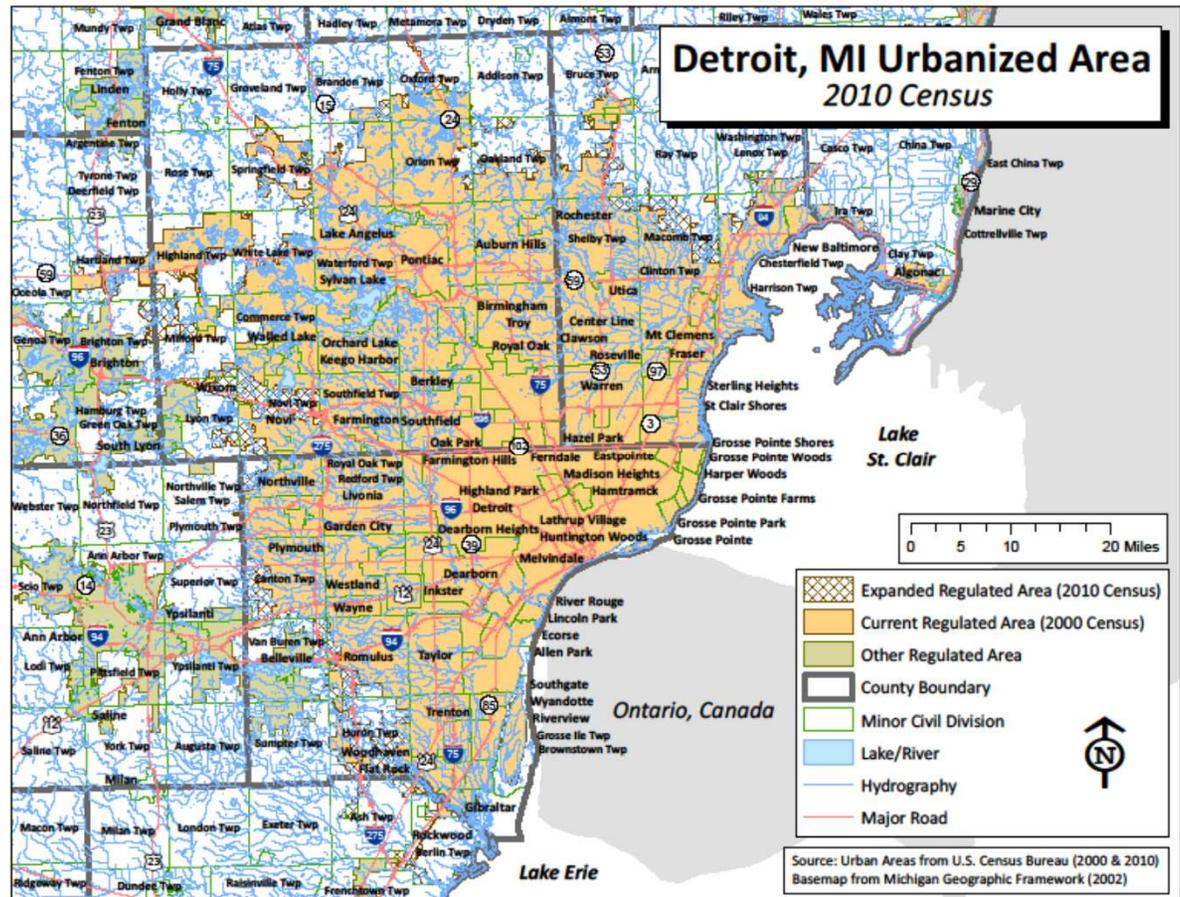
Complete Application = SWMP

Application Format

- **Minimum Control Measures**
 - Public Participation/Involvement Program
 - Public Education Program
 - Illicit Discharge Elimination Program
 - Construction Stormwater Runoff Control Program
 - Post-Construction Stormwater Runoff Program
 - Pollution Prevention and Good Housekeeping Program
- **Water Quality Requirements**
 - Total Maximum Daily Load Implementation Plan

Regulated Area

Updated [Urbanized Area maps](#) to reflect the 2010 Census



Scope of the MS4 Permit



MS4 or surface water of the state?

MS4

System designed or used to collect or convey stormwater

- Enclosed pipes, road side ditches, vegetated swales, and paved surfaces
- Structural controls: catch basins, detention basins, infiltration devices, and pollutant removal devices



Surface Waters of the State

- Includes lakes, rivers, streams, wetlands, and open drains
- **Does not** include a system constructed solely to convey stormwater



Outfalls and Points of Discharge

- Outfall = Discharge point from an MS4 directly to surface waters of the state
- Point of Discharge = discharge from an MS4 to another MS4



Nested Jurisdictions

- Identify nested jurisdictions you will be assuming responsibility for permit requirements
- Include nested jurisdiction MS4 when completing your application



Stormwater Management Program

- Structural and nonstructural BMPs to be implemented during the permit cycle
- Designed to reduce the discharge of pollutants to the maximum extent practicable (MEP)

Referenced Information

- Referenced information may be submitted in any format
- Include specific references to procedures and ordinances (*e.g., Attachment A, Page 3, Section b.*)
- Only referenced information will be reviewed
- Note when submittals are not required (*e.g., storm sewer system maps and site-specific SOPs*)

Collaborative Efforts

Application allows for collaboration with watershed or regional partners for most minimum control measures and the water quality requirements

PEP is a great example of successful collaborative efforts



Options Available

- Options to prioritize
 - PEP
 - IDEP
 - Pollution Prevention & Good Housekeeping
- IDEP and Post-Construction Alternative Options included in application



Measurable Goals

Include a measurable goal for each BMP

Include the following, as appropriate:

- Schedule for BMP implementation (months and years)
- Interim milestones
- Frequency of the BMP



Measurable Goals

- Include a measure of assessment to measure progress towards achieving the measurable goal
- May use the same assessment to measure several BMPs



Measurable Goals

How can you measure whether a BMP has been a success at reducing pollutants to the MEP?

- ✓ Changes in behavior
- ✓ Number of BMPs implemented
- ✓ Documented improvements in water quality

EPA guidance document titled

["Measurable Goals Guidance for Phase II Small MS₄s"](#)

What is a Procedure?

- **Written Process**
- **Policy**
- **Other mechanism describing how the minimum requirement will be implemented**



Enforcement Response Procedure

Procedure with the expected response to violations to compel compliance with ordinances or regulatory mechanisms

- Written notices
- Citations
- Fines



Enforcement Response Procedure

Describe a method for tracking the following information:

- ✓ Name of the person/entity responsible for violation
- ✓ Date of violation
- ✓ Location of violation
- ✓ Description of the violation
- ✓ Description of the enforcement response used
- ✓ Schedule for returning to compliance
- ✓ Date violation was resolved

Public Participation/Involvement Program

Procedure making the SWMP available for public inspection and comment

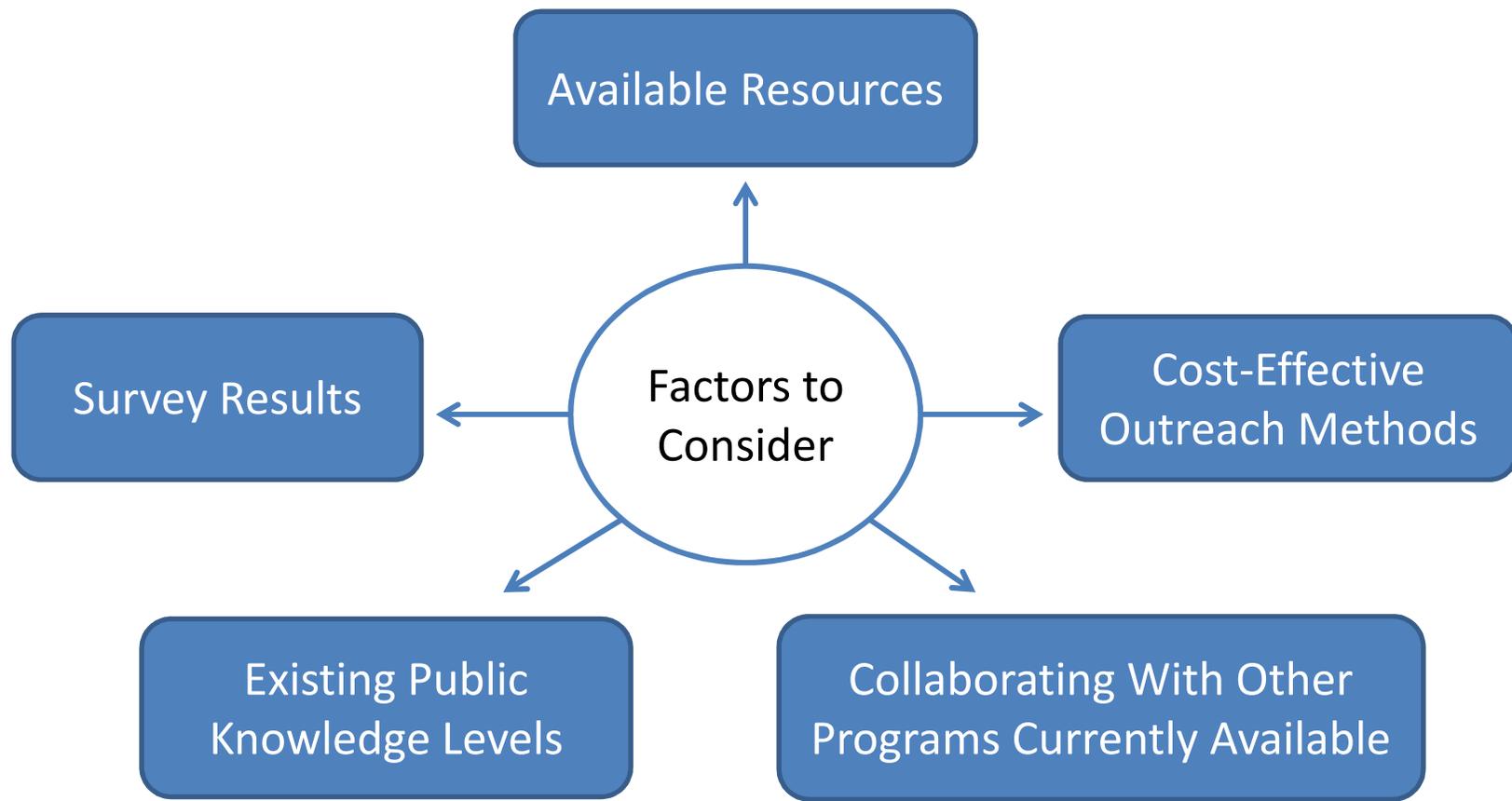
- Process for notifying public and opportunities for comment
- Process for complying with local public notice requirements

Procedure for inviting the public to participate in the implementation and review of the SWMP



Public Education Program

Assessment of high priority and targeted issues



Public Education Program

Identify applicable PEP topics with option to prioritize

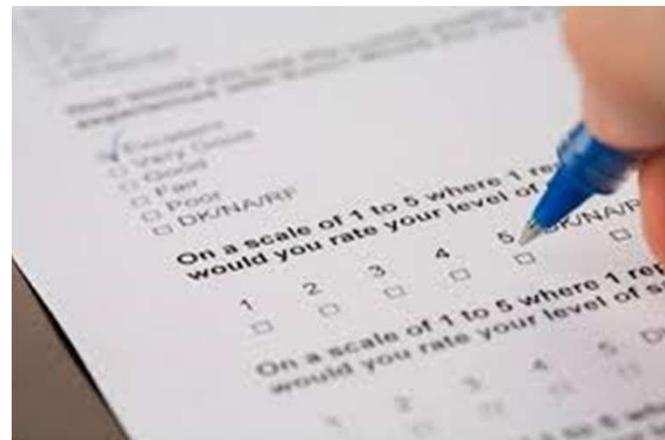
- 11 topics
- Some topics not applicable for permittee type
- Option to prioritize as high, medium or low (preferred) priority or rank 1-11



Public Education Program

Procedure for evaluating and determining effectiveness

- Method for assessing changes in public awareness and behavior
- Process for modifying the PEP to address ineffective implementation



Illicit Discharge Elimination Program

What is an illicit discharge?
Who can cause or contribute to one?



Illicit Discharge Elimination Program

Location of up-to-date storm sewer map

- Do not submit
- Could be many maps (*e.g., road maps, as-built drawings, certification maps*)



Illicit Discharge Elimination Program

Identifying areas for dry-weather screening

Options:

1. Continue performing dry-weather screening at all outfalls and points of discharge during the permit term
2. Prioritize dry-weather screening to target areas with high illicit discharge potential during the permit term

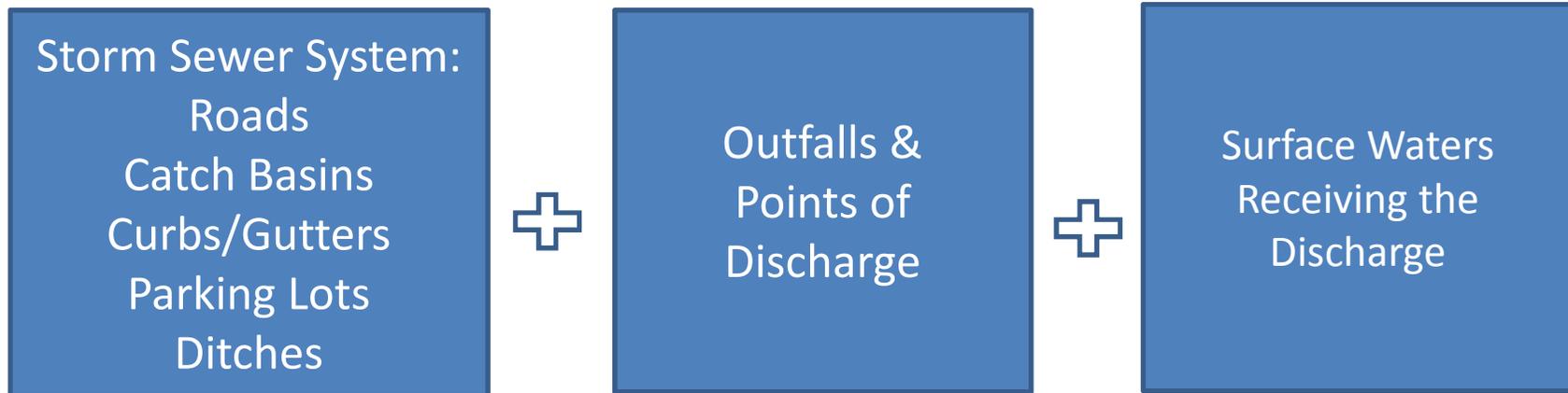
Illicit Discharge Elimination Program

Prioritization Criteria	Key Characteristics to Consider for Prioritization
Poor Dry Weather Water Quality	Areas where TMDLs have been developed to address pollutants that could originate from illicit discharges or where the available data shows dry-weather water quality criteria are exceeded two or more times in a year are high priorities.
Density of Aging On-Site Disposal Systems (OSDS)	Older septic systems that have exceeded their design life may have failure rates of 25 to 30 percent or more. Areas where the OSDS designs would not be permitted today because of poor soils or small lot sizes, but where older OSDS are still in operation, have a high illicit discharge potential.
Aging or Failing Sewer Infrastructure	Areas where sewer age exceeds its design life; and where clusters of pipe breaks, spills, overflows, or infiltration and inflow are known problems should be given a high priority.
Discharge Complaints and Reports	Any MS4s owned or operated by the permittee with a history of discharge complaints should be given a high priority.
Age and Density of Industrial Operations	Older industrial operations often have floor drains, waste handling areas, gray water, and sanitary facilities connected to storm sewers. Industrial areas also commonly have storm water pollutants related to poor housekeeping practices, so a higher density of industrial operations increases the likelihood of contaminated discharges.
Age of Development	Areas where the average age of the majority of the development exceeds 50 years should be given a higher priority.
Sewer Conversion Areas	Areas where sanitary sewers were added in the last 30 years, and people switched from septic systems, have a high potential for illicit taps of sanitary water to MS4s.
Historic Combined Sewer Systems	Sewer systems that were once combined, but were subsequently separated, have a high illicit discharge potential if oversight of the projects was not documented.
Type of Commercial Activity	Businesses not regulated by industrial storm water permits, especially those that handle liquids, including oils and greases (e.g., auto maintenance, food service, and carpet cleaners) may remain unaware of storm water pollution concerns from improper waste disposal and "hopper juice" from the trash bins and compactors they operate.
Other Potential Pollutant Generating Sites	Conditions unique to the permittee's jurisdiction should be considered.

Excerpted From:
[*Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assistance*](#)

Illicit Discharge Elimination Program

Up-to-date storm sewer map



Narrative

- 2015 – 17 Mud Lake Drain outfalls
- 2016 – 13 Sycamore Creek outfalls and 3 Reynolds Drain outfalls
- 2017 – 18 Red Cedar River outfalls

Illicit Discharge Elimination Program

Procedure for performing field *observations*

- Submit a field sheet with the observations
- Include a schedule for the permit cycle
 - % of outfalls and points of discharge screened each year
 - Specific areas to be screened
- Submit an Interagency Agreement – Example in IDEP Compliance Assistance Document

IDEP Compliance Assistance Document available at
www.michigan.gov/deqstormwater

Illicit Discharge Elimination Program

Procedure for performing field screenings

- Analyze for indicator parameters (e.g., ammonia, fluoride, detergents)



Procedure for performing source investigation



Include a schedule for implementing
(e.g., 24 hours or within 2 business days)

Illicit Discharge Elimination Program

- Procedure for responding to illegal dumping/spills
- **If prioritizing**, procedure for responding to illicit discharges outside of priority areas

Include a schedule:

- ✓ Responding to complaints
- ✓ Performing field observations and follow-up field screening and source investigations



Illicit Discharge Elimination Program

Procedure for reporting a release of polluting materials from the MS₄ to surface/groundwaters of the State

Do you store polluting materials above the Part 5 threshold management quantities?

Salt (solid form)
5 tons

Oil
1350 gallons in AST

Immediately report spills above threshold reporting quantities:

Salt (solid form)
50 pounds

Oil – Any quantity that causes unnatural turbidity, color, visible sheens, oil films, foams, solids, or deposits in the receiving waterbody

Illicit Discharge Elimination Program

Equivalent Alternative Approaches

Option to propose an alternative approach that differs from the application requirements.

Demonstrate how the approach provides an equivalent or greater level of protection as the dry-weather screening application requirements.

Illicit Discharge Elimination Program

Procedure for responding to illicit discharges when source identified

- Specify expected corrective action
- Schedule to eliminate the illicit discharge and pursue enforcement actions
- Include illegal spills/dumping

Consider a schedule of 30 days to eliminate *most* illicit discharges

Illicit Discharge Elimination Program

IDEP training program for staff employed by applicant

- Train staff once during the permit cycle and new hires within first year of hire

Procedure for evaluating and determining effectiveness

- Evaluate the prioritization process
- Evaluate effectiveness of using different detection methods
- Evaluate program efficiency and staff training frequency

IDEP Compliance Assistance Document available at
www.michigan.gov/deqstormwater

Illicit Discharge Elimination Program

In effect ordinance or regulatory mechanism

- ✓ Prohibits non-stormwater discharges
- ✓ Regulates the contribution of pollutants
- ✓ Prohibits illicit discharges, illicit connections, and direct dumping/disposal
- ✓ Establishes authority to inspect, investigate, and monitor suspected discharges
- ✓ Requires and enforce the elimination of illicit discharges

Illicit Discharge Elimination Program

Non-stormwater discharges that do not need to be prohibited (Application Requirements #21-22)

Firefighting Activities

Not a significant contributor of pollutants to surface waters



Other Non-Stormwater Discharges or Flows

Not a significant contributor to violations of WQS



Illicit Discharge Elimination Program

Ordinance or Regulatory Mechanism?

<ul style="list-style-type: none">• Cities and villages• Townships with a more complex MS4 (e.g., a township that owns or operates roads)	<ul style="list-style-type: none">• County agencies• Townships with a regulated MS4 limited to township-owned property• Public institutions (e.g., school systems and universities)
Primary Legal Authority: Ordinance	Primary Legal Authority: Regulatory Mechanism
Secondary Legal Authority: Policies and procedures for staff to implement IDEP activities	

Construction Stormwater

- Questions focus on identifying existing efforts under other qualifying local programs
- Are you a Part 91 agency?
 - County Enforcing Agency
 - Municipal Enforcing Agency
 - Authorized Public Agency
 - Rely on another Part 91 Agency

Construction Stormwater

Procedure with the process for notifying the Part 91 agency or appropriate staff when soil and sediment is discharged to the MS₄ from a construction activity

- Complaints
- Notification requirements
- Internal and/or external process



Construction Stormwater

Procedure to notify the DEQ when soil, sediment, or other pollutants are discharged to the MS₄ from a construction activity



Applicant determines when and under what circumstances the DEQ will be contacted

Construction Stormwater

- Construction activity ≥ 1 acre in total earth disturbance with the potential to discharge to the MS₄ obtains a Part 91 permit or is conducted by an approved APA
 - Triggered at the site plan review stage
- Procedure to advise the landowner or recorded easement holder of the State of Michigan Permit by Rule
 - Consider adding notification to site plan application checklist

Scope of the MS4 Permit



MS4 or surface water of the state?

Post-Construction Runoff

Ordinance(s) or regulatory mechanism(s) to address stormwater runoff from new development and redevelopment projects

- Private, commercial & public projects
- Applies to projects that disturb ≥ 1 acre, including projects < 1 acre that are part of a larger common plan of development



Post-Construction Runoff

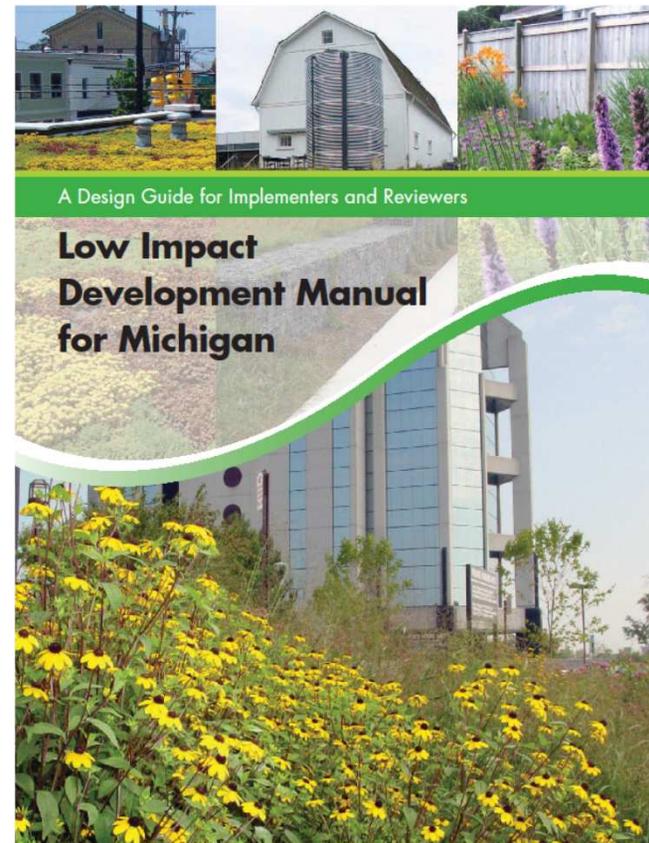
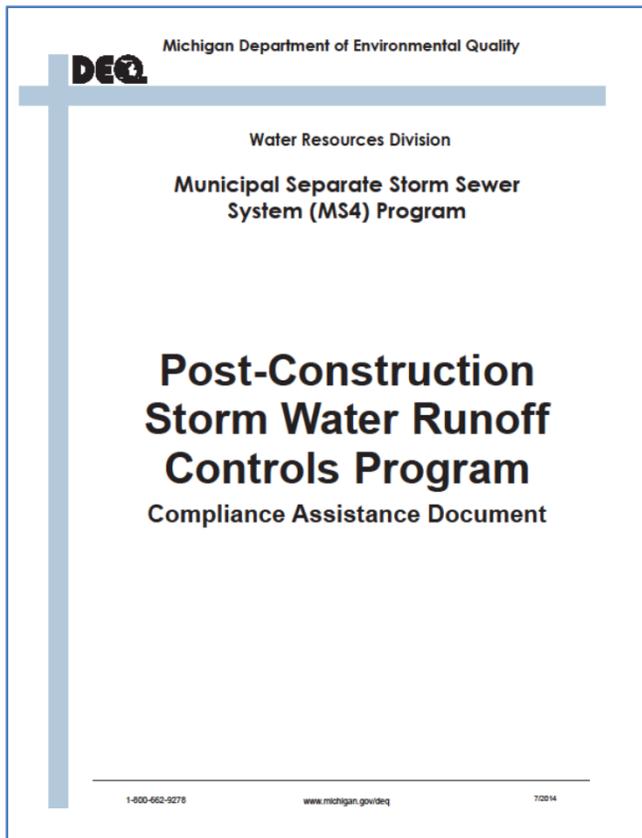
Ordinance or Regulatory Mechanism Due Date

- October 1, 2015
- Option for compliance schedule to place ordinance into effect (cities and villages)



Post-Construction Runoff

Available Resources



Post-Construction Runoff

Ordinance or Regulatory Mechanism?

Likely Scenarios for Applicability of Ordinance and Other Regulatory Mechanisms				
Permit Applicant Type		Ordinance	Other Regulatory Mechanism	
			Local Permit Program	Internal Written Policy
City		◆		◆
Village		◆		◆
Township	With private discharges to its regulated MS4	◆		◆
	Without private discharges to its regulated MS4			◆
County Road Commission			Both	
County Drain Commissioner			Both	
County Administration			Both	
Public Institution				◆

Post-Construction Runoff

Format Options

- Referencing other technical documents (e.g., performance standards)
- May be appropriate to submit a combination of ordinances and other regulatory mechanisms



Post-Construction Runoff

Water Quality Treatment Performance Standard



- Treat the first 1" of runoff from the entire project site
and/or
- Treat runoff generated from 90% of all runoff-producing storms for the project site

Post-Construction Runoff

Treatment: BMPs must be **designed** to reduce total suspended solids loadings by 80% or achieve a discharge concentration not to exceed 80 mg/l



Post-Construction Runoff

Channel Protection Performance Standard

Require that the post-construction runoff rate and volume of discharges not exceed the pre-development rate and volume for all storms up to the 2-year, 24-hour storm at the project site

Predevelopment: *Last land use prior to the planned new development or redevelopment*



Post-Construction Runoff

Example Linear Projects		
Project	Development or Redevelopment?	Disturbance Area
New road (which may include new adjacent trails or sidewalks)	Development	Linear area of new road project (including any new adjacent trails or sidewalks)
New trail or sidewalk (without a change to an existing adjacent road)	Development	Linear area of new trail or sidewalk project
Re-pave; with re-construction to the subbase layer and a change in drainage	Redevelopment	Linear area of reconstruction plus any new additional impervious surface
Re-pave; overlay with no milling and no increase in impervious area or removal of surrounding vegetation or mill and overlay to the existing subbase layer with no change in drainage	Neither	Not applicable
Pave existing gravel shoulders; no additional center-road work	Redevelopment	Linear area of the shoulder paving (center-road excluded)
Convert raised center island in a boulevard to bioretention (no other changes to boulevard)	Neither. This would be considered a retrofit.	Not applicable

Post-Construction Runoff

Procedure for reviewing the use of infiltration BMPs in areas of contaminated soil or groundwater (Part 201 and 213 sites)

Describe coordination with DEQ staff



Post-Construction Runoff

Ordinance or regulatory mechanism requiring BMPs to address the associated pollutants in potential hot spots

- ✓ Commercial vehicle maintenance/repair
- ✓ Gas stations
- ✓ Auto recyclers
- ✓ Scrap yards
- ✓ Public water supply intakes



Post-Construction Runoff

Off-Site Mitigation: Developer implements BMPs at another location

Payment in Lieu: Developer pays a fee to the applicant that is applied to a public stormwater management project

Offsets within the same jurisdiction and watershed or sewershed as the original project

- 10 digit HUC*
- Within urbanized area*
- Offsets constructed with 24 months*

Post-Construction Runoff

- Off-site mitigation and payment in lieu are options to address the following:
 - Redevelopment in ultra-urban areas
 - Contaminated sites
 - Tight soils
- Applicant establishes criteria for determining the availability of these options
- Offset ratio required

Post-Construction Runoff

Additional Options

- Above and beyond the application requirements
 - Regulate project sites <1 acre
 - Direct discharges to surface water
- Requires tracking and maintaining in perpetuity



Post-Construction Runoff

- Ordinance or regulatory mechanism requirement to submit a site plan for review and approval of post-construction BMPs
- Procedure for site plan review and approval
 - Reference to the process for determining how the developer meets the performance standards and ensures long-term O&M

Post-Construction Runoff

- Ordinance or regulatory requirement requiring long-term O&M of all BMPs to meet the performance standards in perpetuity
- Ordinance or regulatory mechanism requirement for a maintenance agreement



Post-Construction Runoff

Maintenance agreement shall allow the applicant to complete the following:

- Inspect structural and vegetative BMPs
- Perform the necessary maintenance
- Track the transfer of O&M responsibility



Pollution Prevention/Good Housekeeping

Inventory of applicant owned/operated facilities and stormwater structural controls

- Location of facility (provide address)
- Estimate of the number of structural stormwater controls for each category



5 Detention Basins



200 Catch Basins



5 Rain Gardens

Pollution Prevention/Good Housekeeping

- Location of up-to-date map that identifies each facility and structural control
 - Typically a township or city building
 - Start with IDEP storm sewer system map
- Procedure for updating and revising the inventory and map
 - Suggested timeframe = 30 days

Pollution Prevention/Good Housekeeping

Procedure for assessing each facility for the potential to discharge to surface waters

- Process for updating and revising the assessment (30 days recommended)

Community Halls



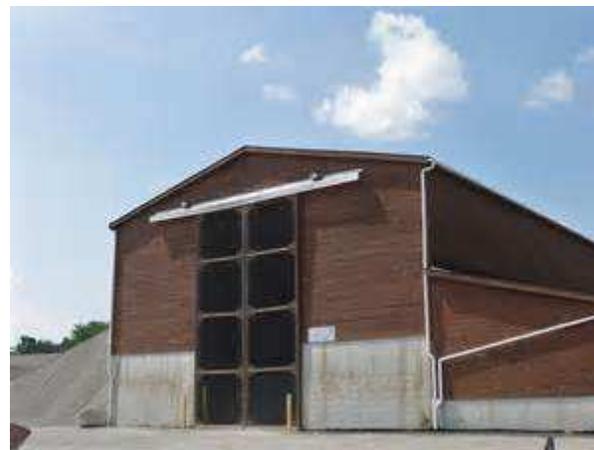
DPW Yards



Pollution Prevention/Good Housekeeping

List of prioritized facilities based on the assessment

- High, medium or low potential to discharge pollutants to surface water
- Fleet maintenance and storage yards have a high potential



Pollution Prevention/Good Housekeeping

Fleet A group of vehicles owned or operated as a unit

Maintenance Adding/changing vehicle fluids, fueling, painting, mechanical repairs, vehicle/equipment washing

Storage Yard Areas where:
Vehicles stored longer than overnight/weekend
Road maintenance materials stored
Vehicle maintenance materials stored
Chemicals in bulk stored
Catch basin cleaning wastes are stored
Maintenance equipment stored

Pollution Prevention/Good Housekeeping

Site-specific SOP for each facility designated with a **high** potential to discharge

- ✓ Retain at the facility
- ✓ Identify person responsible
- ✓ List significant materials, handling/storage requirements, potential to discharge
- ✓ Identify good housekeeping practices
- ✓ Description/schedule for conducting routine maintenance and inspections
- ✓ Comprehensive site inspection at least once every 6 months

Pollution Prevention/Good Housekeeping

Procedure identifying current or future BMPs to be implemented during the permit cycle at **medium** and **low** facilities

- Proper salt storage (bagged salt)
- Garbage
- Minimal Chemical Storage



Pollution Prevention/Good Housekeeping

- Procedure for prioritizing catch basins for routine inspection, maintenance, and cleaning
 - Process for updating/revising priority level based on inspection results and citizen complaints
- Narrative description/map of catch basins in each priority level



Pollution Prevention/Good Housekeeping

- Procedure for inspecting, cleaning, and maintaining catch basins



- Procedure for dewatering, storage and disposal of materials extracted from catch basins
 - Combined solid and liquid waste stream from cleaning catch basins is a liquid industrial waste
 - Consider referencing the [Catch Basin Cleaning Activities Guidance Document](#)

Pollution Prevention/Good Housekeeping

Procedure for inspecting and maintaining other stormwater structural controls

- Description and schedule for inspecting and maintaining
- Disposal process for maintenance waste materials
- Process for updating/revising the procedure

Refer to Application Requirement #60

Pollution Prevention/Good Housekeeping

NEW water quantity facilities/structural controls will be designed and implemented in accordance with post-construction performance standards

- Focus is your own flood storage projects
- Simple statement that these projects will meet the applicant's standards



Pollution Prevention/Good Housekeeping

Assess applicant's O&M activities for the potential to discharge pollutants and the BMPs being implemented to prevent or reduce pollutant runoff

- ✓ Road, parking lot and sidewalk maintenance
- ✓ Bridge maintenance
- ✓ Right-of-way maintenance
- ✓ Unpaved road maintenance
- ✓ Cold weather operations
- ✓ Vehicle washing and maintenance

Pollution Prevention/Good Housekeeping

- Procedure for prioritizing street sweeping activities
 - Assign priority levels and associated cleaning schedule
 - Process for updating/revising the priority level
- Narrative description or map of streets, parking lots, and other impervious surfaces



Pollution Prevention/Good Housekeeping

- Procedure identifying sweeping methods used
- Procedure for dewatering and disposal of street sweeper waste
 - Consider referencing the [Catch Basin Cleaning Activities Guidance Document](#)

Pollution Prevention/Good Housekeeping

- Pesticide applicator to be certified by the State
 - Already required by MDARD

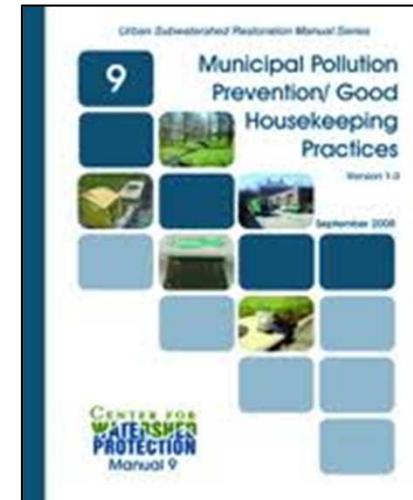
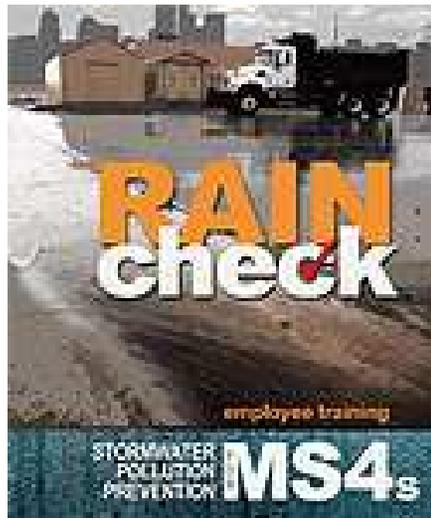


- Require contractors to comply with P2/GH program
 - Consider including compliance with procedures in contract language
 - Include the process for providing oversight of contractor activities

Pollution Prevention/Good Housekeeping

Employee training program to train employees involved in P2/GH

- Staff trained once during the permit cycle and new hires within first year of hire date



Total Maximum Daily Load (TMDL) Implementation Plan

*Making progress towards achieving the TMDL
pollutant load reduction goal*

- Procedure for identifying and prioritizing BMPs
 - Process for reviewing/updating/revising BMPs
- List of prioritized BMPs
 - Include reference to targeted TMDL pollutant (e.g., sediment, E. coli, phosphorus)

Total Maximum Daily Load (TMDL) Implementation Plan

*Making progress towards achieving TMDL
pollutant load reduction goal*

- Monitoring plan for assessing effectiveness of BMPs
 - Schedule for completing monitoring
 - Conducted at least two times during the permit cycle



Final Submittal

Final application submittal may be lengthy if entire documents are submitted

Example

Entire development standards document submitted with only portions referenced in application



Submittal Options

- ✓ Submit the application and attach a separate SWMP document
- ✓ Submit the application and attach the separate procedures/ordinances referenced to make up the SWMP
- ✓ Submit two applications: one for collaborative efforts and one for individual permittee efforts

Submittal Options

- ✓ Hard copy
- ✓ Email
- ✓ Upload to DEQ FTP Server
- ✓ Flash drive
- ✓ CD

Submit to Permits Section

[See Handout](#)

Greater Lansing Regional Committee
For Stormwater Management

Public Education Plan
For
City of East Lansing



REVISED: JANUARY 2013

Individual Permit Process

- Application reviewed by District Staff
- When the SWMP appears to meet the minimum requirements, the individual permit is drafted
 - ✓ Draft permit sent to applicant for review
 - ✓ Proposed permit is public noticed for 30 days
- Decision is made on the permit
- Permit is in effect for 5 years, on average

Individual Permit

- Permit language requires implementation of the approved SWMP
- Opportunity to individualize permit language (*e.g., reference a specific document or frequency*)
- Part II Boilerplate Language
- Progress reports due 2 times during permit term
- Opportunity to modify SWMP

Application Assistance

- **Contact District Staff**
- **Schedule a one-on-one meeting**
- **Start early**





Contact Us

MS4 District Staff –

Click [HERE](#)