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National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Application Form (Reissuance)

version 1.8

(Submission #: 2Q9-0W0K-PCKT, version 4)

Details

Submission ID	2Q9-0W0K-PCKT
Submission Reason	Renewal
Status	Complete

Form Input

Existing Permit Details

Existing Permit ID (Read Only)
NONE PROVIDED

Existing Permit Number (Read Only)
NONE PROVIDED

Section 1. Applicant Information

Applicant Information

Prefix
Mr.

First Name	**Last Name**
Richard	*McCarty*

Title
City Engineer

Organization Name
City of Taylor

Phone Type	**Number**	**Extension**
Business	734-374-1473	

Email
rmccarty@ci.taylor.mi.us

Fax
NONE PROVIDED

Address

25605 Northline Road
Taylor, MI 48180
US

Section 2. MS4 Location Information

Municipal Entity Name (e.g., City of Lansing)
City of Taylor

Identify the Primary Municipal Facility or the Mailing Address Location

A site needs to be identified as part of the application. Identify the physical address for the municipal entity, such as the primary municipal facility (e.g., City Hall).

Facility Location
42.240872,-83.2696509

Section 3. MS4 Contacts (1 of 2)

CONTACTS

A contact must be provided for each of the roles listed below. You may assign more than one role to a single contact by holding down the 'Ctrl' key while selecting each role. Use the "+" (repeat section) button to add an additional contact.

Contact
Application Contact
Storm Water Billing Contact
Storm Water Program Manager

Contact

Prefix
Mr.

First Name	Last Name
Richard	*McCarty*

Title
City Engineer

Organization Name
City of Taylor

Phone Type	Number	Extension
Business	734-374-1473	

Email
rmccarty@ci.taylor.mi.us

Fax
NONE PROVIDED

Address
25605 Northline Road
Taylor, MI 48180
US

Section 3. MS4 Contacts (2 of 2)

CONTACTS

A contact must be provided for each of the roles listed below. You may assign more than one role to a single contact by holding down the 'Ctrl' key while selecting each role. Use the "+" (repeat section) button to add an additional contact.

Contact
Application Contact

Contact

Prefix
Mr.

First Name	Last Name
Richard	*McCarty*

Title
City Engineer

Organization Name
City of Taylor

Phone Type	Number	Extension
Business	734-374-1473	

Email
rmccarty@ci.taylor.mi.us

Fax
NONE PROVIDED

Address

25605 Northline Road

Taylor, MI 48180

US

Section 4: Regulated Area, Outfalls/Points of Discharge, and Nested Jurisdictions (1 of 1)

Regulated Area

Identify the urbanized area within the applicant's jurisdictional boundary as defined by the 2010 Census. The regulated MS4 means an MS4 owned or operated by a city, village, township, county, district, association, or other public body created by or pursuant to state law and the nested MS4 identified below that is located in an urbanized area and discharges storm water into surface waters of the state. The 2010 Census maps are located at the Urbanized Area Link below.
Urbanized Area Link

Select an Urbanized Area
Detroit

Outfall and Point of Discharge Information

Provide the following information for each of the applicant's MS4 outfalls and points of discharge within the regulated area: identification number, description of whether the discharge is from an outfall or point of discharge, and the surface water of the state that receives the discharge.

An outfall means a discharge point from an MS4 directly to surface waters of the state.

A point of discharge means a discharge from an MS4 to an MS4 owned or operated by another public body. In the case of a point of discharge, the surface water of the state is the ultimate receiving water from the final outfall.

Please note than an MS4 is not a surface water of the state. For example, an open county drain that is a surface water of the state is not an MS4.

An example table is available at the link below.
Outfall and Point of Discharge example table link

OUTFALL AND POINT OF DISCHARGE INFORMATION

Taylor_Outfalls.pdf - 03/28/2017 12:33 PM
Taylor Outfall Table.pdf - 03/28/2017 12:33 PM
Points_of_Discharge.pdf - 01/15/2020 03:30 PM
Taylor Points of Discharge Table.pdf - 01/15/2020 03:30 PM

Comment
Please refer to attachments (two tables and associated maps)

CORRECTION REQUEST ***(APPROVED)***

The outfall table is missing information.

Please indicate whether each discharge point is an "outfall" or a "point of discharge". See the definition of each above.
Created on 10/4/2019 1:32 PM by **Erica Volansky**

Nested Jurisdictions

Submit the name and general description of each nested MS4 for which a cooperative agreement has been reached to carry out the terms and conditions of the permit for the nested jurisdiction. The applicant shall be responsible for assuring compliance with the permit for those nested jurisdictions with which they have entered into an agreement and listed as part of the Application. If the primary jurisdiction and the nested jurisdiction agree to cooperate so that the terms and conditions of the permit are met for the nested MS4, the nested jurisdiction does not need to apply for a separate permit. A city, village, or township shall not be a nested jurisdiction.

Use the "+" (repeat section) button to add an additional Jurisdiction contact.

Nested Jurisdiction

Prefix
Mr.

First Name	**Last Name**
Ben	*Williams*

Title
Superintendent

Organization Name
Taylor School District

Phone Type	**Number**	**Extension**
Business	734-374-1200	10131

Email
Ben.Williams@taylorschools.net

Fax
NONE PROVIDED

Address

23033 Northline Road

Taylor, MI 48180

US

Section 5: General SWMP, Enforcement Response Procedure, and Public Participation/Involvement Program

STORM WATER MANAGEMENT PROGRAM (SWMP)

This Application requires a description of the Best Management Practices (BMPs) the applicant will implement for each minimum control measure and the applicable water quality requirements during this permit cycle. The applicant shall incorporate the BMPs to develop a SWMP as part of the Application. The SWMP shall be developed, implemented, and enforced to reduce the discharge of pollutants from the MS4 to the Maximum Extent Practicable and protect water quality in accordance with the appropriate water quality requirements of the NREPA 451, Public Acts of 1994, Part 31, and the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq.). The Maximum Extent Practicable may be met by implementing the BMPs identified in the SWMP and demonstrating the effectiveness of the BMPs. The applicant shall attach any appropriate and necessary documentation to demonstrate compliance with the six minimum control measures and applicable water quality requirements as part of the Application.

The applicant shall complete this Application to the best of its knowledge and ensure that it is true, accurate, and meets the minimum requirements for a SWMP to the Maximum Extent Practicable.

Several minimum control measures include a statement requesting the applicant to indicate in the response if you are, or will be, working collaboratively with watershed or regional partners on any or all activities to meet the minimum control measure requirements. If the applicant chooses to work collaboratively with watershed or regional partners to implement parts of the SWMP, each applicant will be responsible for complying with the minimum permit requirements.

For purposes of this Application, a procedure means a written process, policy or other mechanism describing how the applicant will implement minimum requirements.

When answering the questions in this section of the Application, the applicant's MS4 encompasses what the applicant identified in Sections 4. The applicant shall include a measurable goal for each BMP. Each measurable goal shall include, as appropriate, a schedule for BMP implementation (months and years), including interim milestones and the frequency of the action. Each measurable goal shall have a measure of assessment to measure progress towards achieving the measurable goal. A United States Environmental Protection Agency (USEPA) guidance document on measurable goals is available at the link below.
USEPA measurable goals guidance document link

Enforcement Response Procedure (ERP)

The applicant shall describe the current and proposed enforcement responses to address violations of the applicant's ordinances and regulatory mechanisms identified in the SWMP. The following question represents the minimum requirement for the ERP. Please complete the question below.

ERP

ADW ERP - Taylor.pdf - 03/30/2017 02:49 PM

Comment

Please refer to attachment for details. Section "D" outlines methodology for violation follow-up. IDEP plan includes further details (provided in separate section).

CORRECTION REQUEST *(APPROVED)*

How will the City ensure that violators come back into compliance?

This would mainly pertain to illicit connections. Please provide a procedure for having the responsible party correct an illicit connection.
Created on 10/4/2019 3:08 PM by **Erica Volansky**

NOTE *(CREATED)*

APPROVED

Created on 2/25/2020 4:20 PM by **Erica Volansky**

Public Participation/Involvement Program (PPP)

The applicant shall describe the current and proposed BMPs to meet the minimum control measure requirements for the PPP to the maximum extent practicable, which shall be incorporated into the SWMP. Please indicate in your response if you are, or will be, working collaboratively with watershed or regional partners on any or all activities in the PPP during the permit cycle (i.e., identify collaborative efforts in the procedures). The following questions represent the minimum control measure requirements for the PPP. Please complete all the questions below. A measurable goal with a measure of assessment shall be included for each BMP, and, as appropriate, a schedule for implementation (months and years), including interim milestones and the frequency of the BMP. The responses shall reflect the nested MS4s identified in Section 4.

Proposing to work collaboratively on any or all activities in the PPP during the permit cycle?
Yes

PPP Procedures

Public Participation Program.pdf - 03/29/2017 08:30 AM

Comment

Please refer to the Public Participation Program attachment.

NOTE *(CREATED)*

APPROVED

Created on 10/4/2019 3:13 PM by **Erica Volansky**

2. Provide the reference to the procedure submitted above for making the SWMP available for public inspection and comment. The procedure shall include a process for notifying the public when and where the SWMP is available and of opportunities to provide comment. The procedure shall also include a process for complying with local public notice requirements, as appropriate. (page and paragraph of attachments): e.g., Attachment A, Page 3, Section b.
Public Participation Program attachment, page 3, BMP 1.1 Public Notice, BMP 1.2 Public Access to SWMP

3. Provide the reference to the procedure submitted above for inviting public involvement and participation in the implementation and periodic review of the SWMP. (page and paragraph of attachments):
Public Participation Program attachment, pages 3 and 4, BMP 1.3 SWMP Implementation, BMP 1.4 SWMP Review

Section 6. Public Education Program

Proposing to work collaboratively on any or all activities in the PEP during the permit cycle?
Yes

PEP Procedures
APPROVED - ADW PEP.pdf - 01/14/2020 01:19 PM
APPROVED ADW Stormwater Discharge Permit App PEP TABLE 04192019 FINAL.pdf - 01/14/2020 01:19 PM
Comment
Please refer to attached Plan and Summary Table.

CORRECTION REQUEST *(APPROVED)*
Upload approved ADW PEP

The ADW's final PEP was approved in May 2019. This document needs to be uploaded before a permit can be issued. Please also make sure that any application references are updated, if necessary.
Created on 10/4/2019 3:24 PM by **Erica Volansky**

NOTE *(CREATED)*
APPROVED

Created on 2/25/2020 4:26 PM by **Erica Volansky**

4. PEP activities may be prioritized based on the assessment of high priority, community-wide issues and targeted issues to reduce pollutants in storm water runoff. If prioritizing PEP activities, provide the reference to the procedure submitted above with the assessment and list of the priority issues (e.g., Attachment A, Section 1).
Please refer to attached Approved PEP Plan (Page 6) and Summary Table.

5. Provide the reference to the procedure submitted above identifying applicable PEP topics and the activities to be implemented during the permit cycle. If prioritizing, prioritize each applicable PEP topics as high, medium, or low based on the assessment in Question 4.

For each applicable PEP topic below, identify in the procedure the target audience; key message; delivery mechanism; year and frequency the BMP will be implemented; and the responsible party. If a PEP topic is determined to be not applicable or a priority issue, provide an explanation.

An example PEP table is available at the link below.
PEP table example link

A. Promote public responsibility and stewardship in the applicant's watershed(s). Provide the reference to the procedure submitted above or explanation as to why the topic is not applicable.
Activities 1through 10, inclusive, as outlined in the attached approved PEP document.

CORRECTION REQUEST *(APPROVED)*
Please provide references for Q. 5.

A-J under Q. 5 must have references to the ADW PEP document that answer the specific question.
Created on 10/4/2019 3:25 PM by **Erica Volansky**

B. Inform and educate the public about the connection of the MS4 to area waterbodies and the potential impacts discharges could have on surface waters of the state. Provide the reference to the procedure submitted above or explanation as to why the topic is not applicable.
Activities 2, 3, 5, 7 and 9 as outlined in the attached approved PEP document.

C. Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4. Provide the reference to the procedure submitted above or explanation as to why the topic is not applicable.
Activity 8 as outlined in the attached approved PEP document.

D. Promote preferred cleaning materials and procedures for car, pavement, and power washing. Provide the reference to the procedure submitted above or explanation as to why the topic is not applicable.
Activities 2, 7 and 9 as outlined in the attached approved PEP document.

E. Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers. Provide the reference to the procedure submitted above or explanation as to why the topic is not applicable.
Activities 2, 7 and 9 as outlined in the attached approved PEP document.

F. Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4. Provide the reference to the procedure submitted above or explanation as to why the topic is not applicable.
Activities, 2, 7 and 9 as outlined in the attached approved PEP document.

G. Identify and promote the availability, location, and requirement of facilities for collection or disposal of household hazardous wastes, travel trailer sanitary wastes, chemicals, and motor vehicle fluids. Provide the reference to the procedure submitted above or explanation as to why the topic is not applicable.
Activity 10 as outlined in the attached approved PEP document.

H. Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure. Provide the reference to the procedure submitted above or explanation as to why the topic is not applicable.
Issues related to septic systems are handled by the Wayne County Health Department. Promotion of information may be provided through Activities 2 and 7.

I. Educate the public on, and promote the benefits of, green infrastructure and low impact development. Provide the reference to the procedure submitted above or explanation as to why the topic is not applicable.
Activities 7 and 9 as outlined in the attached approved PEP document.

J. Identify and educate commercial, industrial, and institutional entities likely to contribute pollutants to storm water runoff. Provide the reference to the procedure submitted above or explanation as to why the topic is not applicable.
Activities 7 and 9 as outlined in the attached approved PEP document.

6. Provide the reference to the procedure submitted above for evaluating and determining the effectiveness of the overall PEP. The procedure shall include a method for assessing changes in public awareness and behavior resulting from the implementation of the PEP and the process for modifying the PEP to address ineffective implementation. e.g., Attachment A, Page 3, Section b.
Please refer to the attached document entitled, "Approved - ADW PEP".

Section 7. Illicit Discharge Elimination Program

>>Click here to access the MDEQ IDEP Compliance Assistance Document

>>Click here to access the Center for Watershed Protection guide

Proposing to work collaboratively on any or all BMPs in the IDEP during the permit cycle?
Yes

Illicit Discharge Ellimination Program Procedures
May 2019 Approved ADW IDEP.pdf - 01/13/2020 03:05 PM
Chapter 50, Utilities, City Ordinance.pdf - 01/13/2020 03:45 PM
Comment
NONE PROVIDED

CORRECTION REQUEST ***(APPROVED)***

Upload approved ADW IDEP.

The ADW's final version of the IDEP was approved in May 2019. This document needs to be uploaded before a permit can be issued. Please also make sure that any application references are updated, if necessary.
Created on 10/4/2019 3:28 PM by **Erica Volansky**

NOTE ***(CREATED)***

APPROVED

IDEP Program and Ordinance
Created on 2/25/2020 5:11 PM by **Erica Volansky**

Storm Sewer System Map

7. Provide the location where an up-to-date storm sewer system map(s) is available. The map(s) shall identify the following: the storm sewer system, the location of all outfalls and points of discharge, and the names and location of the surface waters of the state that receive discharges from the permittee's MS4 (for both outfalls and points of discharge). A separate storm sewer system includes: roads, catch basins, curbs, gutters, parking lots, ditches, conduits, pumping devices, and man-made channels. A storm sewer system map(s) may include available diagrams, such as certification maps, road maps showing rights-of-way, as-built drawings, or other hard copy or digital representation of the storm sewer system. (e.g., The Department of Public Works office)
Storm sewer system maps are available at the City of Taylor Department of Public Works, 25605 Northline Road, Taylor, MI.

Illicit Discharge Identification and Investigation
8. The MS4 may be prioritized for detecting non-storm water discharges during the permit cycle. The goal of the prioritization process is to target areas with high illicit discharge potential. If prioritizing, provide the reference to the procedure submitted above with the process for selecting each priority area using the list below. (e.g., Attachment A, page 3, Section b.)
- Areas with older infrastructure
- Industrial, commercial, or mixed use areas
- Areas with a history of past illicit discharges
- Areas with a history of illegal dumping
- Areas with septic systems
- Areas with older sewer lines or with a history of sewer overflows or cross-connections
- Areas with sewer conversions or historic combined sewer systems
- Areas with poor dry-weather water quality
- Areas with water quality impacts, including waterbodies identified in a Total Maximum Daily Load
- Priority areas applicable to the applicant not identified above

Provide the reference to the procedure submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
See attached Illicit Discharge Elimination Plan, Pages 3 through 5, II. Priority Areas.

9. If prioritizing dry-weather screening, provide the reference to the document submitted above with the geographical location of each prioritized area using either a narrative description or map and identify the prioritized areas that will be targeted during the permit cycle.
See attached Illicit Discharge Elimination Plan, Page 4, "Priority IDEP Work Areas and Page 5, Figure 1: IDEP Priority Work Areas and Monitoring Sites.

10. Provide the procedure for performing field observations at all outfalls and points of discharge in the priority areas as identified in the procedure above or for the entire MS4 during dry-weather at least once during the permit cycle. The procedure shall include a schedule for completing the field observations during the permit cycle or more expeditiously if the applicant becomes aware of a non-storm water discharge.

As part of the procedure, the applicant may submit an interagency agreement with the owner or operator of the downstream MS4 identifying responsibilities for ensuring an illicit discharge is eliminated if originating from the applicant's point(s) of discharge. The interagency agreement would eliminate the requirement for performing a field observation at that point(s) of discharge. Areas not covered by the interagency agreement shall be identified with a schedule for performing field observations included in the procedure.

The focus of the field observation shall be to observe the following:
- Presence/absence of flow
- Water clarity
- Deposits/stains on the discharge structure or bank

- Color
- Vegetation condition
- Odor
- Structural condition
- Floatable materials
- Biology, such as bacterial sheens, algae, and slimes

Provide the reference to the procedure submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
See attached Illicit Discharge Elimination Plan, with applicable sections found on pages 7 through 12.

11. Provide the reference to the procedure submitted above for performing field screening if flow is observed at an outfall or point of discharge and the source of an illicit discharge is not identified during the field observation. Field screening shall include analyzing the discharge for indicator parameters (e.g., ammonia, fluoride, detergents, and pH). The procedure shall include a schedule for performing field screening.
See attached Illicit Discharge Elimination Plan, Pages 5 and 6, IDEP #1: IDEP Investigative & Progress Evaluation Monitoring.

12. Provide the reference to the procedure submitted above for performing a source investigation if the source of an illicit discharge is not identified by field screening. The procedure shall include a schedule for performing a source investigation.
See attached Illicit Discharge Elimination Plan, Pages 7 and 8, IDEP #3: Priority Area IDEP Advanced Investigations.

13. Provide the reference to the procedure submitted above for responding to illegal dumping/spills. The procedure shall include a schedule for responding to complaints, performing field observations, and follow-up field screening and source investigations as appropriate.
See attached Illicit Discharge Elimination Plan, Pages 6 thru 7, IDEP #2: Environmental Hotline and Coordinated Complaint Response.

14. If prioritizing, provide the reference to the procedure submitted above for responding to illicit discharges upon becoming aware of such a discharge outside of the priority areas. The procedure shall include a schedule for performing field observations, and follow-up field screening and source investigation as appropriate. If not prioritizing, enter "Not Applicable."
See attached Illicit Discharge Elimination Plan, Pages 6 and 7, IDEP #2: Environmental Hotline and Coordinated Complaint Response, and Pages 10 and 11, IDEP #6: Visual Inspection During Routine Field Operations.

15. Provide the reference to the procedure submitted above which includes a requirement to immediately report any release of any polluting materials from the MS4 to the surface waters or groundwaters of the state, unless a determination is made that the release is not in excess of the threshold reporting quantities in the Part 5 Rules, by calling the appropriate MDEQ District Office, or if the notice is provided after regular working hours call the MDEQ's 24-Hour Pollution Emergency Alerting System telephone number: 800-292-4706. (Example threshold reporting quantities: a release of 50 pounds of salt in solid form or 50 gallons in liquid form to waters of the state unless authorized by the MDEQ for deicing or dust suppressant.)
See attached Illicit Discharge Elimination Plan, Pages 6 and 7, IDEP #2: Environmental Hotline and Coordinated Complaint Response, and Pages 10 and 11, IDEP #6: Visual Inspection During Routine Field Operations.

16. If the procedures requested in Questions 8 through 14 do not accurately reflect the applicant's procedure(s), provide the reference to the procedure(s) submitted above describing the alternative approach to meet the minimum requirements.
N/A

17. Provide the reference to the procedure submitted above for responding to illicit discharges once the source is identified. The procedure shall include a schedule to eliminate the illicit discharge and pursue enforcement actions. The procedure shall also address illegal spills/dumping.
See attached Illicit Discharge Elimination Plan, Pages 6 and 7, IDEP #2: Environmental Hotline and Coordinated Complaint Response.

IDEP Training and Evaluation

18. Provide the reference to the program submitted above to train staff employed by the applicant, who, as part of their normal job responsibilities, may come into contact with or otherwise observe an illicit discharge to the regulated MS4, on the following topics. The program shall include a training schedule for this permit cycle. It is recommended that staff be trained more than once per permit cycle.
- Techniques for identifying an illicit discharge or connection, including field observation, field screening, and source investigation.
- Procedures for reporting, responding to, and eliminating an illicit discharge or connection and the proper enforcement response.

- The schedule and requirement for training at least once during the term of this permit cycle for existing staff and within the first year of hire for new staff.

Provide the reference to the program submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
See attached Illicit Discharge Elimination Plan, Pages 8 and 9, IDEP #4: Staff Training.

19. Provide the reference to the procedure submitted above for evaluating and determining the overall effectiveness of the IDEP. The procedure shall include a schedule for implementation. Examples of evaluating overall effectiveness include, but are not limited to, the following: evaluate the prioritization process to determine if efforts are being maximized in areas with high illicit discharge potential; evaluate the effectiveness of using different detection methods; evaluate the number of discharges and/or quantity of discharges eliminated using different enforcement methods; and evaluate program efficiency and staff training frequency.
See attached Illicit Discharge Elimination Plan, Page 14, IDEP #10: Method to Evaluate IDEP Effectiveness.

Illicit Discharge Ordinance or Other Regulatory Mechanism

20. Provide the reference to the in effect ordinance or regulatory mechanism submitted above that prohibits non-storm water discharges into the applicant's MS4 (except the non-storm water discharges addressed in Questions 21 and 22).
See attached Illicit Discharge Elimination Plan, Pages 16 through 18, IV. Legal Authority.
Also see attached "Division 1 through Division 3" of Chapter 50, Utilities

CORRECTION REQUEST ***(APPROVED)***
The ADW IDEP does not answer this question.

Please provide an ordinance or regulatory mechanism that prohibits non-storm water discharges into the City of Taylor's MS4.
Created on 10/7/2019 5:44 PM by **Erica Volansky**

21. Provide the reference to the ordinance or other regulatory mechanism submitted above that excludes prohibiting the discharges or flows from firefighting activities to the applicant's MS4 and requires that these discharges or flows only be addressed if they are identified as significant sources of pollutants to waters of the State. The ordinance shall not authorize illicit discharges; however, the applicant may choose to exclude prohibiting the discharges and flows from firefighting activities if they are identified as not being significant sources of pollutants to waters of the state.
See attached "Division 1 through Division 3" of Chapter 50, Utilities.

22. Provide the reference to the ordinance or other regulatory mechanism submitted above that excludes prohibiting the following categories of non-storm water discharges or flows if identified as significant contributors to violations of Water Quality Standards. The ordinance shall not authorize illicit discharges; however, the applicant may choose to exclude prohibiting the following discharges or flows if they are identified as not being a significant contributor to violations of Water Quality Standards.
a. Water line flushing and discharges from potable water sources
b. Landscape irrigation runoff, lawn watering runoff, and irrigation waters
c. Diverted stream flows and flows from riparian habitats and wetlands
d. Rising groundwaters and springs
e. Uncontaminated groundwater infiltration and seepage
f. Uncontaminated pumped groundwater, except for groundwater cleanups specifically authorized by NPDES permits
g. Foundation drains, water from crawl space pumps, footing drains, and basement sump pumps
h. Air conditioning condensation
i. Waters from noncommercial car washing
j. Street wash water
k. Dechlorinated swimming pool water from single, two, or three family residences. (A swimming pool operated by the permittee shall not be discharged to a separate storm sewer or to surface waters of the state without NPDES permit authorization from the MDEQ.)

Provide the reference to the procedure submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
See attached "Division 1 through Division 3" of Chapter 50, Utilities.

CORRECTION REQUEST *(APPROVED)*

Will the City be excluding these discharges?

If not, then each time any of these discharge to the MS4 it will be considered a violation. I highly recommend including these exclusions in the City's ordinance or regulatory mechanism.
Created on 10/4/2019 4:41 PM by **Erica Volansky**

23. Provide the reference to the ordinance or regulatory mechanism submitted above that regulates the contribution of pollutants to the applicant&#65533;s MS4 in the attachment above.
See attached Illicit Discharge Elimination Plan, Page 16 through 18, IV. Legal Authority. Also see attached "Division 1 through Division 3" of Chapter 50, Utilities.

CORRECTION REQUEST *(APPROVED)*

The ADW IDEP document does not answer to questions 23-26.

Please refer to an existing ordinance or regulatory mechanism that answers these questions.
Created on 10/7/2019 11:25 AM by **Erica Volansky**

24. Provide the reference to the ordinance or regulatory mechanism submitted above that prohibits illicit discharges, including illicit connections and the direct dumping or disposal of materials into the applicant&#65533;s MS4 in the attachment above.
See attached Illicit Discharge Elimination Plan, Pages 16 through 18, IV. Legal Authority.
Also see attached "Division 1 through Division 3" of Chapter 50, Utilities.

25. Provide the reference to the ordinance or regulatory mechanism submitted above with the authority established to inspect, investigate, and monitor suspected illicit discharges into the applicant&#65533;s MS4 in the attachment above.
See attached Illicit Discharge Elimination Plan, Pages 16 through 18, IV. Legal Authority.
Also see attached "Division 1 through Division 3" of Chapter 50, Utilities.

26. Provide the reference to the ordinance or regulatory mechanism submitted above that requires and enforces elimination of illicit discharges into the applicant&#65533;s MS4, including providing the applicant the authority to eliminate the illicit discharge in the attachment above.
See attached Illicit Discharge Elimination Plan, Pages 16 through 18, IV. Legal Authority.
Also see attached "Division 1 through Division 3" of Chapter 50, Utilities.

Section 8. Construction Storm Water Runoff Control Program

Proposing to work collaboratively on any or all requirements of the Construction Storm Water Runoff Control Program during the permit cycle?
No

Qualifying Local Soil Erosion and Sedimentation Control Programs

Click here to access the list of approved Part 91 Agencies

27. Is the applicant a Part 91 Agency?
Yes

If yes, choose type
Municipal Enforcing Agency

No the applicant relies on the following Qualifying Local Soil Erosion and Sedimentation Control Program (Part 91 Agency)
NONE PROVIDED

Construction Storm Water Runoff Control

Construction Storm Water Runoff Control Program Procedure Attachment

ADW CSWRCP - Taylor.pdf - 03/30/2017 02:55 PM

Comment

Please refer to attachment entitled ADW CSWRCP - Taylor

NOTE (CREATED)

APPROVED

Created on 10/7/2019 2:41 PM by **Erica Volansky**

28. Provide the reference to the procedure submitted above with the process for notifying the Part 91 Agency or appropriate staff when soil or sediment is discharged to the applicant's MS4 from a construction activity, including the notification timeframe. The procedure shall allow for the receipt and consideration of complaints or other information submitted by the public or identified internally as it relates to construction storm water runoff control. For non-Part 91 agencies, consideration of complaints may include referring the complaint to the qualifying local Soil Erosion and Sedimentation Control Program as appropriate. Construction activity is defined pursuant to Part 21, Wastewater Discharge Permits, Rule 323.2102 (K). The applicant may consider as part of their procedure when and under what circumstances the Part 91 Agency or appropriate staff will be contacted.

Page 3 of 5, Section C - Inspections/Complaints

29. Provide the reference to the procedure submitted above with the requirement to notify the MDEQ when soil, sediment, or other pollutants are discharged to the applicant's MS4 from a construction activity, including the notification timeframe. Other pollutants include pesticides, petroleum derivatives, construction chemicals, and solid wastes that may become mobilized when land surfaces are disturbed. The applicant may consider as part of their procedure when and under what circumstances the MDEQ will be contacted.

Page 4 of 5, Section E - Reportable Discharges

30. Provide the reference to the procedure submitted above for ensuring that construction activity one acre or greater in total earth disturbance with the potential to discharge to the applicant's MS4 obtains a Part 91 permit, or is conducted by an approved Authorized Public Agency as appropriate. Note: For applicants that conduct site plan review, the procedure must be triggered at the site plan review stage.

Page 2 of 5, Section B - Application Procedure

31. Provide the reference to the procedure submitted above to advise the landowner or recorded easement holder of the property where the construction activity will occur of the State of Michigan Permit by Rule (Rule 323.2190).

Page 4 of 5, Section F - State of Michigan Permit By Rule

Section 9. Post-Construction Storm Water Runoff Program

>>Click here to access the Low Impact Development Manual for Michigan. Chapter 9 of the manual provides a methodology for addressing post-construction storm water runoff.

The MDEQ has the following resources available to assist with development of a Post-Construction Storm Water Runoff Program.
>>Click here to access the Post-Construction Storm Water Runoff Program Compliance Assistance Document

Post-Construction Storm Water Runoff Program Procedures, Ordinances, and Regulatory Mechanisms

ADW PostConstruction - Taylor.pdf - 03/30/2017 03:02 PM

DRAFT Taylor Stormwater Ordinance.pdf - 02/14/2018 11:35 AM

Comment

Please refer to attachment for overall program description. In addition to the overall program description a Draft of the proposed Taylor Storm Water Ordinance is attached for review. The City of Taylor will consider adopting the Wayne County Ordinance once it is available for review and is agreeable to the City. Until that time, the Draft City of Taylor Ordinance has been provided for review. Timeline for consideration is six months after the Wayne County Storm Water Ordinance is adopted by Wayne County.

CORRECTION REQUEST *(APPROVED)*

Please confirm if the City will be adopting Wayne County's PCC standards or developing their own.

A draft ordinance is provided but the PCC document states that the City plans to adopt Wayne County's ordinance. Please clarify if the provided storm water ordinance will be developed and implemented or if the City plans on adopting Wayne County's ordinance. Please also modify the application responses to reflect the appropriate course of action the City plans to take.
Created on 10/7/2019 2:49 PM by **Erica Volansky**

Ordinance or Other Regulatory Mechanism

32. Provide the reference to the in-effect ordinance or regulatory mechanism submitted above to address post-construction storm water runoff from new development and redevelopment projects, including preventing or minimizing water quality impacts. The ordinance or other regulatory mechanism shall apply to private, commercial, and public projects, including projects where the applicant is the developer. This requirement may be met using a single ordinance or regulatory mechanism or a combination of ordinances and regulatory mechanisms. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
The City of Taylor is in process of adopting its own ordinance and regulatory mechanism for storm water. A draft copy of the City of Taylor's ordinance is attached to this section of the permit for review by the MDEQ. Please see above comment re: W.C. Ordinance.

33. Provide the reference to the ordinance or other regulatory mechanism submitted above that applies to projects that disturb at least one or more acres, including projects less than an acre that are part of a larger common plan of development or sale and discharge into the applicant's MS4. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
The City of Taylor is in process of adopting its own ordinance and regulatory mechanism for storm water. A draft copy of the City of Taylor's ordinance is attached to this section of the permit for review by the MDEQ. Please see above comment re: W.C. Ordinance.

CORRECTION REQUEST *(APPROVED)*

The draft ordinance does not list this criteria.

As the ordinance is written, ALL construction projects would be subject to these design standards. That is acceptable but I wanted to make you aware that that means even small construction projects (<1 acre) would need to follow these design standards. Please review and edit if needed.
Created on 3/4/2020 4:48 PM by **Erica Volansky**

2 COMMENTS

Erica Volansky (VolanskyE@michigan.gov) (5/28/2020 1:40 PM)
Re-opened to hold for updated draft ordinance. Please provide draft ordinance for review before reading at City Council.

Kelly McRobb-Ackland (kackland@wadetrim.com) (4/24/2020 4:00 PM)
Revisions to the Draft Ordinance are being reviewed by the City.

Federal Facilities

Federal facilities are subject to the Energy Independence and Security Act of 2007. Section 438 of this legislation establishes post-construction storm water runoff requirements for federal development and redevelopment projects.

34. Is the applicant the owner or operator of a federal facility with a storm water discharge
No, skip to Question 36

35. Provide the reference to the regulatory mechanism submitted above with the requirement to implement the post-construction storm water runoff control requirements in Section 438 of the Energy Independence and Security Act. If not available at this time, provide the date the regulatory mechanism will be available.

The United States Environmental Protection Agency (USEPA) has a technical guidance available at the following link.
USEPA Technical Guidance on Implementing the Stormwater Runoff Requirements

Provide the reference to the regulatory mechanism submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
The City of Taylor is in process of adopting its own ordinance and regulatory mechanism for storm water. A draft copy of the City of Taylor's ordinance is attached to this section of the permit for review by the MDEQ. Please see above comment re: W.C. Ordinance.

Water Quality Treatment Performance Standard
36. Does the ordinance or other regulatory mechanism include one or more of the following water quality treatment standards?

Treat the first one inch of runoff from the entire project site. Provide the ordinance or regulatory mechanism reference in the attachment above (page and paragraph of attachments): e.g., Attachment A, Pages 1-15
N/A - See Below

CORRECTION REQUEST ***(APPROVED)***
Please provide one of these options in the draft ordinance.

This needs to be included in the ordinance for me to "pre-approve" it. Please tell me where in the ordinance this information is stated.
Created on 3/4/2020 4:54 PM by **Erica Volansky**

3 COMMENTS
Erica Volansky (VolanskyE@michigan.gov) (4/5/2021 10:14 AM)
04052021- Will continue review of draft ordinance.

Erica Volansky (VolanskyE@michigan.gov) (5/28/2020 1:40 PM)
Re-opened to hold for updated draft ordinance. Please provide draft ordinance for review before reading at City Council.

Kelly McRobb-Ackland (kackland@wadetrim.com) (4/24/2020 4:00 PM)
Revisions to the Draft Ordinance are being reviewed by the City.

Treat the runoff generated from 90 percent of all runoff-producing storms for the project site. Provide the ordinance or regulatory mechanism reference in the attachment above (page and paragraph of attachments): e.g., Attachment A, Pages 1-15
N/A - See Below

If no, provide the date the ordinance or regulatory mechanism will be submitted.
Within 6 months of the Wayne County Standards being finalized.

37. If the applicant has chosen the water quality treatment standard of requiring treatment of the runoff generated from 90 percent of all runoff-producing storms, what is the source of the rainfall data?

The MDEQ memo included in the sources below is available at the following link.
March 24, 2006 MDEQ memo providing the 90 percent annual non-exceedance storm statistics

Sources
NONE PROVIDED

Other rainfall data source (page and paragraph of attachments)
NONE PROVIDED

38. Provide the reference to the ordinance or regulatory mechanism submitted above with the requirement that BMPs be designed on a site-specific basis to reduce post-development total suspended solids loadings by 80 percent or achieve a discharge concentration of total suspended solids not to exceed 80 milligrams per liter. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
Within 6 months of the Wayne County Standards being finalized.

Channel Protection Performance Standard
39. Provide the reference to the ordinance or regulatory mechanism submitted above with the requirement that the post-construction runoff rate and volume of discharges not exceed the pre-development rate and volume for all storms up to the two-year, 24-hour storm at the project site. At a minimum, pre-development is the last land use prior to the planned new development or redevelopment. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.

A MDEQ spreadsheet is available to assist with these calculations at the following link.
Calculations for Storm Water Runoff Volume Control Spreadsheet

Provide the reference to the ordinance or regulatory mechanism submitted above.
The City of Taylor is considering either adopting its own Ordinance and Regulatory Mechanism (attached) for storm water or the W.C. Ordinance. A decision will be made 6 months after the W.C. standards have been finalized. Please see above comment re: W.C. Ordinance.

CORRECTION REQUEST ***(APPROVED)***
Conflicting statements.

In question 30, it is stated that the City intends to adopt Wayne County's ordinance but it does have a draft ordinance prepared in the event that the City decides not to adopt the County's standard. This reference states that the City is adopting its own ordinance. Please correct these references (Q.39 - 42) to clarify the City's intent.
Created on 3/4/2020 4:56 PM by **Erica Volansky**

If pursuing an alternative approach, provide the reference to the ordinance or other regulatory mechanism submitted above describing the alternative to meet the minimum requirements, including an explanation as to how the channel protection standard will prevent or minimize water quality impacts.
The City of Taylor is considering either adopting its own Ordinance and Regulatory Mechanism (attached) for storm water or the W.C. Ordinance. A decision will be made 6 months after the W.C. standards have been finalized. Please see above comment re: W.C. Ordinance.

40. The channel protection performance standard is not required for the following waterbodies: the Great Lakes or connecting channels of the Great Lakes; Rouge River downstream of the Turning Basin; Saginaw River; Mona Lake and Muskegon Lake (Muskegon County); and Lake Macatawa and Spring Lake (Ottawa County). If applicable, provide the reference to the ordinance or regulatory mechanism submitted above that excludes any waterbodies from the channel protection performance standard. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
The City of Taylor is considering either adopting its own Ordinance and Regulatory Mechanism (attached) for storm water or the W.C. Ordinance. A decision will be made 6 months after the W.C. standards have been finalized. Please see above comment re: W.C. Ordinance.

Site-Specific Requirements

41. Provide the reference to the procedure submitted above for reviewing the use of infiltration BMPs to meet the water quality treatment and channel protection standards for new development or redevelopment projects in areas of soil or groundwater contamination in a manner that does not exacerbate existing conditions. The procedure shall include the process for coordinating with MDEQ staff as appropriate.
The City of Taylor is considering either adopting its own Ordinance and Regulatory Mechanism (attached) for storm water or the W.C. Ordinance. A decision will be made 6 months after the W.C. standards have been finalized. Please see above comment re: W.C. Ordinance.

42. Provide the reference to the ordinance or regulatory mechanism submitted above that requires BMPs to address the associated pollutants in potential hot spots as part of meeting the water quality treatment and channel protection standards for new development or redevelopment projects. Hot spots include areas with the potential for significant pollutant loading such as gas stations, commercial vehicle maintenance and repair, auto recyclers, recycling centers, and scrap yards. Hot spots also include areas with the potential for contaminating public water supply intakes. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
The City of Taylor is considering either adopting its own Ordinance and Regulatory Mechanism (attached) for storm water or the W.C. Ordinance. A decision will be made 6 months after the W.C. standards have been finalized. Please see above comment re: W.C. Ordinance.

Off-Site Mitigation and Payment in Lieu Programs

43. An applicant may choose to allow for the approval of off-site mitigation for redevelopment projects that cannot meet 100 percent of the performance standards on-site after maximizing storm water retention. Off-site mitigation refers to BMPs implemented at another location within the same jurisdiction and watershed/sewershed as the original project. A watershed is the geographic area included in a10-digit Hydrologic Unit Code and a sewershed is the area where storm water is conveyed by the applicant's MS4 to a common outfall or point of discharge. If proposing to allow for off-site mitigation, provide the reference to the ordinance or regulatory mechanism submitted above with the off-site mitigation requirements. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
Not currently being considered.

44. An applicant may choose to allow for the approval of payment in lieu for projects that cannot meet 100 percent of the performance standards on-site after maximizing storm water retention. A payment in lieu program refers to a developer paying a fee to the applicant that is applied to a public storm water management project within the same jurisdiction and watershed/sewershed as the original project in lieu of installing the required BMPs onsite. The storm water management project may be either a new BMP or a retrofit to an existing BMP and shall be developed in accordance with the applicant's performance standards. A watershed is the geographic area included in a 10-digit Hydrologic Unit Code and a sewershed is the area where storm water is conveyed by the applicant's MS4 to a common outfall or point of discharge. If proposing to allow for payment in lieu, provide the reference to the ordinance or regulatory mechanism submitted above with the payment in lieu requirements. If not available at this time, provide the date the ordinance or regulatory mechanism will be available. If not pursuing the options available in Questions 43 and 44, skip to Question 52.
Not currently being considered.

45. Provide the reference the the ordinance or regulatory mechanism submitted above that establishes criteria for determining the conditions under which off-site mitigation and/or payment in lieu are available and require technical justification as to the infeasibility of on-site management. The determination that performance standards cannot be met on-site shall not be based solely on the difficulty or cost of implementing, but shall be based on multiple criteria related to the physical constraints of the project site, such as: too small of a lot outside of the building footprint to create the necessary infiltrative capacity even with amended soils; soil instability as documented by a thorough geotechnical analysis; a site use that is inconsistent with the capture and reuse of storm water; too much shade or other physical conditions that preclude adequate use of plants. The criteria shall also include consideration of the stream order and location within the watershed/sewershed as it relates to the water quality impacts from the original project site (e.g., the water quality impact from a project site with a discharge to a small-sized stream would be greater than a project site on a large river and an offset downstream of the project site may provide less water quality benefit.) The highest preference for off-site mitigation and in lieu projects shall be given to locations that yield benefits to the same receiving water that received runoff from the original project site. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
NONE PROVIDED

46. Provide the reference to the ordinance or regulatory mechanism submitted above that establishes a minimum amount of storm water to be managed on-site as a first tier for off-site mitigation or payment in lieu. A higher offset ratio is required if off-site mitigation or payment in lieu is requested for the amount of storm water identified as the first tier. For example, a minimum of 0.4 inches of storm water runoff shall be managed on-site as a first tier. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
NONE PROVIDED

47. Provide the reference to the ordinance or regulatory mechanism submitted above that requires an offset ratio of 1:1.5 for the amount of storm water above the first tier (identified in Question 46) not managed on-site to the amount of storm water required to be mitigated at another site or for which in-lieu payments shall be made. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
NONE PROVIDED

48. Provide the reference to the ordinance or regulatory mechanism submitted above requiring that if demonstrated by the developer to the applicant that it is completely infeasible to manage the first tier of storm water identified in Question 47 on-site, the offset ratio for the unmanaged portion is 1:2. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
NONE PROVIDED

49. Provide the reference to the ordinance or regulatory mechanism submitted above that requires a schedule for completing off-site mitigation and in-lieu projects. Off-site mitigation and in-lieu projects should be completed within 24 months after the start of the original project site construction. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
NONE PROVIDED

50. Provide the reference to the ordinance or regulatory mechanism submitted above that requires that offsets and in-lieu projects be preserved and maintained in perpetuity, such as deed restrictions and long-term operation and maintenance. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
NONE PROVIDED

51. Describe the tracking system implemented, or to be implemented, to track off-site mitigation and/or in-lieu projects.
NONE PROVIDED

52. If there are any other exceptions to the performance standards (other than off-site mitigation and payment in lieu) being implemented or to be implemented during the permit cycle, provide the reference to the document submitted above describing the exception(s). The applicant shall demonstrate how the exception provides an equivalent or greater level of protection as the performance standards.
N/A

Site Plan Review

53. Provide the reference to the ordinance or regulatory mechanism submitted above that includes a requirement to submit a site plan for review and approval of post-construction storm water runoff BMPs. If not available at this time, provide the date the ordinance or regulatory mechanism will be available.
The City of Taylor is in process of adopting its own ordinance and regulatory mechanism for storm water. A draft copy of the City of Taylor's ordinance is attached to this section of the permit for review by the MDEQ. See above comment re: W.C. Ordinance.

CORRECTION REQUEST *(APPROVED)*
The draft ordinance is missing the site plan review procedure.

Please include. The procedure must satisfy the requirements outlined in Q. 53-55.
Created on 3/5/2020 2:52 PM by **Erica Volansky**

3 COMMENTS
Erica Volansky (VolanskyE@michigan.gov) (4/5/2021 10:16 AM)
04/05/21- Will continue review of draft ordinance after permit issuance.

Erica Volansky (VolanskyE@michigan.gov) (5/28/2020 1:41 PM)
Re-opened to hold for updated draft ordinance. Please provide draft ordinance for review before reading at City Council.

Kelly McRobb-Ackland (kackland@wadetrim.com) (4/24/2020 4:00 PM)
Revisions to the Draft Ordinance are being reviewed by the City.

54. Provide the reference to the procedure submitted above for site plan review and approval. If not available at this time, provide the date the procedure will be available.
The City of Taylor is in process of adopting its own ordinance and regulatory mechanism for storm water. A draft copy of the City of Taylor's ordinance is attached to this section of the permit for review by the MDEQ. See above comment re: W.C. Ordinance.

55. Provide the reference to the site plan review and approval procedure submitted above describing the process for determining how the developer meets the performance standards and ensures long-term operation and maintenance of BMPs in the attachment above. If not available at this time, provide the date the procedure will be available.
The City of Taylor is in process of adopting its own ordinance and regulatory mechanism for storm water. A draft copy of the City of Taylor's ordinance is attached to this section of the permit for review by the MDEQ. See above comment re: W.C. Ordinance.

Long-Term Operation and Maintenance of BMPs

56. Provide the reference to the ordinance or regulatory mechanism submitted above that requires the long-term operation and maintenance of all structural and vegetative BMPs installed and implemented to meet the performance standards in perpetuity. If not available at this time, provide the date the procedure will be available.
The City of Taylor is in process of adopting its own ordinance and regulatory mechanism for storm water. A draft copy of the City of Taylor's ordinance is attached to this section of the permit for review by the MDEQ. See above comment re: W.C. Ordinance.

57. Provide the reference to the ordinance or regulatory mechanism submitted above that requires a maintenance agreement between the applicant and owners or operators responsible for the long-term operation and maintenance of structural and vegetative BMPs installed and implemented to meet the performance standards. If not available at this time, provide the date the procedure will be available.
The City of Taylor is in process of adopting its own ordinance and regulatory mechanism for storm water. A draft copy of the City of Taylor's ordinance is attached to this section of the permit for review by the MDEQ. See above comment re: W.C. Ordinance.

CORRECTION REQUEST *(APPROVED)*

The draft ordinance does not require an agreement between the applicant and the owners.

This is required of the PCC ordinance. Please provide.
Created on 3/5/2020 3:15 PM by **Erica Volansky**

3 COMMENTS

Erica Volansky (VolanskyE@michigan.gov) (4/5/2021 10:17 AM)
04/05/21- Will continue review of draft ordinance after permit issuance.

Erica Volansky (VolanskyE@michigan.gov) (5/28/2020 1:41 PM)
Re-opened to hold for updated draft ordinance. Please provide draft ordinance for review before reading at City Council.

Kelly McRobb-Ackland (kackland@wadetrim.com) (4/24/2020 4:00 PM)
Revisions to the Draft Ordinance are being reviewed by the City.

58. Does the maintenance agreement or other legal mechanism allow the applicant to complete the following? (Check if yes)
Inspect the structural or vegetative BMP
Perform the necessary maintenance or corrective actions neglected by the BMP owner or operator
Track the transfer of operation and maintenance responsibility of the BMP (e.g., deed restrictions)

If any of the boxes above were not checked, provide a response explaining how the maintenance agreement or other legal mechanism allows the applicant to verify and ensure maintenance of the BMP.
N/A

59. Provide the reference to the procedure submitted above for tracking compliance with a maintenance agreement or other legal mechanism to ensure the performance standards are met in perpetuity in the attachment above.
The City of Taylor is considering either adopting its own Ordinance and Regulatory Mechanism (attached) for storm water or the W.C. Ordinance. A decision will be made 6 months after the W.C. standards have been finalized. Tracking spreadsheets will be maintained.

CORRECTION REQUEST *(APPROVED)*

How will the City track these maintenance agreements?

Please provide.
Created on 3/5/2020 3:19 PM by **Erica Volansky**

2 COMMENTS

Erica Volansky (VolanskyE@michigan.gov) (4/5/2021 10:18 AM)
04/05/21- Will continue review of draft ordinance after permit issuance.

Erica Volansky (VolanskyE@michigan.gov) (5/28/2020 1:41 PM)
Re-opened to hold for updated draft ordinance. Please provide draft ordinance for review before reading at City Council.

Section 10. Pollution Prevention and Good Housekeeping Program

NOTE *(CREATED)*

APPROVED

Created on 4/5/2021 10:19 AM by **Erica Volansky**

Pollution Prevention and Good Housekeeping Program Procedures

Compost and Transfer Station SOP.pdf - 01/16/2020 03:37 PM
StormSystem.pdf - 04/22/2020 04:14 PM
Taylor DPSW SOP - Revsied 4-22-2020.pdf - 04/22/2020 05:08 PM
Taylor_School Bus Yard_SOP - Revised 4-22-2020.pdf - 04/22/2020 05:08 PM
ADW PPGH - Revised 4-22-2020.pdf - 04/24/2020 04:10 PM

Comment

Included are four documents; overall program and three SOPs (Taylor DPW, School Bus Yard and Compost and Transport Facility).

Municipal Facility and Structural Storm Water Control Inventory

60. Provide the reference to the up-to-date inventory submitted above identifying applicant-owned or operated facilities and storm water structural controls with a discharge of storm water to surface waters of the state. The inventory shall include the location of each facility. Provide an estimate of the number of structural storm water controls throughout the entire MS4 for each applicable category below (e.g., 100 catch basins and 7 detention basins). For example, Attachment A, Page 3, Section B.

Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf", page 3, Table 1.

CORRECTION REQUEST *(APPROVED)*

The inventory of facilities is required to include the location of the facilities.

Please update Table 1 to include the address for all facilities.
Created on 2/27/2020 4:15 PM by **Erica Volansky**

Facilities that may have the high potential to discharge pollutants:

Fleet maintenance facilities
Bus Stations and Garages
Composting facilities
Materials storage and Public Works yards

CORRECTION REQUEST *(APPROVED)*

The City owns other facilities that should be considered high priority facilities.

The Compost and Transport Facility and the Taylor School Bus Yard should be categorized as high priority. This means that they should also have facility-specific SOPs developed. The Bus Yard already has its own SOP so they priority level just needs to be changed on Table 1. If the City feels that the compost facility is not a high priority facility, please explain the reasoning.
Created on 10/7/2019 5:01 PM by **Erica Volansky**

Check all applicant-owned or operated facilities with a discharge of storm water to surface waters of the state:

Cemeteries
Parks
Public golf courses

CORRECTION REQUEST *(APPROVED)*

Please complete this checklist.

This is supposed to be a list of all City owned or operated facilities with a discharge of storm water. From the table in the General Procedures SOP, there should be other facility types listed here.
Created on 10/7/2019 5:02 PM by **Erica Volansky**

Check all applicant-owned or operated structural storm water controls with a discharge of storm water to surface waters of the state:
Catch basins
Detention basins
Oil/water separators
Pump Stations
Vegetated swales
Infiltration basins and trenches

CORRECTION REQUEST *(APPROVED)*
Please complete this checklist.

This checklist needs to include all City-owned or operated structural storm water controls. Referring to Table 1 in the General SOP, there should be catch basins, oil/water separators, pump stations, vegetated swales, and infiltration basins indicated here. For each structural control, an inspection and cleaning schedule needs to be developed under Section J of the General SOP.
Created on 10/7/2019 5:07 PM by **Erica Volansky**

61. Provide the location where an up-to-date map (or maps) is available with the location of the facilities and structural storm water controls identified in Question 60. The location of the facilities and structural storm water controls may be included on the storm sewer system map maintained for the IDEP. The map (or maps) is available at the following location: (e.g., The Department of Public Works office)
Maps are located at the City of Taylor DPW facility.

62. Provide the reference to the procedure submitted above for updating and revising the inventory in Question 60 and map (or maps) identified in Question 61 as facilities and structural storm water controls are added, removed, or no longer owned or operated by the applicant in the attachment above. A suggested timeframe for updating/revising the inventory and map(s) is 30 days following adding/removing a facility or structural storm water control.
Please refer to Section C, Page 2 of the "ADW PPG - Taylor (Final).pdf" document.

CORRECTION REQUEST *(APPROVED)*
Update timeline for structural inventory is too long.

EGLE recommends that the update timeframe is 30 days following the addition or removal of a structural storm water control. Please edit the document to state this.
Created on 2/27/2020 2:40 PM by **Erica Volansky**

Facility-Specific Storm Water Management

63. Provide the reference to the procedure submitted above for assessing each facility identified in Question 60 for the potential to discharge pollutants to surface waters of the state. The procedure shall include a process for updating and revising the assessment. A recommended timeframe for updating/revising the assessment is 30 days prior to discharging storm water from a new facility and within 30 days of determining a need to update/revise the facility assessment.

The applicant should consider the following factors when assessing each facility:
- Amount of urban pollutants stored at the site (e.g., sediment, nutrients, metals, hydrocarbons, pesticides, fertilizers, herbicides, chlorides, trash, bacteria, or other site-specific pollutants)
- Identification of improperly stored materials
- The potential for polluting activities to be conducted outside (e.g., vehicle washing)
- Proximity to waterbodies
- Poor housekeeping practices
- Discharge of pollutants of concern to impaired waters

If the applicant does not own a facility that discharges storm water to surface waters of the state in the urbanized area, skip to Question 71.

Provide the reference to the procedure submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf",

CORRECTION REQUEST *(APPROVED)*

Please answer Q. 63 - 75.

This is required. Please state the document and the section that you are referring to to answer each question. I will review these questions after they have been answered.
Created on 10/7/2019 5:14 PM by **Erica Volansky**

If not applicable
NONE PROVIDED

64. Provide the reference to the list of prioritized facilities submitted above using the assessment in Question 63. Each facility shall be prioritized based on having the high, medium, or low potential to discharge pollutants to surface waters of the state. Facilities with the high potential for pollutant runoff shall include, but are not limited to, the applicant's fleet maintenance and storage yards. The applicant may choose to demonstrate how a fleet maintenance/storage yard has the low potential to discharge pollutants to surface waters of the state. If demonstrating a low potential, provide the reference to the demonstration submitted above for the fleet maintenance and/or storage yard.
Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf", page 3, Table 1.

CORRECTION REQUEST *(APPROVED)*

Please correct Taylor School Bus Yard priority level.

Table 1 states that the bus yard has a medium priority ranking but it is a high priority facility. Please correct.
Created on 2/27/2020 2:41 PM by **Erica Volansky**

65. Is a site-specific standard operating procedure (SOP) available identifying the structural and non-structural storm water controls implemented and maintained to prevent or reduce pollutant runoff at each facility with the high potential for pollutant runoff? The SOP shall be available at each facility with the high potential for pollutant runoff and upon request from the MDEQ. The SOP shall identify the person responsible for oversight of the facility. The MDEQ may request the submission of the SOP during the application review process.
Yes, a site-specific SOP is available at each facility with the high potential for pollutant runoff

66. Provide the reference in the SOP, for each facility with the high potential for pollutant runoff, to the following: the list of significant materials stored on-site that could pollute storm water; the description of the handling and storage requirements for each significant material; and the potential to discharge the significant material. (SOP Reference Example: DPW Yard SOP Section 2)
Please refer to each of the three provided SOPs.

CORRECTION REQUEST *(APPROVED)*

The lists of significant materials at each site is missing information.

The lists are required to include the description of the handling and storage requirements for each significant material and the potential to discharge of each significant material. Handling and storage needs to indicate where the material is located and whether or not they are inside,outside, covered, etc. If there any other materials of concern other than compost at Taylor Hills, please be sure to include those as well.
Created on 2/27/2020 4:03 PM by **Erica Volansky**

3 COMMENTS

Erica Volansky (VolanskyE@michigan.gov) (4/5/2021 10:15 AM)
04/05/21-Required docs received via email. MiWaters bug prevented upload.

Erica Volansky (VolanskyE@michigan.gov) (5/28/2020 1:23 PM)
Please do the following for the DPW Yard and Bus Yard: 1) list the potential to discharge (low, medium, or high) for each listed material such as stockpiles, antifreeze, used oil, etc. Generally if something is stored inside, not near a catch basin, or graded away from a catch basin then it is low. If you have frequent issues with stockpiles washing into catch basins that is high. Also, 2) list where materials are stored, particularly, the 55 gal drums of various materials. Are they inside? Are they outside but under a covered structure? These things are required for permit issuance.

Kelly McRobb-Ackland (kackland@wadetrim.com) (4/22/2020 4:49 PM)
It is believed the three provided SOPs sufficiently address this item. Please provide specific items of concern if we are not understanding this particular item.

67. Provide the reference in the SOP, for each facility with the high potential for pollutant runoff, identifying the good housekeeping practices implemented at the site. Good housekeeping practices include keeping the facility neat and orderly, properly storing and covering materials, and minimizing pollutant sources to prevent or reduce pollutant runoff. (SOP Reference Example: DPW Yard SOP ♦ Section 2)
Please refer to each of the three provided SOPs.

68. Provide the reference in the SOP, for each facility with the high potential for pollutant runoff, to the description and schedule for conducting routine maintenance and inspections of storm water management and control devices to ensure materials and equipment are clean and orderly and to prevent or reduce pollutant runoff. A biweekly schedule is recommended for routine inspections. (SOP Reference Example: DPW Yard SOP ♦ Section 2)
Please refer to each of the three provided SOPs.

CORRECTION REQUEST *(APPROVED)*

Will the City be developing inspection forms?

Both routine and comprehensive site inspections are required to be documented. How will the City be documenting these inspections? If there are forms please reference them and add as attachments to the site-specific SOPs.
Created on 3/4/2020 3:51 PM by **Erica Volansky**

1 COMMENT

Kelly McRobb-Ackland (kackland@wadetrim.com) (4/24/2020 4:02 PM)
Forms have not yet been developed; inspection tracking mechanisms will be developed within the first year.

69. Provide the reference in the SOP, for each facility with the high potential for pollutant runoff, to the description and schedule for conducting a comprehensive site inspection at least once every six months. The comprehensive inspection shall include an inspection of all structural storm water controls and a review of non-structural storm water controls to prevent or reduce pollutant runoff. (SOP Reference Example: DPW Yard SOP ♦ Section 2)
Please refer to each of the three provided SOPs.

CORRECTION REQUEST *(APPROVED)*

Comprehensive inspection schedules are the same as routine.

The Bus Yard and DPS facility inspection schedules state that the routine and comprehensive inspections are conducted monthly. EGLE recommends that routine inspections be conducted bi-weekly and that comprehensive inspections be conducted every 6 months.
Created on 2/28/2020 12:41 PM by **Erica Volansky**

70. Provide the reference to the procedure submitted above identifying the BMPs currently implemented or to be implemented during the permit cycle to prevent or reduce pollutant runoff at each facility with the medium and lower potential for the discharge of pollutants to surface waters of the state using the assessment and prioritized list in Questions 63 and 64.
Please refer to each of the three provided SOPs.

Structural Storm Water Control Operation and Maintenance Activities

71. Provide the reference to the procedure submitted above for prioritizing each catch basin for routine inspection, maintenance, and cleaning based on preventing or reducing pollutant runoff. The procedure shall include assigning a priority level for each catch basin and the associated inspection, maintenance and cleaning schedule based on preventing or reducing pollutant runoff. The procedure shall include a process for updating/revising the priority level for a catch basin giving consideration to inspection findings and citizen complaints. A recommended timeframe for updating/revising the procedure is 30 days following the construction of a catch basin or a change in priority level. If the applicant does not own or operate catch basins skip to Question 75.
Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf", section F - Catch Basin Maintenance Priority and Section G - Catch Basin Inspection, Maintenance and Cleaning,

72. Provide the reference to the narrative description or map submitted above with the geographic location of the catch basins in each priority level.
GIS mapping is available for the identified locations and is available at the City of Taylor DPW. Attached for review purposes only is a map of documented City-wide storm structures, noting the City is only responsible for maintenance associated with those within City ROW and City-owned property.

CORRECTION REQUEST *(APPROVED)*

Please provide this map for review.

As part of the application process, this map needs to be provided for my review.
Created on 3/4/2020 3:55 PM by **Erica Volansky**

73. Provide the reference to the procedure submitted above for inspecting, cleaning, and maintaining catch basins to ensure proper performance. Proper cleaning methods include ensuring accumulated pollutants are not discharged during cleaning and are removed prior to discharging to surface waters of the state. An MDEQ Catch Basin Cleaning Activities guidance document is available at the following link.
Catch Basin Cleaning Activities Guidance Document

Provide the reference to the procedure submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf", Section G - catch Basin Inspection, Maintenance and Cleaning,

CORRECTION REQUEST *(APPROVED)*

Please include cleaning criteria.

Cleaning criteria needs to be provided. EGLE recommends that catch basins be cleaned when the sump is observed during inspections to be approximately 50% full.
Created on 3/4/2020 4:23 PM by **Erica Volansky**

CORRECTION REQUEST *(APPROVED)*

The inspection scheduled does not meet permit requirements.

In Section F it states that the catch basins will be inspected on an "as needed" basis. A schedule must be developed for inspecting all City-owned and operated catch basins. EGLE recommends that a schedule of all catch basins being inspected once every 3 years.
Created on 3/4/2020 4:20 PM by **Erica Volansky**

74. Provide the reference to the procedure submitted above for dewatering, storage, and disposal of materials extracted from catch basins. An MDEQ Catch Basin Cleaning Activities guidance document is available at the following link.
Catch Basin Cleaning Activities Guidance Document

Provide the reference to the procedure submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf", Section H - Disposal of Collected Material,

75. If the applicant owns or operates structural storm water controls identified in Question 60, excluding the structural storm water controls included in an SOP as part of Question 65 and catch basins, provide the reference to the procedure submitted above for inspecting and maintaining the structural storm water controls. The procedure shall include a description and schedule for inspecting and maintaining each structural storm water control and the process for disposing of maintenance waste materials. The procedure shall require that controls be maintained to reduce to the maximum extent practicable the contribution of pollutants to storm water. The procedure shall include a process for updating/revising the procedure to ensure a maintenance and inspection program for each structural storm water control. A recommended timeframe for updating/revising the procedure is 30 days following the implementation of a new structural storm water control.
Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf", Section J - Other Structural Stormwater Controls.

CORRECTION REQUEST *(APPROVED)*

Flood control and infiltration basins need to be inspected more frequently.

Basins should be inspected more often than once every five years, especially the basins located at the Taylor Hills compost facility. I would suggest that basins throughout the city be inspected once a year with the Taylor Hills basins being inspected during routine inspections (bi-weekly, as suggested in Q. 68).
Created on 3/4/2020 4:31 PM by **Erica Volansky**

CORRECTION REQUEST *(APPROVED)*

Please correct the reference.

Please change the reference to refer to Section J of the General Procedures SOP.
Created on 3/4/2020 4:25 PM by **Erica Volansky**

76. Provide the reference to the procedure submitted above requiring new applicant-owned or operated facilities or new structural storm water controls for water quantity be designed and implemented in accordance with the post-construction storm water runoff control performance standards and long-term operation and maintenance requirements.
Please refer to Section K, Page 7 of the "ADW PPGH - Taylor (Final).pdf" document.

Municipal Operations and Maintenance Activities

77. Provide the reference to the procedure(s) submitted above with the assessment of the following operation and maintenance activities, if applicable, for the potential to discharge pollutants to surface waters of the state. The assessment shall identify all pollutants that could be discharged from each applicable operation and maintenance activity and the BMPs being implemented or to be implemented to prevent or reduce pollutant runoff. The procedure shall include a process for updating and revising the assessment. A suggested timeframe for updating/revising the assessment is 30 days following adding/removing BMPs to address new and existing operation and maintenance activities.

At a minimum, the procedure shall include assessing the following municipal operation and maintenance activities if applicable (check all that apply):
Road, parking lot, and sidewalk maintenance (e.g., pothole, sidewalk, and curb and gutter repair)
Bridge maintenance
Vehicle washing and maintenance of applicant-owned vehicles (e.g., police, fire, school bus, public works)
Cold weather operations (e.g., plowing, sanding, application of deicing agents, and snow pile disposal)
Right-of-way maintenance

CORRECTION REQUEST *(APPROVED)*
Please answer Q. 77 - 83.

This is required. Please state the document and the section that you are referring to to answer each question. I will review these questions after they have been answered.
Created on 10/7/2019 5:18 PM by **Erica Volansky**

Provide the reference to the procedure submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf",

CORRECTION REQUEST *(APPROVED)*
Missing the procedures for cold-weather operations (salting) and right-of-way maintenance.

Please develop and include procedures for these maintenance activities in the General Procedures SOP.
Created on 3/4/2020 4:35 PM by **Erica Volansky**

1 COMMENT
Kelly McRobb-Ackland (kackland@wadetrim.com) (4/24/2020 4:11 PM)
Mention of these operations has been added.

78. Provide the reference to the procedure submitted above for prioritizing applicant-owned or operated streets, parking lots, and other impervious infrastructure for street sweeping based on the potential to discharge pollutants to surface waters of the state. The procedure shall include assigning a priority level for each parking lot and street and the associated cleaning schedule (i.e., sweeping frequency and timing) based on preventing or reducing pollutant runoff. The procedure shall include a process for updating/revising the priority level giving consideration to street sweeping findings and citizen complaints. A recommended timeframe for updating/revising the prioritization is 30 days following the construction of a new street, parking lot, or other applicant-owned or operated impervious surface or within 30 days of identifying a need to revise a priority level. If the applicant does not own or operate any streets, parking lots, or other impervious infrastructure, skip to Question 82.
Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf" - Section I - Street Sweeping Prioritization,

79. Provide the reference to the narrative description or map submitted above with the geographic location of the streets, parking lots, and other impervious surfaces in each priority level.
Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf" - Section I - Street Sweeping Prioritzation,

80. Provide the reference to the procedure submitted above identifying the sweeping methods based on the applicant's sweeping equipment and use of additional resources in sweeping seasonal leaves or pick-up of other materials. Proper sweeping methods include operating sweeping equipment according to the manufacturers' operating instructions and to protect water quality.
Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf", Sections H and I.

81. Provide the reference to the procedure submitted above for dewatering, storage, and disposal of street sweeper waste material. An MDEQ Catch Basin Cleaning Activities guidance document is available at the following link and includes information on street sweeping requirements.
Catch Basin Cleaning Activities Guidance Document

Provide the reference to the procedure submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf", Section H - Disposal of Collected Material,

Managing Vegetated Properties

82. If the applicant's pesticide applicator does not exclusively use ready-to-use products from the original container, provide the reference to the procedure submitted above requiring the applicant's pesticide applicator to be certified by the State of Michigan as an applicator in the applicable category, to prevent or reduce pollutant runoff from vegetated land. A description of the certified applicator categories is available at the following link. If the applicant only applies ready-to-use products from the original container, enter "Not Applicable."
Commercial Pesticide Application Certification Categories

Provide the reference to the procedure submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
Please refer to Section L (Page 7) and Section N (Page 9) of the "ADW PPGH - Taylor (Final).pdf document.

Contractor Requirements and Oversight

83. Provide the reference to the procedure submitted above requiring contractors hired by the applicant to perform municipal operation and maintenance activities comply with all pollution prevention and good housekeeping BMPs as appropriate. The procedure shall include the process implemented for providing oversight of contractor activities to ensure compliance.
Please refer to attachment entitled, "ADW PPGH - Taylor (Final).pdf" - Section N - Contract Requirements and Oversight.

CORRECTION REQUEST *(APPROVED)*
Daily observations?

Section N states that contractors will be observed daily to verify quality of work. This commits the City to documenting these daily observations. Please review the observation frequency and edit the document as needed.
Created on 3/4/2020 4:38 PM by **Erica Volansky**

Employee Training

84. Provide the reference to the employee training program submitted above to train employees involved in implementing or overseeing the pollution prevention and good housekeeping program. The program shall include the training schedule. At a minimum, existing staff shall be trained once during the permit cycle and within the first year of hire for new staff.
Please refer to Section M - Employee Training (Page 8) of the "ADW PPGH- Taylor (Final).pdf" document.

CORRECTION REQUEST *(APPROVED)*
Is compost facility staff included in this training?

Please clarify.
Created on 3/4/2020 4:39 PM by **Erica Volansky**

Section 11. Total Maximum Daily Load Implementation Plan

The USEPA has a document to assist with developing a TMDL Implementation Plan available at the following link.
Understanding Impaired Waters and Total Maximum Daily Load (TMDL) Requirements for Municipal Stormwater Programs

Total Maximum Daily Load Implementation Plan
TMDL Approved.pdf - 01/15/2020 03:38 PM
ADW-TMDL-MS4 Plan Priority Action Table.pdf - 01/15/2020 03:46 PM
Comment
See the attached TMDL Implementation Plan and TMDL MS4 Task List - City of Taylor.

CORRECTION REQUEST ***(APPROVED)***

Please upload approved ADW TMDL.

The ADW TMDL plan was revised and re-approved in August 2019. Please upload this plan. Review the MS4 task list for accuracy with the new plan.
Created on 10/7/2019 5:25 PM by **Erica Volansky**

NOTE ***(CREATED)***

APPROVED

Created on 3/4/2020 4:40 PM by **Erica Volansky**

Proposing to work collaboratively on any or all activities in the TMDL Implementation Plan during the permit cycle.
Yes

85. If a TMDL(s) was included in the applicant's application notice, provide the name(s) below. If no TMDL was identified, skip to the next section.
Ecorse River, Brownstown Creek, Blakely Drain-Marsh Creek, and Frank and Poet Drain.

86. Provide the reference to the procedure submitted above describing the process for identifying and prioritizing BMPs currently being implemented or to be implemented during the permit cycle to make progress toward achieving the pollutant load reduction requirement in each TMDL identified in Question 85. The procedure shall include a process for reviewing, updating, and revising BMPs implemented or to be implemented to ensure progress in achieving the TMDL pollutant load reduction.
See the attached TMDL Implementation Plan, Page 2, II. Prioritizing and Implementation BMPS

87. Provide the reference to the TMDL BMP Priority List submitted above with prioritized BMPs currently being implemented or to be implemented during the permit cycle to make progress toward achieving the pollutant load reduction requirement in each TMDL identified in Question 85. Each BMP shall include a reference to the targeted TMDL pollutant.
See the attached TMDL Implementation Plan and TMDL MS4 Task List - City of Taylor.

88. Provide the reference to the TMDL Monitoring Plan submitted above for assessing the effectiveness of the BMPs currently being implemented, or to be implemented, in making progress toward achieving the TMDL pollutant load reduction requirement, including a schedule for completing the monitoring. Monitoring shall be specifically for the pollutant identified in the TMDL. Monitoring may include, but is not limited to, outfall monitoring, in-stream monitoring, or modeling. At a minimum, monitoring shall be conducted two times during the permit cycle or at a frequency sufficient to determine if the BMPs are adequate in making progress toward achieving the TMDL pollutant load reduction. Existing monitoring data may be submitted for review as part of the plan to meet part of the monitoring requirement.
See the attached TMDL Implementation Plan, Pages 2 and 3, III. Monitoring Plan.

Section 12. Phase I only – Industrial Facility Inspection Program

Industrial Facility Inspection Program Procedures
NONE PROVIDED
Comment
NONE PROVIDED

89. Provide the reference to the procedure submitted above describing the process for identifying existing industrial facilities, as defined below, within the applicant's jurisdiction that discharge stormwater to the applicant's MS4.

Industrial facilities include, but are not limited to, the following:
- Industrial facilities that the applicant determines are contributing a substantial pollutant loading to the MS4
- Industrial facilities subject to the Superfund Amendments and Reauthorization Act (SARA)
- Hazardous waste treatment, disposal, storage, and recovery facilities

Provide the reference to the procedure submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
NONE PROVIDED

90. Provide the reference to the inventory of industrial facilities submitted above using the procedure in Question No. 89.
NONE PROVIDED

91. Provide the reference to the procedure submitted above for prioritizing the industrial facilities identified in Question No. 90 for inspection. Each industrial facility shall be evaluated and prioritized based on having a high, medium or low potential to discharge pollutants to the applicant's MS4. The procedure shall include a process for updating and revising the prioritization, including modifying the priority level based on contribution of significant pollutant loading to the MS4, inspection findings, and the potential to discharge pollutants.

The applicant should consider the following factors when prioritizing an industrial facility:
- Pollutant sources stored on site
- Pollutants of concern
- Proximity to impaired surface waters of the state
- The applicant's violation or complaint history with the facility

Provide the reference to the procedure submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
NONE PROVIDED

92. Provide the reference to the list of the prioritized industrial facilities for inspection submitted above.
NONE PROVIDED

93. Provide the reference to the procedure submitted above for inspecting industrial facilities based on the prioritized list in Question No. 92 to evaluate pollutant source controls. The number or percentage of facilities to be inspected (e.g., 20% annually) or the inspection frequency for the different priority levels (e.g., high priority facilities inspected annually) shall be identified with the highest priority facilities receiving more frequent inspections. The procedure shall include a process for inspecting facilities based on complaints concerning pollutants discharged to the applicant's MS4.

At a minimum, inspections shall include an evaluation of BMPs implemented and maintained to control pollutant sources at the industrial facility and for evidence of unauthorized discharges, illicit connections, and potential discharges of pollutants to the applicant's MS4.

The procedure shall include notifying the applicable Water Resources Division District Office if an industrial facility appears to be in violation of the NPDES industrial stormwater program.

Provide the reference to the procedure submitted above (page and paragraph of attachments): e.g., Attachment A, Section b.
NONE PROVIDED

94. Provide the reference to the employee training program submitted above to train employees whose primary job duties are to implement the industrial facility inspection program. The program shall include the training schedule. At a minimum, existing staff shall be trained once during the permit cycle and new hires within the first year of their hire date. The training shall cover facility inspection procedures.
Click here to access the State of Michigan Industrial Stormwater program page

Provide the reference to the program submitted above (page and paragraph of attachments): e.g., Attachment A, Page 3, Section b.
NONE PROVIDED

Section 13. Certify and Submit

Comments (As needed)
NONE PROVIDED

Additional Documents (As needed)
NONE PROVIDED
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/24/2020 4:10 PM	ADW PPGH - Revised 4-22-2020.pdf	Attachment	Kelly McRobb-Ackland
4/22/2020 5:08 PM	Taylor DPSW SOP - Revsied 4-22-2020.pdf	Attachment	Kelly McRobb-Ackland
4/22/2020 5:08 PM	Taylor_School Bus Yard_SOP - Revised 4-22-2020.pdf	Attachment	Kelly McRobb-Ackland
4/22/2020 4:14 PM	StormSystem.pdf	Attachment	Kelly McRobb-Ackland
1/16/2020 3:37 PM	Compost and Transfer Station SOP.pdf	Attachment	Kelly McRobb-Ackland
1/15/2020 3:46 PM	ADW-TMDL-MS4 Plan Priority Action Table.pdf	Attachment	Kelly McRobb-Ackland
1/15/2020 3:38 PM	TMDL Approved.pdf	Attachment	Kelly McRobb-Ackland
1/15/2020 3:30 PM	Taylor Points of Discharge Table.pdf	Attachment	Kelly McRobb-Ackland
1/15/2020 3:30 PM	Points_of_Discharge.pdf	Attachment	Kelly McRobb-Ackland
1/14/2020 1:19 PM	APPROVED - ADW PEP.pdf	Attachment	Kelly McRobb-Ackland
1/14/2020 1:19 PM	APPROVED ADW Stormwater Discharge Permit App PEP TABLE 04192019 FINAL.pdf	Attachment	Kelly McRobb-Ackland
1/13/2020 3:45 PM	Chapter 50, Utilities, City Ordinance.pdf	Attachment	Kelly McRobb-Ackland
1/13/2020 3:05 PM	May 2019 Approved ADW IDEP.pdf	Attachment	Kelly McRobb-Ackland
2/14/2018 11:35 AM	DRAFT Taylor Stormwater Ordinance.pdf	Attachment	Mark Gaworecki
3/30/2017 3:02 PM	ADW PostConstruction - Taylor.pdf	Attachment	Kelly McRobb-Ackland
3/30/2017 2:55 PM	ADW CSWRCP - Taylor.pdf	Attachment	Kelly McRobb-Ackland
3/30/2017 2:49 PM	ADW ERP - Taylor.pdf	Attachment	Kelly McRobb-Ackland
3/29/2017 8:30 AM	Public Participation Program.pdf	Attachment	Gregory Mayhew
3/28/2017 12:33 PM	Taylor Outfall Table.pdf	Attachment	Kelly McRobb-Ackland
3/28/2017 12:33 PM	Taylor_Outfalls.pdf	Attachment	Kelly McRobb-Ackland

Status History

	User	Processing Status
3/17/2020 1:49:39 PM	Kelly McRobb-Ackland	Draft
4/24/2020 4:13:17 PM	Kelly McRobb-Ackland	Submitted
9/23/2021 2:20:15 PM	Kathryn Gallagher	Complete

Audit

Event	Event Description	Event By	Event Date
Submission Locked	Submission Locked	Erica Volansky	10/4/2019 1:32 PM
Submission Unlocked	Submission Unlocked	Erica Volansky	10/7/2019 5:53 PM

Revisions

Revision	Revision Date	Revision By
Revision 1	4/3/2017 2:02 PM	Gregory Mayhew
Revision 2	2/14/2018 11:33 AM	Mark Gaworecki
Revision 3	1/10/2020 2:26 PM	Kelly McRobb-Ackland
Revision 4	3/17/2020 1:49 PM	Kelly McRobb-Ackland

STANDARD OPERATING PROCEDURE
CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

CITY OF TAYLOR
25605 NORTHLINE ROAD
TAYLOR, MI 48180

TAYLOR
MADE FOR YOU

APRIL 2017

SECTION A – PURPOSE

The Michigan Department of Environmental Quality (MDEQ) National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Phase II Stormwater Discharge Permit Application requires a **description of current and proposed BMPs** to meet the minimum control measure requirements for the construction stormwater runoff control program to the maximum extent practicable. The City of Taylor does administer a Part 91 program and is a designated municipal enforcement agency. The following standard operating procedure provides a description of the procedures the City of Taylor employs for construction site runoff control that includes notification procedures and ensuring proper permits are obtained by those disturbing greater than one acre of soil.

SECTION B – APPLICATION PROCEDURE

Prior to any earth disturbance, the City of Taylor will ensure that construction activity one acre or greater in total earth disturbance with the potential to discharge to the MS4 does obtain a Part 91 Permit and/or a State of Michigan Permit by Rule is reviewed by an approved Authorized Public Agency through the site plan review process. These requirements are documented in the City of Taylor's Code of Ordinances as referenced below:

B.1 Article VII – Soil Erosion and Sedimentation Control - Section 20-249 – SESC Permit Required; Plan Requirements; Fees

"(a) A SESC permit is required when an earth change is proposed which is within 500 feet of the waters of the state, a lake or a stream, or will disturb one or more acres of land.

(b) Prior to issuance of the SESC permit, a soil erosion and sedimentation control application and SESC plan shall be submitted to the city engineer in accordance with the rules promulgated under part 91, soil erosion and sedimentation control, of the natural resources and environmental protection act, Public Act No. 451 of 1994 (the Act), MCL 324.9101 et seq.). The plan shall be submitted with the necessary fees in accordance with a fee schedule to be determined by the city council, and amended from time to time by simple resolution.

(c) A soil erosion and sedimentation control permit must be issued prior to the issuance of a building permit per R323.1711, rule 1711(2). A local agency shall not issue a building permit to a person engaged in an earth change if the change requires a permit under part 91 or these rules until the county or local enforcing agency has issued the required state prescribed permit for the earth change."

B.2 Appendix A – Zoning – Article 19 – Site Plan Review

Description of overall review process of all other City Codes and Ordinances; however, Part 91 is not specifically referenced.

B.3 Appendix A – Zoning – Article 25 – Administration and Enforcement

Description of overall review process of all other City Codes and Ordinances; however, Part 91 is not specifically referenced.

SECTION C – INSPECTIONS/COMPLAINTS

As the Part 91 regulating authority, the City of Taylor will inspect active construction sites that have obtained a Soil Erosion and Sedimentation Control Permit from the City of Taylor.

Complaints regarding soil erosion and sedimentation issues made by the public will be forwarded to the City Engineer's office. At that time, the City Engineer will direct a site inspection to document any violations of the soil erosion and sedimentation/grading permit within 48 hours and pursue enforcement actions as appropriate. See the Enforcement Response Procedure for a summary of the enforcement protocols to ensure compliance with the City's Part 91 program.

C.1 Article VII – Soil Erosion and Sedimentation Control - Section 20-261 – Inspection Requirements

"(a) The requirements of this article, part 91 and the rules shall be enforced by the city engineer. The city engineer or designee shall inspect the work and may require adequate inspection of compaction by a soil engineer or by a soil testing agency approved by the city engineer.

(b) If the city engineer finds any existing conditions not as stated in the SESC application, SESC permit or approved SESC plan, the city engineer may refuse to approve further work until approval of a revised SESC plan conforming to the existing conditions.

(c) Routine inspections will be conducted on a weekly basis and after every rain event. Should the SESC permit be in violation of part 91 and the rules, a verbal and written notice will be issued to the SESC permit holder. SESC permit holder will have five days to make the necessary corrections. Should the corrections not be completed the SESC permit holder may be subject to fines of $100.00 per day, per violation, as a municipal civil infraction."

C.2 Article VII – Soil Erosion and Sedimentation Control - Section 20-262 – Enforcement

"(a) If the engineering division determines that soil erosion or sedimentation of adjacent properties or the waters of the state has or will reasonably occur from land in violation of this article, part 91, or the rules promulgated under part 91, the engineering division may seek to enforce such a violation by notifying the person who owns the land, by mail, with return receipt requested, of its determination. The notice shall contain a description of the violation and what must be done to remedy the violation and shall specify a time to comply with this article, part 91, and the rules promulgated under part 91.

(b) Within five days after the issuance of such notice of violation, the person who owns the land subject to the notice shall implement and maintain soil erosion and sedimentation control measures in conformance with this article, part 91, and the rules promulgated under part 91.

(c) Not sooner than five days after a notice of violation has been mailed, if the condition of the land, in the opinion of the engineering division, may result in or contribute to soil

erosion or sedimentation of adjacent properties or to the waters of the state, and if soil erosion and sedimentation control measures in conformance with this article, part 91, and the rules promulgated under part 91 are not in place, the engineering division or its designee may enter upon the land and construct, implement, and maintain soil erosion and sedimentation control measures in conformance with this article, part 91, and the rules promulgated under part 91. The municipal enforcing agency shall not expend more than $10,000.00 for the cost of the work, materials, labor and administration without ten days' prior written notice to the owner of the land.

(d) Notwithstanding the existence or pursuit of any other remedy, the city may maintain an action in its own name in any court of competent jurisdiction for an injunction or other process against any person to restrain or prevent violations of this article.

(e) The city engineer or duly authorized agents, may enter at all reasonable times in or upon any private or public property for the purpose of inspecting and investigating conditions and practices which may be a violation of this article, part 91, or the rules promulgated pursuant to part 91."

SECTION D – MEASUREABLE GOALS

To demonstrate the effectiveness of the City of Taylor's Part 91 program, the following metrics will be tracked for reporting purposes:

- Number of Part 91 related complaints received.
- Number of Part 91 permits issued by the City of Taylor.
- Number of enforcement actions taken to achieve compliance with the City of Taylor's Part 91 program.

These metrics will be tracked over the reporting cycle that is specified in the City of Taylor's Certificate of Coverage for the MS4 Permit.

SECTION E – REPORTABLE DISCHARGES

The City of Taylor will not report instances of *de minimis* soil discharges to MDEQ. For instances where the discharge of sediment cannot be immediately contained on site, or if there are other pollutants that include pesticides, petroleum derivatives, construction chemicals, and solid waste associated with the discharge in quantities that are consistent with the spill response plan as defined in the Stormwater Management Plan (SWMP), the City of Taylor will notify the MDEQ within 24 hours through the Pollution Emergency Alert System (PEAS) at 1-800-292-4706.

SECTION F –STATE OF MICHIGAN PERMIT BY RULE

The City of Taylor shall advise the landowner or recorded easement holder of the State of Michigan Permit by Rule (Rule 323.2190) for storm water discharge from construction activity if the area of the disturbance is greater than 5 acres. These criteria will be identified during the site plan review process and will be included in correspondence with the landowner as appropriate.

SECTION G – PROCESS FOR REVISION

Any questions on this policy and procedure should be directed to the Stormwater Manager or the City Engineer. This procedure shall be reviewed once per permit cycle by the Stormwater Manager for any updates to streamline the requirements.

STANDARD OPERATING PROCEDURE
ENFORCEMENT RESPONSE

CITY OF TAYLOR
25605 NORTHLINE ROAD
TAYLOR, MI 48180

APRIL 2017

SECTION A – PURPOSE

The Michigan Department of Environmental Quality (MDEQ) National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Phase II Stormwater Discharge Permit Application requires an Enforcement Response Procedure (ERP) to address violations of the ordinance(s) or regulatory mechanism(s) identified in the Stormwater Management Plan.

SECTION B – GENERAL PENALTY

Section 1-13 of Chapter 1, General Penalties and Sanctions for Violations of this Code and City Ordinances; Continuing Violations: Injunctive Relief of the City of Taylor Code of Ordinances:

"(a) Unless a violation of this Code or any ordinance of the city is specifically designated in the Code or ordinance as a municipal civil infraction or a civil infraction, the violation shall be deemed to be a misdemeanor.

(b) The penalty for a misdemeanor violation shall be a fine not exceeding $500.00 (plus costs of prosecution), or imprisonment not exceeding 90 days, or both, unless a specific penalty is otherwise provided for the violation by this Code or any ordinance. However, unless otherwise provided by law, a person convicted of a violation of this Code which substantially corresponds to a violation of state law that is a misdemeanor for which the maximum period of imprisonment is 93 days shall be punished by a fine not to exceed $500.00 and costs of prosecution or by imprisonment for a period of not more than 93 days or by both such fine and imprisonment.

(c) The sanction for a violation which is a municipal civil infraction shall be a civil fine in the amount as provided by this Code or any ordinance, plus any costs, damages, expenses and other sanctions, as authorized under chapter 87 of Public Act No. 236 of 1961 (MCL 600.8701 et seq.), and other applicable laws.

(1) Unless otherwise specifically provided for by this Code or any ordinance, the civil fine for a municipal civil infraction violation shall be not less than $50.00 nor more than $500.00, plus costs and other sanctions, for each infraction. Costs shall include all expenses, direct and indirect, to which the city has been put in connection with the municipal civil infraction, with the exception of those costs permitted pursuant to subsection (f) of this section, costs of no more than $500.00 shall be ordered.

(2) In addition to any fine or cost ordered to be paid under subsection (c)(1) of this section, the judge or district court magistrate shall order the defendant to pay a justice system assessment of $10.00. Upon payment of the assessment, the clerk of the court shall transmit the assessment collected to the state treasurer for deposit in the justice system fund created in MCL 600.181.

(3) Increased civil fines may be imposed for repeated violations by a person of any requirement or provision of this Code or any ordinance. As used in this section, the term "repeat offense" means a second (or any subsequent) municipal civil infraction violation of the same requirement or provision:

a. Committed by a person within any three-year period (unless some other period is specifically provided by this Code or any ordinance); and

b. For which the person admits responsibility or is determined to be responsible.

(4) Unless otherwise specifically provided by this Code or any ordinance for a particular municipal civil infraction violation, the increased fine for a repeat offense shall be as follows:

a. The fine for any offense which is a first repeat offense shall be no less than $150.00, no more than $500.00, plus costs.

b. Repeat offenses are determined on the basis of the date of the commission of the offenses.

(d) A second repeat offense, a violation which is designated a municipal civil infraction shall constitute a misdemeanor punishable by a fine not exceeding $500.00 (plus costs of prosecution), or imprisonment not exceeding 90 days, or both. However, nothing herein requires an authorized city official to charge a repeat offense of the same ordinance by the same individual as a misdemeanor.

(e) A violation includes any act which is prohibited or made or declared to be unlawful or an offense by this Code or any ordinance; and any omission or failure to act where the act is required by this Code or any ordinance.

(f) Each act of violation and each day on which any violation of this Code or any ordinance continues constitutes a separate offense/infraction and shall be subject to penalties or sanctions as a separate offense/infraction.

(g) In addition to any remedies available at law, the city may bring an action for an injunction or other process against a person to restrain, prevent or abate any violation of this Code or any city ordinance. Any penalty or sanction imposed shall be in addition to the abatement of the violating condition, any injunctive relief, revocation of any permit or license, or other process. Actual costs incurred by the city to enforce any injunctive order or abate any violation of this Code may be assessed against a defendant.

(h) If a person fails to pay any fines or costs assessed pursuant to this section or any provision of this Code or any ordinance, then the amount due shall accrue interest at the rate of six percent per annum from the date when it becomes due and such fine or cost together with the accrued interest and an administrative cost of 15 percent shall be filed with the city assessor's office and shall be collected in the manner fixed by law for the collection of taxes and assessments.

(i) The penalties and sanctions provided by this section, unless another penalty or sanction is expressly provided, shall apply to the amendment of any section of this Code whether or not such penalty or sanction is enacted in the amendatory ordinance."

SECTION C –PART 91 MUNICIPAL ENFORCEMENT AGENCY

The City of Taylor is an approved Municipal Enforcement Agency under the Part 91 of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as Amended. As an enforcing agency, the City of Taylor is responsible for implementing and enforcing their Soil Erosion and Sedimentation Control Ordinance.

C.1 Section 20-248 City of Taylor, Code of Ordinances – Enabling Authority; Designation of Municipal Enforcing Agency

"(a) It is the intent of the city to become the municipal enforcing agency in regard to implementing the provisions of part 91, soil erosion and sedimentation control (part 91), of the natural resources and environmental protection act, Public Act No. 451 of 1994 (the Act), MCL 324.9101 et seq.), adopting by reference the latest rules promulgated by the state department of natural resources and environment relative to part 91 within the municipal corporate limits of the city. Wherever

the provisions of this article conflict with those of part 91, the more restrictive standard shall govern.

(b) The engineering division of the department of public works is designated as the municipal enforcing agency (MEA) responsible for administering and enforcing part 91 and rules promulgated thereunder, as well as this article, within the city."

C.2 Section 20-262 City of Taylor, Code of Ordinances – Enforcement

"(a) If the engineering division determines that soil erosion or sedimentation of adjacent properties or the waters of the state has or will reasonably occur from land in violation of this article, part 91, or the rules promulgated under part 91, the engineering division may seek to enforce such a violation by notifying the person who owns the land, by mail, with return receipt requested, of its determination. The notice shall contain a description of the violation and what must be done to remedy the violation and shall specify a time to comply with this article, part 91, and the rules promulgated under part 91.

(b) Within five days after the issuance of such notice of violation, the person who owns the land subject to the notice shall implement and maintain soil erosion and sedimentation control measures in conformance with this article, part 91, and the rules promulgated under part 91.

(c) Not sooner than five days after a notice of violation has been mailed, if the condition of the land, in the opinion of the engineering division, may result in or contribute to soil erosion or sedimentation of adjacent properties or to the waters of the state, and if soil erosion and sedimentation control measures in conformance with this article, part 91, and the rules promulgated under part 91 are not in place, the engineering division or its designee may enter upon the land and construct, implement, and maintain soil erosion and sedimentation control measures in conformance with this article, part 91, and the rules promulgated under part 91. The municipal enforcing agency shall not expend more than $10,000.00 for the cost of the work, materials, labor and administration without ten days' prior written notice to the owner of the land.

(d) Notwithstanding the existence or pursuit of any other remedy, the city may maintain an action in its own name in any court of competent jurisdiction for an injunction or other process against any person to restrain or prevent violations of this article.

(e) The city engineer or duly authorized agents, may enter at all reasonable times in or upon any private or public property for the purpose of inspecting and investigating conditions and practices which may be a violation of this article, part 91, or the rules promulgated pursuant to part 91."

SECTION D – ENFORCEMENT TRACKING

The City of Taylor will track all violations and issued permits. The following information will be collected and used for tracking records for each violation that is imposed by the City of Taylor.

1. Name
2. Date
3. Location of the Violation (address, cross streets, etc.)
4. Business, Agency, Organization as applicable
5. Description of the Violation

6. Applicable Correspondence
7. Follow-up Actions
8. Key Dates
9. Descriptions of the City of Taylor Enforcement Response
10. Schedules for Achieving Compliance
11. Date the Violation was Resolved

SECTION E – PROCESS FOR REVISION

Any questions on this policy and procedure should be directed to the Stormwater Manager. This procedure shall be reviewed once per permit cycle by the Stormwater Manager for any updates to streamline the requirements.

STANDARD OPERATING PROCEDURE
POST CONSTRUCTION STORMWATER RUNOFF CONTROL

CITY OF TAYLOR
25605 NORTHLINE ROAD
TAYLOR, MI 48180

APRIL 2017

SECTION A – PURPOSE

The Michigan Department of Environmental Quality (MDEQ) National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Phase II Stormwater Discharge Permit Application requires a description of current and proposed BMPs to meet the minimum control measure requirements for the post-construction stormwater runoff control program to the maximum extent practicable. Post-construction stormwater runoff controls are necessary to maintain or restore stable hydrology in receiving waters by limiting surface runoff rates and volumes and reducing pollutant loadings from sites that undergo development or significant redevelopment.

SECTION B – ADOPTION OF POST-CONSTRUCTION STANDARDS

The City of Taylor intends to review and consider adopting the updated Wayne County Stormwater Management Standards. These standards are currently being drafted by Wayne County. The City of Taylor will review them when available. Any necessary updates to these standards will be drafted and adopted within 6 months of being finalized by Wayne County. The City of Taylor reserves the right to consider drafting and adopting its own ordinance or regulatory mechanism. If this option is pursued, it is anticipated the ordinance or regulatory mechanism will be in place following the same timeline referenced above (within 6 months of the Wayne County Stormwater Management Standards being finalized).

SECTION C – MEASURABLE GOALS

To demonstrate the effectiveness of the post construction stormwater runoff control program, the following metrics will be tracked for reporting purposes:

- Number of stormwater site plan reviews (field reviews) requested and completed
- Number of maintenance violations of constructed BMPs
- Number of instances where the City of Taylor had to undertake corrective measures

These metrics will be tracked over the reporting cycle that is specified in the City of Taylor's Certificate of Coverage.

SECTION D – PROCESS FOR REVISION

This procedure shall be reviewed every two years by the Stormwater Manager for any updates to streamline the requirements.

STANDARD OPERATING PROCEDURE POLLUTION PREVENTION AND GOOD HOUSEKEEPING

GENERAL PROCEDURES

CITY OF TAYLOR
25605 NORTHLINE ROAD
TAYLOR, MI 48180

APRIL 2017

SECTION A – PURPOSE

The Michigan Department of Environmental Quality (MDEQ) National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Phase II Stormwater Discharge Permit Application requires a description of current and proposed BMPs to meet the minimum control measure requirements for the Pollution Prevention and Good Housekeeping Program to the maximum extent practicable to prevent or reduce the discharge of pollutants from municipal facilities and operations.

SECTION B –FACILITY ASSESSMENT AND PRIORITIZATION

City of Taylor owned and operated facilities have been assessed for their potential to discharge pollutants to the waters of the state. Each facility was evaluated based on the following criteria:

1. Amount of urban pollutants stored at the site (i.e. sediment, nutrients, metals, hydrocarbons, pesticides, fertilizers, herbicides, chlorides, trash, bacteria, or other site-specific pollutants)
2. Identification of improperly stored materials
3. Potential for polluting activities to be conducted outside (i.e. vehicle washing)
4. Proximity to waterbodies
5. Poor housekeeping practices
6. Discharge of pollutants of concern to impaired waters

Based on these criteria, the potential for each facility to discharge pollutants to the waters of the state were rated high, medium, or low. For **"low" priority facilities** where no assessment factors are present, catch basin cleaning and street sweeping will be performed as indicated in the applicable procedures for these activities. For **"medium" priority facilities**, appropriate BMPs are considered based on the assessment factors present to prevent or minimize the potential for pollutants from entering surface waters of the state. **"High" priority facilities** have specific procedures in place in order to ensure that proper steps are followed in order to minimize and prevent the discharge of pollutants to storm water from the site.

SECTION C– UPDATES AND PRIORITY REVISION

This inventory shall be updated within 30-60 days as facilities and structural stormwater controls are added, removed, or no longer owned or operated by the applicant. Priority level assessments shall be revised within 30-60 days prior to discharging stormwater at a new facility, or when the storage of materials, equipment, or vehicles changes at a facility. It is recommended updates occur within 30 days if feasible.

SECTION D – MUNICIPAL INVENTORY AND ASSESSMENT

The following table identifies the City of Taylor's owned or operated facilities with a discharge of stormwater to surface waters of the state. **Table 1** includes a list of properties owned or operated by the City of Taylor that has stormwater controls on site and provides the estimated number of stormwater structural controls (i.e. catch basins, detention basins, etc.) at each site, along with the priority level of potential discharge of pollutants to waters of the state. An up-to-date map(s) showing the location of the facilities and structural storm water controls is available at the City of Taylor DPW (stored electronically through its GIS program).

Table 1: City of Taylor Owned or Operated Properties with Stormwater Controls

Facility Name	Structural Controls	Priority Level	Assessment Factors	BMP's Implemented
DPW Facility 25605 Northline Road	Stormwater Catch Basins (10) Oil/Water Separator (1) Dumpster (1) Underground Tank – Diesel (1) Underground Tank – Gas (1) 55 Gallon Drum Oil Salt Storage – Enclosed Dome (1) 10 Yard Dumpster (1) 20 Yard Dumpster (2)	High	1, 2	See Section E
City Hall 23555 Goddard Road	Catch Basins (4) Dumpsters (1) Underground Storage Tank (1)	Low	1	Catch basin cleaning Sweeping
Animal Shelter 25555 Northline Road	Catch Basins (3)	Low	1	Catch Basin Cleaning Sweeping
Compost and Transport Facility 16300 Racho Road	Catch Basins (1) Detention Basins (1) Pump Station (1) Vegetated Swales Infiltration Basins (2)	High	1	Routine Inspection and Maintenance
Taylor 23rd District Court 23365 Goddard Road	Catch Basins (2)	Low	1	Catch Basin Cleaning Sweeping
Taylor Fire Department 23345 Goddard 23747 Eureka 25303 Ecorse	Catch Basins (5/1/1)	Low	1	Catch Basin Cleaning Sweeping
Public Golf Courses Lakes of Taylor 25505 Northline Road Taylor Meadows 25360 Ecorse Road	Catch Basins (12) Detention Basins Pump Station (1) Vegetated Swales Infiltration Basins	Med	1,4	Maintenance Contractor
Community Library 12303 Pardee Road	Catch Basins (4)	Low	1	Catch Basin Cleaning Sweeping
Taylor Parks (13)*	Catch Basins (45) Flood Control Basins Pump Stations Vegetated Swales Infiltration Basins	Low	1	Routine Inspection and Maintenance
Taylor Parks and Recreation Facility 22805 Goddard Road	Catch Basins	Low	1	Catch Basin Cleaning Sweeping
Taylor Police Department 23515 Goddard Road	Catch Basins (3)	Low	1	Catch Basin Cleaning Sweeping

Taylor SportsPlex 13333 Telegraph Road	Catch Basins (34)	Low	1	Catch Basin Cleaning Sweeping
Taylor School Bus Yard 24711 Wick Road	Catch Basins (8) Gravel Parking Lot (1) Oil/Water Separator (1) Pump Stations (2) Dumpster (1) 10,000 Gallon Underground – Diesel (1) 10,000 Gallon Underground – Gas (1) Storage Drums 7 Yard Dumpsters (2)	High	1,2	See Section E
Taylor School District (13 Buildings)**	Catch Basins Dumpsters	Low	1	Routine Inspection and Maintenance

*Activity Building (12111 Pardee), Atlas (24504 Ecorse), Boardman (24600 Haskell), Chelsea/Timberline (Superior and Pine), Community Garden (12111 Pardee), Heritage Park (12111 Pardee), Homestead (Cornell and Superior), Howard Noble (20429 Champaign), Jaycee (6623 Merrick), Lange (14141 Lange), Lucinda Burns (Avalon and Hipp), Memorial (Pine and Maplelawn), Miller Clapham (Pardee and Newcastle), Northwest (6000 Duncan), Papp (9350 Westlake), Phoenix (26353 Eureka), Rotary (48180 Emmett), Vinced Caplis (Dudley and Wick), Sub (Dudley and Haig)

**Taylor High School (11211 Beech Daly), Career Center/Taylor Virtual Learning Academy (9601 Westlake), Hoover Middle School (27101 Beverly), West Middle School (10575 William), Blair Moody (8280 Hipp), Clarence Randall (8699 Robert), Eureka Heights (25125 Eureka), Holland (10201 Holland), Johnson Early Childhood Center (20701 Wohlfeil), Kinyon (10455 Monroe), McDowell (22929 Brest), Myers (16201 Lauren), Taylor Parks (20614 Pinecrest)

SECTION E – SITE SPECIFIC SOP FOR HIGH PRIORITY SITES

The MDEQ NPDES Phase II Stormwater Discharge Permit Application requires a standard operating procedure (SOP) for identifying the structural and non-structural stormwater controls implemented and maintained to prevent or reduce pollutant runoff at each facility with the high potential for pollutant runoff.

E.1 Inventory and Description of Materials and Activities

The City of Taylor's Department of Public Works (DPW) operations are conducted at their facility at 25605 Northline Road. The Taylor School Board operates a bus yard located at 24711 Wick Road. The City of Taylor Transfer Station and Compost Facility is located at 16300 Racho Road. Below is a summary of the activity for each of these two identified high priority sites:

DPW Facility – 25605 Northline Road

- Fuel/Oil Storage and Fueling
- Salt Storage
- Stockpiled materials
- Maintenance and cleaning of vehicles and equipment

Taylor School Board – Bus Yard – 24711 Wick

- Fuel/Oil Storage and Fueling
- Maintenance and cleaning of equipment

Compost and Transport Facility

- Site is designed to follow requirements of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451; as amended, and the Wayne County Solid Waste Ordinance 2004-787; Section 235 – "Processing, Recycling, Composting, Transfer Facilities". On-site storm systems are maintained as outlined in applicable areas of this Good Housekeeping SOP (i.e. catch basins, ponds, swales).

Site specific standard operating procedures have been developed for each of the three above-referenced facilities and are included as separate documents.

SECTION F – CATCH BASIN MAINTENANCE PRIORITY

The majority of the City's catch basins have very little sediment accumulation rates, require little maintenance and are of low priority. Low priority catch basins are inspected on an as needed basis based on complaints or by DPW staff during normal work activities. They are further inspected during construction and/or maintenance operations. Catch basins that prompt resident complaints or are subject to isolated instances where structures are plugged or damaged will be maintained and inspected by DPW staff as needed. Permit recommendations include a schedule where all catch basins are inspected every 3 years. As indicated above, assessments have found very little sediment suggesting the current maintenance methodology is sufficient.

SECTION G – CATCH BASIN INSPECTION, MAINTENANCE, AND CLEANING

Catch basins are visually inspected during normal work activities or if a complaint is registered by a resident. A visual inspection of the structure will identify any structural defects which may include collapse, cracking, frame damage, pipe collapse, blockage, etc. and will be documented. Catch basin structures in need of structural repairs are identified during street repair and resurfacing projects and during the inspection and regular maintenance process based on the results of visual assessments conducted by the City. Structure repairs are prioritized based on public safety concerns. DPW field staff utilize a vactor truck to remove all solids and liquids from the structure to the extent possible when the sump is observed to be approximately 50% full; however, this is a field determination made by DPW field staff. At no time is collected sediment and water allowed to be discharged back into the storm sewer system during the cleaning process. Catch basins that are located on private property are not inspected, cleaned, or maintained by the City.

Measureable Goals – To demonstrate the effectiveness of this procedure, the following metrics will be tracked for reporting purposes.

- Number of catch basins repaired/cleaned

These metrics will be tracked over the reporting cycle that is specified in the City's Certificate of Coverage.

SECTION H – DISPOSAL OF COLLECTED MATERIAL

Material from street sweeping activities is collected in the street sweeper, dumped into a dump truck and then transported to the Taylor Hills Compost and Transport Facility at 13600 Racho Road. At this point, the material is dumped into a roll-off dumpster and transported to Riverview Landfill.

Following collection of material from catch basin cleaning operations, the vactor truck conveys liquid into the sanitary sewer at the DPW facility and transfers solids into a roll-off dumpster at the Taylor Hills Compost and Transport facility. The solids are subsequently transported to Riverview Landfill.

SECTION I –STREET SWEEPING PRIORITIZATION

City of Taylor owned and maintained streets/parking lots are regularly swept three times per year; spring, summer and fall, unless a specific complaint or situation arises that requires attention.

Street sweeping activities are conducted by the City DPW staff using a Global M4 Series Sweeper, 5.6 CY, with two street brooms and one gutter broom. The sweeper is operated in accordance with manufacturer's operating instructions. Collected sediment from street sweeping activities is disposed of as described in Section H. The City also has a formal leaf collection program that runs from October 1 to November 30. Street sweeping program activities are not implemented under the following conditions:

- Street sweeping is not conducted on County or State roads
- Sweeping activities are not conducted during wet and inclement weather
- Street sweeping activities are not conducted on private streets, private parking lots, uncurbed streets

  Measureable Goals – To demonstrate the effectiveness of this procedure, the following metrics will be tracked for reporting purposes.

  - Summary of frequency of street sweeping, or total miles swept

  These metrics will be tracked over the reporting cycle that is specified in the City's Certificate of Coverage.

SECTION J – OTHER STRUCTURAL STORMWATER CONTROLS

In addition to implementing the catch basin maintenance and street sweeping programs, the City also performs inspections flood control basins and pump stations that are maintained by the City.

J.1 Flood Control and Infiltration Basin Inspections

Flood control basins that are owned and operated by the City are inspected annually. More frequent inspections are conducted at the Taylor Hills Compost Facility in line with routine inspection in line with the SOP. Inspections should assess the vegetation, erosion, flow channelization, bank stability, inlet/outlet conditions, embankment, and sediment and debris accumulations. If it is determined that maintenance activities are needed, the City will document the needed maintenance actions, prioritize the repairs and budget for associated

maintenance activities (if extensive). Minor corrective action is anticipated to be addressed in a timely manner.

J.2 Pump Stations

The City currently owns and operates one storm water pump station (Monroe Street under I-94), one sanitary pump station (Cooper Street) and a water feature pump at the Lakes of Taylor Golf Course facility. Routine inspection of the pump stations is typically conducted on a quarterly basis. Any maintenance is conducted on an as needed basis and documented using the City's log.

J.3 Open and Enclosed Drain Inspections

The routine procedure for open drains consists of the inspection of the inlet grates for blockages when complaints received by the City warrant an inspection. In most cases, follow up maintenance activities involve the removal of logjams or other debris that has accumulated on the inlet grate. For enclosed drains, inspections are conducted on an emergency basis only.

J.4 Oil/Water Separator

The City currently owns and operates one facility within its DPW yard. The second identified oil/water separator is located in the Taylor School Bus Yard. These units are typically inspected every 6 months with maintenance provided as needed.

J.5 Vegetated Swales

City owned and maintained vegetated swales are located within City Parks, two City golf courses and within the Taylor Compost Facility. These swales are visually inspected concurrent with grass cutting operations with maintenance provided as needed.

The City does not have any other structural controls that are owned or maintained by the City. In the event additional structural stormwater controls are constructed, this procedure will be updated and revised to include the new controls within 60 days.

Measureable Goals – To demonstrate the effectiveness of this procedure, the following metrics will be tracked for reporting purposes.

- Number of inspections of storm water controls as identified above
- Number of problems identified
- Number of problems resolved

These metrics will be tracked over the reporting cycle that is specified in the City's Certificate of Coverage.

SECTION K – NEW APPLICANT OWNED FACILITIES

In the event the City acquires or constructs new structural stormwater controls, the design of these structures will comply with the stormwater standards that have been established by City Ordinance or Regulations. Site plans will be reviewed by the City, or its consultants, to verify the appropriate standards are met.

SECTION L – CERTIFIED PESTICIDE APPLICATOR

The Parks and Recreation Department has five (5) certified pesticide applicators on staff for the spreading of herbicides. The Department only purchases and uses the amount needed for work that day. A maintenance firm is hired by the City of Taylor for care of its two Golf Courses. It is required appropriate certifications are held by the selected contractor(s) as described below in Section N.

SECTION M – EMPLOYEE TRAINING

Employee training programs will be implemented to inform appropriate personnel at all levels of responsibility of safety, environmental impacts, and good housekeeping practices. The City participates in training opportunities that are made available by SEMCOG, Wayne County, the Alliance of Downriver Watersheds, and others as deemed appropriate. Employee training components for the City DPW Department (including Field Compost Facility Staff) includes:

Employees Trained	Training Description and Frequency
New DPW Employees	Upon hire, employees will: ● View the Municipal Storm Water Pollution Prevention Storm Watch training video. ● Read and become familiar with the City's SOPs. ● Participate in a job shadow program where new staff is paired with an experienced staff member for 30 days.
All DPW Field Employees	Annually, employees will: ● View the Municipal Stormwater Pollution Prevention Storm Watch training video. ● Review proper materials storage and handling. ● Review good housekeeping and pollution prevention practices. ● Review examples of illicit discharges to the storm sewer system ● Review City Spill Response Procedures
Key staff	Once per permit cycle: ● Attendance of key staff to relevant training workshops by the Alliance of Downriver Watersheds, Wayne County, SEMCOG, MDEQ, or others, when available.

Measureable Goals – To demonstrate the effectiveness of this procedure, the following metrics will be tracked for reporting purposes.

- Number of new employees trained
- Number of existing field employees trained
- Number of key staff trained

These metrics will be tracked over the reporting cycle that is specified in the City's Certificate of Coverage.

SECTION N –CONTRACT REQUIREMENTS AND OVERSIGHT

The contractors hired by the City to perform municipal operations that potentially impact stormwater are required to follow appropriate pollution prevention BMPs indicated in the City's contract language (as appropriate). In cases where an outside contractor is hired to perform services that could impact stormwater, the contracting company will be required to follow appropriate pollution prevention BMPs. All work performed by outside contractors are monitored by City staff (or Consultants) through daily to bi-weekly observation to verify quality of work, adherence to the specified contract language, and to verify that potential impacts to stormwater are minimized (the frequency varies and is dependent upon the type of work/improvements).

Measureable Goals – To demonstrate the effectiveness of this procedure, the following metrics will be tracked for reporting purposes.

- Number of stormwater pollution related incidents pertaining to activities or work performed by the contractor.
- Number of incidents where the City required corrective action by the contractor

These metrics will be tracked over the reporting cycle that is specified in the City's Certificate of Coverage.

SECTION O – COLD WEATHER OPERATIONS

The DPW conducts snow removal and deicing throughout City-owned and maintained streets and parking lots as weather conditions require. Route maps are used and postings about these operations are, at times, made available on the City's website during associated weather.

SECTION P – RIGHT-OF-WAY MAINTENANCE

The DPW maintains trees within the City ROW, which are generally located between the sidewalk and curb. Upon notification and follow-up scheduling, dead, diseased or dying trees or trees severely damaged by a storm may be removed by the City. Grass cutting in these areas remains the responsibility of the adjacent property owner.

SECTION Q – PROCESS FOR REVISION

This procedure shall be reviewed once per permit cycle by the Stormwater Manager for any updates to streamline the requirements.

SWMP Priority Actions for Total Maximum Daily Load (TMDL) Progress

The table below lists stormwater BMPs that are targeted to improve water quality impairments listed by TMDL affected, and the SWMP section they apply to. If the BMP addresses a TMDL, high (H), medium (M) or low (L) priority is indicated, or (G) indicates general implementation.

[Insert MS4 Name]

Section*	SWMP Actions for (City of Taylor)	Biota (Flow, sedimentation) TMDL	Bacteria (E.coli) TMDL
ERP	*Track instances of non-compliance as required under the permit*	G	G
PPP	*Access to the stormwater management plan*	G	G
PPP	*Alliance of Downriver Watersheds (Watershed group), and*	G	G
PPP	*Stormwater Management Program (SWMP) review.*	G	G
PPP	*Participation in Watershed Groups*	G	G
PEP	*Distribute Informational Materials*	H	H
PEP	*Watershed Community Calendar*	G	G
PEP	*Information in Community Newsletters and on Websites - Educational Content*	G	G
PEP	*Local Newspaper and Web/Other Advertisements*	G	G
PEP	*Promote Water Resource Protection Workshops*	H	H
PEP	*Volunteer Stream Monitoring*	G	G
PEP	*Catchbasin/Storm Drain Labeling*	M	H
PEP	*Riparian Land Management Information*	H	H
PEP	*Displays and Outreach at Local and Regional Fairs and Community Events*	G	G
PEP	*Promote County-wide Compliant Tracking and Response System*	G	G
PEP	*Stream and River Crossing Road Signs*	G	G
PEP	*Wayne County Home Toxics Reduction Program*	G	G
PEP	*Promote Drug Take Back Programs*	G	G
IDEP	*Dry Weather Screening Program & Data Collection*	L	H
IDEP	*Illegal Dumping/Spill Response & Database*	G	G
IDEP	*Environmental reporting line / Tracking*	G	G
IDEP	*Time of Sale & Field Inspections*		H
IDEP	*Pollution Prevention (P2) Program*	L	H
IDEP	*Staff Training*	L	H
IDEP	*Dye Testing*	L	H
SESC	*Soil Erosion and Sedimentation Control (SESC) Programs*	H	L
SESC	*SESC Inspections*	H	L
SESC	*Discharge notifications*	H	H
SESC	*State of Michigan – Permit-by-Rule Notification*	H	H
PCSW	*Require PCSW controls within jurisdiction on both public and private developments*	H	G

SWMP Priority Actions for Total Maximum Daily Load (TMDL) Progress

Section*	SWMP Actions for (City of Taylor)	Biota (Flow, sedimentation) TMDL	Bacteria (E.coli) TMDL
P2GH	*Municipal Facility & Structural Stormwater Control Inventory*	G	G
P2GH	*Regulated Municipal Facility – Assessment of Potential for Pollutant Discharge*	G	G
P2GH	*Catch basin cleaning*	H	M
P2GH	*Lot sweeping*	M	L
P2GH	*Litter collection*	G	G
P2GH	*Proper Handling & Disposal of Operation and Maintenance Waste*	M	L
P2GH	*Employee/Contractor Training*	G	G
P2GH	*Staff Certifications*	G	G
P2GH	*IDEP Training*	G	G
P2GH	*Management of publicly-owned, vegetated properties*	M	L
Optional Actions from Watershed Management Plans			
Other	*Streambank Stabilizations*	H	L
Other	*Culvert/Bridge Replacements*	H	H

* Key:

ERP	Enforcement Response Procedure
PPP	Public Participation Plan
PEP	Public Education Plan
IDEP	Illicit Discharge and Elimination Plan
SESC	Construction Soil Erosion and Sediment Control
PCSW	Post-Construction Stormwater Runoff Program
P2GH	Pollution Prevention and Good Housekeeping

Approved by EGLE May 2019

STORMWATER DISCHARGE PERMIT APPLICATION COLLABORATIVE PUBLIC EDUCATION PLAN

For the Alliance of Downriver Watersheds MS4s

Effective upon NPDES Permit issuance for a period of five (5) years.

Allen Park	Inkster	Taylor
Belleville	Lincoln Park	Van Buren Township
	Melvindale	Wayne County
Dearborn Heights	Riverview	Westland
Ecorse	Rockwood	Woodhaven
Flat Rock	Romulus	Woodhaven-Brownstown
Gibraltar	Southgate	School District
Grosse Ile Township	Sumpter Township	Wyandotte

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Exhibit A – Table of PEP Tasks by Topic and Activity

I. INTRODUCTION

Purpose of Public Education Plan

In accordance with the permit requirements for Federal Phase II Storm Water Regulations, this Public Education Plan (PEP) was prepared to instill within the residents, businesses, and officials of the communities in regulated watersheds a heightened level of awareness of the connection between individual actions and the health of their watershed and water resources. The objective of this plan is to promote, publicize, and facilitate watershed education for the purpose of encouraging the public to reduce the discharge of pollutants in storm water.

Federal Phase II Storm Water Regulations

A 1987 amendment to the Federal Clean Water Act required the U.S. Environmental Protection Agency (EPA) to develop regulations setting forth National Pollutant Discharge Elimination System (NPDES) permit application requirements for storm water discharges from municipal separate storm sewer systems (MS4s). An MS4 is a drainage system that discharges to waters of the State and is owned or operated by a federal, state, county, city, village, township, district, association or other public body of government. Such drainage systems may include roads, catch basins, curbs, gutters, parking lots, ditches, conduits, pumping devices, or man-made channels.

Phase I of the NPDES regulations went into effect in 1990, which regulated discharges from communities with populations greater than 100,000. The rules for Phase II of the NPDES regulations were issued in 1999, requiring storm water discharge permits for communities with populations under 100,000 that have MS4s in "urbanized areas" as defined by the U.S. Bureau of the Census.

In Michigan the Michigan Department of Environmental Quality (MDEQ) is administering the federal Phase II permitting process.

Required Public Education Plan Elements

The PEP program is designed to promote, publicize, and facilitate education for the purpose of encouraging the public to reduce the discharge of pollutants in stormwater to the maximum extent practicable. The plan describes current and proposed best management practices (BMPs) to meet the minimum control measure requirements in a Public Education Plan (PEP).

The PEP involves watershed or regional partners collaborating to combine or coordinate existing programs for public stewardship of water resources. Permittees shall indicate if they are or will be working collaboratively with watershed or regional partners on any or all activities in the PEP during the permit cycle, (Stormwater Discharge Permit Application, Public Education Program (PEP) p. 3).

The PEP is designed to implement a sufficient amount of educational activities to ensure that the targeted audiences are reached with the appropriate messages to the maximum extent practicable. The permittee shall identify applicable topics from the topics listed below, (Stormwater Discharge Permit Application, Public Education Program (PEP) p. 3).

Each applicable topic shall be prioritized based on a procedure for assessing high-priority community-wide issues and targeted issues to reduce pollutants in stormwater runoff, (Stormwater Discharge Permit Application, Public Education Program (PEP) p. 3).

A. Promote public responsibility and stewardship in the applicant(s) watershed.

B. Inform and educate the public about the connection of the MS4 to area waterbodies and the potential impacts discharges could have on surface waters of the state.

C. Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4.

D. Promote preferred cleaning materials and procedures for car, pavement, and power washing.

E. Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers.

F. Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4.

G. Identify and promote the availability, location, and requirements of facilities for collection or disposal of household hazardous wastes, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids.

H. Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure.

I. Educate the public on and promote the benefits of green infrastructure and Low Impact Development.

J. Promote methods for managing riparian lands to protect water quality.

K. Identify and educate commercial, industrial and institutional entities likely to contribute pollutants to stormwater runoff.

For all applicable topics, the PEP shall identify:

1. Target audience.
2. Key message.
3. Delivery mechanism.
4. Year and frequency the BMP will be implemented.
5. Responsible party.

A **measurable goal with a measure of assessment shall be included for each BMP** and as appropriate, a schedule for implementation (months and years), including interim milestones and the frequency of the BMP, (Stormwater Discharge Permit Application, Public Education Program (PEP) p. 3).

The PEP shall provide the procedure for evaluating and determining the effectiveness of the overall PEP. The procedure shall include a method for assessing changes in public awareness and behavior resulting from the implementation of the PEP and the process for modifying the PEP to address ineffective implementation, (Stormwater Discharge Permit Application, Public Education Program (PEP) p. 3).

II. COLLABORATION OF WATERSHED PARTNERS

The permittees identified below have elected to meet the PEP requirements by working with each other and other watershed and regional partners to develop, submit, and implement a PEP that includes both collaborative and individual BMPs:

Allen Park
Belleville
Dearborn Heights
Ecorse
Flat Rock
Gibraltar
Grosse Ile Township
Inkster
Lincoln Park
Melvindale
Riverview
Rockwood
Romulus
Southgate
Sumpter Township
Taylor
Van Buren Township
Wayne County
Westland
Woodhaven
Woodhaven-Brownstown School District
Wyandotte

These permittees are members of the Alliance of Downriver Watersheds (ADW). The ADW is a permanent watershed organization in Southeast Michigan, formed under Public Act 517 of the Public Laws of 2004. Its membership consists of 22 public agencies in the Ecorse Creek, Combined Downriver, and Lower Huron River Watersheds within Wayne and Monroe Counties.

The ADW was formed in 2007 to build on its members' ongoing efforts to work together in managing the area's water resources. The ADW is relatively urban in nature consisting of 203.3 square miles and more than 450,000 people (2010 census). Major watercourses within the ADW that drain to the Detroit River and Lake Erie include Ecorse Creek, Sexton Kilfoil Drain, Frank and Poet Drain, Blakely Drain, Brownstown Creek, Huron River, Silver Creek and Woods Creek.

The consortium of agencies that make up the ADW meet on a regular basis and work together to cooperatively manage the rivers, lakes and streams within the watershed. Examples of ADW efforts include long-term water quality monitoring, stormwater permit compliance and reporting to the State of Michigan, submittal of grant applications for water quality improvements, and public education on items such as rain barrel use, phosphorus fertilizer, and proper pet waste management.

The consortium is governed by adopted bylaws that set forth its composition, duties and responsibilities. The member agencies assess themselves annually or bi-annually based on population and land areas within the watershed to establish an operating budget that they use to work toward water quality improvements.

Member agencies designate a person to represent them and vote at ADW meetings. Members can be a township, city, village, county, public school district, public college or university, or any other local or regional public agency that meets the following criteria:

- Has been issued a state permit for a water discharge into waterways within the three ADW watersheds
- Whose legal jurisdiction incorporates areas wholly or partially within the watershed boundaries
- Whose governing body by resolution, voluntarily adopts the ADW Bylaws

The ADW also includes Cooperating Partners, who are non-profit organizations, businesses, residents, etc., who provide their time, services, expertise and resources toward the common goal of protecting and restoring the watershed. Cooperating Partners are recognized as non-voting members.

III. PROCEDURE FOR IDENTIFYING AND PRIORITIZING APPLICABLE PEP TOPICS

The public education topics A-K listed above in Section II were identified in the permit application. These topics are referred to by their corresponding letter in the Public Education BMPs below as well as on the PEP table.

Watershed-Wide Priority Topics

The procedure for identifying high-priority watershed-wide or targeted issues suited for collaborative public education efforts includes:

- A review of Watershed Management Plans for the Ecorse Creek, Combined Downriver and Lower Huron River watersheds including any established Total Maximum Daily Loads for waterbodies in each area.
- A review of data from on-going Wayne County, Huron River Watershed Council and ADW Stream Monitoring and Water Quality Monitoring Programs.
- A review of public opinion surveys on watershed issues and water quality concerns conducted by the Southeast Michigan Council of Governments (SEMCOG) in 2004 and the ADW in 2016.
- Topics identified by permittees at quarterly group meetings, in periodic subcommittee meetings and in permittee opinion surveys prior to and throughout the permit cycle.
- Discussion and input from the permitted entities regarding individual jurisdictional versus watershed-wide needs, potential public outreach opportunities, and existing and future programs.

Any additional procedural steps for identifying high-priority or targeted issues by individual permittees include:

The ADW's high priority community-wide issues and targeted issues for collaborative efforts are:

- High yet stable levels of phosphorus in stormwater runoff from most monitored streams indicating broad sources;
- High and increasing *E. coli* counts in most monitored streams;
- High conductivity levels (indicating potential dissolved contaminants) in most monitored streams;
- Moderate to high flashy flows in monitored streams indicating the need for infiltration and storage across the watersheds;
- A need for greater protection of riparian areas to reduce erosion and slow and treat stormwater runoff; and
- Target audience research and public survey results indicating a need for continued education about stormwater pollution and specific residential responsibilities.

The high priority community-wide issues and targeted issues were used to **prioritize** topics A-K for **collaborative efforts.** Existing and Proposed Collaborative Public Education BMPs include in some way

all topics, but the emphasis will be on Collaborative High Priority Topics. Individual permittees may have additional or other priorities for individual education efforts as shown below and may address these in Existing and Proposed Individual Public Education BMPs (Section V.):

Collaborative Priority Level	Permittee Priority	Topic Letter	Topic Description
High		A	Public responsibility and stewardship in the watershed.
High		B	The connection of the MS4 to area waterbodies and the potential impacts of discharges.
High		C	Illicit discharges and public reporting of illicit discharges and improper disposal of materials.
Med		D	Promote preferred cleaning materials and procedures for car, pavement, and power washing.
High		E	Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers.
High		F	Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4
High		G	Identify and promote the availability, location, and requirements of facilities for collection or disposal of household hazardous wastes, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids.
Low		H	Proper septic system care and maintenance, and how to recognize system failure.
Med		I	Benefits of green infrastructure and Low Impact Development.
Med		J	Promote methods for managing riparian lands to protect water quality.
Medium		K	Identify and educate commercial, industrial and institutional entities likely to contribute pollutants to stormwater runoff.

IV. EXISTING AND PROPOSED COLLABORATIVE PUBLIC EDUCATION BMPs

To address each of the PEP requirements, the permittee will, individually or collaboratively, implement the following specific activities, which include a description, timeline, evaluation component, and the required topic that the activity meets. Activities will be completed with the involvement of responsible parties as noted in each activity description, and/or in cooperation with identified permitted communities.

Time lines for implementation of proposed activities extend from permit issuance (year 1) when implementation of the PEP begins for a period of five (5) years.

Activity #1: Produce and distribute a printed watershed community calendar and social media-driven photo contest

Delivery Mechanism: Coordinated by the ADW, permittees will participate in the bulk printing and distribution of a Watershed Community Calendar to residents. The calendar will include a social media-driven photo contest where residents will be encouraged to post and tag photos related to stormwater pollution-reducing behaviors on social media.

Key Messages: Calendars typically feature a different tip each month for increasing public awareness of watershed issues and improving personal actions affecting the health of their watershed. Topics/messages are likely to include key messages associated with A-J of the PEP topics that are suited for homeowners, such as general watershed stewardship; household hazardous waste disposal; proper lawn care; car washing; storm drain pollutants; pet waste; riparian land management; green infrastructure and LID; and illegal dumping in storm drains.

Target Audience: Residents.

Year/Frequency: Biannually (even calendar years).

Goal: During the permit cycle, the ADW will collaboratively produce a biannual print calendar in even calendar years that permittees will distribute to residents. To promote a calendar-related public photo contest during even calendar years, the ADW will also produce and permittees will distribute monthly social media posts/digital ads/content. The calendar and photo contest will be posted to the ADW website and permittees will provide links from their websites to the ADW website.

Assessment: Number of calendars distributed by the ADW and permittees;
Number of posts/views on ADW social media sites and on the ADW website;
Number of photo contest participants.

Responsible Parties: Permittees produce calendars and coordinate and run the photo contest collaboratively through the ADW. Permittees distribute calendars individually and help promote the photo contest within their communities.

Topics Addressed: A-J

Activity #2: Organize and run focused-topic pollution prevention campaigns

Delivery Mechanism: The ADW will organize and run print or digital pollution prevention pledge campaigns that are focused on a single message or topic and that seek commitment from residents for positive action.

Key Messages: Campaigns will feature a different topic each year for increasing public awareness of watershed issues and improving personal actions affecting the health of their watershed. Topics/messages are likely to include key messages associated with A-J of the PEP topics that are suited for homeowners, such as general watershed stewardship; household hazardous waste disposal; proper lawn care; car washing; storm drain pollutants; pet waste; riparian land management; green infrastructure and LID; and illegal dumping in storm drains.

Target Audience: Residents.

Year/Frequency: Biannually (odd calendar years).

Goal: Biannually, the ADW will collaboratively host one print or digital single-topic pledge campaign. The ADW and permittees will distribute print and digital

	campaign materials that include a flyer, an ad graphic, and at least eight social media posts through local venues and customer service locations, newsletters and/or other publications, social media and websites.
Assessment:	Number of print campaign materials distributed by the ADW and permittees; Number of posts/views on ADW social media sites and on the ADW website; Number of pledges collected.
Responsible Parties:	ADW to coordinate and run the campaign as a collaborative effort. Permittees to help promote the campaign individually within their communities.
Topics Addressed:	A-J

Activity #3: Provide displays for community venues and outreach activities at events

Delivery Mechanism:	The ADW will produce and make available a shared pop-up display and educational posters for use at community venues, regional fairs and events, and community meetings and events. The ADW will host the pop-up display at regional fairs/events with a water, green living or a sustainability focus. Individually, permittees will promote and support stormwater education by displaying posters or the pop-up display at their locations and other key public venues in their community such as municipal libraries, city/township halls, or schools or at community meetings, fairs and/or events.
Key Messages:	Public awareness of watershed issues and improving personal actions affecting the health of the watershed also including key messages associated with A-K of the PEP topics, such as general watershed stewardship; household hazardous waste disposal; proper lawn care; car washing; storm drain pollutants; pet waste; riparian land management; benefits of native plants; and illegal dumping in storm drains.
Target Audience:	Residents, visitors, community leaders.
Year/Frequency:	2-3 events annually for the ADW collaboratively. Permittee placement of ADW educational posters or pop-up display in at least 1 permittee location or public venue or meeting or event in the permittee's community per year.
Goal:	The ADW will produce/provide a pop-up display for ADW and permittee use and a set of educational posters for each permittee during the permit cycle. The ADW will collaboratively host the pop-up display at two regional events annually. Permittees will display posters or host the pop-up display in at least one location or at one community event annually.
Assessment:	Name, date and location of event where the ADW hosted the pop-up display; Permittees will also report the location, date and name of meeting/event (if applicable) where they placed posters or hosted the pop-up display in their permittee locations, public venues, meetings/events.
Responsible Parties:	ADW and permittees.
Topics Addressed:	A-J

Activity #4: Support green schools program with incentives to qualifying ADW schools

Delivery Mechanism:	The ADW supports the Michigan Green Schools Program by providing incentives and recognition to participating schools in the ADW area who strive to earn and maintain Green School status. Past incentives have included trees for planting at school locations and educational materials featuring their stormwater benefits.

	More recently the ADW provided professionally run, curriculum-based in-school watershed workshops and educational signage for five schools earning the Green School designation. The ADW will continue to offer these incentives and educational opportunities to Green Schools annually throughout the permit cycle.
Key Message:	Watershed awareness and stewardship.
Target Audience:	Wayne county elementary, middle and high school students and teachers
Year/Frequency:	Annually.
Goal:	The ADW will engage at least three Green Schools in the ADW area each year during the permit cycle in incentives and educational opportunities.
Assessment:	ADW will report a list of schools with number of students participating in tree plantings, watershed workshops or other ADW incentives and educational opportunities; List of schools displaying ADW-provided educational signage or distributing ADW materials; Number of schools including water-related activities in their Green Schools applications.
Responsible Parties:	Wayne County (Green Schools program coordinator) and ADW
Topics Addressed:	A, B, I

Activity #5: Support and promote volunteer stream and water quality monitoring

Delivery Mechanism:	Permittees will support and assist in promoting the volunteer stream and water quality monitoring programs coordinated by the Huron River Watershed Council (HRWC) and others to their residents. The ADW will produce publicity materials including flyers and press releases, seek earned media placement and run digital or print advertising in watershed media outlets. The ADW will also seek help from regional cooperating partners to distribute these materials. Permittees will help promote these programs by distributing materials individually within their communities, providing literature and posting volunteer event opportunities at customer service locations, on web sites, on social media outlets and in newsletters. The ADW will collect and provide information ongoing to permittees on volunteer opportunities prior to events.
Key Messages:	Volunteer monitoring for water quality is conducted spring through fall at stream sites in the ADW waterbodies. Additionally, watershed volunteers and students assess habitat, water quality, and aquatic life via benthic macroinvertebrate monitoring. These programs strive to educate participating watershed residents about their connection to the river and the current conditions. A central goal of the programs is to inspire people to take actions that lead to better river protection at home and in their communities.
Target Audience:	Residents, teachers, students.
Year/Frequency:	Stream monitoring occurs annually at unique events in winter, spring, fall. Water quality monitoring is ongoing spring through fall, with a training in the spring.
Goal:	The ADW and permittees will promote three one-day volunteer macro-invertebrate monitoring events in the Huron River watershed and a seasonal volunteer chemistry and flow monitoring program in the Huron River and ADW area that are coordinated by the Huron River Watershed Council.

Assessment: Compilation of all promotional efforts by the ADW;
Number of people participating in events as recorded by HRWC;
Resulting stewardship actions taken as reported by participants through event surveys conducted by HRWC;
Permittees will also report individual efforts to distribute promotional event materials.

Responsible Parties: Permittees, ADW, HRWC.

Topics Addressed: A in particular, but also B-J

Activity #6: Stream and river crossing road signs

Description: Through an ADW program, permittees have previously installed 80 stream crossing and watershed signs along roads where creeks or streams cross as well as at locations near watershed boundaries. Permittees will maintain these existing signs and the ADW will review and promote the placement of additional signs in areas where a need for signage has been identified and not met, coordinating or facilitating sign production for members.

Target Audience: Visitors, residents.

Year/Frequency: Ongoing.

Goal: The ADW has recently completed a baseline survey and map inventory of existing stream crossing and watershed signs documenting location, type and condition. Based on survey results the ADW will advise permittees regarding maintenance and replacement needs and will recommend additional sign locations to increase visibility and public recognition. The ADW will facilitate the production of replacement signs and at least 5 new signs during the permit cycle. Permittees will install and maintain signage.

Assessment: Survey results, map inventory and recommendations;
Number of new and replacement signs produced by the ADW;
Permittees will report installation and maintenance activities.

Responsible Parties: ADW and local community officials, permittees.

Topics Addressed: A

Activity #7: Participate in regional partnership activities

Delivery Mechanism: The ADW and permittees will seek to participate and collaborate with regional partners such as SEMCOG, the Alliance of Rouge Communities, Great Lakes Commission, Friends of the Detroit River, Detroit International Wildlife Refuge and others in activities that further public education on watershed awareness and stormwater issues. The ADW will attend regional partner meetings and report potential opportunities to ADW members.

Key Messages: Collaborative efforts are effective at reaching a greater number of target audiences with persuasive messaging that works.

Target Audience: Stakeholders of partner organizations.

Year/Frequency: 3-4 meetings annually.

Goal: The ADW collaboratively will identify opportunities to build upon and improve collaborative public education efforts by seeking out and attending at least three meetings annually with regional groups working on watershed awareness and stormwater issues.

Assessment: ADW provided list of meetings with date, location, meeting topic and participating groups and any resulting opportunities identified and reported to permittees.
Responsible Parties: ADW and individual permittees.
Topics Addressed: A-K

Activity #8: Promote county-wide complaint tracking and response system

Delivery Mechanism: Permittees will educate the public on illicit discharges and work with Wayne County to publicize county-wide public reporting and response system for illicit discharges or improper disposal of materials into local storm drain systems. A 24- Hour Environmental Hotline is in place and administered by the Wayne County Department of Public Services. The County promotes the use of the 24-Hour Environmental Hotline on County web sites. Permittee efforts will include providing public information and promoting the Hotline at their customer service locations, on web sites and social media outlets and in newsletters.
Key Messages: Prevention and reporting of illicit discharges and/or improper disposal of materials into MS4s.
Target Audience: Residents, visitors, commercial and industrial businesses, local government officials and employees.
Year/Frequency: Ongoing promotional efforts.
Goal: The ADW and permittees will annually distribute materials with the hotline number referenced and will promote the hotline on the ADW and permittee websites and social media outlets or newsletters.
Assessment: Number of materials distributed annually with hotline number referenced reported by ADW for collaborative efforts and reported by permittees for permittee efforts.
-Number of views on ADW website and social media reported by ADW
Responsible Parties: ADW, Wayne County, permittees.
Topics Addressed: B, C, K

Activity #9: Promote water resource protection workshops

Delivery Mechanism: The permittees will promote regional educational workshops and programs for residential, business and municipal target audiences that are organized through agencies such as Wayne County, MSU Extension, SEMCOG, the Michigan Water & Environment Association, the Natural Shorelines Partnership, the Friends of the Detroit River, the Alliance of Rouge Communities, Friends of the Rouge and others. Permittee efforts will include providing public information and promoting workshops at their customer service locations, on web sites and social media outlets and in newsletters.
Key Messages: Programs may include the following: Watershed Management Short Course, Master Rain Gardener and Master Composter program, the Michigan Water Stewards program, watershed-friendly golf course management workshop, illicit discharge and connections elimination workshop, road salt BMP/de-icing alternatives workshop, land use/storm water planning workshops, and riparian land management workshops.

Target Audience:	Residents, government officials and employees, construction contractors, and developers.
Year/Frequency:	Throughout the permit cycle as workshop dates are established and need for promotional assistance are identified by others.
Goal:	The ADW and permittees will annually distribute information and promotional materials for at least one regional educational workshop/program through customer service locations websites, social media outlets and newsletters.
Assessment:	Number of materials distributed annually reported by ADW for collaborative efforts and reported by permittees for permittee efforts; Number of views on ADW website and social media reported by ADW.
Responsible Parties:	Permittees will promote workshop events as developed by outside agencies.
Topics Addressed:	K in particular, but also A-J

Activity #10: Promote county household hazardous waste reduction program

Delivery Mechanism:	Permittees will work with Wayne County to publicize residential disposal options for flammable, poisonous, toxic and corrosive materials through community collection events, and informational materials for the public that promote the collection events and proper disposal of household hazardous waste and recycling. Permittee efforts will include providing public information and promoting collection events and information at their customer service locations, on web sites and social media outlets and in newsletters.
Key Messages:	The program seeks to address the environmental (including water quality) and public health effects resulting from improper handling and disposal of household hazardous waste, and is committed to reducing the use of home toxics and keeping citizens informed about the choices and responsibilities associated with purchasing, handling and disposing of toxic substances.
Target Audience:	Wayne County residents.
Year/Frequency:	Annually. HHW collections are typically held by the Wayne County Department of Public Services 4 times each year in different communities.
Goal:	The ADW and permittees will annually distribute information and promotional materials for all HHW collections scheduled by Wayne County through customer service locations websites, social media outlets and newsletters.
Assessment:	Number of materials distributed annually reported by ADW for collaborative efforts and reported by permittees for permittee efforts; Number of views on ADW website and social media reported by ADW.
Responsible Parties:	Resource Recovery Guide is produced by Wayne County. Events and informational materials are promoted by Wayne County and permittees.
Topics Addressed:	G

V. OTHER INVOLVED ORGANIZATIONS

In implementing this Public Education Plan, the permittees will pursue cooperative partnerships plus information and resource sharing with several organizations, including but not limited to:

Organization	Program	Contact If Known
Alliance of Downriver Watersheds	Chairperson Facilitation Team Leader	Jim Gorris, City of Gibraltar Vicki Putala, OHM
Huron-Clinton Metropark Authority, Pointe Mouillée State Game Area (Michigan Department of Natural Resources), Detroit River International Wildlife Refuge, Friends of the Detroit River, Detroit Riverkeeper	Environmental Education and Interpretive Programs	Jennifer Hollenbeck, HCMA; Zach Cooley, Pointe Mouillée State Game Area; Susan White, DRIWR; Robert Burns, Detroit Riverkeeper
Huron River Watershed Council	Water Quality Monitoring Program, Facilitation of Collaborative Permittee Activities, Information and Education Campaign	Ric Lawson Andrea Paine Pam Labadie
Wayne County Department of Public Services, Water Quality Management Division	Workshops, Illicit Discharge & Dumping Response System, water quality monitoring; watershed signs and informational displays; Green Schools program	Noel Mullett Mike Flowers Nancy Gregor
Wayne County Department of Public Services, Land Resource Management Division	Household Hazardous Waste Collection Sites, composting, waste disposal and recycling	John Demerjian
MSU Extension – Wayne County	Horticulture & Natural Resources, Watershed Management, and other programs	Gary Williams, Extension Educator, Natural Resources-Outdoor Education; Mary Bohling, Extension Educator, Sea Grant; Kristine Hahn, Extension Educator, Consumer Horticulture
Michigan Department of Environmental Quality	Water Resources Division, Field Operations Section, MS4 Staff	Lishba Varughese Erica Stevenson
Michigan Water Environment Association	The Michigan Water Network (MWN) information conduit and repository for important news, data, facts, etc. pertaining to the water-related issues of Michigan and the Great Lakes	Allison Wood, Executive Director
Southeast Michigan Council of Governments	Workshops, educational events, and public education materials, SEMCOG Partners for Clean Water	Katherine Grantham

VI. EVALUATION OF EFFECTIVENESS

Evaluation of the overall effectiveness of the PEP will consist of a combination of both the accumulated measures of the effectiveness of the PEP's individual activities and a measure of the effectiveness of the sum of all the activities.

Evaluation of accumulated measures of the effectiveness of the PEP's individual activities success can be categorized in terms of output (i.e., effort or activity) that measures sort-term goals and milestones. Examples of output measurements include tracking web site hits or the number of literature pieces distributed to a target audience.

When practicable, measurements of outcome (i.e., results that indicate actual behavior change) will be incorporated into BMP activity evaluations. Such measures are expected to include public comment and feedback, level of participation in programs and activities, and tools that measure behavior change. When applicable, these measures will be reasonably coordinated with other communities and organizations and will be designed to supplement or provide comparison to the ADW's 2016 Resident Survey on Water Quality. Results will serve to provide a basis for evaluating PEP activities going forward and will provide an opportunity to benchmark social indicators for subsequent permit cycles.

VII. PERIODIC PROGRESS REPORT

Permittees will provide documentation of PEP efforts, a summary of the evaluation of its effectiveness when appropriate, and any proposed revisions or amendments to the PEP program in the periodic stormwater reports to the MDEQ. Reporting on PEP efforts will reflect data gathered on a calendar year basis.

STORMWATER DISCHARGE PERMIT APPLICATION
COLLABORATIVE PUBLIC EDUCATION PLAN TABLE
For the Alliance of Downriver Watersheds MS4s

Public Education Topic	BMP Activity #	BMP Activity Description	Partner Collaboration	Target Audience	Key Message	Delivery Mechanism	Year	Frequency	Reponsible Party	Goal	Assessment
A-J	1	Watershed community calendar and social media photo contest	Yes	Residents	A-J	Distributed print calendar and photo contest on social media	Even calendar years	Biannually	ADW/Permittees	During the permit cycle, the ADW will collaboratively produce a biannual print calendar in even calendar years that permittees will distribute to residents. To promote a calendar-related public photo contest during even calendar years, the ADW will also produce and permittees will distribute monthly social media posts/digital ads/content. The calendar and photo contest will be posted to the ADW website and permittees will provide links from their websites to the ADW website.	Number of calendars distributed by the ADW and permittees; Number of posts/views on ADW social media sites and on the ADW website; Number of photo contest participants.
A-J	2	Focused topic pollution prevention pledge campaigns	Yes	Residents	A-J	Digital pollution prevention pledge campaign seeking resident commitment toward a positive action	Odd calendar years	Biannually	ADW/Permittees	Biannually, the ADW will collaboratively host one print or digital single-topic pledge campaign. The ADW and permittees will distribute print and digital campaign materials that include a flyer, an ad graphic, and at least eight social media posts through local venues and customer service locations, newsletters and/or other publications, social media and websites.	Number of print campaign materials distributed by the ADW and permittees; Number of posts/views on ADW social media sites and on the ADW website; Number of pledges collected.
A-J	3	Displays at community venues and outreach activities at events	Yes	Residents, visitors, community leaders	A-J	Pop-up display and educational posters at regional fairs and events and community venues, meetings or events	1-5	2-3 regional fairs and events annually; On-going at community venues	ADW/Permittees	The ADW will produce/provide a pop-up display for ADW and permittee use and a set of educational posters for each permittee during the permit cycle. The ADW will collaboratively host the pop-up display at two regional events annually. Permittees will display posters or host the pop-up display in at least one location or at one community event annually.	Name, date and location of event where the ADW hosted the pop-up display; Permittees will also report the location, date and name of meeting/event (if applicable) where they placed posters or hosted the pop-up display in their permittee locations, public venues, meetings/events.
A, B, I	4	Support county green schools program	Yes	Students, teachers	A, B, I	Incentives, educational opportunities and activities (water-related) for green schools and watershed educational signage	1-5	Annually	Wayne County/ADW	The ADW will engage at least three Green Schools in the ADW area each year during the permit cycle in incentives and educational opportunities.	ADW will report a list of schools with number of students participating in tree plantings, watershed workshops or other ADW incentives and educational opportunities; List of schools displaying ADW-provided educational signage or distributing ADW materials; Number of schools including water-related activities in their Green Schools applications.
A primary, B-K secondary	5	Support/promote volunteer stream and water quality monitoring	Yes	Residents, students, teachers	A, B-K	Permittees promote HRWC volunteer water quality monitoring; and volunteer and student benthic macrointertebrate monitoring	1-5	Annually spring-fall; annually at unique events winter, spring, fall	HRWC/ADW/Permittees	The ADW and permittees will promote three one-day volunteer macro-invertebrate monitoring events in the Huron River watershed and a seasonal volunteer chemistry and flow monitoring program in the Huron River and ADW area that are coordinated by the Huron River Watershed Council.	Compilation of all promotional efforts by the ADW; Number of people participating in events as recorded by HRWC; Resulting stewardship actions taken as reported by participants through event surveys conducted by HRWC; Permittees will also report individual efforts to distribute promotional event materials.

STORMWATER DISCHARGE PERMIT APPLICATION
COLLABORATIVE PUBLIC EDUCATION PLAN TABLE
For the Alliance of Downriver Watersheds MS4s

Public Education Topic	BMP Activity #	BMP Activity Description	Partner Collaboration	Target Audience	Key Message	Delivery Mechanism	Year	Frequency	Reponsible Party	Goal	Assessment
A, B, C	6	Stream and river crossing road signs	Yes (to install and/or maintain)	Residents, visitors	A	Roadside Signage	1-5	On-going	ADW/local community officials/Permittees	The ADW has recently completed a baseline survey and map inventory of existing stream crossing and watershed signs documenting location, type and condition. Based on survey results the ADW will advise permittees regarding maintenance and replacement needs and will recommend additional sign locations to increase visibility and public recognition. The ADW will facilitate the production of replacement signs and at least 5 new signs during the permit cycle. Permittees will install and maintain signage.	Survey results, map inventory and recommendations; Number of new and replacement signs produced by the ADW; Permittees will report installation and maintenance activities.
J, K	7	Participate in regional partnership activities	Yes	Stakeholders of partner organizations; residents	A-K	Participate with regional partners in activities that that further public education of watershed and stormwater issues	1-5	On-going; identify and attend 3-4 partner meetings annually	ADW/Permittees	The ADW collaboratively will identify opportunities to build upon and improve collaborative public education efforts by seeking out and attending at least three meetings annually with regional groups working on watershed awareness and stormwater issues.	ADW provided list of meetings with date, location, meeting topic and participating groups and any resulting opportunities identified and reported to permittees.
A-K	8	Promote county-wide complaint tracking and response systems	Yes (to promote)	Residents; visitors; commercial and industrial businesses; local govt officials and employees	B, C, K	Permittees will publicize and promote regional reporting lines with print and digital promotional information	1-5	On-going	Wayne County/ADW/Permittees	The ADW and permittees will annually distribute materials with the hotline number referenced and will promote the hotline on the ADW and permittee websites and social media outlets or newsletters.	Number of materials distributed annually with hotline number referenced reported by ADW for collaborative efforts and reported by permittees for permittee efforts.
B, C	9	Promote water resource protection workshops	Yes (to promote)	Residents, local govt officials and employees; construction contractors and developers	A-J	Permittees will publicize and promote regional educational workshops at customer service locations, on websites, social media outlets and/or newsletters	1-5	On-going as workshops are organized	ADW/Permittees	The ADW and permittees will annually distribute information and promotional materials for at least one regional educational workshop/program through customer service locations websites, social media outlets and newsletters.	Number of materials distributed annually reported by ADW for collaborative efforts and reported by permittees for permittee efforts; Number of views on ADW website and social media reported by ADW.
A, G	10	Promote county household hazardous waste reduction program	Yes (to promote)	Residents	G	Permittees will publicize and promote county collection events and proper disposal of household hazardous waste and recycling with print and digital promotional information	1-5	Annually	Wayne County/ADW/Permittees	The ADW and permittees will annually distribute information and promotional materials for all HHW collections scheduled by Wayne County through customer service locations websites, social media outlets and newsletters.	Number of materials distributed annually reported by ADW for collaborative efforts and reported by permittees for permittee efforts; Number of views on ADW website and social media reported by ADW.

Permittees in the Alliance of Downriver Watersheds:

Allen Park
Belleville
Dearborn Heights
Ecorse
Flat Rock
Gibraltar
Grosse Ile Township
Inkster
Lincoln Park
Melvindale
Riverview
Rockwood
Romulus
Southgate
Sumpter Township
Taylor
Van Buren Township
Wayne County
Westland
Woodhaven
Woodhaven-Brownstown School District
Wyandotte

STORMWATER DISCHARGE PERMIT APPLICATION
COLLABORATIVE PUBLIC EDUCATION PLAN TABLE

Public Education Topic	Key Message
A. Promote public responsibility and stewardship in the applicant(s) watershed.	Watershed defininition, location, purpose for protecting, ways to affect, also including recreational and economic benefits of local water resources.
B. Inform and educate the public about the connection of the MS4 to area waterbodies and the potential impacts discharges could have on surface waters of the state.	Recognition of and how to locate. Lack of treatment and flow impacts to water quality and water body to which MS4 is connected.
C. Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4.	What it is, promotion of reporting system and how to use, water quality impacts, indentification of on-site sewage disposal and symptoms of failure, consequences to water quality.
D. Promote preferred cleaning materials and procedures for car, pavement, and power washing.	Preferred cleaning materials and procedures.
E. Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers.	Proper application and disposal.
F. Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4.	Proper disposal.
G. Identify and promote the availability, location, and requirements of facilities for collection or disposal of household hazardous wastes, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids.	Identification of household hazardous wastes and proper disposal.
H. Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure.	Proper care and maintenance, recognition of failure, water quality impacts.
I. Educate the public on and promote the benefits of green infrastructure and Low Impact Development.	Benefits of green infrastructure and low impact development and implementing landscaping for water quality in residential applications.
J. Promote methods for managing riparian lands to protect water quality.	Benefits of riparian buffers of native plants, shrubs and trees for preventing erosion and runoff into waterbodies.
K. Identify and educate commercial, industrial and institutional entities likely to contribute pollutants to stormwater runoff.	Storage of chemicals to prevent exposure to stormwater runoff, proper disposal of grease and waste from food preparation, best practices for kitchen maintenance and recycling to prevent improper disposal.

DIVISION 1. - GENERALLY

Sec. 50-156. - Definitions.

Authorized enforcement agency means the city engineer and his/her authorized representatives, which shall specifically include all inspectors and article enforcement, and any other individual designated by the Mayor of Taylor to enforce this article. Where applicable the terms may also mean the Director of the Michigan Department of Environmental Quality or his/her designated official, and/or the United States EPA Administrator or his/her designated official.

Best management practices (BMPs) means schedules of activities, prohibitions of practices, general good house keeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

City means the City of Taylor.

Clean Water Act means the Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

Construction activity means activities subject to NPDES construction permits. These include construction projects resulting in land disturbance of five acres or more requiring an issued permit and small construction activities impacting one to five acres of land deemed to operate under a national permit. Such activities include but are not limited to, clearing and grubbing, grading, excavating and demolition.

County means the County of Wayne.

Hazardous materials means any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Illegal discharge means any direct or indirect non-stormwater discharge to the storm drain system, except as exempted in section 50-161 of this article.

Illicit connections means either of the following: (1) any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to, any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency; or (2) any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

Industrial activity means activities subject to NPDES industrial permits as defined in 40 CFR, Section 122.26 (b)(14).

MS4 means a municipal separate storm sewer system.

National pollutant discharge elimination system (NPDES) stormwater discharge permit means a permit issued by United States Environmental Protection Agency (EPA), or by the State of Michigan under authority delegated pursuant to 33 USC § 1342(b) and codified in the Michigan Natural Resources and Environmental Protection Act Protection at MCL 324.101 et seq, that authorizes the discharge of pollutants to waters of the United States or State of Michigan, whether the permit is applicable on an individual, group, or general area-wide basis.

Non-stormwater discharge means any discharge to the storm drain system that is not composed entirely of stormwater.

Person means any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner or as the owner's agent.

Pollutant means anything which causes or contributes to pollution. Pollutants may include, but are not limited to: Paints, varnishes, and solvents; oil and other automotive fluids; nonhazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Premises means any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

Storm sewer system or *storm drainage system* means a publicly-owned facility by which stormwater is collected and/or conveyed, including but not limited to, any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

Stormwater means any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

Stormwater pollution prevention plan means a document which describes the best management practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

Wastewater means any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-157. - Purpose.

The purpose of this article is to provide for the health, safety and general welfare of the citizens of the city through the regulation of non-stormwater discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This article establishes methods for controlling the introduction of pollutants into the municipal storm sewer system in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this article are:

(1) To regulate the contribution of pollutants to the municipal storm sewer system by stormwater discharges by any user.

(2) To prohibit illicit connections and discharges to the municipal storm sewer system.

(3) To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this article.

(Ord. No. 12-467, § 1, 1-3-2012)

DIVISION 2. - ADMINISTRATION

Sec. 50-158. - Applicability.

This article shall apply to all water entering the storm drain system generated on any developed or undeveloped lands unless expressly exempted by an authorized enforcement agency.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-159. - Enforcement, responsibility for administration.

This article shall be enforceable by the city engineer or other authorized enforcement agency.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-160. - Minimum standards.

The standards set forth herein and promulgated pursuant to this article are minimum standards; therefore this article does not intend, nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-161. - Discharge prohibitions.

(a) *Prohibition of illegal discharges.* No person shall discharge or cause to be discharged into the storm drain system or watercourses any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater. The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:

(1) Discharges from footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, noncommercial washing of vehicles, natural riparian habitat or wetland flows, swimming pools (if dechlorinated - typically less than one PPM chlorine), firefighting activities.

(2) Discharges specified in writing by the city engineer as being necessary to protect public health and safety.

(3) Dye testing is an allowable discharge, but requires a verbal notification to the city engineer prior to the time of the test.

(4) The prohibition shall not apply to any non-stormwater discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency; provided that, the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

(b) *Exempt discharges.* The following discharges are exempt from the discharge prohibitions established by this article: Water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising groundwater, groundwater infiltration to storm drains, uncontaminated pumped groundwater, foundation or and any other water source not containing pollutants.

(c) *Prohibition of illicit connections.*

(1) The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.

(2) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

(3) A person is considered to be in violation of this article if the person connects a line conveying sewage to a storm drain system or MS4, or allows such a connection to continue.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-162. - Suspension of storm sewer system access.

(a) *Suspension due to illicit discharges in emergency situations.* The city engineer or other authorized enforcement agency may, without prior notice, suspend storm sewer system discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the storm sewer system or the waters of the United States or State of Michigan. If the violator fails to comply with a suspension order issued in an emergency, the authorized enforcement agency may take such steps as deemed necessary to prevent or minimize damage to the storm sewer system or waters of the United States or State of Michigan, or to minimize danger to persons.

(b) *Suspension due to the detection of illicit discharge.* Any person discharging to the storm sewer system in violation of this article may have their storm sewer system access terminated if such termination would abate or reduce an illicit discharge. The city engineer will notify a violator of the proposed termination of its storm sewer system access. The violator may petition the city engineer for reconsideration and hearing.

(c) *Violation.* A person violates this article if the person reinstates storm sewer system access to premises terminated pursuant to this section, without the prior approval of the city engineer or other authorized enforcement agency.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-163 - Industrial or construction activity discharges.

Any person subject to an industrial or construction activity NPDES stormwater discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the city engineer or other authorized enforcement agency prior to the allowing of discharges to the storm sewer system.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-164. - Monitoring of discharges.

(a) *Applicability.* This section applies to all facilities that have stormwater discharges associated with industrial activity, including construction activity.

(b) *Access to facilities.*

(1) The city engineer and/or representatives of the authorized enforcement agency shall be permitted to enter and inspect facilities subject to regulation under this article as often as may be necessary to determine compliance with this article. If a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to the city engineer or representatives of the authorized enforcement agency.

(2) Facility operators shall allow the city engineer and/or representatives of the authorized enforcement agency ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge stormwater, and the performance of any additional duties as defined by state and federal law.

(3) The city engineer and/or representatives of the authorized enforcement agency shall have the right to set up on any permitted facility such devices as are necessary in the opinion of the city engineer or authorized enforcement agency to conduct monitoring and/or sampling of the facility's stormwater discharge.

(4) The city engineer has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.

(5) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the city engineer and/or designee and shall not be replaced. The costs of clearing such access shall be borne by the person operating the facility.

(6) Unreasonable delays in allowing the city engineer and/or representatives of the authorized enforcement agency access to a permitted facility is a violation of a stormwater discharge permit and of this article. A person who is the operator of a facility with a NPDES permit to discharge stormwater associated with industrial activity violated this article if the person denies the city engineer or authorized enforcement agency reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this article.

(7) If the city engineer and/or representatives of the authorized enforcement agency has been refused access to any part of the premises from which stormwater is discharged, and he/she is able to demonstrate probable cause to believe that there may be a violation of this article, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this article or any order issued hereunder, or to protect the overall public health, safety and welfare of the community, then the city engineer and/or authorized enforcement agency may seek issuance of a search warrant from any court of competent jurisdiction.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-165. - Requirement to prevent, control, and reduce stormwater pollutants by the use of best management practices.

The city engineer shall adopt requirements identifying best management practices for any activity, operation or facility which may cause or contribute to pollution or contamination of stormwater, the storm drain system, or waters of the United States or State of Michigan. The owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses through the use of these structural and nonstructural BMPs. Further, any person responsible for a property or premises, which is, or may be, the source of an illicit discharge, may be required to implement, at said person's expense, additional structural and nonstructural BMPs to prevent the further discharge of pollutants to the storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section. These BMPs shall be part of a stormwater pollution prevention plan (SWPP) as necessary for compliance with requirements of the NPDES permit.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-166. - Watercourse protection.

Every person owning property through which a watercourse passes, or such person's lessee(s), shall keep and maintain that part of the watercourse within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. This responsibility does not apply to publicly or privately owned drains that are not owned by the property owner and are otherwise the responsibility of the drain owner. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-167. - Notification of release or discharge.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into stormwater, the storm drain system, or water of the United States or State of Michigan said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of nonhazardous materials, said person shall notify the authorized enforcement agency in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the city engineer within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

(Ord. No. 12-467, § 1, 1-3-2012)

DIVISION 3. - ENFORCEMENT

Sec. 50-168. - Notice of violation.

(a) Whenever the city engineer or authorized enforcement agency finds that a person has violated a prohibition or failed to meet a requirement of this article, the city engineer or other authorized enforcement agency may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

    (1) The performance of monitoring, analyses and reporting;

    (2) The elimination of illicit connections or discharges;

    (3) That violating discharges, practices, or operations shall cease and desist;

    (4) The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;

    (5) Payment of a fine to cover administrative and remediation costs; and

    (6) The implementation of source control or treatment BMPs.

(b) If abatement of a violation and/or restoration of affected property are required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the

work will be done by the city or the authorized enforcement agency or a contractor and the expense thereof shall be charged to the violator.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-169. - Appeal of notice of violation.

Any person receiving a notice of violation may appeal the determination of the city engineer to the mayor. The notice of appeal must be received by the mayor's office within seven days from the date of the notice of violation. A hearing on the appeal before the mayor or his/her designee shall take place within 15 days from the date of receipt of the notice of appeal. The decision of the mayor or designee shall be final.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-170. - Enforcement measures after appeal.

If the violation has not been corrected pursuant to the requirements set forth in the notice of violation, or, in the event of an appeal, within 15 days of the denial of an the appeal, then representatives of the city engineer or authorized enforcement agency shall enter upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the government agency or designated contractor to enter upon the premises for the purposes set forth above.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-171. - Cost of abatement of the violation.

(a) Within 30 days after abatement of the violation, the owner of the property will be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within 15 days. If the amount due is not paid within 60 days or by the expiration of the time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment.

(b) Any person violating any of the provisions of this article shall become liable to the city for the cost of the abatement by reason of such violation. The liability shall be paid in not more than 12 equal payments. Interest at the legal rate then applicable shall be assessed on a per annum basis on the balance beginning on the first day following discovery of the violation.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-172. - Injunctive relief.

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this article. If a person has violated or continues to violate the provisions of this article, the city engineer or authorized enforcement agency may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-173. - Compensatory action.

In lieu of bringing enforcement proceedings to seek the penalties and remedies authorized by this article, the city engineer or authorized enforcement agency may impose alternative compensatory actions upon a violator, such as storm drain stenciling, attendance at compliance workshops, creek cleanup, etc. The decision to seek alternative compensatory actions does not waive the city or authorized enforcement agency's right to seek legal enforcement from a court of law.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-174. - Violations deemed a public nuisance.

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this article is a threat to public health, safety and welfare, and is declared and deemed a public nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-175. - Criminal prosecution.

(a) All violations of this article shall be municipal civil infractions and upon a determination of responsibility therefor shall be punishable by a civil fine of not more than $500.00.

(b) The authorized enforcement agency may recover all attorney fees court costs and other expenses associated with enforcement of this article, including sampling and monitoring expenses.

(Ord. No. 12-467, § 1, 1-3-2012)

Sec. 50-176. - Remedies not exclusive.

The remedies listed in this article are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the authorized enforcement agency to seek cumulative remedies.

(Ord. No. 12-467, § 1, 1-3-2012)

Secs. 50-177—50-200. - Reserved.

Taylor Hills

Compost Site and Transfer Station

SITE and OPERATIONS MANUAL

August 2014

Revised: March 2015

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GENERAL INFORMATION:

Site Address:
Taylor Hills Compost Site and Transfer Station
16300 Racho Rd.
Taylor MI 48180
Phone: 734-991-3902

This site has been successfully operating since 1995. This Site and Operations Manual has been revised to reflect changes in operations at the Taylor Hills Compost Site that has occurred over the years due to losses in workforce. During these workforce reductions this site has maintained a high quality product and provides a vital service to the City of Taylor and the Downriver area.

This site and its operations are designed to follow the requirements of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451; as amended, and the Wayne County Solid Waste Ordinance 2004-787; Section 235 – "Processing, Recycling, Composting, Transfer Facilities".

SITE INFORMATION:

1. Legal Description and Vicinity Map:

This site consists of 5 parcels of land totaling 47.02 acres. The compost site operates on only 39 acres of this property with 24.11 acres of this area being used for site compost storage. The remaining 8.02 acres cannot be used for composting operations due isolation distance restrictions.

Legal Descriptions:

60-092-99-0005-704:
33 YY1A1B2 PT OF THE SE 1/4 OF SEC 33 T3S R10E DESC AS BEG S 89D 37M 45S W 1716.20 FT AND N 00D 05M 00S E 872.59 FT FROM THE SE COR OF SAID SEC 33; TH S 88D 40M 47S W 271.64 FT ;TH N 00D 04M 34S E 1111.94 FT; TH N 40D 24M 19S E 286.41 FT; TH N 89D 11M 19S E 244.37 FT; TH S 00D 03M 19S W 1140.92 FT; TH S 89D 36M 04S W 159.00 FT; TH S 00D 03M 19S W 185.08 FT; TO POB 11.96 AC - K –
Total: 11.96 AC

60-092-99-0006-701:
33YYA2A PT OF SE 1/4 OF SEC 33 T3S R10E DESC AS BEG S89D 37M 45S W 1557.20 FT AND N 00D 05M 00S E 879.61 FT FROM SE COR OF SEC 33: TH S 87D 08M 06S W 159.81 FT TH N 00D 05M 00S E 185.08 FT TH N 89D 37M 45S E 159.00 FT TH S 00D 05M 00S W 178.16 FT POB.
Total: .66 AC

60-092-99-0007-700:
33ZA1A1 ZA2B1A PT OF THE SE 1/4 OF SEC 33 T3S R10E DESC AS BEG N 88D 40M 3S W 1359.20 FT FROM THE SE COR OF SAID SEC 33; TH N 88D 40M 3S W, 198.00 FT; TH N 1D 47M 12S E, 1694.64 FT; TH S 89D 33M 48S E, 196.81 FT; TH S 1D 44M 42S W, 1697.71 FT; POB; 7.69 AC; EXC THE SOUTH 60 FT THEREOF;
Total: 7.42 AC (southern 4.01 acres is not used for composting activities):

60-092-99-0008-000:
33ZA1B--ZD2A PT OF SE 1/4 SEC 33 T3S R10E DESC AS BEG S00DEG 27M 56S E 834.85FT FROM E 1/4 COR SEC 33 TH S00DEG 27M 56S E 374.21FT TH S89DEG 48M W 1160.96FT TH N00DEG 02M 30S W 332.64FT TH S88DEG 17M 34S W 393.80FT TH N00DEG 21M 56S W 501.52FT TH N88DEG 46M 02S E 200. 0FT TH ELY ON A CURVE TO S RAD 2131.83FT ARC 611.73FT TH ELY ON A CURVE TO SW RAD 2188.83FT ARC 823.80FT TO POB EXC S 100FT OF W 1100FT PT THEREOF MEAS 1101.03FT ON N LINE AND 1100.96FT ON S LINE
Total: 19.55 AC

60-092-99-0009-700:
33ZA2C1A ZB2A1 PT OF THE SE 1/4 OF SEC 33 T3S R10E DESC AS BEG N 88D 40M 3S W 1161.20 FT FROM THE SE COR OF SAID SEC 33; TH N 88D 40M 3S W 198.00 FT TH N 1D 44M 42S E, 1697.71 FT TH S 89D 33M 48S E, 196.81 FT; TH S 1D 42M 12S W 1700.78 FT; POB; 7.70 AC; EXC THE SOUTH 60 FT THEREOF;
Total: 7.43 AC (southern 4.01 Acres is not used for composting activities)

Vicinity Map: See Appendix A, Page 18

2. Site Criteria:

Locations for the management and storage of yard clippings, compost, and residuals maintain the following distances from the noted features (for sites in operation prior to December 1, 2007):

Property Line:	Min. 50 feet
Residence:	200 feet
Body of surface water, including a lake, stream or wetland:	100 feet

The Taylor Hills site complies with these minimum required distances.

3. **Federal Aviation Administration (FAA) – AC150/5200-33B:**

This ruling recommends the following separation distances for operation of facilities that attract hazardous wildlife to the vicinity of airports:

Airports serving piston-powered aircraft:	5,000 feet
Airports serving turbine-powered aircraft:	10,000 feet
All airports, when hazardous wildlife could travel into airspace:	5 miles

Detroit Metro Airport is the closest airport to this facility and it is located approximately 4 miles to the northwest. This facility does not provide an attraction for wildlife as food waste is not handled here, thus we are in full compliance with this ruling.

4. **Site Screening:**

Currently the site is visually screened using berms with established tree, grass and ground cover. Berms are located on the south and west sides of the site and portions of the east side of the site. The I-75 entrance ramp bounds this site to the north providing appropriate screening in that direction.

5. **Site Design:**

Slope: 2% slope across the site sloped towards the retention basins.

Staging, Brush Staging and Access Road: Asphalt surfaces

Site Drainage:

Storm water runoff is directed, via sheet flow, towards one of the three (3) on-site retention ponds. These ponds were designed in 1995, for a 10 year, 24 hour storm event. Discharge from the ponds may occur during a large rainfall event (3.5 in.); however measures have been taken such that even with a breach water should not enter any storm system or any county drain system.

Maintenance of these ponds was recently instituted and will be on-going. This includes periodically removing any sediment that has

accumulated in the leading edge of the pond utilizing city equipment. Additionally a filter berm, consisting of coarse graded gravel, will be constructed at the East pond to reduce sediment in-flow. The berm will be maintained as necessary.

The existing storm system originating in the NW corner of the site flows southerly into the retention basin, this system is intended for any storm water that may contact composting materials in the staging area.

Drainage swales parallel to the main entrance roadway flow to the west to the system draining into the southern-most retention basins.

The drainage swales beginning near the pole building flowing easterly adjacent to the road flow easterly into retention basin at the eastern end of the site.

Sanitary Facilities:

Sanitary facilities exist in the building at the entrance to the facility and extend to the garage in the staging area.

Access:

All vehicles enter this site utilizing the main road from Racho Rd. This entrance is secured with the gate and locked during hours that the site is not operating. The sites north property line, portions of the east and south property lines are secured with cyclone fencing. The north property line is bounded by the I-75 ramp.

The access road from Pennsylvania Rd. will be secured and restricted with a locked chain secured between two pipe bollards.

OPERATIONS PLAN:

1. **Operating Season:**

This site is open to receive yard waste material eight (8) months out of the year, from April 1st through November 30th. This correlates to the anticipated growing season and typical length of yard waste collection

services. Hours of operation are 8:00 am to 3:00 pm, Monday through Saturday.

2. **Staff Responsibility:**

All site personnel receive training in proper windrow composting technology. Additionally, each employee has the authority to reject non-yard waste loads and material delivered in an advanced stage of anaerobic decomposition. Positions and people described below may be deleted or added to reflect actual operating conditions. Workers may perform work other than that described for purposes of efficient utilization of personnel.

TITLE	**BRIEF JOB DESCRIPTION**
Executive Director – Public Works (Located at DPW Offices)	Overall facility responsibility
City Engineer (Located at DPW Offices)	Environmental and Regulatory Compliance, Storm Water/Utility Oversight
Dept. of Public Works – Foreman (At DPW and Compost Site, as req'd)	Manages Daily Operations, Abatement Issues, Personnel Training and Safety
Gate Attendant (1)	Maintain Transfer Area, Customer Service, Records Maintenance & Logs
Operators (3)	Site Equipment Operations, Material Handling, Customer Assistance, Transfer Area Maintenance, Compost Handling including Screening, Grinding, Testing and Windrow Maintenance
Truck Driver (1)	Truck Driving, Assist Operators

Mechanic/Operator	(1)	Performs Equipment Maintenance, Operators Duties as assigned

The number of employees on site varies throughout the season; numbers reflected here are the maximums. At times job assignments may shift as needs arise.

3. **On-Site Equipment:**

EQUIPMENT	PURPOSE
Front End Loaders	Material Handling and Housekeeping
Tub Grinder	Raw Material Grinding, Size Reduction of Woody Debris
Dump Truck	Transporting of Material
Water Truck	Dust Suppression
Windrow Turner (Straddle-type)	Turning Windrows
Post-Processing Screen	Screening Finished Compost for Final Product

Other equipment may be utilized at times when needs arise. Any additional equipment needed is normally stored at the Department of Public Works (DPW) facility.

4. **Volume of Yard Waste Material and Mass Balance:**

Yard waste material and other compostable material are brought to the site during the normal 8 month growing season. This material is then processed and mixed to begin composting. On average the following amounts of compostable material are received, stored and distributed by this site:

Average material on-site:	32,000 CY
Average material brought to the site:	54,000 CY
Average material removed from the site:	35,000 CY

On-Site Material Storage: 32,000 CY/24.11 = 1,327 CY/acre

There is 24.11 acres of storage areas on-site containing yard clippings and compost in all forms. This site is currently operating well below the allowed maximum.

On March 17, 2011 the DEQ granted a variance under Section 11521 (4)(c)(ii) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, PA 451, as amended; to allow a maximum of 10,000 CY on any acre of property on the site. A copy of this letter has been included in Appendix 'C'.

5. **Material Handling Operations:**

Material Intake:

a. Trucks containing material arrive on-site and onto the site scale.
b. Gate Attendant weighs the load.
c. Truck proceeds to the staging area and empties load.
d. Truck returns to scale.
e. Gate Attendant weighs the empty truck.
f. Incoming material weight is logged by gate attendant.
*Weighing of materials may be done through a computerized system.

Unsuitable material will be rejected by the gate attendant. Materials that may be rejected include; material in an advanced state of decomposition and/or having detectable strong odors.

Unacceptable materials not taken at the site include; landscape timbers, food waste, municipal sewage sludge and regulated solid waste.

The City of Taylor reserves the right to deem any material unacceptable and or unsuitable and will reject these materials accordingly.

Material Processing:

a. Operators inspect the material and remove objectionable material.
b. Material is then ground to reduce material size.
c. When material size is appropriate material is moved to the active storage area to begin curing.

Windrow Construction:

a. Material moved to the active storage (curing) area.
b. When appropriate materials are available they are added to the developing rows.
c. Rows are mixed utilizing 1/3 Nitrogenous Material (grass clippings) and 2/3 Carbonaceous Material (leaves, wood shards).
d. Typically rows are constructed to be between 5 to7 feet tall and 16 to 18 feet wide.
e. Moisture content of the material shall be maintained during this construction process. If the material feels moist to the touch and water cannot be squeezed out of the material the moisture content is satisfactory.
f. When the row construction reaches the desired dimension the windrow shall be turned to properly mix the layered materials.
g. Site personnel shall monitor visually, or by touch the moisture during this initial turning process and add water as needed to promote proper composting.

Windrow Monitoring:

a. Windrows shall be monitored to determine the optimum time for material turning.
b. Windrows shall be tested a minimum of three locations per windrow.
c. No test locations shall be located closer than 75 to 100 feet apart.
d. Newly formed windrows, especially those containing grass clippings, shall be monitored twice a week for the first two weeks to assure the process is progressing properly. Should the temperatures not stabilize between 100 to 140 F in this time frame continue monitoring the temperature until it does.
e. After the first two weeks, windrow monitoring shall occur every other week. When temperatures begin to exceed 150 F or drop below 100 F, frequency of temperature testing shall be increased to bi-weekly, see "Windrow Temperature" for further information.
f. Monitoring shall include evaluation of the moisture content and temperature.
g. Temperatures shall be taken at the 1/3 point up the height of the windrow and well within the body of the windrow.
h. After securing temperature reading a moisture test should be completed in the same location at a depth of 6 to 12 inches into the

pile. Operators shall secure a sample by hand to determine if the windrow moisture requires adjustment.

i. Windrow temperature, moisture content and pile turn date will be recorded on the 'Operational Records of Taylor Hills Compost Facility' form, see Appendix 'B'. The form will be kept at the gate house and made available for inspection as necessary.

Windrow Temperatures:

a. Windrows temperatures shall be maintained between 100 F to 140 F.
b. Windrows shall be tested a minimum of three locations per windrow.
c. When temperatures exceed 150 F or drop below 100 F, testing frequency shall be increased to bi-weekly to monitor the windrow.
d. Should temperatures remain above 150 F or below 100 F for several tests in a row turning is needed.
e. Immediately following turning windrow temperatures shall again be taken twice a week for two weeks, should temperatures stabilize between 100 F to 140 F, testing can again be extended to every other week.
f. If temperatures do not stabilize moisture contents shall be analyzed within the windrow.

Windrow Moisture Levels:

a. Moisture samples shall be taken at the same location where temperature was taken.
b. Samples shall be taken at a depth of 6 to 12 inches within the pile.
c. Material at the proper moisture level will feel moist, like a damp sponge, and should not release more than a few drops of water upon being squeezed.
d. Should a more definitive moisture content be required the following steps should be followed:
    - Weigh the sample and record the weight prior to drying (WB).
    - Dry sample in the microwave or oven.
    - Weigh the sample and record the weight following drying (WA).
    - Calculate percent moisture as follows:

      $$\% \text{ moisture} = ((WB-WA)/WB) \times 100$$

e. Moisture levels, within piles, shall be maintained between 40% to 55% for optimum curing.

f. As needed, water can be added to the windrows. Water for this purpose shall be obtained from the on-site retention ponds.

Windrow Turning:

a. Windrows shall only be turned at the direction of the Foreman.
b. Windrows shall be turned when temperature indicators determine that the current compost process has slowed. Due to past experience it is expected windrows would need to turned approximately every 6 to 8 weeks.
c. Windrows shall only be turned at times when the atmospheric conditions are favorable or during periods of "moderate to high atmospheric dispersion" and wind speed.
d. Turning should be avoided when conditions are as follows; Nonexistent or slight wind speed, times of high humidity, high dew point and/or hot temperatures.

Material Post-Processing:

a. When material has completed "active" composting, a rapid decrease in temperature will occur.
b. Material will be dark brown to black in color, have a fine granular texture and release an "earthy" smell.
c. Material will be transported from the curing area and stockpiled in a storage area.
d. Material, as needed, will be screened and stored as final product.
e. Debris material created by the screening process shall either be reintroduced into the composting process or hauled to a landfill as determined by the Foreman.
f. At least yearly a representative sample shall be taken and analyzed as required. Test results will be available from the Gate Attendant.
g. Required tests shall include the following; pH, Carbon to Nitrogen (C:N) ratio, Electrical Conductivity (i.e. soluble salts), Chloride, Sulfate, Foreign Matter content, Maturity (i.e. Solvita Test), and a Total nutrient analysis including Total N, P, K, Calcium, Magnesium, Sodium, Zinc, Manganese, Copper, Iron, Boron, Aluminum and Molybdenum.

Documentation/Reporting:

a. All records of incoming and outgoing volumes (cubic yard, CY) shall be available at the gate house at all times in the log book.
b. Annually, by October 31 each year, the Taylor Hills Facility shall report the amount of yard clippings and other compostable material composted the previous year to the DEQ per the State of Michigan Part 115 required forms.
c. Documentation records of previous years tests for Carbon to Nitrogen (C: N) ratios and lab analysis of finished product shall be available at the gate house and upon request.
d. Logs of temperature readings, moisture content and the amount of leaves and amount of grass in tons or cubic yards shall be recorded in the log book at the gate house and available upon request.

Final Product Uses:

City of Taylor Residents (Free to residents for pick-up): The City of Taylor encourages city residents to visit the site, bring containers to load and utilize this material on their properties. Typical uses would include gardens, landscaping, as well as a replacement to topsoil.

Commercial Users: This product can be used commercially and The City of Taylor welcomes all inquiries for purchase of this material.

Municipal Use: This material will be utilized by the City of Taylor for planting and landscaping to offset the cost of purchasing topsoil. Also, State and other Local agencies are welcome to inquire about purchase at a lessor cost to that of topsoil for similar uses.

The City of Taylor does not guarantee this compost free and clear of seeds containing weeds or any possible pesticide residue that may damage other plants, etc. This material is provided as a service and the purchaser or end user assumes responsibility for its use.

5. General Site Housekeeping:

Daily Housekeeping:

a. Pick-up litter and garbage around gate building.
b. Pick-up litter and garbage around transfer station area.

c. Monitor dumpsters and keep them from overflowing.

Weekly Housekeeping:

a. Replace dumpsters, as required, when full.
b. Clean up trash along the fence lines.
c. Maintain aisles between windrows free of debris and clean.
d. Replenish compost and wood chip areas for resident access to free materials.
e. Pick up any litter around the staging area.
f. Clean up litter and debris around the retention basins, storm water basins and culverts.
g. Mow grass around the site.

Monthly and Special Housekeeping:

a. Inspect areas up-hill from the retention basins. Any areas of concentrated water flows shall be re-graded to promote sheet flow into the basins; monthly and after heavy rain events.
b. Inspect filter berm at east retention basin for failures; monthly and after heavy rain events.
c. Inspect retention basins to ensure their integrity; monthly and after large volume rain events.

Yearly Housekeeping:

a. Inspect retention basins for excess sediment. Contact City Engineer should a concern arise; inspect yearly or after a substantial rain event.
b. Remove excess sediment as directed by the City Engineer and/or Foreman.

ABATEMENT PLANS:

Should any of the following abatement issues become anything other than an immediate minor issue, the Foreman shall be contacted. Should the Foreman not be available any of the below personnel can be contact or the on-call Foreman.

In emergency situations, Supervisory Personnel should be notified as soon as possible after the situation has stabilized.

If an emergency situation presents harm to human life, **contact 911 IMMEDIATELY.**

1. **Supervisory Personnel:**

Foreman – **Daily Operations, Abatement issues (i.e. Noise, Smell, etc.)**
16300 Racho Rd.
Taylor, MI 48180

734-991-3902 (M-F, 7:30 am to 3:30 pm)

City Engineer – **Regulatory and Site Storm/Utility Oversight**
25605 Northline Rd.
Taylor, MI 48180

734-374-1425 (M-F, 9:00 am to 5:00 pm)

Executive Director – Public Works – **Overall Site Oversight**
25605 Northline Rd.
Taylor, MI 48180

734-374-1473 (M-F, 9:00 am to 5:00 pm)

Off Hours Contact Information:

On-Call Foreman: 734-285-6611
Emergency: 911

2. **Halting Operations:**

Should any of the following situations appear serious enough to warrant restricting any/all portions of the site operation the following steps shall be taken:

- Site personnel shall contact the Foreman and/or other Supervisory Personnel when safe to do so.
- The Foreman shall make contact with the Director of Public Works to implement a plan to halt operations.
- All major site users shall be contacted by phone, informed of the situation and advised to not dispatch trucks to the site. (A list of all major site users shall be available at the site and at the DPW offices.)

- If warranted, for longer term closures; information of a site closure shall be given to the City's Public Information Officer (PIO) for issuance of press releases or other notifications as the PIO sees fit.

3. **Odor Minimization:**

Nuisance odors are a potentially serious problem that can occur at a composting facility. The following features exist on this site to aid with the mitigation of odors. The staff understands this annoyance and works diligently to minimize odors leaving the site.

- A misting system exists on the east perimeter fence, to help control odors leaving the site when the wind is out of the west.
- Landscape berms along the east and south property lines provide areas for vegetation which help to increase atmospheric dispersion via turbulence. Prevailing winds generally travel from the southwest to northeast across the site.
- Windrow turning, and/or pile teardown, will occur primarily during periods of moderate to high atmospheric dispersion and wind speed. A windsock has been placed on the site to aid site personnel in determining when weather conditions are appropriate for turning.
- Windrow turning shall not occur during times when stable atmospheric conditions predominate. Examples of conditions, which contribute to stable atmospheric conditions, include; Nonexistent or slight wind speed, Inversion layers (little or no vertical mixing of air), High Humidity, High Dew Point and Hot Temperatures.
- Facility staff will monitor for offsite odors on a daily basis.
- Should odor begin to present a persistent problem the use of odor surfactants (neutralizers) may be employed. Masking agents shall <u>not</u> be used as they can contribute to the odor problem.

4. **Mud and Dust Control:**

Main roads on the site are paved such that mud and dust from truck traffic generally should not be an issue; however in cases where mud or dust may become an issue the following housekeeping measures will be employed.

- The main on-site road shall be maintained clean and free of debris. If mud or other materials are tracked onto the pavement it shall be cleaned up using on-site equipment and not allowed to dry and become airborne.

- Gravel road areas and other areas of the site shall be maintained such that dirt and dust will not become airborne. Should these areas dry, such that dust becomes an issue, the offending area shall be sprayed with water from the retention basins until sufficiently wet to minimize the dust. DO NOT overwater creating "mud".
- Dirt and mud from the site shall not be allowed to leave the site on vehicle tires, etc. Should it become apparent that debris from the site is being tracked into Racho Road the situation shall be immediately remedied. If necessary, traffic from the site shall be halted until the situation is fixed.
- Any mud and/or other debris, from this site and within 2500 feet of the entrance, tracked onto Racho Road, shall be cleaned up immediately upon the discovery of the situation.

5. **Blowing Debris:**

Blowing debris sometimes occurs in the areas around the transfer station. Diligent and daily housekeeping are key to minimizing blowing debris. The on-site staff is required to daily maintain the areas around the entrance and transfer station. Weekly the fence line areas shall be cleaned of debris caught on the fence.

The fence lines and landscape berms act as barriers from airborne debris exiting the site into the roadway or onto adjacent properties. Should the situation occur where airborne debris from this site finds its way off the site it shall be cleaned up immediately and the offending situation fixed.

6. **Noise:**

This site is bounded by industrial facilities and the I-75 expressway; as such noise from the daily work is not anticipated to be an issue. Operations on the site are completed during daytime hours when excessive noise issues should be minimal. Most work with motorized heavy equipment generally occurs around the middle of the site. Also, it should be noted that, stockpile and windrow areas absorb or deaden much of the site noise.

7. **Fire:**

In the unlikely event of a fire the following plan should be instituted. Fire does not necessarily mean visible flames; smoke may indicate a potential problem. Site personnel shall be vigilant in monitoring incoming loads for

smoldering materials. Active composting piles in a low moisture condition can also ignite due to the high internal temperatures. If fire is suspected the following steps shall be implemented:

- All equipment on-site shall be immediately turned off.
- On-site personnel shall assess the emergency.
- If the situation could cause harm to human life or is too large for site personnel to handle, call 911 **IMMEDIATELY**.

Site Personnel Resolution Steps:

These steps should **ONLY** to be utilized should the situation not present the possibility of harm to human life.

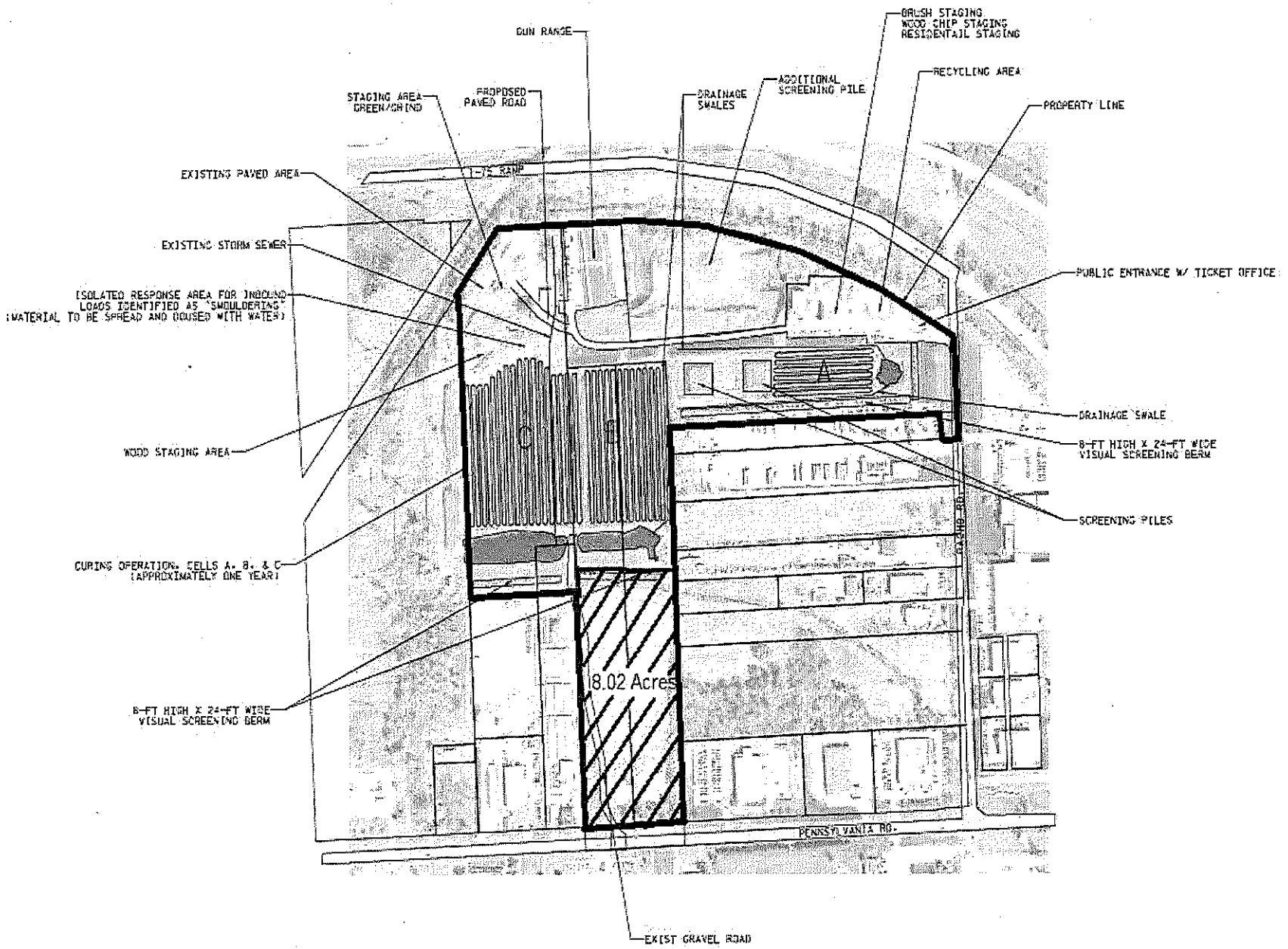
Inbound Smoldering Load:

- Direct the truck to the isolated response area.
- Vehicle shall dump load.
- The front end loader or other available equipment shall quickly spread the material out.
- Material shall be thoroughly doused with water and/or fire extinguishers.

Windrow Combustion:

- Material immediately surrounding the fire shall be cleared to isolate the source.
- Water shall be sprayed over the pile to suppress the fire.
- Alternately, the front end loader may also dump moist compost on the fire for suppression.

APPENDIX A


GUN RANGE
BRUSH STAGING
WOOD CHIP STAGING
RESIDENTAIL STAGING
RECYCLING AREA
PROPERTY LINE
STAGING AREA
GREEN/GRIND
PROPOSED
PAVED ROAD
DRAINAGE
SWALES
ADDITIONAL
SCREENING PILE
EXISTING PAVED AREA
RAMP
EXISTING STORM SEWER
ISOLATED RESPONSE AREA FOR INBOUND
LOADS IDENTIFIED AS "SMOULDERING"
(MATERIAL TO BE SPREAD AND DOUSED WITH WATER)
PUBLIC ENTRANCE W/ TICKET OFFICE
DRAINAGE SWALE
8-FT HIGH X 24-FT WIDE
VISUAL SCREENING BERM
WOOD STAGING AREA
SCREENING PILES
CURING OPERATION, CELLS A, B, & C
(APPROXIMATELY ONE YEAR)
18.02 Acres
8-FT HIGH X 24-FT WIDE
VISUAL SCREENING BERM
PENNSYLVANIA RD.
EXIST GRAVEL ROAD

APPENDIX B

Operational Records of Taylor Hills Composting Facility

Row#: _____ Date row started: _____ Date row completed: _____

C:N: Ratio Estimated or Calculated (circle one)

Content of rows: 1/3 grass clippings and 2/3 leaves / wood chips

Row dimensions: 5-7 feet tall by 16-18 feet wide

☐ Check here if lab analysis of finished product is available

Date	Temperature (Measurement taken in middle of pile every 75-100 feet and the average temp. recorded)	Moisture Content (indicate whether the material is wet or dry)	Pile Turned (Put an X in this column if pile was turned on this day and initials or name of who did it)

TAYLOR HILLS COMPOSTING FACILITY

Date	Volume of material brought to site (Cubic Yards)	Source of material (e.g. municipality collection, landscaping company, citizen etc.)	Volume of material removed from site (Cubic Yards)	Disposition location of material (e.g. sold, provided free to residents, location where used for municipal projects etc.)	Total volume of material on site (Cubic Yards)

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

DAN WYANT
DIRECTOR

March 17, 2011

Mr. Sean McGuckin, Director
Department of Public Works
City of Taylor
25605 Northline Road
Taylor, Michigan 48108

SUBJECT: Composting Facility Variance Request Approval

This is in response to your January 20, 2010, and April 26, 2010, letters requesting a variance under Section 11521(4)(c)(ii) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, PA 451, as amended.

Your request to allow more than 5,000 cubic yards of yard clippings on any acre of property at the registered composting site located at 16300 Racho Road, Taylor, Michigan, is hereby approved under the following conditions:

1. The maximum quantity of yard clippings and finished compost, both screened and unscreened, on any acre of property at the site is 10,000 cubic yards.

2. Your facility must continue to maintain each pile on an impervious surface that is in compliance with R 299.4130.

3. This variance shall continue in effect until modified or revoked by the Department of Environmental Quality (DEQ). The DEQ may require additional information from the City of Taylor from time to time to verify compliance with Section 11521 of Part 115, and the conditions of the variance. If the DEQ determines that the additional quantity of yard clippings and finished compost is causing a nuisance or otherwise threatens human health or the environment, or that conditions of the variance are not being met, the variance may be revoked.

Should you require further information, please contact Mr. Duane Roskoskey, Solid Waste Technical Support Unit, Solid Waste and Land Application Section, Resource Management Division, at 517-335-4712; roskoskeyd@michigan.gov; or DEQ, P.O. Box 30241, Lansing, Michigan, 48909-7741.

Sincerely,

Steven R. Sliver, Chief
Solid Waste and Land Application Section
Resource Management Division
517-373-1976

ARTICLE V. - STORMWATER MANAGEMENT

DIVISION 1. - GENERAL PROVISIONS

Sec. 70-400. - Authority.

This article is enacted pursuant to the Federal Water Pollution Control Act of 1972, 33 U.S.C. 1251 et seq., as amended; Part 31 of the Natural Resources and Environmental Protection Act of 1994 ("Part 31"), MCL 324.3101 et seq., as amended; the General Permit "Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s) Subject to Watershed Plan Requirements" (General Permit No. MIG619000) issued by the Michigan Department of Environmental Quality Pursuant to Part 31; Act 288 of 1967 (Subdivision Control Act), MCL 560.101 et seq., as amended by the Land Division Act, MCL 560.101 et seq.; Act 283 of 1909 (County Road Law), MCL 224.1 et seq., as amended; Act 40 of 1056 (Drain Code, MCL 280.1 et seq., as amended; and Act 96 of 1987 (Mobile Home Commission Act), MCL 125.2301 et seq., as amended; the Charter County Law, MCL 45.515 et seq., and the Home Rule Charter of Wayne County, Michigan (1981), as amended.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-401. - Purpose.

Prevention of pollution from stormwater runoff and the protection of the quality of the waters of the State of Michigan are of utmost importance to the people of the City of Taylor. It is the purpose of this article and any rules promulgated pursuant to this article:

(a) To protect the environment against pollution and other effects from stormwater runoff, and to protect the public health and safety;

(b) To provide for the implementation of a stormwater management program in the City of Taylor and administrative rules to manage and prevent flooding, streambank erosion, pollution, and other effects from the stormwater runoff;

(c) To establish standards and criteria for the design and construction of stormwater management systems subject to the requirements of this article;

(d) To establish best management practices for the design, construction, maintenance, and operation of stormwater management systems subject to the requirements of this article;

(e) To provide for the issuance of stormwater construction approvals for construction activities subject to the requirements of this article.

(f) To provide for the long-term preservation and maintenance of stormwater management systems subject to the requirements of the ordinance;

(G) To authorize the inspection of stormwater management systems subject to the requirements of this article; and

(h) To provide for the administration, implementation, and enforcement of this article.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-402. - Title.

This article shall be known and may be cited as the "City of Taylor Stormwater Management Ordinance."

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-403. - Administration.

This article shall be administered jointly by the City of Taylor Department of Public Works and the Department of Engineering.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-404. - Effective date.

The stormwater management ordinance shall become effective upon approval of the city council. Any project that was assigned an active review number by the permit section as of the effective date shall be exempt from the requirements of this article.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-405. - State and administrative rules.

Unless otherwise specifically provided in this article, the provisions of this article shall control over less stringent rules of the Michigan Department of Environmental Quality, unless contrary to law.

The city council may adopt by resolution administrative rules promulgated (by any city department) pursuant to this article for the implementation and management of this article.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-406. - No waiver of other obligations.

Nothing in this article or any rule promulgated pursuant to this article shall be construed to reduce, abate, alter, modify, amend, or affect any duty or obligation to preserve and protect environment, including the combined downriver watershed or other waters of the state; to control soil erosion and sedimentation; to protect wetlands; or to prevent air, water, or other pollution.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-407. - Incorporation by reference.

Rules, regulations, other regulatory standards or statutory provisions incorporated or adopted by reference in this article or any rules promulgated pursuant to this article shall have the same force and effect given to any provision of this article.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-408. - Severability.

The provisions of this article shall be severable. If any provision of this article is declared by a court of competent jurisdiction to be unconstitutional or otherwise invalid, the remaining provisions of this article shall remain valid and enforceable.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-409. - Reserved.

DIVISION 2. - DEFINITIONS

Sec. 70-410. - Definitions.

As used in this article, the following terms have the following meanings:

Applicant means a person responsible for regulated construction activity on a development site who is seeking to obtain stormwater construction approval.

Construction activity means a human-made activity, including without limitation, clearing, grading, excavating, construction and paving, that results in an earth change or disturbance in the existing cover or topography of land, including any modification or alteration of a site or the "footprint" of a building that results in an earth change or disturbance in the existing cover or topography of land.

Conveyance means any structure or other means of safely conveying stormwater and stormwater runoff within a stormwater management system, including without limitation a watercourse, closed conduit, culvert, or a bridge.

City means the City of Taylor.

County drains are open or closed drains within the jurisdiction of Wayne County established pursuant to the Michigan Drain Code of 1956, MCL 280.1 et seq., as amended.

Development site means the property on which regulated construction activity will occur or is occurring or has occurred.

Director means the Director of the City of Taylor Department of Public Works.

Permit section means the Permit Section of the City of Taylor Department of Public Services, and the City Engineer.

Person means a natural person, trustee, court-appointed representative, syndicate, association, partnership, firm, club, company, corporation, business trust, institution, agency, government corporation, municipal corporation, city, county, municipality, district, or other political subdivision, department, bureau, agency or instrumentality of federal, state, or local government, or other entity recognized by law as the subject of rights and duties.

Regulated construction activity means construction activity that is subject to the provisions of this article or a rule promulgated pursuant to this article.

Stormwater means water resulting from precipitation, including without limitation rain, snow, and snowmelt.

Stormwater construction approval means an approval issued pursuant to this article and rules promulgated pursuant to this article.

Stormwater management program consists of ordinances, orders, rules, regulations, and other mechanisms that provide for the management of stormwater and stormwater runoff to prevent flooding and to ensure the restoration and /or protection of surface waters in the City of Taylor. The stormwater management program consists of the requirements of this article and any rules or regulations promulgated under this article, and activities mandated by the certificate of coverage issued by the Michigan Department of Environmental Quality to the city pursuant to the General Permit "Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s) Subject to Watershed Plan Requirements" (General Permit No. MIG619000).

Stormwater management system means any structure, feature or appurtenance subject to this article or a rule promulgated pursuant to this article that is designed to collect, detain, retain, treat, or convey

stormwater or stormwater runoff, including without limitation buffer strips, swales, gutters, catch basins, closed conduits, detention systems, pretreatment systems, wetlands, pavement, unpaved surfaces, structures, watercourses, or surface waters.

Stormwater runoff means the excess portion of precipitation that does not infiltrate the ground, but "runs off" and reaches a conveyance, surface water, or watercourse.

Surface water means a body of water, including without limitation seasonal and intermittent waters, in which the surface of the water is exposed to the atmosphere, including without limitation lakes, open detention basins, forebays, watercourses, bioretention areas, retention basins, wetlands, and impoundments.

Watercourse means an open conduit, either naturally or artificially created, that periodically or continuously conveys water, including without limitation, rivers, streams, vegetated swales, open channels, and open drains.

(Ord. No. 619, art. I, 12-15-2008)

DIVISION 3. - APPLICABILITY

Sec. 70-411. - General.

This article and rules promulgated pursuant to this article shall apply to all of the following:

(a) Construction activity that impacts stormwater runoff into or around new or existing road rights-of-way within the jurisdiction of the city;

(b) Construction activity that impacts stormwater runoff into or around city drains;

(c) Construction activity that impacts stormwater runoff in projects that are subject to the requirements of Act 288 of 1967 (Subdivision Control Act), MCL 560.101 et seq., as amended;

(d) Construction activity that impacts stormwater runoff from projects that are subject to Act 96 of 1987 (Mobile Home Commission Act), MCL 125.2301 et seq., as amended;

(e) Construction activity that impacts stormwater runoff into, on or through property owned by the city;

(f) Construction activity that impacts new or existing storm sewer systems owned, operated, or controlled by the city; and

(g) Construction activity that occurs within and impacts or may impact water quality or water resources in watersheds or sub-watersheds included in the certificate of coverage issued by the Michigan Department of Environmental Quality to the county pursuant to the General Permit "Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s) Subject to Watershed Plan Requirements" (General Permit No. MIG619000).

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-412. - Local requirements.

(a) Nothing in this article, or in any rule promulgated pursuant to this article, invalidates any rule, regulation, or ordinance enacted by the city prior to the effective date of this article, or prevents the city from adopting or enacting a stormwater management program applicable to activities within its jurisdiction.

(b) Nothing in this article or in any rule promulgated pursuant to this article shall apply to construction activity that is subject to a stormwater management program enacted by the city that imposes requirements equal to or more stringent than the minimum applicable requirements of this article.

(c) The city, in its sole discretion, and to the extent permitted by law, may enter into an agreement with any local unit of government for the purpose of implementing, in whole or in part, this article and/or any rule promulgated pursuant to this article, with respect to construction activity within the jurisdiction of the local unit of government.

(Ord. No. 619, art. I, 12-15-2008)

DIVISION 4. - STORMWATER CONSTRUCTION APPROVALS

Sec. 70-413. - General requirements.

It shall be a violation of this article to engage in regulated construction activity except in accordance with this article and rules promulgated pursuant to this article, and pursuant to a valid stormwater construction approval issued by the city. A stormwater construction approval shall be issued in a form and manner approved by the city, and may be incorporated into a construction permit or other approval issued under or required by another ordinance, statute or regulation.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-414. - Application for stormwater construction approval.

(a) Applicants shall submit a written application for a stormwater construction approval to the city. The application shall be made in a form and manner approved by the city, and shall include all information and documentation required by the city pursuant to this article or rules promulgated pursuant to this article.

(b) All proposed modifications to a stormwater management system that has received a stormwater construction approval issued by the city shall be submitted to the city in writing, together with all information and all supporting documentation required by the city pursuant to this article or rules promulgated pursuant to this article to support the proposed modification. A person shall not commence regulated construction activity associated with a proposed modification without the approval of the city.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-415. - Financial assurance for regulated construction activity.

(a) The city may require an applicant to provide financial assurance for regulated construction activity.

(b) Financial assurance provided pursuant to this section shall be in the form of a performance bond, cash deposit, or unconditional irrevocable letter of credit. The city may accept, with prior approval, an equivalent instrument as financial assurance for regulated construction activity.

(c) The city may establish the form and amount of financial assurance to be provided; the events, circumstances, or occurrences that will cause the city to release the financial assurance mechanism; and other requirements for financial assurance to satisfy the purposes of this article.

(Ord. No. 619, art. I, 12-15-2008)

Secs. 70-416—70-499. - Reserved.

DIVISION 5. - DESIGN AND CONSTRUCTION REQUIREMENTS

Sec. 70-500. - General.

(a) Except as provided below, stormwater management systems shall be designed in accordance with the minimum requirements for performance and design that are set forth in this article and in rules promulgated pursuant to this article.

(b) The city encourages the development and use of innovative stormwater management system designs and construction techniques, including without limitation the use of non-structural practices to reduce stormwater runoff and/or its water quality impacts, to achieve the flood control and water quality objectives of the ordinance and the rules promulgated hereunder.

(c) Notwithstanding any provision in this article or a rule promulgated pursuant to this article, the city may require stormwater management systems to satisfy performance and/or design standards more stringent than the minimum requirements for performance and design set forth in this article and in rules promulgated pursuant to this article when necessary to address unique flood control or water resources protection issues at a development site, on adjacent properties, or downstream of a development site.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-501. - Requirements for design of stormwater management systems.

(a) Selecting and designing stormwater management systems to meet the requirements of this article and the rules promulgated pursuant to this article shall be the responsibility of the applicant or its designee, subject to the approval of the city pursuant to this article and rules promulgated pursuant to this article. The city may deny a stormwater construction approval for a system design that is not in compliance with these requirements.

(b) In designing a stormwater management system, the applicant shall consider all relevant and appropriate factors, including without limitation the following:

(1) The public health, safety, welfare, and the environment;

(2) The inconvenience caused by stormwater runoff on the subject property;

(3) The long-term impact of regulated construction activity on stormwater runoff on, from and beyond the property;

(4) The natural drainage pattern of the land;

(5) The impact of the regulated construction activity on the affected watershed(s); and

(6) The effect of complete upstream development on the subject property as determined by applicable master plans and/or stormwater plans; and

(7) The extent of downstream improvements necessary for proper stormwater drainage.

(Ord. No. 619, art. I, 12-15-2008)

DIVISION 6. - FEES FOR STORMWATER CONSTRUCTION APPROVALS

Sec. 70-502. - Fees.

A city agency may recommend to the city council a written schedule to be adopted by the city to establish a fee system for administering and implementing the stormwater management program. The fee system may include fees for application submittal and review, project overview, compliance inspections, and any other task or service performed by the city to administer or implement the requirements of this article or rules promulgated hereunder. Fees may be refundable or nonrefundable, as determined appropriate by the city, and may include charges for time and materials utilized by the city in implementing and administering the requirements of this article or rules promulgated pursuant to this article. The schedule of fees may be adopted by resolution of the city council and adjusted from time to time.

(Ord. No. 619, art. I, 12-15-2008)

Secs. 70-503, 70-504. - Reserved.

DIVISION 7. - LONG-TERM MAINTENANCE

Sec. 70-505. - Demonstration of long-term maintenance.

The applicant for a stormwater construction approval shall demonstrate to the city in the application or during the application review process, as determined appropriate by the city, that the stormwater management system shall be maintained in perpetuity. This demonstration shall be made in the manner specified in rules promulgated pursuant to this article.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-506. - Scope of long-term maintenance.

For purposes of this article and rules promulgated pursuant to this article, long-term maintenance shall include site monitoring and preventative maintenance activities necessary to ensure that a stormwater management system functions properly as designed; remedial actions necessary to repair, modify, or reconstruct the system in the event the system does not function properly as designed at any time; notification to subsequent owners of limitations or restrictions on the property; actions necessary to enforce the terms of restrictive covenants or other instruments applicable to the property pursuant to this article and rules promulgated pursuant to this article; and such other actions as may be set forth in rules promulgated hereto.

(Ord. No. 619, art. I, 12-15-2008)

DIVISION 8. - AUTHORITY AND DUTIES OF INSPECTORS

Sec. 70-510. - Authority.

Upon presentation of proper credentials and identification, and after stating the authority and purpose of the inspection, city inspectors shall be promptly permitted to enter and inspect a development site. The inspection shall be for the purpose of investigating the development site, stormwater management systems, or components of stormwater management systems, to determine compliance or non-compliance with this article, rules or regulations promulgated pursuant to this article, and/or stormwater construction approvals issued pursuant to this article.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-511. - Duties of inspectors.

While entering and performing an inspection on private property pursuant to section 70-510 above, a city inspector shall observe and comply with all safety rules applicable to the premises.

(Ord. No. 619, art. I, 12-15-2008)

Secs. 70-512—70-519. - Reserved.

DIVISION 9. - COMPLIANCE AND ENFORCEMENT

Sec. 70-520. - General.

All persons are encouraged to cooperate with the city to ensure that the requirements of this article, rules promulgated pursuant to this article, and stormwater construction approvals issued hereunder are satisfied. Whenever possible, the city shall attempt to enter into voluntary agreements to resolve violations of this article, rules promulgated pursuant to this article, and stormwater construction approvals issued hereunder.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-521. - Investigations, informal conferences, and voluntary agreements.

(a) If the city believes that a violation of this article, a rule promulgated pursuant to this article, or a stormwater construction approval issued hereunder may have occurred or exists, the city shall make a prompt investigation. If, after this investigation, the city determines that a violation has occurred or exists, the city shall attempt to enter into a voluntary agreement to resolve or correct the violation. An informal conference may be requested by the city or by any other person to facilitate a voluntary agreement.

(b) If a voluntary agreement cannot be reached, the city shall take appropriate enforcement action pursuant to this article and other applicable provisions of law.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-522. - Notification of violation.

(a) If a voluntary agreement pursuant to section 70-521 cannot be reached, the city shall issue written notice of a violation to the person or persons alleged to have caused or contributed to a violation of this article, a rule promulgated pursuant to this article, and/or an approval issued hereunder. A written notice of violation shall include a statement of facts upon which the violation is based.

(b) Within 14 days of the receipt of a written notice of violation, the alleged violator shall submit to the city an explanation of the violation and a plan for correcting the violation to comply with this article, rules promulgated pursuant to this article, and/or stormwater construction approvals issued hereunder. Submission of this plan in no way relieves the alleged violator of liability for any previous violation not addressed by the plan or future violation.

(c) Within 14 days of the receipt of a written response to a notice of violation, the city shall determine whether the response resolves and/or corrects the alleged violation. If the city determines that the response resolves and/or corrects the violation, then the plan for correcting the violation shall be incorporated into a consent agreement pursuant to section 70-523.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-523. - Consent agreement.

(a) A consent agreement may be entered into at any time by and between the city and the person or persons alleged to have caused or contributed to the violation. The consent agreement shall be mutually acceptable to both the city and the recipient(s) and shall reflect the recipient's agreement to assume responsibility for and correct violations of this article, rules promulgated pursuant to this article, and approvals issued hereunder.

(b) The consent agreement shall contain a short statement of facts, describe the actions necessary to correct the noncompliance, contain a compliance schedule, and be signed by all parties. The agreement may contain a monetary or other relief as agreed to by the parties for the noncompliance, including without limitation, amounts necessary to compensate the city for costs incurred investigating, administering and/or enforcing this article or rules promulgated hereto.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-524. - Administrative compliance orders.

(a) If the city determines that violation of this article, a rule promulgated pursuant to this article, or a stormwater construction approval issued hereunder has occurred or exists, the city may issue an administrative compliance order pursuant to this section 70-524.

(b) Except as provided in section 70-525, the city may issue an administrative compliance order in the following circumstances:

(1) The city determines that a person has violated a consent agreement entered into with the city; or

(2) a. The city determines that a person has violated or continues to violate this article, a rule promulgated pursuant to this article, or a stormwater construction approval issued hereunder, and

b. The city has attempted to resolve the violation pursuant to sections 70-521 and 70-522 but no voluntary agreement or consent agreement has been entered into.

(c) The administrative compliance order shall contain a statement of facts upon which the order is based, a description or the actions that must be taken to correct the noncompliance, a compliance schedule, and other requirements as might be reasonably necessary to address the noncompliance. Administrative compliance orders also may contain administrative fines and penalties, and such other monetary relief for the noncompliance, including without limitation amounts necessary to compensate the city for costs incurred investigating, administering, and enforcing this article or rules promulgated hereto.

(d) Within 28 days of being issued an administrative compliance order, the person or persons receiving the order may appeal the issuance of the order pursuant to chapter 10 of this article.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-525. - Imminent and substantial injury orders.

(a) The city may issue an administrative order without attempting to resolve a violation by using the enforcement procedures described in sections 70-521 and 70-522 if the city finds that a violation of this article, a rule promulgated pursuant to this article, or a stormwater construction approval issued hereunder constitutes or causes, or will constitute or cause, a substantial injury to the public health, safety, welfare, or the environment, and it is prejudicial to the interests of the people of the city to delay action.

(b) Administrative orders issued pursuant to this section 70-525 shall contain a statement of facts upon which the order is based, and notification to the person that it must immediately take action to discontinue, abate, correct, or otherwise address the imminent and substantial injury caused or likely to be caused by the noncompliance.

(c) Within seven days, the city shall provide the person an opportunity to be heard and to present any proof that the noncompliance does not or will not constitute imminent and substantial injury to the public health, safety, welfare or the environment.

(d) An order issued pursuant to this section 70-525 is effective on issuance and shall remain in effect for a period of not more than seven days, unless the city brings an action to restrain the alleged noncompliance pursuant to section 70-527 or 70-528 before the expiration of that period. If the city brings such an action within the seven day period, the order issued by the city shall remain in effect for an additional seven days or such other period as is authorized by the court in which the action is brought.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-526. - Municipal civil infractions.

(A) *Violation; municipal civil infraction.* Except as provided by section 70-527, a person who violates any provision of this article or rules promulgated hereunder, including without limitation any notice, order, stormwater construction approval, agreement, decision, or determination promulgated, issued, made, or entered by the city under this article or rules promulgated hereunder, is responsible for a municipal civil infraction, subject to payment of a civil fine of no less than $1,000.00 per day and not more than $27,500.00 per day for each infraction, plus costs and other sanctions.

(b) *Repeat offenses; increased fines.*

(1) Increased fines may be imposed for repeat offenses. As used in this section, "repeat offenses" means a second (or any subsequent) municipal or civil infraction violation of the same requirement or provision of this article or rule promulgated hereunder (a) that is committed by a person within any 12-month period and (b) for which the person admits responsibility or is determined to be responsible.

(2) The increased fine for a repeat offense under this section shall be as follows:

a. The fine for any offense that is a first repeat offense shall be not less than $2,500, plus costs.

b. The fine for any offense that is a second repeat offense or any subsequent repeat offense shall be not less than $5,000, plus costs.

(c) *Amount of fines.*

(1) *Municipal civil infraction citations.* Subject to the minimum fine amounts specified in subsections 70-526(a) and (b), the following factors shall be considered in determining the amount of a

municipal civil infraction fine following the issuance of a municipal civil infraction citation for a violation of this article or rules promulgated pursuant to this article:

a. The type, nature, gravity, magnitude, severity, frequency, duration, preventability, potential and actual effect, cause (including whether negligent or intentional) and economic benefit to the violator (such as delayed or avoided costs or competitive advantage) of the violation;

b. The violator's recalcitrance, cooperation or efforts to comply;

c. The violator's compliance history (regardless whether prior enforcement proceedings were commenced);

d. The economic impacts of the fine on the violator; and

e. Such other factors as justice may require.

A violator shall bear the burden of demonstrating the presence and degree of any mitigating factors to be considered in determining the amount of a fine. However, mitigating factors shall not be considered unless it is determined that the violator has made all good faith efforts to correct and terminate all violations.

(2) *Municipal civil infraction notices; schedule of fines.* Not withstanding any provision of this article to the contrary, the amount of a municipal civil infraction fine due in response to the issuance of a municipal civil infraction notice for a violation as provided by section 70-526(a) shall be according to the following schedule:

First Offense: $1,000

Second Offense: $2,500

Third Offense: $5,000

For any fine not paid in full within 30 days of the time specified for appearance in the municipal civil infraction violation notice, the fine amount due shall automatically be double the amounts listed immediately above. A copy of this schedule shall be posted at the City of Taylor Department of Public Works.

(d) *Authorized city officials.* The following persons are authorized city officials for purposes of issuing municipal civil infraction citations (directing alleged violators to appear in district court) or municipal civil infraction violation notices (directing alleged violators to appear at the Wayne County Municipal Ordinance Violations Bureau) for violations under this article: the director of the department of public works; the city engineer, and their respective designees and authorized representatives.

(e) *Procedures.* Except as otherwise provided by this section, the procedures for municipal civil infraction actions shall be as set forth in chapter 2 (municipal civil infractions) of the Code of Ordinances of the City of Taylor.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-527. - Civil actions.

The city, by and through the city attorney, may bring a civil action in the name of the city to enforce the provisions of this article and rules promulgated pursuant to this article. Nothing in this article shall preclude the city from instituting an action for appropriate legal and/or equitable relief in Wayne County Circuit Court to restrain, correct, or abate a violation of this article, a rule or regulation promulgated pursuant to this article, or a stormwater construction approval issued hereunder; or to stop an illegal act; or to abate a nuisance; or to prevent pollution or flooding.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-528. - Criminal penalties; imprisonment.

Any person who:

(a) At the time of violation knew or should have known that a violation of this article, or any notice, order, stormwater construction approval, or decision or determination promulgated, issued or made by the city under this article; or

(b) Intentionally makes a false statement, representation, or certification in any application for, or form pertaining to, a stormwater construction approval, or any other correspondence or communication, written or oral, with the city regarding matters regulated by this article; or

(c) Commits any other act that is punishable under state law by imprisonment for more than 90 days;

shall, upon conviction, be guilty of a misdemeanor punishable by a fine of $500.00 per violation, per day, or imprisonment for up to 90 days, or both in the discretion of the court.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-529. - Separate offenses.

Each act of violation, and each day or portion of a day that a violation of this article, rules or regulations promulgated pursuant to this article, stormwater construction approval, order, notice, or determination issued, made or entered into under this article is permitted to exist or occur, constitutes a separate offense and shall be punishable as provided by this article.

(Ord. No. 619, art. I, 12-15-2008)

Secs. 70-530—70-539. - Reserved.

DIVISION 10. - APPEAL

Sec. 70-540. - Appeal.

(a) Any person whose legal rights duties, or privileges are determined by the city pursuant to this article or a rule promulgated pursuant to this article, and who is aggrieved by the city's determination, may appeal to the stormwater appeals board for relief of that grievance. An appeal shall be made according to the procedure set forth in this chapter.

(b) The stormwater appeals board shall consist of the director of the department of public works; the city administrator; and the city engineer; or their designees. Meetings of the stormwater appeals board shall be in person and shall be open to all interested parties.

(Ord. No. 619, art. I, 12-15-2008)

Sec. 70-541. - Appeal procedure.

(a) An appeal shall be in writing, shall be addressed to the stormwater appeals board c/o the department of public works, and shall be received within 20 days of the determination that is the subject of the appeal. The appeal shall be made in triplicate, shall set forth the specific act or matter complained of and in dispute, and shall include all documentation that supports the appellant's position. The

appellant may be required to post a deposit at the time of filing to cover the costs of processing the appeal.

(b) Within 30 days of receipt of written appeal, the department of public works shall acknowledge such recipient in writing, and shall set a day and time for an appellant hearing to be conducted in accordance with subsection (d). If appropriate, the department of public works may schedule a conciliation meeting with the appellant in accordance with subsection (c).

(c) Conciliation meeting.

(1) The purpose of a conciliation meeting is to attempt to resolve the matter before an appeal is forwarded to the stormwater appeals board. If a conciliation meeting is held, it shall occur as soon as practicable, at the mutual convenience of the parties. Conciliation meetings shall be open to all interested parties and their representatives.

(2) After a conciliation meeting, if the appellant or the department of public works determines that an appeal cannot be resolved through a conciliation meeting, the parties shall so inform the stormwater appeals board in writing, and the appellate hearing scheduled pursuant to subsection (b) shall be conducted in accordance with subsection (d). Additional conciliation meetings shall not be necessary.

(3) If the department of public works and the appellant agree that the subject of the appeal has been satisfactorily resolved through the conciliation meeting process or otherwise, the agreement shall be incorporated into a consent agreement pursuant to section 70-523.

(d) Hearing procedure.

(1) A notice shall be sent to the appellant at least ten days prior to the hearing. The notice shall include (a) a statement of the date, time, place, and nature of the hearing; (b) a statement of the legal authority and jurisdiction under which the hearing will be held; (c) a reference to the particular sections of this article involved in the appeal; (d) brief summary of the specific act or matter complained of and in dispute.

(2) At the hearing, the stormwater appeals board shall receive testimony and evidence provided by the appellant, the city, and/or others as the stormwater appeals board deems necessary. During the hearing, the stormwater appeals board shall not be bound strictly by the rules of evidence that would apply in a court, but shall have the authority to receive such evidence as deemed relevant and material. The stormwater appeals board may give the evidence as is received such weight and probative value as, in the board's discretion, is deemed proper.

(3) Within 30 days after the hearing, the stormwater appeals board shall render a decision in writing. This 30-day period may be extended for good cause. The decision shall include a brief summary of the specific act or matter complained of, the nature of the testimony and evidence received, and a decision as to whether the board affirmed, rescinded, or modified the decision or action at issue.

(4) The decision of the stormwater appeals board shall be final and enforceable at law. A person aggrieved by a final decision of the stormwater appeals board may seek judicial review of the decision by the Wayne County Circuit Court. A petition for judicial review shall be filed not later than 60 days following the receipt of the final decision of the stormwater appeals board. An aggrieved person shall exhaust all administrative remedies provided in this chapter before seeking judicial review.

(Ord. No. 619, art. I, 12-15-2008)

STORMWATER MANAGEMENT ADMINISTRATIVE RULES[2]

Footnotes:

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Editor's note— Res. No. 619, adopted December 15, 2008, as set out herein.

Chapter 1 - GENERAL PROVISIONS

Rule 101 - Purpose.

These administrative rules are declared necessary for the protection of the health, safety, and welfare of the citizens of the City of Taylor and to protect the environment against pollution and other adverse effects from stormwater runoff. The purpose of these rules is to provide for the administration and implementation of a stormwater management program in Taylor; and to provide performance and design standards for stormwater management systems.

Rule 102. - Title.

These administrative rules shall be known and may be cited as the "City of Taylor Stormwater Management Administrative Rules."

Rule 103. - Effective date.

These administrative rules shall become effective upon approval of the Taylor City Council.

Chapter 2 - DEFINITIONS

Rule 201. - General.

All terms in these administrative rules shall have the meaning ascribed to them in the City of Taylor Stormwater Management Ordinance, unless otherwise specified herein.

Rule 202. - Terms.

As used in these rules:

Bank full flood means the stormwater generated by the 1.5-year storm.

Best management practice, or BMP, means a practice or combination of practices that have been determined by the City to be the preferred method of preventing, minimizing, or reducing pollution and other effects of stormwater and stormwater runoff.

Bioretention area means a component of a stormwater management system that is comprised of a depressed land area that contains specific soil, plant materials, and other features and is used as a pretreatment system.

Bridge means a structure, including supports, but to carry a feature over a surface water or watercourse, with a clear span of more than 20 feet measured along the center of feature being carried.

Buffer strip means a zone that is used for filtering direct stormwater and stormwater runoff into a stormwater management system and for providing maintenance access to a stormwater management system.

Catch basin means a belowground structure designed to collect and convey water into a storm sewer system.

CFS means cubic feet per second.

City means the City of Taylor.

Closed conduit means an enclosed conveyance designed to carry stormwater runoff such that the surface of the water is not exposed to the atmosphere, including without limitation storm sewers, culverts, closed drains, and pipes.

Constructed wetland means an open detention basin that uses a variety of water depths and wetland plants to provide pollutant removal.

Culvert means a structure, including supports, built to carry a feature over a surface water or watercourse, with a clear span of less than 20 feet measured along the center of the feature being carried.

Design storm means a rainfall event of specified size and return interval that is used to calculate the water volume and peak flow rate that must be handled by a stormwater management system.

Design water level means the water surface elevation in a detention system at which the storage volume in the system (above the permanent pool water level, if any) equals the required flood control storage volume.

Detention or detain means the temporary storage of stormwater and stormwater runoff to control peak flow rates and/or provide pollutant removal before discharging the water to a surface water or closed conduit.

Detention system means a component of stormwater management system, either aboveground or below ground, that detains stormwater and stormwater runoff. Detention systems may include, without limitation, open detention basins and underground detention systems.

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Detention time means the amount of time that a volume of water will be detained in a detention system.

Drainage area means the entire upstream land area from which stormwater runoff drains to a particular location, including any off-site drainage area.

Emergency spillway means a depression in the embankment of an open detention basin or retention basin that is used to pass flows in excess of the overflow structure capacity.

First flush means stormwater runoff that occurs during the early stages of a storm as a result of the washing effect of stormwater runoff on pollutants that have accumulated on the surface of the drainage area. For purposes of these rules, the first flush at a particular location within a stormwater management system consists of runoff from the first 0.5 inch of precipitation over the entire drainage area upstream of that location.

Floodplain means for a given flood event, that area of land adjoining a continuous watercourse that has been covered temporarily by water.

Flow restrictor means a structure, feature, or device in a detention system or pretreatment system that is used to restrict the discharge from the system for specified design storm(s).

Forebay means a component of a stormwater management system that is comprised of a surface water that is used as a pretreatment system.

Freeboard means the vertical distance from the design water level to the top of the embankment of an open detention basin or retention basin.

Manhole means a structure that allows access into a closed conduit.

Manning's Formula means a technique for estimating the hydraulic capacity of a closed conduit, watercourse, or other means of conveyance of stormwater and stormwater runoff.

Manning's Roughness Coefficient ("n") means a coefficient used in Manning's Formula to describe the resistance to flow due to the roughness of a conveyance.

Manufactured treatment system means a component of a stormwater management system that is comprised of a surface of water that is used as a detention system.

Open detention basin means a component of a stormwater management system that is comprised of surface water that is used as a detention system.

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Ordinance means the City of Taylor Stormwater Management Ordinance.

Outflow rate means the rate of discharge in volume per unit time.

Overflow structure means a structure designed to allow unrestricted discharge from a component of a stormwater management system when the water level exceeds the design water level.

Peak flow rate means the maximum instantaneous rate of flow at a particular location within a stormwater management system, usually in reference to a specific design storm event.

Permanent pool means a pool in an open detention system or forebay that provides additional removal of pollutants through settling and biological uptake.

Pollutant means any substance introduced into the environment that may adversely affect the public heath, safety, welfare, or the environment, or the usefulness of a resource.

Pretreatment system means a structure, feature, or appurtenance, or combination thereof, either above ground or below ground, that is used as a component of a stormwater management system to remove incoming pollutants from stormwater and stormwater runoff. Pretreatment systems may include, without limitation, forebays, manufactured treatment systems, and bioretention areas.

Regulated wetlands mean any wetland protected by federal, state, or local laws or regulations.

Rational Method Formula means a technique for estimating peak flow rates at a particular location within a stormwater management system, based on the rainfall intensity, watershed time of concentration, and a runoff coefficient.

Retention or retain means the temporary storage of stormwater a stormwater runoff to provide gravity settling of pollutants and to promote infiltration into the soil, rather than to discharge the stormwater or stormwater runoff to a surface water or closed conduit.

Retention basin means a component of stormwater management system that is comprised of a surface water that retains stormwater and stormwater runoff.

Return Interval means the average expected time interval between events of some kind.

Riprap means a combination of large stone, cobbles, and boulders used to line watercourses, stabilize banks, reduce runoff velocities, or filter out sediment.

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Runoff coefficient means the ratio of the volume of stormwater runoff from a given drainage area over a given time period, to the total volume of precipitation that falls on the same drainage area over the same time period.

Time of concentration means the time duration (typically in minutes) that is required for stormwater runoff from the most remote area of the watershed to reach a given location in a stormwater management system.

Total suspended solids means particles or other solid material suspended in stormwater or stormwater runoff. "Total suspended solids" is commonly expressed in concentration (mg/l).

Underground detention system means one or more underground pipes and/or other structures that are utilized as a detention system.

Watershed means the complete area or region draining into a watercourse, surface water, or closed conduit.

Weir means a structure that extends across the width of a surface water, watercourse or closed conduit and is used to impound or restrict the flow of water.

Wetted perimeter means the length of the perimeter of a watercourse or closed conduit cross-section that is submerged and thereby causes resistance to flow.

Chapter 3 - GENERAL REQUIREMENTS FOR STORMWATER MANAGEMENT SYSTEMS

Rule 301. - General.

Except as provided in Rule 302, a person who applies for a stormwater construction approval shall

(A) Incorporate the minimum performance and design standards prescribed by Chapters 5, 6 and 7 of these rules into the selection and design of stormwater management system;

(B) Demonstrate that the stormwater management system shall be maintained in perpetuity pursuant to chapter 10 of these rules; and

(C) Incorporate such other requirements as may be deemed necessary by the City to satisfy the requirements of the Ordinance.

Rule 302. - Alternative Performance and Design Standards.

(A) Notwithstanding any other provision in these rules, the City may approve a stormwater management system that does not satisfy the performance or design standards set forth in Chapters 5, 6 and 7 of these rules if the following conditions are met:

(1) request for approval of a stormwater management system that incorporates alternative performance or design standards is submitted to the City in conjunction with an application for stormwater construction approval;

(2) the applicant demonstrates to the satisfaction of the City that the alternative performance or design standards are adequate to control and prevent flooding, erosion, pollution, and other effects of stormwater runoff, consistent with the Ordinance; and

(3) the alternative performance or design standards are sufficiently described and documented to enable the City to assess their effectiveness.

(B) Notwithstanding any other provision in these rules, when necessary to address unique flood control or water resources protection issues at a development site, on adjacent properties, or downstream of a development site, the City may require additional or more stringent performance or design standards than set forth in these rules as a condition of granting a stormwater construction approval. Such additional or more stringent requirements may be required when necessary to satisfy the requirements of the Ordinance or to ensure that stormwater runoff from the development site does not create excessive adverse impacts to downstream property owners or water resources.

(C) Approval of a stormwater management system that incorporates alternative performance or design standards pursuant to this rule is within the sole reasonable discretion of the City.

(D) The approval by the City of a stormwater management system that meets alternative performance or design standards according to the requirements of this rule shall not reduce, abate, alter, modify, amend, or affect the applicant's responsibility to comply with other provisions of the Ordinance, these rules, or an approval issued hereunder.

(E) The City shall approve alternative performance or design standards pursuant to this rule only if the alternative performance or design standards meet or exceed applicable requirements for stormwater management systems that are imposed by the state or Wayne County.

Rule 303. - Best Management Practices and Design Standards.

The City may establish best management practices for controlling stormwater runoff and detailed design criteria for stormwater management systems. These practices and criteria shall be established in writing and made available to interested persons. Applicants for stormwater construction approvals shall consider these practices and design criteria when designing stormwater management systems.

Chapter 4 - STORMWATER CONSTRUCTION APPROVALS

Rule 401. - Application Requirements.

(A) Applications for stormwater construction approval, with supporting documentation and all required fees, shall be submitted to the Permit Office. Applications for stormwater construction approval shall be made in a form and manner approved by the City. The City may establish requirements, guidelines, and forms for submitting such applications.

(B) All proposed modifications to the approved stormwater management systems shall be submitted to and approved by the City. All supporting documentation shall be submitted with any proposal to modify the stormwater management system. A person shall not commence regulated construction activity associated with a proposed modification without the approval of the City.

Rule 402. - Review Procedures.

(A) The Permit Section shall approve, deny, or require modification of a stormwater management system proposed in an application for stormwater construction approval. The Permit Section shall notify the applicant of the approval, denial, or request for modification by first class mail. If the application is denied, then the Permit Section shall advise the applicant in writing of its reasons for denial and conditions required for approval.

(B) The Permit Section shall issue a stormwater construction approval only if it determines that an applicant has satisfied the requirements of the Ordinance and these rules. An approval given to the applicant either in person or by first-class mail constitutes approval of an application for stormwater construction approval.

Chapter 5 - PERFORMANCE STANDARDS FOR STORMWATER MANAGEMENT SYSTEMS

Rule 501. - Flood Control.

(A) Except as otherwise provided in these rules, stormwater management systems shall be designed and constructed to meet the minimum performance standards for flood control set forth in this Rule 501. Designing a stormwater management system to meet these minimum performance standards shall be the responsibility of the applicant or its design, subject to the City's approval.

(B) Flood Control Performance Standards

(1) For stormwater management systems that have drainage areas of greater than five (5) acres, the peak flow rate of stormwater runoff leaving the development site shall not exceed 0.15 cfs/acre for a 100-year storm.

(2) For stormwater management systems that have drainage areas of five (5) acres or less, the peak flow rate of stormwater runoff leaving the development site shall not exceed 0.15 cfs/acre for a 10-year storm.

Rule 502. - Water Resources Protection.

(A) Except as otherwise provided in these rules, stormwater management systems shall be designed and constructed to meet the minimum performance standard for water resources protection set forth in this Rule 502. Designing a stormwater management system to meet these minimum performance standards shall be the responsibility of the applicant or its designee, subject to the City's approval.

(B) Standard for Water Resources Protection. Stormwater management systems shall be designed and constructed to remove eighty percent (80%) or more of the total suspended solids load from the development site, as determined on an annual average basis.

Chapter 6 - GENERAL DESIGN STANDARDS

Rule 601. - Determination of Peak Flow Rate.

(A) Except as provided in Rule 601(B), the peak flow rate at a particular location within stormwater management systems shall be calculated in accordance with the Rational Method Formula. The Rational Method Formula shall be expressed as follows:

$$Q = C \times I \times A$$

Where Q = peak flow rate

C = runoff coefficient

I = rainfall intensity (in/hr)

A = drainage area (acres)

(1) For purposes of calculating peak flow rate at a particular location using the Rational Method Formula, the runoff coefficient (C) shall be a weighted average that is based on the percentage of different surface types within the drainage area. Runoff coefficients for various surface types are shown in Table 1.

Table 1: MINIMUM ACCEPTABLE RUNOFF COEFFICIENTS

Type of Surface	Runoff Coefficients (C)		
Water surfaces	1.00		
Roofs	0.95		
Asphalt or concrete pavements	0.95		
Gravel, brick or macadam surfaces	0.85		
Semi-pervious surfaces (e.g. lawns, parks, playgrounds)	slope < 4%	slope 4%—8%	Slope > 8%

Hydrologic Soil Group A	0.15	0.2	0.25
Hydrologic Soil Group B	0.25	0.3	0.35
Hydrologic Soil Group C	0.3	0.35	0.4
Hydrologic Soil Group D	0.45	0.5	0.55

(2) For purposes of calculating peak flow rate at a particular location using the Rational Method Formula, rainfall intensity (I) shall be calculated in accordance with the formulae in Table 2.

Table 2: DESIGN RAINFALL INTENSITIES		
Design Storm	Rainfall Intensity (in/hr)	
	t Less than 60 Minutes	t Greater than 60 Minutes
10-year	151.8/(t+19.9)	162.3/(t+25.4)
50-year	212.5/(t+23.3)	230.3/(t+30.3)
100-year	233.7/(t+23.5)	294.0/(t+45.0)
where t = time of concentration (See Rule 601(A)(3))		

(3) For purposes of determining rainfall intensity at a given location in accordance with Rule 601 (A)(2), the time of concentration (t) for the most upstream end of the stormwater management system shall be determined in accordance with Table 3, and shall be referred to as the initial time of concentration. For downstream locations in the stormwater management system, the time of concentration (t) shall be the sum of the initial time of concentration, plus the travel time from the upstream end to the location for which the peak flow rate calculation applies.

Table 3: INITIAL TIME OF CONCENTRATION	
Type of Land Use	Time of Concentration (t.) (min)
Multiple Units	15

Commercial/industrial	15
Single family residential	20
Unimproved land	$t_o = L/(60 \times V)$ and $V = (0.48) \times S^{1/2}$ where t_o = initial time of concentration (minutes) L = length of overland sheet flow (feet) S = slope of overland sheet flow V = velocity of overland sheet flow (ft/sec)

(B) The City, in its sole discretion, may require the peak flow rate to be calculated in accordance with an alternative runoff hydrograph prediction method when necessary to satisfy the requirements of the ordinance and these rules. The alternative hydrograph prediction method shall be based on the SCS Type II 24-hour rainfall distribution with conservative wet weather antecedent conditions.

(C) For purposes of calculating peak flow rate for a given development site, it shall be assumed that off-site drainage areas are developed consistent with any applicable master land use plan, stormwater standards and stormwater master plan enacted by the City of Taylor, and Wayne County's Stormwater Management Program.

Rule 602. - General Design Standards for Flood Control.

(A) Except as otherwise provided in these rules, stormwater management systems designed and constructed to satisfy the general design standards for flood control set forth in this Rule 602 satisfy the applicable flood control performance standard Rule 501(B).

(B) The stormwater management system shall include a detention system and/or retention basin that is designed and constructed in accordance with this Rule 602(B).

(1) Detention System

(a) Flood Control Storage Volume. The variables in the relationships in this Rule 602(B)(1) shall have the following values:

Q_a = maximum allowable rate from the detention system (cfs)

Q_o = maximum allowable outflow rate per acre imperviousness (cfs/acre imperviousness)

T = storage time defined as the instant storage begins until peak storage is attained (minutes)

V;sub§\sub; = maximum volume of water stored in the detention system per acre imperviousness (ft^3/acre imperviousness)

V_t = maximum volume of water stored in the detention system (ft^3)

A = drainage area (acres)

C = runoff coefficient

(i) The flood control storage volume (Vt_{100}) of detention systems that have a drainage area greater than five (5) acres shall be determined based on the following relationships for the 100-year storm:

$Q_a = 0.15 \text{ cfs/acre} \times A$

$Q_o = Q_a (A \times C)$

$T_{100} = (-45) + \text{sqrt};19845/ Q_o$

$V_{s100} = [(17649 \times T_{100}) / (T_{100} + 45)] - (40 \times Q_o \times T_{100}$

$V_{t100} = V_{s100} \times A \times C$

(ii) The flood control storage volume (V_{t10}) of detention systems that have a drainage area of five (5) acres or less shall be determined based on the following relationships for the 10-year storm:

$Q_a = 0.15 \text{ cfs/acre} \times A$

$Q_o = Q_a / (A \times C)$

$T_{10} = (-19.9) + \text{sqrt};4530/ Q_o$

$V_{s10} = [(9108 \times T_{10}) / (T_{10} + 19.9)] - 40 \times Q_o \times T_{10}$

$V_{t10} = V_{s10} \times A \times C$

(b) Detention systems shall include a flow restrictor that restricts outflow from the system such that the maximum outflow rate at the design water level will not exceed the maximum allowable outflow rate (Q_a).

(2) Flood Control Storage Volume for Retention Basins. Retention basins shall be designed to retain the volume of stormwater equal to the runoff from two consecutive 100-year storm events (V_r), as determined in accordance with the following relationship:

$$V_r = 2 \times 16500 \times A \times C$$

Where:

V_r = flood control storage volume of retention basin (ft^3)

A = drainage area tributary to inlet (acres)

C = runoff coefficient

(C) Adequate Outlet. Except as provided below, the stormwater management system shall include an adequate stormwater outlet.

(1) At a minimum, a stormwater outlet shall be deemed inadequate if its capacity exceeds its reasonable share of the maximum capacity of the downstream watercourse or closed conduit, as determined by the City in its sole reasonable discretion.

(2) If the City determines that a proposed detention system does not include an adequate stormwater outlet, the applicant may be required to design and construct improvements to the downstream drain, watercourse or closed conduit. The City shall determine the extent to which downstream improvements may be required.

(3) Stormwater management systems that include only retention basins for flood control shall not be required to satisfy this Rule 602 (C).

(D) Flood Plain Restrictions. Stormwater management systems shall not be constructed within a 100-year floodplain unless the stormwater management system satisfies the additional requirements of this Rule 602(D).

(1) The stormwater management systems shall not diminish the net storage capacity of the floodplain. Compensatory storage shall be required for any reduction in floodplain storage capacity.

(2) The stormwater management system shall not negatively alter the conveyance of the watercourse.

(3) During a design storm event, the storage capacity of the stormwater management system shall remain available for detention of stormwater and stormwater runoff from the development site.

(4) The stormwater management system shall minimize disruption to the riparian habitat of the floodplain by developing and implementing a plan for minimizing disturbance that is acceptable to the City.

(E) Additional Requirements

(1) To the fullest extent possible, stormwater management systems shall follow the natural drainage pattern of the land within the development site and within the watershed in which the site is located.

(2) Stormwater management systems that include surface water components shall not be located within pre-existing surface water.

Rule 603. - General Design Standards for Water Resources Protection.

(A) Except as otherwise provided in these rules, stormwater management systems designed and constructed to satisfy the general design standards for water resources protection set forth in this Rule 603 satisfy the water resources protection performance standard of Rule 502(B).

(B) Pretreatment System. Stormwater management systems shall include a pretreatment system at each inlet to each detention system and/or retention basin. The pretreatment system shall satisfy either or both of the following requirements:

(1) Removal Rate. The pretreatment system(s) shall be designed and constructed such that the stormwater management system achieves the pollutant removal rate required by Rule 502(B).

(2) First Flush.

(a) The pretreatment system(s) shall be designed and constructed to capture the first flush and release the first flush to the detention system or retention basin gradually over a period of twenty-four hours.

(i) The pretreatment system storage volume necessary to capture the first flush shall be determined based on the following relationship:

$$V_{tff} = 1815 \times A \times C$$

Where:

V_{tff} = first flush storage volume (ft^3)

A = drainage area tributary to inlet (acres)

C = runoff coefficient

(ii) The pretreatment system(s) shall include a flow restrictor that restricts outflow to gradually release the first flush storage volume over a period of twenty-four (24) hours. The 24-hour average allowable outflow rate shall be determined in accordance with the following relationship:

$$Q_{avg\ ff} = V_{t\ ff} / 86400$$

Where:

$Q_{avg\ ff}$ = 24-hour average allowable outflow rate (cfs)

$V_{t\ ff}$ = first flush storage volune (ft^3)

(C) Bank Full Flood. Except as provided below, the stormwater management system shall capture the runoff from the bank full flood and release the runoff gradually over a period of forty (40) hours.

(1) The storage volume necessary to capture runoff from the bank full flood to satisfy the requirement of this Rule 603(C) shall be determined in accordance with the following relationship:

$$V_{t\ bf} = 5160 \times A \times C$$

Where:

$V_{t\ bf}$ = bank full flood storage volume (ft^3)

A = drainage area (acres)

C = runoff coefficient

(2) The bank full flood storage volume (above the permanent pool, if any) may be used to satisfy a portion of the flood control storage volume required by Rule 602 (B).

(3) The stormwater management system shall include a flow restrictor that restricts outflow from the system to gradually release the bank full flood over a period of forty (40) hours. The 40-hour average allowable outflow rate shall be determined in accordance with the following relationship:

$$Q_{avg\ bf} = V_{t\ bf} / 144000$$

Where:

$Q_{avg\ bf}$ = 40-hour average allowable outflow rate (cfs)

$V_{t\ bf}$ = bank full flood storage volume (ft^3)

(4) Stormwater management systems that include only retention basins for flood control shall not be required to satisfy the requirements of this Rule 603(C).

(D) Additional requirements. Stormwater management systems that include surface waters as components of the system shall satisfy the following additional requirements.

(1) A buffer strip shall be established and/or preserved around each surface water on the development site.

(a) The minimum width of a buffer strip shall be 25 feet. Along watercourses, the width of a buffer strip shall be measured from the top of bank of the watercourse. Around other

surface waters, the width of the buffer shall be measured from the minimum freeboard elevation of the surface water.

(b) Construction activities, paving, and chemical application, except for construction activities needed to create or establish the buffer strip, are prohibited in the buffer strip.

(c) The ground slope of a buffer strip shall not be steeper than 1:6.

(d) A buffer strip shall not be required around bioretention areas or vegetated swales.

(2) An applicant for stormwater construction approval shall submit a landscape plan with the application for stormwater construction approval. The plan shall depict landscaping elements that function as part of the stormwater management system, including the buffer strip.

(a) The landscape plan shall include, at a minimum, specifications for the soils and plant materials that the applicant proposes to include in the landscape; and a description of the methods and planting techniques that the applicant proposes to utilize during landscape installation.

(b) The installation and maintenance of the landscaping described in the landscape plan shall be included as regulated construction activity for which the City may require financial assurance.

Chapter 7 - SPECIFIC DESIGN STANDARDS

Rule 701. - Design Standards for Open Detention Basins.

Open detention basins used as components of stormwater management systems shall satisfy the additional requirements of this Rule 701.

(A) Outlets

(1) Flow restrictors in open detention basins shall be placed near or within the embankment of the system to provide ready maintenance access. Flow restrictors shall be constructed of materials that minimize future maintenance requirements.

(2) Open detention basins shall include an overflow structure to allow discharge when the water level in the basin exceeds the design water level. The overflow structure and its outlet pipe shall be designed to convey the peak flow rate tributary to the basin for the 10-year design storm.

(3) Open detention basins shall include an emergency spillway with a defined downstream drainage path to allow discharge when flows exceed the capacity of the overflow structure. The emergency spillway elevation shall be 6 inches below the top of freeboard elevation. The spillway shall be armored to prevent erosion.

(B) Other Requirements

(1) The design water level of an open detention basin shall not exceed five (5) feet above the permanent pool water level.

(2) The open detention basin shall have a minimum four (4) foot deep permanent pool. Permanent pools shall not be required for constructed wetlands except when the County determines that a permanent pool is necessary to satisfy the performance standards of Chapter 5 of these rules. The volume of the permanent pool shall not satisfy any portion of the flood control storage volume required by Rule 602(B).

(3) Side slopes for open detention basins shall not be steeper than 1:6.

(4) A minimum of one (1) foot of freeboard is required above the design water level of an open detention basin.

Rule 702. - Design Standards for Retention Basins.

Retention basins used as components of stormwater management systems shall satisfy the additional requirements of this Rule 702.

(A) Percolation Rate. Soils beneath the proposed location of retention basin shall be sufficiently permeable to allow the infiltration of stormwater and stormwater runoff. Calculations and soil boring results showing the percolation rate of soil shall be submitted to the City with an application for stormwater construction approval and shall be certified by a licensed professional engineer.

(B) Emergency Spillway. Retention basins shall include an emergency spillway with a defined downstream drainage path to allow discharge when flows exceed the design water level. The emergency spillway elevation shall be 6 inches below the top of freeboard elevation. The spillway shall be armored to prevent erosion.

(C) Other Requirements

(1) Side slopes for retention basins shall not be steeper than 1:6.

(2) A minimum of one (1) foot of freeboard is required above the design water level of a retention basin.

(3) The storage volume of the retention basin shall be measured above the existing groundwater elevation.

Rule 703. - Design Standards for Underground Detention Systems.

Underground detention systems used as components of stormwater management systems shall satisfy the additional requirements of this Rule 703.

(A) Underground detention systems shall confine stormwater and stormwater runoff to the interior of the detention system, and shall not release the water except through an approved outlet.

(B) The City may restrict the types of materials and methods of construction for underground detention systems. At a minimum, an applicant must demonstrate that materials and construction methods for underground detention systems conform to applicable ASTM standards, AASHTO standards, and local standards adopted by the City.

Rule 704. - [Reserved.]

Rule 705. - [Reserved.]

Rule 706. - Design Standards for Forebays.

Forebays used as a component of a stormwater management system shall satisfy the additional requirements of this Rule 706.

(A) Flow restrictors. Flow restrictors in forebays shall be placed near or within the embankment of the forebay to provide ready maintenance access and shall be constructed of materials that minimize future maintenance requirements.

(B) Weir. The forebay shall include a weir to allow discharge from the forebay into the detention system or retention basin when the forebay water level exceeds the top of the forebay storage volume. The weir shall be designed to convey the peak flow rate tributary to the forebay for the 10-year design storm.

(C) The total forebay storage volume (above the permanent pool, if any) may be used to satisfy both a portion of the flood control storage volume required by Rule 602(B) and the bank full flood storage volume required by Rule 602(C).

Rule 707. - Design Standards for Bioretention Areas.

Bioretention areas used as components of stormwater management systems shall satisfy the additional requirements of this Rule 707.

(A) Underdrain. The bioretention area design shall include an underdrain system to prevent excess pooling of water. Underdrains shall not be required where the applicant demonstrates that the infiltration rate of soil within the bioretention area is sufficient to prevent excess pooling.

(1) The underdrain shall be installed over a gravel layer that consists of at least six (6) inches of gravel.

(2) The underdrain shall include an adequate outlet into a detention system, retention basin, storm sewer, or watercourse.

(3) The hydraulic capacity of the underdrain shall be greater than the infiltration rate of the soil within the bioretention area.

(4) The underdrain shall be perforated along its entire length, except that no perforations shall be permitted within five (5) feet of a connection between the underdrain system and a storm sewer structure.

(5) The underdrain shall include a cleanout well to provide access for cleaning the underdrain system.

(B) Other requirements

(1) The pooling water depth for bioretention areas shall not exceed six (6) inches.

(2) Applicants that propose to include a bioretention area as a component of a stormwater management system shall submit a grading plan for the development site that identifies the location of the bioretention area and the routes for construction and other vehicular traffic to demonstrate that soils and other subsurface media in or around the basin will not be compacted during construction.

Rule 708. - Design Standards for manufactured Treatment Systems.

Manufactured treatments systems used as components of stormwater management systems shall satisfy the additional requirements of this Rule 708.

(A) Manufactured treatment systems shall accumulate and store incoming solids so as to prevent re-suspension of captured solids.

(B) The removal efficiency of manufactured treatment systems shall be based on the documented performance of the system in full-scale independent studies over a range of storm sizes.

(C) Manufactured treatment systems shall incorporate a water-lock feature to prevent the release of trapped oil and floatable contaminants during storm events.

(D) The City may restrict the types of materials and methods of construction for manufactured treatment systems. At a minimum, an applicant must demonstrate that materials and construction methods for manufactured treatment systems conform to applicable ASTM standards, AASHTO standards, and local standards adopted by the County.

Rule 709. - [Reserved.]

Rule 710. - [Reserved.]

Rule 711. - Design Standards for Stormwater Conveyances.

Conveyances used as components of stormwater management systems shall satisfy the minimum requirements of this Rule 711.

(A) Watercourses

(1) Natural watercourses shall be preserved whenever possible. The City shall not approve modifications to natural watercourses unless the modification is required to protect the public health, safety, or welfare, or the environment.

(2) The flow capacity of each reach of a watercourse that is a component of a stormwater management system shall be equal to or greater than the peak flow rate for a 10-year storm, as determined using the method described in Rule 601.

(3) The flow capacity of a watercourse shall be calculated in accordance with the following relationship (the "Manning Formula").

$$Q = (1.486 \times A \times R^{2/3} \times S^{1/2})/n$$

Where:

Q = flow capacity (cfs)

A = cross-sectional flow area (ft^2)

n = Manning's coefficient of roughness

P = wetted perimeter (feet)

R = hydraulic radius (A/P in feet)

S = hydraulic gradient (ft/ft)

(B) Closed Conduits

(1) The flow capacity of each reach of a closed conduit that is a component of a stormwater management system shall be equal to or greater than the peak flow rate for a 10-year storm, as determined using the method described in Rule 601.

(2) The flow capacity of a closed conduit shall be calculated using the Manning Formula described in Rule 711(A)(3).

(3) The invert elevation of each closed conduit entering a forebay with a permanent pool shall be equal to or greater than the permanent pool elevation.

(4) Hydraulic gradients for closed conduits shall meet both of the following requirements:

(a) The hydraulic gradient shall be calculated based on 10-year storm flows, starting with the crown elevation at the outlet, and shall be at least 2.5 feet below the rim elevation at any upstream manhole location.

(b) The rim elevation at any manhole location along a closed conduit upstream of a detention system shall be at least one (1) foot above the design water level of the detention system.

(5) The minimum allowable stormwater velocity in a closed conduit shall be 2.5 feet per second. The maximum allowable stormwater velocity in a closed conduit shall be 8.0 feet per second. The applicant may design a closed conduit that exceeds the maximum allowable stormwater velocity only if the applicant demonstrates that special provisions in the design dissipate energy.

(6) The maximum distance between manholes, catch basins, and inlets in a closed conduit shall be in accordance with Table 4.

Table 4: MAXIMUM DISTANCES BETWEEN MANHOLES, CATCH BASINS, AND INLETS	
Diameter of closed conduit (inches	Maximum distance (feet)
36 and smaller	300
Greater than 36	300 plus 100 feet for each additional 12 inches in diameter greater than 36 inches

(7) Manholes or junction chambers shall be constructed at all junctions and angle points within closed conduits and at all changes in conduit size or slope.

(8) Closed conduit inlets and outlets shall have an end treatment and soil erosion protection, and may be required to have a grate over the inlet/outlet.

(C) Bridges and Culverts: The following requirements apply to bridges and culverts:

(1) General

(a) The hydraulic capacities of culverts and bridges shall be calculated using a method approved by the County.

(b) All bridges and culverts shall be designed and constructed with adequate soil erosion protection.

(2) Bridges

(a) Bridges that convey a watercourse under a City Road shall be designed and constructed to pass the peak flow rate for a 100-year storm with no harmful increase in backwater elevations.

(b) The 100-year storm elevation upstream of a bridge shall be at least one (1) foot below the lowest elevation of either the bridge deck or the approach pavements to the structure.

(3) Culverts

(a) Culverts that convey a watercourse under a City Road shall be designed and constructed to convey at least the peak flow rate for a 10-year storm, as determined using the methods described in Rule 601.

(b) Culverts that will be inundated by storms larger than the design storm established by the Michigan Department of Transportation or the Michigan Department of Environmental Quality shall be designed and constructed with soil erosion protection that is adequate for the inundated condition.

Rule 712. - [Reserved.]

Chapter 8 - ADDITIONAL REQUIREMENTS

Rule 801. - Wetlands.

The natural drainage pattern of the land within the development site shall not be altered in any way that may cause adverse effects to existing wetland areas. Untreated stormwater shall not be permitted to outlet directly into a natural or mitigation wetland. At a minimum, stormwater discharged into a natural or mitigation wetland shall pass through a pretreatment system designed to satisfy the water resources protection performance standards set forth in Rule 502(B).

Rule 802. - County Park Property.

The County may establish additional or alternative requirements for stormwater management systems that are located on County park property or that outlet within County park property.

Rule 803. - County Roads.

(A) The minimum diameter of closed conduits beneath County Roads shall be 12-inches.

(B) Stormwater runoff from improved property abutting a County Road shall not be discharged into the stormwater drainage system for the County Road without the County's prior approval.

(C) The County may establish additional or alternative requirements for stormwater management systems in County Roads.

Chapter 9 - FINANCIAL ASSURANCE

Rule 901. - General Requirements.

(A) Before commencing construction of a stormwater management system, the applicant shall provide financial assurance pursuant to Section 4.3(B) of the Ordinance. The stormwater construction approval shall include the form and amount of the financial assurance to be provided and, if appropriate, may define temporal limits on the financial assurance. Stormwater construction approval shall not be issued by the City unless and until the applicant provides proof of financial assurance to the City.

(B) If an applicant for stormwater construction approval is submitted by more than one person, only one (1) person is required to demonstrate financial assurance; however, both parties are liable in the event of noncompliance.

Rule 902. - Amount of Financial Assurance.

(A) Financial assurance shall be provided in an amount at least equal to the current estimate of the cost of construction the stormwater management system.

(B) When the current estimate of the cost of constructing the stormwater management system increases to an amount more than the amount of the financial assurance mechanism, the applicant, within 30 days after the increase, either shall cause the financial assurance mechanism to be increased to an amount at least equal to the current construction cost estimate and submit evidence of such increase to the City, or shall obtain other financial assurance for the difference. When the current estimate of the cost of constructing the stormwater management system decreases, the amount of financial assurance may be reduced to the amount of the construction cost estimate following written approval of the City.

Rule 903. - Performance Bond.

(A) Applicants may satisfy the financial assurance requirements of the Ordinance and these rules by obtaining a performance bond that is executed on a form approved by the City and that conforms to the requirements of this rule.

(B) The bond shall guarantee that the applicant will construct the stormwater management system in accordance with the Ordinance, these rules, and the stormwater construction approval issued by the City.

(C) Under the terms of the bond, the surety shall become liable on the bond obligation when the applicant fails to perform as guaranteed by the bond when required to do so, and the City provides the applicant (1) seven (7) days notice of the failure, (2) an opportunity to cure the failure, and (3) a reasonable opportunity for a hearing conducted pursuant to the Ordinance.

(D) The penal sum of the bond shall be in an amount at least equal to the current estimate of the cost of constructing the stormwater management system.

(E) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation, by certified mail, to the applicant and the City at least forty-five (45) days prior to cancellation. Cancellation shall not occur, however, during the 90 days beginning on the date of receipt of the notice of cancellation by both the applicant and the City, as evidenced by the return receipts. Within 30 days of receipt of a notice of cancellation of the bond from the surety, the applicant shall obtain alternate financial assurance approved by the City.

(F) The applicant may cancel the bond if the City has given prior written consent. The City shall provide such written consent when either of the following occurs: (1) the applicant substitute's alternative financial assurance as specified in these rules; or (2) the City releases the applicant from the financial assurance requirements of these rules pursuant to Rule 905.

Rule 904. - Letters of Credit.

(A) An applicant may satisfy the financial assurance requirements of these rules by obtaining an irrevocable letter of credit that conforms to the requirements of this rule and that is executed on a form approved by the City. The issuing institution shall be a bank or financial institution that has the authority to issue letters of credit, whose letter of credit operations are regulated and examined by a federal or state agency, and that has an office in Wayne County.

(B) The letter of credit shall be unconditional and irrevocable and shall be issued for a period of at least one (1) year. The letter of credit shall provide that the expiration date will be automatically extended for a period of at least one (1) year unless, not less than 90 days before the current expiration date, the issuing institution notifies both the applicant and the City by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 90 days shall begin on the date when both the applicant and the City have received notice, as evidenced by the return receipts.

(C) If the applicant does not establish alternate financial assurance as specified in these rules and obtain written approval of such alternate assurance from the City within 90 days after receipt by both the applicant and the City of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the City may draw on the letter of credit. The City may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension, the City shall draw on the letter of credit if the applicant has failed to provide alternate financial assurance as specified in these rules and obtain written approval of such assurance from the City.

(D) The Director may draw on the letter of credit to correct violations and complete construction after doing both of the following:

(1) Notifying the applicant that the applicant has failed to construct the stormwater management system in accordance with the stormwater construction approval and other requirements of this Ordinance and these rules when required to do so; and

(2) Providing the owner or operator with 7 days notice.

Rule 905. - Release of the Financial Assurance Mechanism.

(A) Except as otherwise provided in these rules, within 60 days after receiving certifications from the applicant and an independent registered professional engineer that the stormwater management system has been constructed in accordance with the Ordinance, these rules, and the stormwater construction approval issued by the City, the City shall notify the applicant, in writing, that financial assurance for the construction no longer is required.

(B) If the City has reason to believe that the stormwater management system has not been constructed in accordance with the Ordinance, these rules, or the stormwater construction approval, the City shall provide the applicant with a detailed written statement of any such reason. The City shall not be required to release the financial assurance mechanism provided by the applicant until the City is satisfied, in its reasonable discretion, that the stormwater management system has been constructed in accordance with the Ordinance, these rules, and the stormwater construction approval.

Rule 906. - Recordkeeping.

Applicants must maintain evidence of all financial assurance mechanisms used to demonstrate financial responsibility under the Ordinance or these rules until released from the financial responsibility requirements in accordance with Rule 905. Records maintained at any location other than the development site must be made available upon request of the City.

Chapter 10 - LONG-TERM MAINTENANCE

Rule 1001. - General Requirement.

(A) An applicant shall submit a long term maintenance plan as part of an application for stormwater construction approval. At a minimum, the long term maintenance plan shall set forth

  (1) the preventative maintenance activities necessary to ensure that the stormwater management system will function properly as designed;

  (2) a schedule describing the frequency with which preventative maintenance activities shall occur;

  (3) the manner in which the applicant shall assure, through a legally binding instrument, that the stormwater management system shall be maintained in perpetuity.

(B) Long-term maintenance shall include site monitoring to ensure that a stormwater management system is functioning properly as designed; remedial actions necessary to repair, modify, or reconstruct the system in the event the system does not function properly as designed at any time; notification to subsequent owners of limitations or restrictions on the property; actions necessary to enforce the terms of restrictive covenants or other instrument applicable to the property pursuant to the Ordinance and these rules and such other actions as may be set forth in the Ordinance or these rules promulgated hereto.

(C) As a condition of final approval of the stormwater management system, an applicant for stormwater construction approval shall demonstrate to the City that the stormwater management system shall be maintained in perpetuity.

Rule 1002. - Responsibility for Long-Term Maintenance.

Responsibility for long-term maintenance of a stormwater management system shall be assumed by the local unit of government(s) in which the stormwater management system is located or by another public corporation or entity (e.g. drainage district) approved by the County. Responsibility for long-term maintenance shall be assumed through a legally-binding instrument such as an ordinance, resolution, contract, or equivalent instrument approved by the County. A local unit of government or other public

corporation or entity that assumes responsibility for long-term maintenance may designate another entity (including without limitation a homeowner's association, condominium association, or property owner) to undertake this responsibility; however, long-term maintenance under this rule shall remain the responsibility of the entity identified in the final stormwater approval.

Rule 1003. - Long-Term Maintenance Agreements.

The City may establish requirements for the form and substance of instruments that meet the requirements of this rule.

STORMWATER DISCHARGE PERMIT APPLICATION COLLABORATIVE ILLICIT DISCHARGE ELIMINATION PLAN

For the Alliance of Downriver Watersheds MS4s

Effective upon NPDES Permit issuance for a period of five (5) years.

Allen Park	Inkster	Taylor
Belleville	Lincoln Park	Van Buren Township
Dearborn Heights	Melvindale	Wayne County
Ecorse	Riverview	Westland
Flat Rock	Rockwood	Woodhaven
Gibraltar	Romulus	Woodhaven-Brownstown
Grosse Ile Township	Southgate	School District
	Sumpter Township	Wyandotte

May 31, 2019

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I. INTRODUCTION

This Collaborative Illicit Discharge Elimination Plan (IDEP) presents **the watershed-wide priority action plan that is being pursued to effectively and efficiently identify and eliminate illicit discharges within the Alliance of Downriver Watersheds** (ADW). This Plan consists of existing and planned activities and strategies, anticipated through the duration of the permit, that ADW members are individually and collectively implementing to identify and eliminate illicit discharges and reduce pathogen levels in Ecorse Creek, Combined Downriver, and Lower Huron River watersheds. This collaborative plan builds on the collective knowledge of the ADW members and implementation team. Specifically, the plan starts by evaluating the status and trends of surface waters in the ADW to identify priorities, followed by investigation and remediation of problem areas. Such a strategy focuses resources on the most likely sources of pollution or illicit discharge, rather than on areas with low likelihoods of problems.

The Alliance of Downriver Watersheds (ADW) is a permanent watershed organization in southeast Michigan and formed under Public Act 517 of the Public Laws of 2004. The ADW formally established themselves in 2007, but members have been working together for many more years to manage the area's water resources. The ADW consists of 23 public agencies in the Ecorse Creek, Combined Downriver, and Lower Huron River Watersheds within Wayne County. The ADW is relatively urban in nature consisting of 203.3 square miles of land mass and more than 450,000 people (2010 census). Major watercourses within the ADW that flow into the Detroit River and Lake Erie include Ecorse Creek, Sexton Kilfoil Drain, Frank and Poet Drain, Blakely Drain, Brownstown Creek, Huron River, Silver Creek, and Woods Creek.

The consortium of agencies that make up the ADW meet on a regular basis and work together to cooperatively manage the rivers, lakes, and streams within the watershed. Examples of ADW efforts include long-term water quality monitoring, stormwater permit compliance and reporting to the State, submittal of grant applications for water quality improvements, public education, and illicit discharge identification and elimination. Collaborative IDEP efforts began in 2007 when the ADW budgeted $101,094 for Wayne County Department of Public Services to provide staff training and to perform problem area identification across the watershed area over a two-year period. Since 2010, the ADW has budgeted over $840,000 for collaborative IDEP activities. Over 150 ADW member staff have received IDEP training and Wayne County alone has performed IDEP advance investigation (specifically facility dye-testing) at over 280 commercial and municipal facilities throughout the ADW watersheds.

II. PRIORITY AREAS

There is evidence of elevated levels of *E.coli* throughout portions of the ADW. An *E.coli* total maximum daily load (TMDL) allocation plan was developed for the Ecorse Creek watershed by the MDEQ in 2008. ADW member municipalities support a robust program to monitor surface waters for chemistry, biology and stream flow. Monitoring conducted by citizen volunteers, Huron River Watershed Council (HRWC), Wayne County, and MDEQ staff have established baseline conditions, current status and trends over the last six years in the ADW. Analysis of the monitoring data has allowed the ADW Technical committee to prioritize IDEP work areas. The data used includes: MDEQ Bacterial Source Tracking (BST) studies conducted in 2007 within the Ecorse Creek watershed; monitoring conducted by Wayne County across the ADW through the MDEQ grant in 2007-2008; monitoring conducted by Wayne County in 2015 through a SAW grant; and, annual volunteer and staff monitoring funded by the ADW beginning in 2012 that continues through the present. Priority areas may change during the course of the permit based on new data and/or elimination of certain areas based on investigation.

To identify priority IDEP work areas, the ADW Technical Committee uses the following process and criteria. At the end of each sampling season (usually in February or March), the committee evaluates the past year's surface water monitoring results. The monitoring includes a number of long-term sampling stations and 3-5 one-season investigative stations. Investigative stations are used to subdivide watersheds in an attempt to narrow in on potential pollutant sources. New or unusual results are flagged and discussed. The team evaluates the biological and chemical status at each monitoring site and summarizes results for subdrainages across the three watersheds. The direction and amplitude of trends are also evaluated. Drainages with the worst current conditions and trends are listed for prioritization according to the below criteria. Observations by the monitoring team and volunteer collectors about short-term conditions, climatic variables and other influences are also discussed. The criteria are regularly evaluated for revision.

The criteria used to identify them as a priority included:

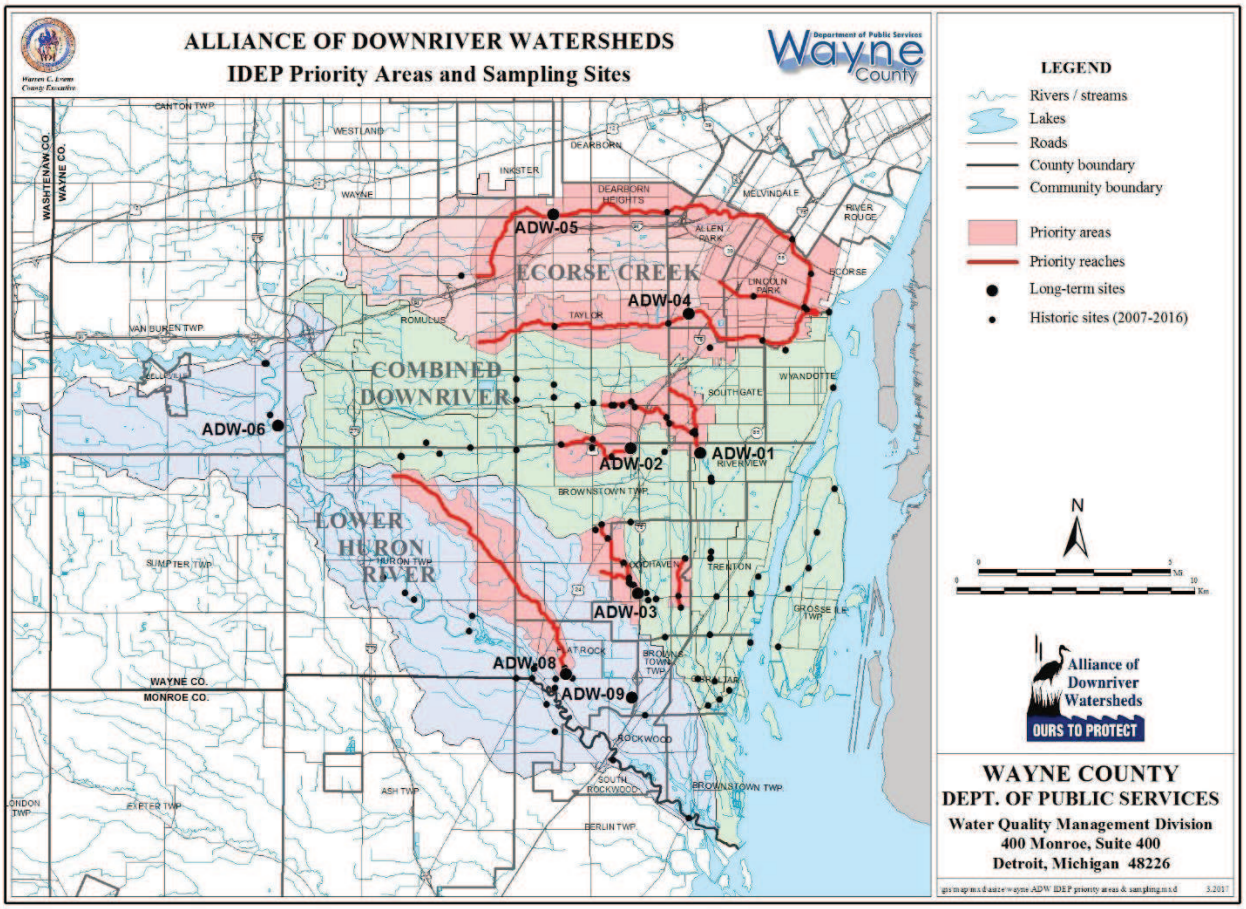
- Multiple events with *E. coli* concentrations in excess of 1,000 cfu/100 mL of water during dry weather
- Dry weather Human *E. coli* (based on MDEQ 2007 BST studies)
- Upstream of known CSO areas
- High mean *E. coli* concentrations from sampling
- Elevated mean total phosphorus levels from sampling
- Wayne County's 2007 IDEP Monitoring found 3 or more monitoring events with one or more elevated IDEP monitoring parameters
- Areas upstream of sites with unexplained, declining macroinvertebrate populations

Priority IDEP Work Areas

Eight stream segments were identified by the ADW Technical Committee as Priority IDEP Work Areas (Figure 1) for the [permit period]. Three of the 8 areas are within the Ecorse Creek watershed (*North Branch Ecorse Creek, LeBlanc Drain, S. Branch Ecorse Creek*); 4 areas are within the Combined Downriver watershed (*Blakely Drain, Frank & Poet Drain and Brownstown Creek*); and 1 of the 8 areas are within the Lower Huron River watershed (*Silver Creek*). The areas that drain to these eight stream segments constitute approximately 28% of the total ADW area. These areas are shown in Figure 1.

Within the Priority Areas, ADW members will implement all of the Collaborative IDEP Activities described below. The ADW will also dedicate the majority of their annual ADW IDEP budget, during the term of the permit, to perform IDEP Advanced Investigations (IDEP#2) and Inspection of ADW Member Facilities (IDEP#6) to aggressively identify and eliminate sources of human sewage and elevated bacteria in these Priority Areas.

Figure 1: IDEP Priority Work Areas and Monitoring Sites



Routine IDEP Areas

All other areas of the ADW are being classified as Routine IDEP Areas. Within these Routine Areas, ADW members will implement the Collaborative IDEP Activities as described below, but little of the annual ADW IDEP budget will be utilized to implement these activities. Collaborative IDEP activities in these routine areas will focus on (IDEP #3: Staff Training) and (IDEP #10: Volunteer Training) to identify and report suspicious discharges including sanitary sewer discharges to storm sewers or surface waters. In addition, the Inspection of ADW Member Facilities (IDEP#6) will also be performed in the Routine IDEP Areas to identify and eliminate sources of human sewage and elevated bacteria.

III. COLLABORATIVE IDEP ACTIVITIES

IDEP# 1: IDEP Investigative & Progress Evaluation Monitoring

Funding: ADW

Activity Description: Consistent with the ADW's 5-year monitoring strategy, the ADW will utilize HRWC, Wayne County, and volunteers to perform instream water quality monitoring to identify problems areas, prioritize advanced investigation activities, and track water quality data trends to assess IDEP progress. Eight (8) long-term sites have been established and will be monitored annually along with four (4) additional annual rotating investigative sites to attempt to identify new problems and/or refine priority action areas and advance investigation activities (see Figure 1).

Schedule: Annually, April – September

ADW Member Responsibilities:

- ADW
    - Review and approve annual budgets and work plans to ensure resources are directed to the appropriate areas
    - Conduct annual monitoring at 8 long-term sites and 4 investigative sites as outlined in the ADW monitoring plan (see TMDL Implementation Plan)

Measure of Assessment:

- Number/portion of sites sampled

BMP Goal:

- 100% of long-term and investigative sites sampled, as outlined in the ADW monitoring plan

IDEP #2: Environmental Hotline and Coordinated Complaint Response

Funding: Wayne County, ADW Members

Activity Description: Wayne County operates an environmental hotline to field and respond to environmental complaints including illegal dumping and suspicious discharges. Local communities also receive pollution complaints directly from residents. Local communities will promote the use of the County hotline number by their residents (as discussed in the ADW Collaborative Public Education Plan) and assist with and/or perform follow up complaint response as appropriate. Community staff may also identify a potential pollution issue during their day-to-day activities. These issues will be handled just like a pollution complaint from a resident.

Investigative responses will range from a site visit that fails to confirm a problem to full scale advanced investigation to identify the source and eliminate the illicit discharge.

Schedule: Continuous

ADW Member Responsibilities:

- ADW
    - Develop and distribute a log sheet that ADW member's field staff will use to document that illicit discharges were looked for during routine maintenance activities. See Attachment A.
    - Develop and distribute a complaint response form to be utilized by ADW members. See Attachment A.
    - Maintain a list of community contacts and update annually via annual ADW membership General Facilitation survey.
- Communities and nested school districts
    - Provide the county with a contact person for addressing pollution complaints.
    - Track status of complaints handled internally or those referred to them.
    - Track and record follow up communication from resident complaints as appropriate.
    - Investigate and resolve complaints within their MS4.

- Wayne County
    - Provide technical guidance as requested by local communities.
    - Track the status of any pollution complaints that they investigate.
    - Track and record follow up communication regarding complaints as appropriate.
    - Investigate and resolve complaints within their MS4.

Measures of Assessment:

- Number of complaints received, referred, and investigated
- Number of issues identified
- Number of issues resolved

BMP Goal:

- 100% of complaints addressed and plan for resolution identified

IDEP #3: Priority Area IDEP Advanced Investigations
Funding: ADW

Activity Description: Using water quality data, system data/knowledge, and/or pollution complaints, the ADW Technical Committee will continue to prioritize areas for advanced investigations to identify and eliminate the source of illicit discharge/poor water quality. Priority areas may change during the course of the permit based on new data and/or elimination of certain areas based on investigation. The Wayne County Water Quality Management Division will lead investigation efforts in the priority areas, as identified in Section II of this plan, with assistance from the local communities. Advanced investigations may include outfall/stream surveys, instream water quality investigative monitoring, manhole inspection or sampling, dye-testing, smoke testing, or televising. Procedures for these investigative methods can be found in Attachment B. When a potential IDEP issue is suspected outside the participating members/ jurisdictions, it will be referred to the appropriate jurisdiction for their follow-up. The referral will occur in writing and include the rationale for the referral.

Schedule: Years 1-5 of permit for IDEP Priority Work Areas

ADW Member Responsibilities:

- ADW
    - Review and approve annual budgets and work plans to ensure resources are directed to the appropriate areas.
    - Hold ADW Technical Committee discussions to review ongoing investigations. The Technical Committee will also provide its recommendations for priority areas to Members. Members will provide feedback on the appropriateness of the selected priority areas and can also nominate areas for priority investigations. Nominations will be taken once every 5 years or more frequently if deemed necessary by the Technical Committee. Nominations will be reviewed by the Technical Committee to determine if they should be included for priority investigation.
    - Facilitate between Wayne County and MS4s on strategies to locate sources.

- Communities and Nested School Districts
    - Assist the County in conducting advanced investigations to locate sources. This may include providing maps and staff, tracking suspicious discharges up their MS4s, and supplying staff/equipment/contractor as the situation requires (e.g. closed circuit televising equipment).
    - Work with property owners to eliminate identified sources and track correction measures.
    - Lead enforcement measures as appropriate.
- Wayne County
    - Lead investigations in priority areas to identify illicit discharge sources.
    - Track investigation efforts and provide reports.

Measures of Assessment:

- Number of outfalls inspected/dry weather screened
- Length of streams surveyed
- Amount of instream water quality investigative monitoring performed
- Number of manhole inspections
- Amount of dye testing performed
- Amount of smoke testing performed
- Amount of televising performed
- Number of illicit connections/discharges found and resolved

BMP Goals:

- Follow the advanced investigation protocol for Priority Area IDEP Advanced Investigations (Attachment B).
- 100% of known illicit connections resolved or plan in place for resolution

IDEP #4: Staff Training
Funding: ADW

Activity Description: There are several mechanisms available for IDEP training for various competencies as described below. Each permittee will have at least one person trained at the Investigator Level and 50% of field staff at the Alert Observer Level. Field staff is defined as those working at least 50% of their day out-of-the-office and includes Department of Public Works/Services staff and community building/plumbing inspectors.

Investigator Level
The Wayne County Illicit Discharge Investigator Training (a half day training workshop) where attendees are taught how to identify and investigate the sources of illicit discharges including failing septic systems, seepage from sanitary sewers, illegal dumping, and suspicious discharges from outfalls. A competency exam is also administered at the end of the workshop.

Alert Observer Level
Training at this level can consist of one of the following:

- The Alert Observer IDEP Training (a 30 minute to 1 hour workshop) which provides the goals of the IDEP program, how to recognize illicit discharges and conduct field screenings, and the mechanisms to report suspicious discharges.
- The Working for Clean Water municipal staff training (a 15-minute video) where attendees are provided a general overview of the IDEP program, how to recognize illicit discharges, encouraged to report suspicious discharges, and provides pollution prevention and good housekeeping best management practices.

In addition, an IDEP Tip Card for Municipal Staff, which was developed by the Southeast Michigan IDEP Work Group, will be provided to field staff for both training programs. The Tip Card provides photographic examples of illicit discharges and phone numbers to report complaints.

Each community and county should have at least one person who is trained at the Investigator Level. If not currently, this will be obtained in Year 1 of the permit. This level of training will be maintained. Wayne County and the ADW will continue to offer the Investigator Training Workshop to ADW membership every other year according to the Southeast Michigan Regional IDEP Training Plan (See Attachment C). ADW staff will look to extend the training plan another 5 years or offer an alternate training program if one is not available.

The Working for Clean Water video will be made available on the ADW's website or by searching "IDEP Municipal Training" on www.YouTube.com. The Alert Observer Training Workshop will be included in the municipal pollution prevention training every other year according to the IDEP Training Plan (See Attachment C). Additional training opportunities can be arranged if demand warrants. The Tip Card will be distributed at the Investigator and Alert Observer trainings and can be obtained on the ADW's website.

Schedule: One person trained at the Investigator Level, confirmed annually
50% of field staff will be trained at the Alert Observer Level by Year 3 of the permit

ADW Member Responsibilities:

- ADW
  - Provide funding for the Investigator Training and Alert Observer Training Workshops
  - Provide Working for Clean Water video on ADW website
  - Provide Tip Card on ADW website
- Communities, Wayne County
  - Provide IDEP training to field staff
  - Provide field staff the IDEP Tip Card for Municipal Staff in conjunction with the training sessions
  - Document and track staff training

Measures of Assessment:

- Number of staff trained

BMP Goals:

- 1 person per MS4 trained at Investigator Level
- 50% of field staff trained at the Alert Observer Level

IDEP #5: Inspection of ADW Member Owned Facilities
Funding: ADW

Activity Description: Dye-testing will be conducted on ADW member-owned or operated facilities by County IDEP staff for the purpose of identifying any illicit connections or illicit discharges. Any identified issues will be corrected by owner. Many of the ADW member-owned facilities have already been dye-tested. A list of facilities that have not yet been dye-tested is included as Attachment D. Any changes to this list during the course of the permit will be submitted to the DEQ.

Schedule: Years 1-2 of permit for Priority IDEP Work Areas
Years 3-5 of permit for Routine IDEP Areas

ADW Member Responsibilities:

- ADW
  - Provide funding for facility dye-testing
- Wayne County
  - Provide staff to conduct facility inspections
- Communities and School Districts:
  - Provide the ADW a list of facilities needing to be dye tested.
  - Provide access to facilities and plans, if available, and storm/ sanitary sewer maps for the immediate area.
  - Repair/correct illicit connections/discharges that were revealed during the site inspection. If the discharge is significant, take immediate steps to stop the illicit discharge

Measures of Assessment:

- Number of facilities dye tested
- Number of issues identified
- Number of issues resolved

BMP Goals:

- Develop a completed list of ADW member-owned facilities
- 100% of ADW member-owned facilities dye tested in priority areas
- 50% of ADW member-owned facilities dye tested in routine areas
- 100% of issues addressed, or a plan in place to address

IDEP #6: Visual Inspection during Routine Field Operations
Funding: ADW, Wayne County, and Communities

Activity Description: Consistent with IDEP#4 & IDEP#9, field staff involved in various work programs have been trained to identify and report suspicious discharges during routine field operations. Routine field operations may include:

- Catch basin cleaning/repairs
- Mosquito treatment of catch basins for West Nile Virus
- Street and parking lot sweeping
- Re-ditching and open ditch maintenance, and
- Sanitary sewer maintenance (cleaning, CCTV, lining)

In order to aid in this activity, the ADW will develop and distribute a consistent procedure and forms for ADW members to appropriately document their response to potential illicit discharge complaints and corrective actions taken to eliminate illicit discharges. A log form will also be developed that ADW member's field staff will use to document that illicit discharges were looked for during routine maintenance activities (form to include Wayne County hotline number).

Community field staff will be reminded to be alert for illicit or suspicious discharges, especially those in Priority Areas. This reminder will include key points in identifying and reporting suspected illicit discharges.

Schedule: Routine Maintenance Field Work - Continuous
Training – see IDEP #4 and IDEP #9
Develop consistent template for IDEP procedures and recommended responses for use by field staff
Develop checklist for ADW field staff to document that illicit discharges were looked for during routine maintenance activities
Reminder to Priority Area Members– two times per year

ADW Member Responsibilities:

- ADW
    - Develop and distribute a consistent procedure and forms for ADW members to appropriately document their response to potential illicit discharge complaints and corrective actions taken to eliminate illicit discharges. See Attachment A.
    - Develop and distribute a log sheet that ADW member's field staff will use to document that illicit discharges were looked for during routine maintenance activities (log to include Wayne County hotline number). See Attachment A.

- Communities, Wayne County and nested school districts
    - Train appropriate field staff to identify signs of illicit discharges and respond accordingly.
    - Require field staff to use the ADW's illicit discharge checklist to document that illicit discharges were looked for during routine MS4 maintenance activities.
    - Require field staff to utilize the ADW procedure and forms for documenting responses to potential illicit discharge complaints/reports and corrective actions taken to eliminate illicit discharges.
    - For Priority IDEP Work Areas, notify field staff that there is an *E. coli* issue and instruct them to be especially observant and report any suspicious areas to ADW or county staff.

Measures of Assessment:

- Number of IDEP issues referred and investigations completed
- Number of illicit connections/discharges found and resolved

BMP Goals:

- Track all known illicit connections/discharges
- 100% of known illicit connections/discharges resolved, or plan in place to resolve

IDEP #7: Point of Storm Water Discharge – Dry Weather Screening
Funding: Communities and nested school districts

Activity Description: Dry weather screening of points of storm water discharge will occur in Priority IDEP Work Areas when identified as the appropriate IDEP advanced investigation technique. Dry weather screening may also occur in response to suspicious discharge complaints. Any new outfalls identified by permittees will also be screened once. A procedure for performing outfall screening was developed for use by the ADW members as part of the development of this Collaborative IDEP.

Schedule: Years 1-5 of permit for Priority IDEP Work Areas, as part of Priority Area IDEP Advanced Investigations
As needed based on complaints

ADW Member Responsibilities:

- ADW
    - Develop and distribute a consistent procedure and forms for ADW members to appropriately document dry weather screening activities (Attachment E).
    - Maintain a list of community contacts and update annually.
    - Review of reported issues at quarterly ADW Technical Committee meetings.

- Communities and nested school districts
    - Document dry weather screening inspections
    - Track status of complaints handled internally or those referred to them.
    - Track and record follow up communication from resident complaints as appropriate.
    - Investigate and resolve complaints within their MS4.
    - Require field staff to utilize the ADW procedure and forms for documenting responses to potential illicit discharge complaints/reports and corrective actions taken to eliminate illicit discharges.
    - Perform dry weather screening of new outfalls within 6 months of construction or taking ownership.
- Wayne County
    - Provide technical guidance as requested by local communities.
    - Track the status of any pollution complaints that they investigate.
    - Track and record follow up communication regarding complaints as appropriate.
    - Investigate and resolve complaints within their MS4.
    - Perform dry weather screening of 10% of County/stream crossings using ARC/ADW dry weather screening procedures.

Measures of Assessment:

- Number of inspections
- Number of illicit discharges found/corrected

BMP Goals:

- 100% of known illicit connections/discharges resolved, or plan in place to resolve

IDEP #8: Mapping of Storm Water Outfalls to Waters of the State
Funding: ADW with Wayne County providing GIS data management

Activity Description: A watershed-wide GIS database and map of known outfalls to waters of the State is being compiled and will be maintained. A clearinghouse for ADW digital storm sewer maps will also be established. These maps will be compiled based on available GIS data from ADW members. In addition, field surveys will be performed to fill in data gaps in priority reaches, as shown in Figure 1. This activity to centralize data will be an ongoing effort that will facilitate source-tracking and ease reporting to the MDEQ overtime.

Schedule: Initial mapping completed by December 2019
Annual survey and map/database update

ADW Member Responsibilities:

- ADW/Wayne County
    - Initiate map development of centralized datasets of stormwater outfalls, discharge points and MS4 system assets based on available GIS data from ADW members. A map of outfalls to waters of the State within the ADW will be prepared.
    - Perform field surveys to GPS and fill in data gaps in outfalls to waters of the state, stormwater discharge points and MS4 system assets within IDEP priority reaches. Update centralized database and maps.
    - Update the watershed's outfall/discharge point map on an annual basis.

- Communities and Wayne County
    - Provide existing GIS datasets of storm sewer systems and points of discharge to initiate development of centralized datasets of stormwater outfalls, discharge points and MS4 system assets.
    - Update maps of outfalls/discharge points on an annual basis and provide to the ADW.

Measures of assessment:

- Portion of watershed area with known outfalls mapped in GIS

BMP Goal:

- 100% of available data from ADW members incorporated into centralized dataset

IDEP #9: Volunteer Training
Funding: ADW via Public Education and Progress Evaluation budgets

Activity Description: Participants in the various volunteer monitoring activities being implemented in the ADW have been and will be instructed and given informational materials as part of their training on how to identify and report illegal dumping and suspicious discharges. This will be carried out by Wayne County and/or HRWC staff during training for the various volunteer monitoring programs.

Schedule: Annually as volunteer monitoring training occurs.

ADW Member Responsibilities:

- ADW
    - Financially support volunteer monitoring activities
    - Provide annual volunteer training
- Communities, Wayne County and nested school districts
    - Promote citizen involvement in Volunteer monitoring efforts at which volunteers will receive training on the identification and reporting of suspicious discharges

Measures of Assessment:

- Number of volunteers trained

BMP Goal:

- Training held annually during each year of the permit cycle

IDEP #10: Method to Evaluate IDEP Effectiveness

Funding: ADW, Wayne County, communities, nested school districts

Activity Description: Records for each of the above IDEP activities will be kept and a biennial summary report submitted documenting the output of each activity and the summary number of illicit discharges identified and eliminated. Overall effectiveness will be based on the long-term natural resource response as determined through the progress evaluation monitoring described below (see Progress Evaluation Monitoring below).

Schedule: Continuous with summary report submitted biennially.

ADW Member Responsibilities:

- ADW
    - Conduct instream monitoring for select indicators to determine the effectiveness of IDEP efforts. The monitoring information will be evaluated and assessed during future priority area discussions.
    - Continue watershed-wide monitoring for select parameters to assess the general health of the river.
- Communities, Wayne County and nested school districts
    - Keep records of their activities with respect to the above IDEP activities and provide such information to ADW staff annually to assist with the collaborative reporting and IDEP effectiveness evaluation.

IV. CORRECTIVE ACTION NOTIFICATION

The procedure for responding to illicit discharges will vary depending on the nature of the discharge (ex: illicit connection to a storm sewer, failing septic system, illegal dumping, etc.) and jurisdiction of the discharge. Similarly, the timeline for eliminating a discharge will vary depending on the geographic extent of the issue, the complexity of the corrective action, responsible party's financial constraints, etc. Deviations to the procedures below may be made on a case-by-case basis and will be documented in the Permit Progress Report. In all cases, corrective action measures will be implemented to the maximum extent practicable and as soon as practicable. The status of corrective actions will be included in the Permit Progress Report to the MDEQ.

Discharges from Private Sources to MS4s

If the source of an illicit discharge has been determined to be privately owned, discharging to an MS4 and regulated by the MS4, the MS4 owner (city, village, county) will use the procedure below to notify and correct the illicit discharge.

It should be noted that discharges to drains within townships are typically under the jurisdiction of the county road agency, who is ultimately responsible for elimination. However, corrective action and enforcement for discharges to their MS4 is handled under the local jurisdiction's codes and ordinances, the county health department's sanitary code or other appropriate regulatory authority. In these situations, corrective action notification and enforcement will be led by the township, who will coordinate with the health department or other agencies, as needed.

First Notice: Notification of Problem and Correction Needed Once the source(s) of an illicit discharge has been identified, the MS4 owner will provide the first written notice to the responsible party of the illicit discharge by registered mail within 7 days. The first written notice will notify the responsible party of the illicit discharge, the MS4 owner's regulatory authority to require correction, and the potential enforcement actions if the discharge is not addressed. The responsible party will be required to contact the MS4 owner regarding plans for correction within 14 days. Tracking of all notifications and documentation of registered mail receipts shall be retained by the MS4 owner. A sample letter is included in Attachment F.

Final Notice: If 14 days have passed from the date of the 1st written notice and no response has been received from the responsible party, a second written notice will be sent. The second written notice will remind the responsible party of the illicit discharge, the prior notice, the regulatory authority to require correction, and the potential enforcement actions that will occur if the discharge is not addressed. The responsible party will be given an additional 14 days to contact the MS4 owner regarding plans for correction.

Enforcement: If 30 days have passed from the date of the first written notice, a citation will be issued. The MS4 owner will issue civil infractions as described in the Enforcement Response Procedure (ERP) for the violation of the applicable IDEP-related ordinances as listed in individual permittee stormwater management plans. A citation shall include fines and may require a court appearance.

Corrections/Repairs:

In the event that the owner does not contact the MS4 owner within 14 days of the Final Notice and/or the discharge is not addressed by the owner 30 days after civil infractions have been issued, the MS4 owner will pursue other enforcement actions such as: discontinue water service to the property and designate the property uninhabitable, place a lien on the property, and initiate efforts to complete the necessary repairs, as authorized by law.

Discharges from Public Properties to MS4s

If the discharge is emanating from a public property (other than the permittee's property), the MS4 owner will request correction or a written corrective action plan be submitted within 60 days of notification. If the discharge cannot be corrected within 60 days of notification, interim measures shall be implemented, as practical, to reduce the impact of the discharge on the receiving water. The corrective action plan will include a schedule for completion with a goal of completion within 18 months of plan approval. The plan will be reviewed by the MS4 owner within 60 days and approved or denied with explanation. Approval of the plan will not waive any local permitting requirements of the community.

Discharges from Permittee's Properties

For discharges emanating from the permittee's own property, a corrective action plan will be developed within 60 days of discovery of the discharge. The plan will include a schedule for completion with a goal of completion within 18 months of plan completion. If the discharge cannot be corrected within 60 days of discovery, interim measures shall be implemented, as practical, to reduce the impact of the discharge on the receiving water.

Discharges from Septic Systems

For illicit discharges from failed septic systems, the corrective action procedures of the Wayne County Health Department will be followed. This procedure is documented in the County's stormwater management plan.

V. LEGAL AUTHORITY

The legal authority that allows permittees to prohibit, investigate and/or enforce the correction of illicit discharges is established on an individual permittee basis. For most communities, legal authority is granted via the Plumbing Code, Sewer Use Ordinance, Nuisances Ordinance, and Municipal Civil Infraction Ordinance as indicated in the table below. Permittees will review their existing codes/ordinances/rules and provide a table that cross references the regulatory mechanism (chapter and section) with the items included in the table below. Table 1 provides the list of regulatory mechanisms by type of illicit discharge that are available to local, school and county agencies to investigate and eliminate illicit discharges. In some cases, permittees can seek the assistance of state and federal agencies to investigate and eliminate illicit discharges. Examples include sewage discharges from mobile home parks, discharges from non-municipal facilities that have a NPDES permit and agricultural properties as shown in Table 2.

Table 1. IDEP Regulatory Mechanisms Available to Permittees

Discharge Type or Source	Lead Enforcement Agency	Regulatory Authority
Discharges to city and village MS4s (except as noted below)	Local DPWs and Building Depts.	Varies by community. See individual stormwater management plans.
Discharges to school or township MS4s	School or Township	See individual stormwater management plans
Sanitary sewage and waste matter into County Drains	County Drain or Water Resource Commissions	Section 280.423 of the Michigan Drain Code of 1956, as amended. Under the Michigan Drain Code, pollution of a county drain is a criminal misdemeanor and punishable by a fine of $25,000 or imprisonment. See Items 1-10 of Chapter 18, Section 280.423 of the Michigan Drain Code at: http://legislature.mi.gov/doc.aspx?mcl280-423 See also Section 280.421: Obstructions; removal; expenses, notice; livestock; criminal complaint of Chapter 18 of the Drain Code at: http://www.legislature.mi.gov/%28S%28fpcedzixcmfe3wvtvqmyto3x%29%29/mileg.aspx?page=getObject&objectName=mcl-280-421
Discharges to County Road Drains	Road Agencies	Public Highways and Private Roads Act 283, 1909 Sect. 224.19b
Soil Erosion from Construction Sites	Part 91 Authority	Part 91, Soil Erosion and Sedimentation Control (SESC), of NREPA, Public Act 451 of 1994
Discharges from Onsite Sewage Disposal Systems (OSDS)	Wayne County Dept. of Health	http://www.waynecounty.com/hhs/onsitesewage.htm *Specifications Governing On-Site Disposal of Sanitary Sewage and Human Excreta as follows:* -Prohibit discharges: Article III, Sec. 3.13.2 -Right to inspect: Article IV, Sec. 4.3 -Corrective action: Article IV, Sec. 4.5-4.7 -Penalties: Article XVI, Sec. 16.1 *Wayne County On-Site Sewage Disposal Operation and Maintenance Ordinance* as follows: -Right to inspect: Sec. 803 -Corrective action: Sec. 802 -Penalties: Sec. 804-815

Source: Modified from a table included in the Alliance of Rouge Communities Collaborative IDEP

Table 2 – IDEP Regulatory Mechanisms Available to State and Federal Agencies to Assist Permittees

Discharge Type or Source	State or Federal Enforcement Agency	Regulatory Authority
Discharges from Mobile Home Parks	MDLEG	Mobile Home Commission Act Public Act 96 of 1987 http://www.legislature.mi.gov/documents/mcl/pdf/mcl-Act-96of-1987.pdf
Discharges from Part 5 facilities and industrial NPDES regulated facilities	MDEQ-WRD	Part 31, NREPA, PA 451 of 1994
Discharges from agricultural properties and livestock facilities	MDARD	Michigan Right to Farm Act, Public Act 93 of 1981
Releases of Oil and Polluting Materials, Sewage, Flammable and Combustible Liquids, Hazardous Materials, Hazardous Substances, Infectious Substances, Hazardous Wastes, Leaking Above Ground and Underground Storage Tanks, Bulk Commercial Fertilizers and Pesticides, and Liquid Industrial Wastes	MDEQ - WRD & RRD, USEPA, USCG, NRCS, USDOT, MSP, Local Police & Fire Depts., LEPC, LARA, MDARD, Local Health Dept., and CDC	See Attachment G for appropriate regulatory authority

Notes: CDC = Center for Disease Control, LARA= Michigan Dept. of Licensing and Regulatory Affairs, LEPC=Local Emergency Planning Commission, MDA=Michigan Dept. of Agriculture & Rural Development, MDEQ WRD=Michigan Dept. of Environmental Quality Water Resources Division, MDEQ RRD= MDEQ Remediation and Redevelopment Division, MDLEG=Michigan Dept. of Labor and Economic Growth, MSP=Michigan State Police, NRCS=Natural Resources Conservation Service, USCG=US Coast Guard, USDOT=US Dept. of Transportation, USEPA=US Environmental Protection Agency.
Source: Oakland County Water Resources Commissioner's Office

Attachment A

STORMWATER DISCHARGE PERMIT APPLICATION

Complaint Tracking Form & Routine Field Work Log

For the Alliance of Downriver Watersheds MS4s

Revised 6/01/2018

Pollution Complaint Tracking Form Illicit Discharge Elimination Program

Community Name: _____

Complaint made by: _____ Phone #: _____

Date:_____ Time: _____

Location of Problem: _____

Offending Party (if known) _____

Nature of Problem (i.e. paper waste, odor, color, etc.):

_____

_____

_____

Is this an Emergency? ☐ No ☐ Yes (then call 911)

Nature of Emergency: _____

Initial contact made to: ☐ 911 ☐ City Dept _____

☐ Wayne County 888-223-2363 ☐ PEAS Hotline (State) 800-292-4706

☐ Other _____

Pollution Complaint Tracking Form Illicit Discharge Elimination Program

Investigation Summary ☐ Initial Investigation ☐ Follow-up Investigation

Date of Investigation:_____ Investigating Agency: _____

Crew Members _____

Location of Discharge: _____

Investigation Location: _____

Observations (odor, color, volume, etc.): _____

_____

_____

_____

Actions Taken (dye testing, notification letter, etc.): _____

_____

_____

Were photos taken? ☐ No ☐ Yes

Agency Referred to: _____ Agency Contact: _____

Method of Communication: ☐ E-mail* ☐ Letter/memo* ☐ Phone *Attached copies

Content of Communication: _____

_____

Date Corrected or Resolved: _____

Routine Fieldwork Log – Illicit Discharge Elimination Program

Wayne County 24 hr Environmental Hotline 1-888-223-2363

Date:	Crew:	Suspicious Discharge Observed? ☐ No ☐ Yes*
Location of Field Work:		
Date:	Crew:	Suspicious Discharge Observed? ☐ No ☐ Yes*
Location of Field Work:		
Date:	Crew:	Suspicious Discharge Observed? ☐ No ☐ Yes*
Location of Field Work:		
Date:	Crew:	Suspicious Discharge Observed? ☐ No ☐ Yes*
Location of Field Work:		
Date:	Crew:	Suspicious Discharge Observed? ☐ No ☐ Yes*
Location of Field Work:		
Date:	Crew:	Suspicious Discharge Observed? ☐ No ☐ Yes*
Location of Field Work:		
Date:	Crew:	Suspicious Discharge Observed? ☐ No ☐ Yes*
Location of Field Work:		

* If "Yes" is checked, the Pollution Complaint Tracking Form must be completed

Attachment B

STORMWATER DISCHARGE PERMIT APPLICATION

Alliance of Downriver Watersheds
OURS TO PROTECT

Advanced Investigation Procedure for Locating the Source of Suspicious Discharges

For the Alliance of Downriver Watersheds MS4s

Revised 12/18/2018

Attachment B

I. Purpose

The purpose of this procedure is to describe the protocols to conduct advanced investigations in storm sewer systems to identify the source of a suspicious discharge. These investigations would be performed based on the priority area designation, results of field screening procedures or based on a pollution complaint. The Michigan Department of Environmental Quality (MDEQ) requires this procedure for stormwater discharges from municipal separate storm sewer systems (MS4) as part of an entity's National Pollutant Discharge Elimination System (NPDES) permit application.

II. Performing Source Investigations

The investigation parameters will be selected based on the nature of the complaint or initial field screening results according to the parameters and threshold values indicated in the Field Screening Procedure for Identifying Potential Illicit Discharges Standard Operating Procedure. If working within a river/stream/open drain, then samples or observations will be taken at the origin of the suspicious discharge and at upstream locations. This will continue until the source is found or an enclosed storm sewer is located.

Determining Ownership

For complaint-based investigations, the owner/operator of the enclosed storm sewer will be determined. If it is suspected that a discharge originates from another jurisdiction, the other jurisdiction will be notified in writing of the suspicious discharge and any pertinent information about the discharge. This will occur within 10 working days of the discovery of the discharge from the other jurisdiction.

For investigations based on outfall screening results, the ownership step is not required because it is assumed that outfall screening was completed by the owner/operator.
For investigations based on instream sampling results and the owner/operator is participating in the ADW Collaborative IDEP Plan, the owner/operator will be notified of the suspicious discharge and storm and sanitary sewer maps will be obtained. Investigations will continue with the assistance of the owner/operator. If the owner/operator is not participating in the ADW Collaborative IDEP Plan, then they will be notified in writing of the suspicious discharge and any pertinent information about the discharge. This will occur within a timeframe ranging from immediately/within 24 hours (for sources posing an imminent threat) or for non-emergency issues up to 5 working days of the discovery of the discharge from the other jurisdiction.

Source Investigations

Enclosed drain investigations will proceed, following discovery of a suspicious discharge. The site of the discharge will be resampled during dry conditions for the appropriate indicator parameter. The sample parameters will be the same as those used during the initial field screening. If no flow is present, a second site visit will be conducted within 4 weeks of discovery, weather permitting. If no flow is present during the second site, a third site visit will be conducted within 2 months of the date of the second visit, weather permitting.

Additional sampling/observations will be conducted upstream within the drainage system to narrow down the section of pipe from which the suspicious discharge is emanating. Sampling will be conducted as outlined in the Field Screening Procedure for Identifying Potential Illicit Discharges SOP.

Ideally, the sampling data or observations will allow staff to isolate a section of storm sewer to employ advanced investigation techniques. These techniques include televising the storm sewer, smoke testing, and conducting dye testing of homes, facilities, or sewers to verify a suspected illicit connection or discharge. The lead investigator will determine which of these techniques (or other technique) will be employed.

III. Closed Circuit Televising (CCTV)

CCTV inspections may be performed to determine if illicit connections are present in a storm drain. This allows for inspectors to identify suspicious taps to the drain. This work will be performed by a qualified staff or contractor. If possible, a video recording of the inspection will be performed. If possible, the lead investigator will be present during the CCTV inspection in order to direct additional efforts.

IV. Smoke Testing

Smoke testing may be performed to determine if a residence or facility is illicitly connected to the storm drain. This work will be performed by a qualified staff or contractor. This testing requires homeowner notification to ensure all plumbing traps are filled with water and to make them aware of the potential intrusion of smoke into their homes. The local fire department should also be notified prior to testing. Non-toxic smoke is used. The drain may be plugged at various locations to ensure the testing is limited to the area of interest. Smoke found exiting a building plumbing vent indicates that the home is illicitly connected to the storm sewer. Care must be taken to perform this testing during the appropriate weather conditions in order not to mistaken steam from a heating system or fog as smoke. This testing may also identify improper connections between the storm and sanitary system.

V. Dye Testing

Dye testing may be performed on plumbing fixtures (i.e. sinks, toilets, floor drains, etc.) within facilities/structures that are suspected of illicitly discharging non-stormwater flows into the MS4 to determine if they are properly connected to the appropriate sewer. Prior to administering a tracer dye, the lead investigator will submit a Notice of Intent to the MDEQ under General Rule 97 Certification of Approval Authorizing Tracer Dyes in Surface Waters. In addition, the following agencies shall be notified 48 hours prior to the application:

- Local Municipality
- Local Health Department
- Downstream Municipalities and Health Departments potentially affected
- Local Fire Department

Once approved, tracer dye will be applied to the appropriate plumbing fixture(s) per the manufacturer's recommendations and in a manner that will minimize potential effects to surface water. The following information will be documented when conducting a dye test:

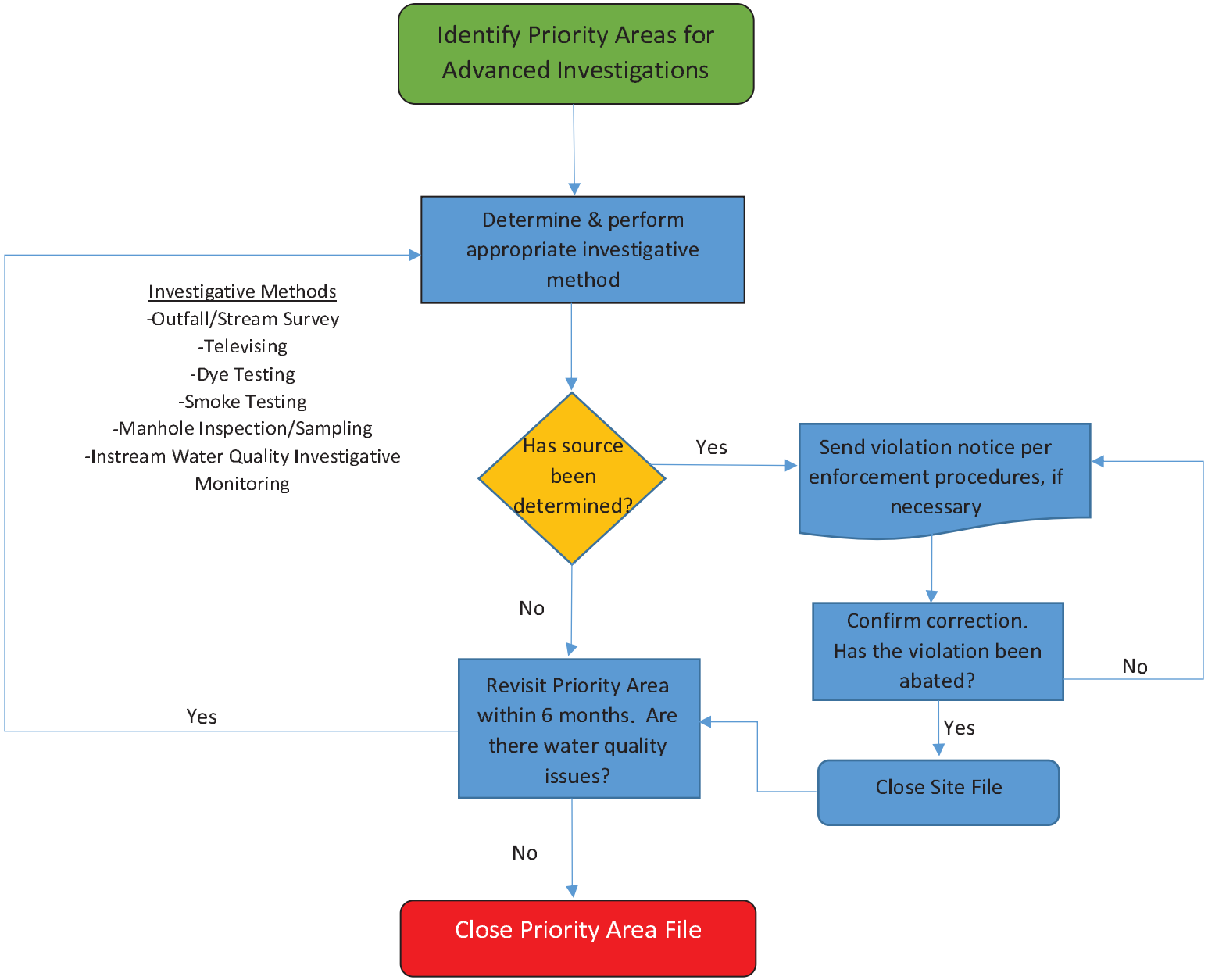
- Facility or Building Name
- Date
- Location where dye is applied (i.e. second floor men's restroom)
- Time the dye is applied
- Time dye is observed in the field

- Location where dye is observed (i.e. sanitary manhole, northeast of building)
- Time of Travel
- Follow up action, if needed

Sample dye test forms are included with this Attachment.

VI. Process for Revision

Any questions on this procedure should be directed to the entity's Stormwater Manager or the ADW Technical Committee. This procedure shall be reviewed once per permit cycle by the ADW Technical Committee for any updates.


Identify Priority Areas for Advanced Investigations
Determine & perform appropriate investigative method
Investigative Methods
-Outfall/Stream Survey
-Televising
-Dye Testing
-Smoke Testing
-Manhole Inspection/Sampling
-Instream Water Quality Investigative Monitoring
Has source been determined?
Yes
Send violation notice per enforcement procedures, if necessary
Confirm correction. Has the violation been abated?
No
Yes
Close Site File
No
Revisit Priority Area within 6 months. Are there water quality issues?
Yes
No
Close Priority Area File

Alliance of Downriver Watersheds

Dye Testing Form adapted from
Wayne County Department of Public Services (Environment)
Water Quality Management Division

Facility Information Sheet

❒ Field Inspection ❒ Survey ❒ WMD Complaint, #_____

Date:_____

Address: _____ Community: _____

Name of Facility: _____

Type of Business: _____

Contact Person: _____ Phone Number: _____

Title: _____

SIC Code: _____ Priority: _____

Watershed: _____ Subwatershed: _____ Subarea: _____

Field Representative(s): _____

River Friendly Partners Program Information Requested: _____

Alliance of Downriver Watersheds

Dye Testing Form adapted from
Wayne County Department of Public Services (Environment)
Water Quality Management Division

Field Inspection Results

Date: _____

Address: _____ Community: _____

Name of Facility: _____

- ☐ Proper Connection - The Fixtures "dye tested" in this establishment have been found to be properly connected to the sanitary sewer system. No problems were noticed at time of inspection.
- ☐ Incomplete: _____
  reason
- ☐ No Show - Unsuccessful attempt, unable to detect "dye" in the sanitary sewer.
- ☐ Violation/Illicit Connection/Improper discharge - Situation resulting in pollution of surface waters.
  - ☐ Illicit Connection
  - ☐ Improper Discharge
  - ☐ House Keeping

LIST ALL FIXTURES DYE TESTED:

_____

_____

_____

_____

_____

_____

Field Inspection Results

Date _____

Facility: _____

Information to Document:

- Location where dye is applied (i.e. second floor men's restroom)
- Time the dye is applied
- Time dye is observed in the field
- Location where dye is observed (i.e. sanitary manhole, northeast of building)
- Time of Travel
- Follow up action, if needed

Alliance of Downriver Watersheds

Dye Testing Form adapted from
Wayne County Department of Public Services (Environment)
Water Quality Management Division

Field Notes & Observations

Date: _____ Complaint Number: _____

Address: _____ Community: _____

Name of Facility: _____

❒ Follow Up Inspection ❒ Survey ❒ Complaint

Notes: _____

Alliance of Downriver Watersheds

Dye Testing Form adapted from
Wayne County Department of Public Services (Environment)
Water Quality Management Division

Plan Sheet

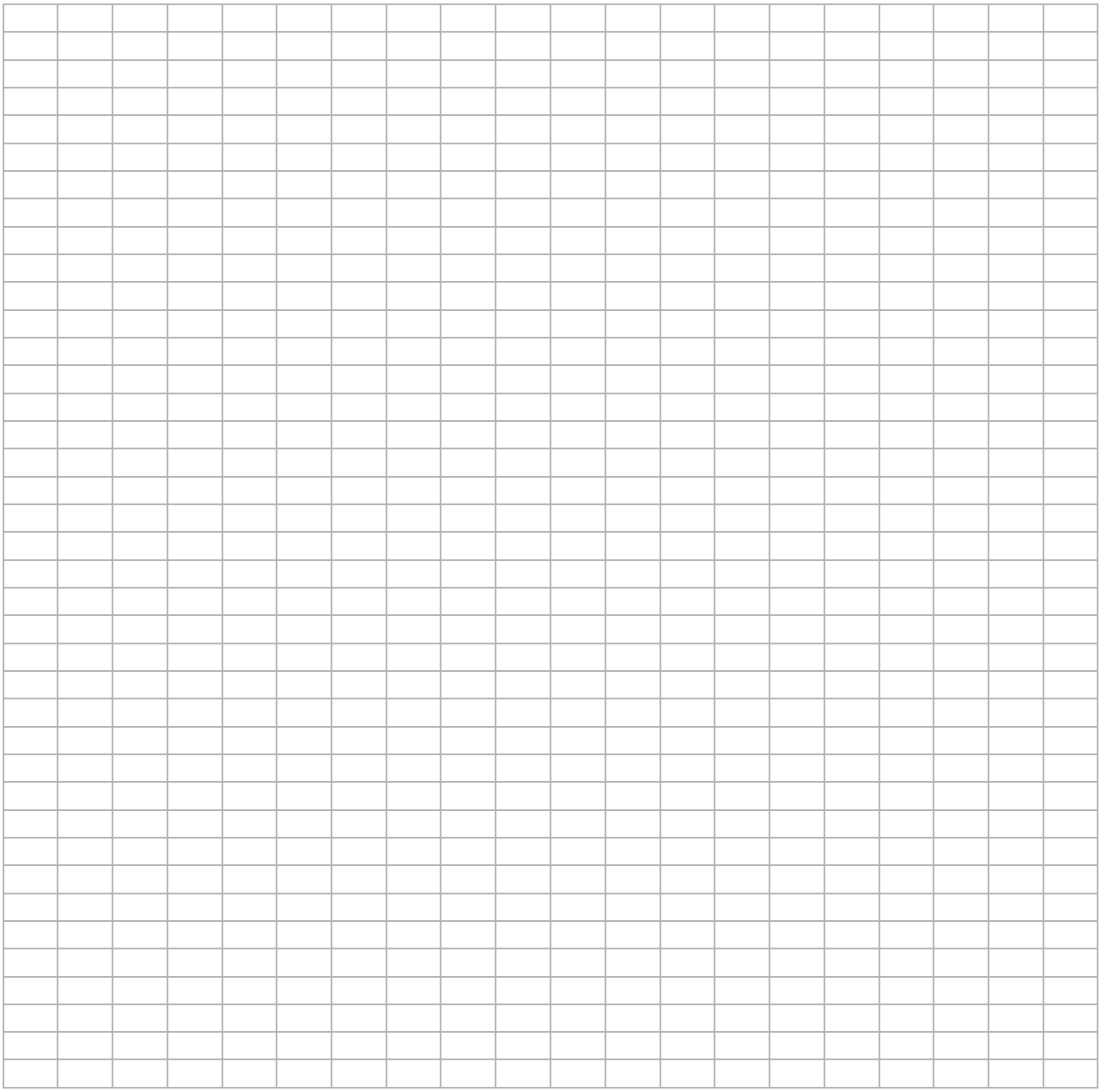
Date: _____

Address: _____Community: _____

Name of Facility: _____

❑ Field Inspection ❑ Survey ❑ Complaint

Indicate manhole location



Attachment C

STORMWATER DISCHARGE PERMIT APPLICATION

Alliance of Downriver Watersheds
OURS TO PROTECT

Regional IDEP Training Program

For the Alliance of Downriver Watersheds MS4s

Southeast Michigan Regional
Illicit Discharge Elimination Program Training Plan
February 19, 2013

Introduction

Southeast Michigan is a seven county region with a population exceeding 4.7 million and comprising 16 watersheds. Five of the counties (Wayne, Washtenaw, St. Clair, Macomb and Oakland), comprising 11 watersheds, have a stormwater discharge permit. The permit requires training in various aspects of illicit discharge elimination. Recent audits of permittees by the Michigan Department of Environmental Quality have requested documentation of such training. This document lays out a plan for training municipal staff that is consistent with the language in the forth coming stormwater permit. The plan provides background information, objectives, details, and a cost-share arrangement to provide stormwater-related training to the permitted communities.

Background

The Alliance of Rouge Communities (ARC) has sponsored the Basic/Advanced IDEP Training for the last few years. This training was made available to ARC members without charge. The participation in the training has decreased over the years. Wayne County has provided training to non-ARC members in southeast Michigan on a cost recovery basis, e.g. contracts with Eastern Michigan University, Washtenaw County.

In 2011, SEMCOG sponsored five municipal training sessions across Southeast Michigan that targeted pollution prevention actions at municipal facilities. These ½ day sessions also included an illicit discharge identification component designed to educate a broad audience on basic recognition and reporting techniques. Staff from Washtenaw, Livingston, St. Clair, Oakland, Macomb and Wayne counties helped to develop the content of the training and co-host the session at one of their facilities. The sessions were also co-hosted by the DEQ, which provided Industrial Operator Training at no cost in the afternoon of each session. Over 350 people attended the five training sessions and 107 people took the DEQ Industrial Operator.

Objective

The goal of this plan is to provide training to the southeast Michigan region focused on illicit discharge elimination and storm water pollution prevention. There are three main objectives of this plan. The first objective is to establish a framework that shares responsibility and costs of training on a regional basis. The second objective is to be efficient by maximizing class size not duplicating efforts and spreading the costs over the region. The third objective is to make it unnecessary to charge a fee for the training.

Plan

The plan calls for an alternating five year schedule of training between Wayne County's IDEP training program and SEMCOG's municipal facility training and illicit discharge recognition training provided by the host county. The training would be provided once a year. The period covered by this plan is January 2013 through December 2017.

Every other year beginning with 2013, Wayne County's IDEP Training will be provided to the region. Table 1 lists the responsibilities and schedule for each IDEP training session. In 2014 and 2016, SEMCOG's municipal facility training with illicit discharge recognition training will be provided. Table 2 lists the responsibilities for the SEMCOG municipal facility and illicit discharge recognition training.

Note: This schedule is consistent with the language concerning training in the new State stormwater permit.

Cost Sharing

The goal is to distribute cost among the region by rotating sites for the training, so that the trainings can be offered at no charge. This would reduce the cost to the ARC since the IDEP training registration would be handled by others and since it would be offered every other year. This will also reduce the cost to other permittees, since the IDEP training charge would be offered at no charge (a savings of around $75 per attendee).

Table 1: Traditional IDEP Training Schedule and Responsibilities

Year	Staff Cost[1]	Facility/Refreshments[2]	Registration[3]	Print and Mail Certificates
2013	ADW, ARC	Wayne County	Wayne County	Wayne County
2015	ADW, ARC	Washtenaw County	Washtenaw County	Wayne County
2017	ADW, ARC	Macomb County	Macomb County	Wayne County

1- Will provide trainers for the event at no charge to the municipalities or other counties.
2- Will arrange for a training location and provide refreshments/snack
3- Will handle advanced registration and sign-in the day of the event and create an advertisement for distribution to the region. Distribution will occur via email to the county stormwater coordinators.

Table 2: SEMCOG Municipal Facility and Illicit Discharge Training Schedule and Responsibilities

Year	Staff Cost	Facility/Refreshments[3]	Registration[4]
2014	Host County[1], SEMCOG[2]	St. Clair County	SEMCOG
2016	Host County[1], SEMCOG[2]	Oakland County	SEMCOG

1- Will provide or arrange for trainers for the event in collaboration with SEMCOG.
2- SEMCOG donated time
3- Will arrange for a training location and provide refreshments/snack
4- Will handle advanced registration and sign-in the day of the event and create an advertisement for distribution to the region. Distribution will occur via email to the county stormwater coordinators.

By signing below, the parties agree to participate in the plan as outlined in Tables 1 and 2. The plan will become effective once all parties have signed it.

Macomb County Representative

W Mistenovich — W. MISTENOVICH, CHIEF DEPUTY MACOMB COUNTY PUBLIC WORKS COMMISSIONER — 05-17-2013

Signature — Name/Title — Date

Oakland County Representative

James A. Wineka — JAMES WINEKA / ASST. CHIEF ENG. — 4/17/13

Signature — Name/Title — Date

Saint Clair County Representative

Steve Frank — Environmental Health Director — 4.29.13

Signature — Name/Tile — Date

Washtenaw County Representative

Evan Pratt — EVAN PRATT, Water Resources Commissioner — 5/8/12

Signature — Name/Title — Date

Wayne County Representative

Kelly A Cave — KELLY A CAVE, WAYNE CO STORM WATER COORDINATOR — 11 APRIL 13

Signature — Name/Title — Date

SEMCOG Representative

Kathleen Lomalco — Kathleen Lomalco — 8/14/2013

Signature — Name/Title — Date

Alliance of Rouge Communities Representative

Kevin L. Buford — Kevin Buford, ARC Chair — 3/28/13

Signature — Name/Title — Date

Alliance of Downriver Watersheds Representative

Mark Gahry — Mark Gahry, Chairman — May 7, 2013

Signature — Name/Title — Date

Attachment D

STORMWATER DISCHARGE PERMIT APPLICATION

ADW Member Facilities
To be Dye-Tested

For the Alliance of Downriver Watersheds MS4s

02/15/2018

ATTACHMENT D

Community	Facilities
Allen Park	Library
	Parks and Rec
	Fire Station
	DPS Building
Belleville	Belleville Fire Department
	Public Golf Courses
Dearborn Heights	No facilities left to test
Ecorse	No facilities in ADW to test
Flat Rock	Animal Shelter
	City Hall
	DPS Mechanic's Garage
	DPS Yard
	Fire Department
	Police Station
	Library
Gibraltar	Community Center - Annex
	School District Transportation & Maintenance Garage with salt storage
	DPW Building
	Carlson High School/Shumate Middle School
	Parsons Elementary School
Grosse Ile	Animal Shelter
	Water's Edge Municipal Golf Course
	DPS Building & Yard
	Recreation/Restaurant Building
	Grosse Ile Township Schools
	Grosse Ile High School
	Grosse Ile Middle School
	Meridian Elementary School
	Parke Lane Elementary School
Inkster	No facilities in ADW to test
Lincoln Park	Historical Museum
	Animal Control
Melvindale	Melvindale Library: 18650 Allen Rd (City reports already dye tested - confirm)
Riverview	Riverview Highland Golf Course Maintenance
	DPW Facility
	Fire Hall
	Forest Elementary School
	Huntington Elementary
	Kennebec Park
	Kingswood Nature Park
	Memorial Elementary
	Riverview High School
	Riverview Schools Operations Building
	Riverview Schools Warehouse
	Seitz Middle School
	GSRP Preschool
Rockwood	Municipal Building (includes Fire & Police Stations)
	Public Works & Salt Storage
	Community Center
Romulus	Animal Shelter
	Romulus Athletic Center
	Romulus Community Schools
	Romulus Elementary School
	Barth Elementary School
	Romulus Senior High School
	Wick Elementary School
	Hale Creek Elementary School
	Romulus Middle School
	Romulus Virtual Learning Center
Southgate	Downriver Animal Control Building
	Southgate Municipal Golf Course
Sumpter Twp	no facilities list
Taylor	Fire Station (Goddard)
	Fire Station (Eureka)
	Lakes of Taylor Golf Course
	Library
	Kinyon Elementary School
	Taylor School District
	Blair Moody Elementary School
	Taylor Parks Elementary School
	Robert J. West Middle School
	Clarence Randall Elem. School
	Bernice McDowell Elem. School
	Holland Elementary School
	Myers Elementary School
	Taylor Virtual Learning Academy
	Eureka Heights Elementary School
	Hoover Middle School
	Taylor High School
	Johnson Preschool
	Taylor SportsPlex
Van Buren	No facilities in ADW to test
Westland	No facilities in ADW to test
Woodhaven	Civic Center
	Animal Shelter
	City Hall
	DPW Yard
	Fire Station 1
	Fire Station 2
	Police Station
	Water Garage
Woodhaven - Brownstown Schools	No facilities left to test
Wyandotte	Recreation Center/Yack Arena
	Police Station
	Wyandotte Animal Pound
	Fire Station #1
	Fire Station #2
	Public Schools Wilson Middle School
	DPW Yard

Attachment E

STORMWATER DISCHARGE PERMIT APPLICATION

Outfall Screening Procedure for Identifying Potential Illicit Discharges

For the Alliance of Downriver Watersheds MS4s

Revised 12/13/2018

Attachment E

I. Purpose

The purpose of this procedure is to describe the protocols to inspect stormwater outfalls for the presence of illicit discharges. The Michigan Department of Environmental Quality (MDEQ) requires this procedure for stormwater discharges from municipal separate storm sewer systems (MS4) as part of an entity's National Pollutant Discharge Elimination System (NPDES) permit application.

II. Performing Field Observations at Outfalls

Outfalls will be assessed during dry weather conditions focusing on the criteria listed below. This assessment will be conducted following at least 48 hours with no precipitation.

1. Presence/absence of flow
2. Deposits/stains on the discharge structure or bank
3. Vegetation condition
4. Structural condition
5. Biology, such as bacterial sheens, algae, and slimes
6. Water clarity
7. Color
8. Odor
9. Floatable materials

A field form (provided at the end of this procedure) that documents the condition of the outfall and any discharge will be completed. In addition to the assessment of the field screening criteria, GPS positioning will be obtained for new or previously unscreened outfalls.

III. Performing Field Screening

Only individuals that have been trained to do so will perform field screening activities. Acceptable training includes the following elements: goals of the IDEP program, how to recognize illicit discharges and sampling techniques. Four months of IDEP field experience consisting of outfall screening and/or advanced investigations can be substituted for classroom training.

If the visual observations indicate a potential illicit discharge, flow is observed and the source of the flow is not immediately identifiable then sampling will be performed. Based on the suspected discharge or the pollutant of concern, some or all of the following parameters will be assessed:

1. pH will be sampled if an industrial discharge is suspected. A pH measurement will be obtained using calibrated portable field meter such as pH pen or multi-parameter probe.
2. Detergents will be sampled if flow is observed to have foam or suds or if a sanitary discharge is suspected. The sample will be field screened for surfactants using a colormetric method such as CHEMets kit # K-9400 (www.chemetrics.com). The operating range of the test should be between 0 and 3 mg/L.
3. *E. coli* will be sampled if a sanitary discharge is suspected. These samples will be collected in a sterile 100 mL bottle, stored on ice, and transported to a laboratory for analysis. The analytical range should be between 10 and approximately 24,000 colonies/100 mL. Care should be taken not to disturb any accumulated sediment when collecting the *E. coli* sample.
4. Other parameters – Additional samples may be collected depending on the suspected source.

Disposable gloves will be worn to collect all samples. Gloves will be changed out between sampling sites. *E. coli* samples must be collected directly into the laboratory container, while sample collection cups may be used for pH and surfactants. Decontamination procedures for reusable sample collection containers consists of a triple rinsed with site water prior to taking a measurement.

E. coli samples shall be delivered to the laboratory with sufficient time for the samples to be analyzed within the method specific hold time. Confirmation of method specific hold times shall be obtained from the laboratory at the onset of sampling efforts. For *E. coli* analysis, the goal of the sampling team will be to deliver samples to the laboratory within 6 hours of collection where sample processing will occur within 2 hours for a total hold time of 8 hours. However, as these samples are intended to be used for screening purposes, a total hold time of 24 hours will be acceptable if it is not cost effective to meet the shorter hold time.

If sample result exceeds the threshold(s) provided in Table 1, additional investigations are recommended to locate the source of the suspicious discharge.

Field screenings will be conducted in conjunction with field observation procedures as described in Section II. Screenings may also be conducted on an as needed basis if suspicious discharges are discovered by field staff during day-to-day operations, or if a pollution complaint or referral is received from the public or other agencies.

Table 1 – Guidance for Screening Results

Typical Parameters	
Parameter	**Follow-up Threshold**
pH	>9 or <6.5
Surfactants	>0.75 mg/L
E. coli	>1,000 cfu/100 mL or MPN/100 mL resampled up to two more times within 12 months
	>5,000 cfu/100 mL or MPN/100 mL for advanced investigations
Physical signs	unusual odor, color, clarity, floatables, deposits, stains, vegetation change, outfall structural damage
Additional Parameters	
Parameter	**Follow-up Threshold**
Ammonia	>1 mg/L
Conductivity	>1,000 uS/cm
Turbidity	>5 NTU
TDS	>500 mg/L
Dissolved oxygen	< 5 mg/L
Temperature	+5°F warm water stream +2°F cold water stream

IV. Process for Revision

Any questions on this procedure should be directed to the entity's Stormwater Manager. This procedure shall be reviewed once per permit cycle by the ADW Technical Committee.

Outfall ID:							Community:			
Section 1: BACKGROUND DATA										
Date:			Time:				Inspector:			
Weather:	☐ 48 hrs no rain	☐ Sunny	☐ Cloudy	☐ Partly Cloudy	☐ Rainy	☐ Winter Inspection				
Photos Taken:				Receving Water:						
Nearest Property Address/Location Description:										
Land Use:	☐ Commercial	☐ Industrial	☐ Residential	☐ Other_____						
Section 2: OUTLET DESCRIPTION										
	Size (in) Width/Height or Diameter:									
	Type/Shape	☐ Round	☐ Arch	☐ Box	☐ Other_____					
Type/Shape/Size	Material:	☐ RCP	☐ PVC	☐ CMP	☐ Concrete	☐ Other_____				
	In Water:	☐ No	☐ Partially	☐ Fully						
Submerged	In Sediment:	☐ No	☐ Partially	☐ Fully						
	☐ Yes	☐ Spalling/	☐ Corrosion	☐ Other_____						
Outfall Damage	☐ No									
	☐ Yes	☐ Oily	☐ Flow Line	☐ Paint	☐ Other_____					
Deposits/Stains	☐ No									
Turbid/Cloudy Plunge	☐ Yes	☐ Odors	☐ Floatables	☐ Color	☐ Other_____					
Pool Below Outlet	☐ No	☐ Oil Sheen	☐ Suds	☐ Excessive Algae						
	☐ Yes	☐ Trickle	☐ Moderate	☐ Substantial						
Flow Present?	☐ No									
Section 3: PHYSICAL INDICATORS FOR OUTFALLS WITH WATER										
	☐ Sewage	☐ Sulfide	☐ Oil/Gas	☐ Other_____						
Odor of Water	☐ None	☐ Rancid/Sour								
			☐ Dark							
Color of Water:	☐ Clear	☐ Cloudy	Brown/ Tannic	☐ Muddy	☐ Other_____					
		☐ Petroleum								
Floatables (not	☐ Paint	(oil sheen)	☐ Algae	☐ Other_____						
including trash)	☐ None	☐ Sewage	☐ Suds/bubbles							
	☐ Glass	☐ Yard Waste	☐ Paper	☐ Plastics						
Trash/debris	☐ None	☐ Mixed Mate	☐ Metal	☐ Other_____						
Sample Obtained	☐ Yes	☐ No								
Section 4: PRIMARY SCREENING/SAMPLES COLLECTED										
Screening Parameters	Result	Possible Illicit Discharge?		Equipment						
pH		☐ Yes	☐ No							
Temperature (F)		☐ Yes	☐ No							
Conductivity (µS/cm)		☐ Yes	☐ No							
Ammonia (ppm)		☐ Yes	☐ No							
Detergents (ppm)		☐ Yes	☐ No							
Section 5: ILLICIT DISCHARGE POTENTIAL										
Do the screening results above indicate that an illicit discharge may be present?										
☐ Yes	☐ No									
Section 6: NOTES										

Attachment F

STORMWATER DISCHARGE PERMIT APPLICATION

Corrective Action Notification Sample Letter

For the Alliance of Downriver Watersheds MS4s

12/18/2018

Attachment F

NOTICE OF ILLEGAL DISCHARGE OR CONNECTION
SAMPLE LETTER

<Person or Business Name>
<Address Line 1>
<Address Line 2>

Dear <Property Owner>:

The Michigan Department of Environmental Quality (MDEQ) Municipal Separate Storm Sewer System Permit requires the <CVT> to control the amount of pollutants entering the drainage system. This includes the detection and elimination of illegal discharges or connections to the system that may contain pollutants or are otherwise not allowed. Left uncorrected, any pollutants entering the system will ultimately impact nearby lakes or streams as storm drainage is not treated at any sort of treatment facility. Any discharge/connection without permission is illegal and requires immediate termination of the discharge.

An inspection of the drainage system has occurred in the vicinity of your property and an illegal connection/discharge was discovered entering into the <CVT> system. The discharge/connection was discovered on <date> at <business name and address>. <Description of indicators or source>.

This discharge directly pollutes the surface waters of the State of Michigan. This is a violation of the Federal Clean Water Act, PL 92-500, as amended, State of Michigan Natural Resources and Environmental Protect Act 451, Public Act of 1994, as amended, Part 31, and the Michigan Department of Environmental Quality NPDES Storm Water General Permit (MIG610000). Please contact me within 14 days to report plans for correction of the violation.

A follow-up investigation will be conducted to ensure compliance. If the illegal discharge/connection cannot be removed immediately, you do not understand this notice, or you disagree that an illegal discharge/connection exists at your property, please contact me with further details or explanation by calling <phone number> or via email at <email address>.

Sincerely,

<Name>
<Title>

Attachment G

STORMWATER DISCHARGE PERMIT APPLICATION

State and Federal Regulatory Mechanisms

For the Alliance of Downriver Watersheds MS4s

12/18/2018

SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
SARA Title III Section 304 40 CFR 355.40 (**EHS & Hazardous Substances**)	Release of a CERCLA **hazardous** substance (40 CFR 302, Table 302.4) or **Extremely Hazardous** Substance (EHS) (40 CFR 355, Appendix A) from a facility (all buildings, equipment, etc. located on a single site or adjacent sites owned or operated by the same person) at which a hazardous chemical (as defined under 29 CFR 1910.1200(c)) is used, produced or stored (including motor vehicles, rolling stock, and aircraft) in a quantity equal to or greater than its corresponding reportable quantity in any 24-hr period that migrates beyond the facility boundaries. Includes continuous release reportable under CERCLA Section 103. Excludes release that is federally permitted or that results in exposure to persons solely within the boundaries of the facility. See 67 FR 18899 (4/17/02) for guidance on the CERCLA federally permitted release definition for certain air emissions. Does not apply to the application, handling, and storage by an agricultural producer of a pesticide product registered under FIFRA. Excludes release < 1000 lbs of NOx released to the air from combustion or combustion-related activities.	Immediate (within 15 minutes after discovery): to LEPC(s) of any area(s) potentially affected, and SERC (DEQ PEAS line accepts notification on behalf of SERC) by owner or operator. Continuous releases must be identified as such and are reported initially and when there is a significant change in the release. See 73 FR 76948 (12/18/08): Only CAFOs are required to report continuous releases to the air from animal waste. Transportation related releases can be reported to 911.	As soon as practicable (within 30 days) after release: to LEPC(s) and SERC. Not required for releases that occur during transportation or from storage incident to transportation. For continuous releases: Initial written within 30 days after initial telephone notification: to LEPC(s) and SERC. Michigan SARA Title III Program accepts reports on behalf of the SERC.	PEAS: 800-292-4706 Contact your LEPC for a phone number to report releases. Call 911 if your LEPC is not active. For further information & LEPC contact information, contact Michigan SARA Title III Program 517-284-7272
CERCLA Section 103 40 CFR 302 (**Hazardous Substances**)	Release into the environment of a CERCLA **hazardous** substance (40 CFR 302, Table 302.4) or hazardous constituent in a mixture or solution (including hazardous waste streams) from a vessel or facility (any building, structure, etc. including motor vehicles, rolling stock, aircraft, pipe, pipeline, well, pond, lagoon, impoundment, ditch, landfill, or site where a hazardous substance has come to be located) in a quantity equal to or greater than its corresponding reportable quantity in any 24-hour period. Excludes petroleum, including oil, or any fraction thereof. See 40 CFR 302.6 for notification requirements for radionuclide releases. Includes continuous release: occurs without interruption or abatement or that is routine, anticipated, and intermittent and incidental to normal operations or treatment processes. See 67 FR 18899 (4/17/02) for guidance on the CERCLA federally permitted release definition for certain air emissions. See 71 FR 58525 (10/4/06) re Exemption for NOx releases to the air of < 1000 lbs from combustion or combustion-related activities. Does not apply to the application, handling, and storage by an agricultural producer of a pesticide product registered under FIFRA.	Immediate (within 15 minutes after discovery): to NRC by person in charge of vessel or offshore or onshore facility. Continuous releases must be identified as such and are reported initially and when there is a significant change in the release. See 73 FR 76948 (12/18/08) re Exemption from reporting continuous releases to the air from animal waste.	For continuous releases only: Initial written within 30 days after initial telephone notification & Follow-up within 30 days of first anniversary of initial written notification: to EPA Region 5.	NRC 800-424-8802 or online at **www.nrc.uscg.mil** For further information contact Michigan SARA Title III Program 517-284-7272 or EPA's Superfund, TRI, EPCRA, RMP, and Oil Information Center 800-424-9346

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.
*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations**. **Additional reporting requirements** might be found **in permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
NREPA 1994 PA 451 Part 201, **Environmental Remediation**	(i) Unpermitted release into the environment over a 24-hour period of a **hazardous** substance (*July 1, 2012, edition* of the CERCLA list, 40 CFR 302, Table 302.4) in a quantity equal to or greater than its corresponding reportable quantity. Does not include release solely from UST systems regulated under Part 213, and release solely from disposal area licensed under Part 115 and discovered through disposal area's hydrogeological monitoring plan. Release of substance regulated by MI Dept of Agriculture & Rural Development (MDARD) (fertilizer, soil conditioner, or pesticide) excluding normal agricultural practices: *also* report to MDARD.	Within 24 hours after discovery: to DEQ-RRD district office (PEAS after hours) by owner or operator or person holding easement interest. Report agricultural release to MDARD.	Upon request: Provide a response activity plan to DEQ-RRD district supervisor.	PEAS: 800-292-4706 MDARD Agriculture Pollution Emergency Hotline: 800-405-0101 For further information contact DEQ-RRD
NREPA 1994 PA 451 Part 201, **Environmental Remediation** (Continued)	(ii) The owner or operator has reason to believe that one or more **hazardous** substances are migrating or have migrated from his or her property and are present beyond the property boundary at a concentration in excess of cleanup criteria for unrestricted residential use. (iii) The release is a result of an activity that is subject to permitting under NREPA Part 615 and the owner or operator is not the owner of the surface property and the release results in **hazardous** substance concentrations in excess of cleanup criteria for unrestricted residential use. Hazardous substance means a hazardous substance defined in CERCLA (40 CFR 302), hazardous waste as defined in NREPA part 111, petroleum as defined in NREPA part 213, or any substance demonstrated to pose an unacceptable risk to public health, safety, welfare, or the environment. Cleanup criteria for unrestricted residential use means criteria that satisfy the requirements in section 20120a(1)(a) or (16); or as defined under NREPA part 213.	Within 30 days after discovery: to DEQ-RRD district office and owners of property to which hazardous substances migrated or owner of surface property by owner or operator of property where release occurred. Specific form required for: "Notice of Migration of Contamination" (Form EQP4482).	Upon request: Provide a response activity plan to DEQ-RRD district supervisor.	For further information contact DEQ-RRD
NREPA 1994 PA 451 Part 83, Pesticide Control Regulation 640, Commercial Pesticide Bulk Storage (**Agricultural**)	Release to the environment of a commercial **pesticide** >5 gallons or 100 pounds. Reportable agrichemical spills as defined in the provisions of SARA Title III section 304 and CERCLA section 103 shall be immediately reported to PEAS and the NRC. The term "release" excludes normal agricultural practices.	Immediate: to PEAS* Also notify NRC for spills reportable under SARA Title III & CERCLA. *MDARD prefers direct notification to their hotline. PEAS forwards all agriculture calls to MDARD.	Within 90 days: to MDARD Pesticide and Plant Pest Management Div. a revised site plan.	MDARD Agriculture Pollution Emergency Hotline: 800-405-0101 PEAS: 800-292-4706 NRC 800-424-8802 or online at www.nrc.uscg.mil For further information contact MDARD 517-284-5644

SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*				
Act & Regulation	**Reporting Criteria**	**Initial Notification**	**Written Follow-up Report**	**Notes**
NREPA 1994 PA 451 Part 85, Fertilizers Regulation 641 Commercial Fertilizer Bulk Storage Regulation 642, On Farm Fertilizer Bulk Storage (**Agricultural**)	Release to the environment of a commercial **fertilizer** >55 gallons liquid or 650 pounds dry, or tank overfills; or an on farm fertilizer > 55 gallons liquid. For storage tank with bladder system instead of diking: also report all overfills and internal spills. The term "release" excludes normal agricultural practices. The term "liquid fertilizer" excludes anhydrous ammonia.	Immediate: to MDARD by commercial bulk storage facility personnel (For farms, the regulation does not specify who makes the report.)	Not required.	MDARD Agriculture Pollution Emergency Hotline: 800-405-0101 For further information contact MDARD 517-284-5644
Fire Prevention Code 1941 PA 207 Section 29.5g	A fire, explosion, spill, leak, accident, or related occurrence that involves the transportation, storage, handling, sale, use, or processing of hazardous material by a firm, person, or vehicle. **Hazardous** material = explosives, pyrotechnics, flammable gas, flammable compressed gas, flammable liquid, nonflammable compressed gas, combustible liquid, oxidizing material, poisonous gas or liquid, LPG, or irritating, etiologic, radioactive, or corrosive material. Act 207 amended 6/19/2006. The State Fire Marshall is in LARA, Bureau of Fire Services.	Immediately following incident, report known details regarding incident: to LARA Bureau of Fire Services *and* organized local fire department by owner of firm or vehicle or the person *and* the chief of first police or organized fire dept upon scene of incident.	Not required.	Contact LARA Bureau of Fire Services by calling the MSP HazMat hotline: 800-525-5555 For further information: contact local fire department
Fire Prevention Code 1941 PA 207 Part 2 of Storage and Handling of Flammable and Combustible Liquids rules (FL/CL code)	A release from an **AST** system of > 55 gal of any **flammable or combustible liquid** (flash point < 200°F) to the ground or within a secondary containment area during any 24 hour period. Note: Many liquid pesticides are combustible (flash point between 100 and 200°F).	As soon as practicable after detection of release: to PEAS by owner or operator.	Within 10 days after release: to LARA Bureau of Fire Services, Storage Tank Division outlining cause, discovery, response to prevent recurrence.	PEAS: 800-292-4706 For further information: contact LARA Bureau of Fire Services, Storage Tank Division 517-335-7211

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.
*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations**.
Additional reporting requirements might be found **in permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
49 CFR 171 (**Transportation of Hazardous Materials**)	Initial verbal notice: Incident during transportation (including loading, unloading, temporary storage) involving (1) **hazardous** material and resulting in death, injury requiring hospitalization, public evacuation ≥ 1 hour, major transportation artery or facility closure ≥ 1 hour, or flight pattern alteration; (2) fire, breakage, spillage, or suspected radioactive contamination occurs involving a **radioactive** material; (3) fire, breakage, spillage or suspected contamination involving an **infectious** substance other than a regulated medical waste; (4) **marine pollutant** release exceeding 450 L (119 gal) liquid or 400 kg (882 lbs) solid; (5) other per judgment of person in possession of the hazardous material (e.g., continuing danger to life exists at scene of incident); (6) during transportation by aircraft, a fire, violent rupture, explosion or dangerous evolution of heat occurs as a direct result of a battery or battery-powered device. Hazardous material = CERCLA hazardous substance (40 CFR 302, Table 302.4), hazardous waste (40 CFR 262), marine pollutant (49 CFR 172.101 Appendix B), elevated temperature material, listed on Hazardous Materials Table (49 CFR 172.101), or meets criteria for hazard class/division in 49 CFR 173. Written follow-up report: Required for all of above, plus any unintentional release of hazardous material from a package (including tank); or any quantity of hazardous waste discharged during transportation; or structural damage to lading retention system, even if no release, on specification cargo tank with ≥ 1000 gal capacity containing hazardous material; or undeclared hazardous material discovered.	As soon as practical but no later than 12 hours after occurrence of the incident: to NRC by each person in physical possession of the hazardous material. (A reportable incident *must* be reported by telephone, not online.) For infectious substances, notice may be given to the Director, Centers for Disease Control and Prevention, U.S. Public Health Service instead of NRC.	Within 30 days after discovery: to US DOT on DOT Form F 5800.1 (01-2004) "Hazardous Materials Incident Report." Report online at https://hazmatonline.phmsa.dot.gov/incident/ Report must be updated w/i 1 year of incident if: Death results from injury; hazardous material or package info on prior report misidentified; damage, loss or cost not known on prior report becomes known or changes by $25,000 or 10%. See regulation for exceptions to written report.	NRC 800-424-8802 or online at www.nrc.uscg.mil U.S. Public Health Service 800-232-0124 For further information contact US DOT Hazardous Materials Information Center at 800-467-4922 or online at www.phmsa.dot.gov/hazmat
NREPA 1994 PA 451 Part 31, Water Resources Protection (Release to **surface of ground**, **surface water , groundwater** or **public sewer system**)	Unpermitted release directly or indirectly to public sewer system, surface of ground, surface water or groundwater from an oil storage facility or on-land facility of a "**polluting material**" (**oil**, **salt**, or any material specified in table 1 in R 324.2009) in excess of its threshold reporting quantity during any 24-hour period. See Part 5 rules, effective 8/31/01, for details and exemptions. HB 5586 effective 6/15/04 amended the reporting requirements. *Rule revisions pending as of April 2014.*	As soon as practicable after detection: to PEAS *and* 911 by owner, operator or manager. State agencies call 911 if release reported to them by another state or Canada.	Within 10 days after release: to DEQ-WRD district supervisor *and* to the local health department where the release occurred, outlining cause, discovery, response & prevention of recurrence.	PEAS: 800-292-4706 For further information contact DEQ-WRD

SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*				
Act & Regulation	**Reporting Criteria**	**Initial Notification**	**Written Follow-up Report**	**Notes**
CWA Section 311 33 CFR 153 (**Navigable waters** – Coast Guard/DOT) Control of Pollution by **Oil** and **Hazardous** Substances, Discharge Removal	Discharge of a harmful quantity of **oil** or a **hazardous** substance from a vessel or onshore or offshore facility into or upon navigable **waters** of the United States or adjoining **shorelines**. Harmful quantity = oil discharge that violates applicable water quality standards, or causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines; or a CERCLA hazardous substance (40 CFR 302, Table 302.4) in a quantity equal to or greater than its corresponding reportable quantity. Oil = oil of any kind or in any form including petroleum, crude oil, petroleum refined products, sludge, oil refuse, oil mixed with wastes, etc., as well as vegetable and animal oils.	Immediate: to NRC by person in charge of vessel or facility. If direct reporting to NRC not practicable, may report to district Coast Guard or EPA predesignated OSC.	Not required.	NRC 800-424-8802 or online at **www.nrc.uscg.mil** District 9 Coast Guard 216-902-6117 EPA Region 5 for predesignated OSC 312-353-2318 For further information contact EPA Region 5 at 312-353-8200 or District 9 Coast Guard at 216-902-6045
CWA Section 311 40 CFR 110 (**Discharge of Oil**)	Discharges of **oil** that violate applicable **water** quality standards, or cause a film or sheen upon or discoloration of the surface of the water or adjoining **shorelines**, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines. Oil = oil of any kind or in any form including petroleum, crude oil, petroleum refined products, sludge, oil refuse, oil mixed with wastes, etc., as well as vegetable and animal oils.	Immediate: to NRC by person in charge of vessel or facility.	Not required.	NRC 800-424-8802 or online at **www.nrc.uscg.mil** For further information contact DEQ-WRD
NREPA 1994 PA 451 Part 31, Water Resources Protection (**Sewer Systems**)	Discharge of untreated sewage or partially treated sewage from a **sewer system** onto land or into the waters of the state. "Sewer system" means a sewer system designed and used to convey sanitary sewage or storm water, or both.	Immediate (within 24 hours): to DEQ-ODWMA district office (PEAS after hours); Local health depts.; Daily newspaper circulated in source & affected counties; & Affected municipalities.	At end of discharge: to same parties notified initially on Form EQP 5857 (Rev. 12/2011) "Report of Discharges of Untreated or Partially Treated Sewage." Includes results of E. coli testing.	PEAS: 800-292-4706 For further information contact DEQ-ODWMA
NREPA 1994 PA 451 Part 41, **Sewerage Systems**	Discharges of pollutants from **sewerage systems** (which can include combined sewers) in excess of those authorized by a discharge permit issued by the DEQ to surface water or groundwater as a result of a facility breakdown or emergency. Sewerage systems handle sanitary sewage or other industrial liquid wastes.	Promptly: to DEQ-ODWMA district office (PEAS after hours) by owner.	Within 72 hours: to DEQ-ODWMA district supervisor, outlining cause, discovery, corrective actions taken to minimize impact, restore operations, and eliminate future unpermitted discharges.	PEAS: 800-292-4706 For further information contact DEQ-ODWMA

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.
*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations**. **Additional reporting requirements** might be found **in permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
NREPA 1994 PA 451 Part 211, **Underground Storage Tanks** Part 213, Leaking Underground Storage Tanks	Releases of a **regulated substance** of any amount from underground storage tank (UST) systems (includes the emergency shutoff valve on down) subject to registration; overfill from UST fillpipe or vent onto ground; release from aboveground pipe attached to UST system. Regulated substance = petroleum or CERCLA hazardous substance (40 CFR 302, Table 302.4) or substance listed in CAA title 1 part A sect 112. Petroleum includes, but is not limited to, crude oil, motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, and petroleum solvents.	(Part 211) Within 24 hours after discovery: to LARA Bureau of Fire Services, Storage Tank Division by email, or fax on Form EQP 3826 (Rev. 4/12) If free product, Form EQP 3800 (Rev 02/2003) required by UST owner or operator, or employee of owner or operator. Includes releases discovered years after UST system removed	(Part 213) At 180 days Initial Assessment Report on Form EQP3841 (Rev. 02/2003) if not closed; at 365 days Final Assessment Report on Form EQP3842 (Rev. 11/2006) if still not closed; at closure Closure Report on Form EQP3843 (Rev. 02/2003) to DEQ-RRD district project manager.	Email: **deq-std-tanks@michigan.gov** Fax:517-335-2245 For further information contact DEQ-RRD or phone 800-MICHUST
NREPA 1994 PA 451 Part 111, **Hazardous Waste** Management (Generators; Treatment, Storage & Disposal Facilities (TSDF); Transporters)	Any amount of characteristic **hazardous waste** or listed hazardous waste (as defined in R 299.9203 “Hazardous Waste Rule 203”) reaches the surface water or groundwater, or A fire, explosion, or other release of hazardous waste or hazardous waste constituent occurs that could threaten human health or the environment. or A release of >1lb (or ≤1lb if not immediately cleaned up) hazardous waste to the environment from a tank system or associated secondary containment system. Additional hazardous waste reporting requirements under NREPA Part 201 and CERCLA. NREPA Part 111 requires transporters to comply with 49 CFR 171 and 33 CFR 153.	Immediate: to PEAS (or for Tank systems/secondary containment, within 24 hours of discovery: to DEQ-OWMRP) and to NRC if threat to human health or environment outside facility by generator, or owner or operator of TSDF, or transporter.	For large quantity generators and TSDF: Within 15 days after incident IF the contingency plan had to be implemented: to DEQ-OWMRP. For tank/secondary containment systems: Within 30 days of discovery: to DEQ-OWMRP. For transporters: to US DOT if required per 49 CFR 171.	PEAS: 800-292-4706 NRC 800-424-8802 or online at www.nrc.uscg.mil For further information contact DEQ-OWMRP
NREPA 1994 PA 451 Part 121, **Liquid Industrial Waste**	The **liquid industrial waste** spill could threaten public health, safety, welfare, or the environment, or has reached surface water or groundwater. Liquid industrial waste includes nonhazardous brine, by-product, industrial wastewater, leachate, off-spec commercial chemical product, sludge, sanitary or storm sewer clean-out residue, grease trap clean-out residue, spill residue, used oil, or other liquid waste not regulated by other laws.	Immediate: to PEAS and local authorities by generator, transporter, or owner or operator of facility. Refer to MCL 324.12111(1) for required report elements	Prepare within 30 days after incident. Submit upon request: to DEQ-OWMRP district supervisor. Refer to MCL 324.12111(1) for required report elements	PEAS: 800-292-4706 For further information contact DEQ-OWMRP
NREPA 1994 PA 451 Part 55, **Air Pollution** Control	Abnormal condition, start-up, shutdown, or malfunction that results in emissions exceeding permissible (in rule, permit or order) levels of **hazardous air pollutants** (HAPs) (CAA Sect. 112(b)) or **toxic air contaminants** (as specified in permit) for > 1 hour, or any air contaminant for > 2 hours. Written follow-up report only required for emission exceedences lasting > 2 hours.	As soon as possible, but not later than 2 business days after discovery: to DEQ-AQD district office (PEAS after hours) by owner or operator.	Within 10 days after start-up, shutdown, or abnormal condition, malfunction corrected. Or within 30 days of abnormal condition, malfunction discovery- whichever first: to DEQ-AQD district supervisor.	PEAS: 800-292-4706 For further information contact DEQ-AQD

SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
NREPA 1994 PA 451 Part 55, **Air Pollution** Control (Permit to Install Exemptions)	Emergency venting of **natural gas** from transmission and distributions systems or **field gas** from gathering lines in amounts > 1,000,000 standard cubic feet per event. Emergency = unforeseen event that disrupts normal operating conditions and poses a threat to human life, health, property or the environment if not controlled immediately. See R 336.1285(mm), effective 6/20/2008, for details.	Within 24 hours of the event: to PEAS by owner or operator.	Not required.	PEAS: 800-292-4706 For further information contact DEQ-AQD
Public Health Code 1978 PA 368 Part 133, **Dry Cleaning**	Condition or incident presents a threat or hazard to **public health** or safety.	Immediate: to DEQ-AQD district office (PEAS after hours) by owner or operator.	Within 30 days after incident: To DEQ-AQD district supervisor.	PEAS: 800-292-4706 For further information contact DEQ-AQD
NREPA 1994 PA 451 Part 615, Supervisor of Wells (**oil and gas production fields**)	A loss, spill or release of (1) any amount of **brine**, **crude oil**, or **oil or gas field waste** *unless* it is less than 42 gallons and occurs while an authorized representative is on site and is completely contained and cleaned up within 1 hour, or (2) any unpermitted amount of **natural gas**, or (3) **chemicals** used in association with oil and gas activities.	Within 8 hours after discovery of: 42 gallons or more of brine, crude oil, or oil or gas field waste, or any amount of chemical or natural gas, or; less than 42 gallons if the spill contacts surface water, groundwater, or other environmentally sensitive resources, or is not completely contained and cleaned up within 48 hours: to DEQ-OOGM district office (PEAS after hours) by permittee.	Within 10 days after discovery of loss or spill: to DEQ-OOGM district supervisor on Form EQP-7233 (Rev 1/2012) "Report of Loss or Spill." by permittee Written report only for less than 42 gallons of brine, crude oil, or oil and gas field waste if spill does not contact surface water, groundwater, or other environmentally sensitive resources, and is completely contained and cleaned up within 48 hours.	PEAS: 800-292-4706 For further information contact DEQ-OOGM
49 CFR 191 Transportation of Natural and Other **Gas by Pipeline**	An incident, meaning: (1) Event that involves a release of **gas** from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility that results in: Death or hospitalization; or Property damage ≥ $50,000; or estimated gas loss of ≥ three million cubic feet. (2) Event that results in emergency shutdown of LNG facility. (3) Significant event per operator. Written Incident reports not required for LNG facilities. Applies to pipeline systems and the transportation of gas through those systems in or affecting interstate or foreign commerce. (See 49 CFR 191.3 for details.)	Earliest practicable moment following discovery: to NRC by operator. Notification must be electronic unless there is a safety-related condition to report.	As soon as practicable, and within 30 days after discovery: to US DOT. on DOT Form PHMSA F 7100.1 "Incident Report – Gas Distribution System." or PHMAS F 7100.2 "Incident Report – Gas Transmission and Gathering Systems" or PHMSA F 7100.3 "Incident Report – Liquefied Natural Gas (LNG) Facilities" Supplemental report filed as necessary as soon as practicable.	NRC 800-424-8802 or online at **www.nrc.uscg.mil** For further information contact US DOT Pipeline Safety Information Center at 202-366-4595 or online at http://ops.dot.gov

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.
*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations**. **Additional reporting requirements** might be found **in permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
49 CFR 195 Transportation of **Hazardous Liquids by Pipeline**	Release of hazardous liquid (**petroleum**, **petroleum products**, or **anhydrous ammonia**) or **carbon dioxide** from a pipeline system that results in any of the following: (a) Explosion or fire; (b) Release of ≥ 5 gallons (except if < 5 barrels released due to maintenance and release not otherwise reportable, confined to property, does not pollute water, and cleaned up promptly); (c) Death of any person; (d) Injury requiring hospitalization; or (e) Property damage > $50,000. (See 49 CFR 195.50, revised 1/8/02, for details) Applies to pipeline facilities and the transportation of hazardous liquids associated with those facilities in or affecting interstate or foreign commerce. (See 49 CFR 195.1 for details.)	Earliest practicable moment following discovery: to NRC by operator if Release caused: Death or hospitalization; Fire or explosion; Property damage; Water pollution; or was Significant per the operator.	As soon as practicable, and within 30 days after discovery: to US DOT on DOT Form PHMSA F 7000-1 "Accident Report – Hazardous Liquid Pipeline Systems" Supplemental report must be filed within 30 days after operator receives changes or additions to original report.	NRC 800-424-8802 or online at **www.nrc.uscg.mil** For further information contact US DOT Pipeline Safety Information Center at 202-366-4595 or online at http://ops.dot.gov
1978 PA 368 Part 135, **Radiation** Control	For any emergency. Or for incident involving naturally occurring or accelerator produced **radioactive material**- Immediate notice if: Incident may have caused or threatens to cause: dose to body 25 rems, to skin 150 rems, to extremities 375 rems (per rule 247); 24 hour concentration exceeds 5000 times limits specified in table II of rules 261 to 269; contamination causes operation shut down for 1 week, or property damage >$100,000. Notice within 24 hours if: Incident may have caused or threatens to cause: dose to body 5 rems, to skin 30 rems, to extremities 75 rems (per rule 247); 24 hour concentration exceeds 500 times limits specified in table II of rules 261 to 269; contamination causes operation shut down for 1 day, or property damage >$1000.	Immediate or within 24 hours (see reporting criteria): to DEQ-OWMRP Radiological Protection Section (PEAS after hours) or MSP Operations Division for all **Power Plant** related incidents (day or night). by licensee or registrant.	Within 30 days after release: to DEQ-OWMRP Radiological Protection Section by licensee or registrant. Written report also required if level of radiation or concentration of radioactive material in unrestricted area >10 times any applicable limit. See Rule 250 (R 325.5250) for required report content.	DEQ-OWMRP Radiological Protection Section 517-284-5185 MSP Operations Div 517-241-8000 PEAS: 800-292-4706 For further information contact DEQ-OWMRP Radiological Protection Section
10 CFR 20 (Standards for Protection Against **Radiation**)	For incident involving source, by-product, or special nuclear **radioactive material**- Immediate notice if: Event that may have caused or threatens to cause: effective dose equivalent to individual 25 rems, lens dose equivalent 75 rems, shallow-dose equivalent to skin or extremities 250 rads; individual could receive 5 times annual limit on intake in 24 hours. OR Any lost, stolen, or missing licensed material in an aggregate quantity equal to or greater than 1000 times the quantity specified in appendix C to part 20 under such circumstances that it appears to the licensee that an exposure could result to persons in unrestricted areas. Notice within 24 hours if: Event that may have caused or threatens to cause: an individual in 24 hours to receive effective dose equivalent >5 rems, lens dose equivalent >15 rems, shallow-dose equivalent to skin or extremities >50 rems; individual could receive >1 times annual limit on intake in 24 hours.	Immediate or within 24 hours (see reporting criteria): to USNRC by USNRC Licensee responsible for the incident.	Within 30 days of incident: to USNRC by licensee. Report content specified in 10 CFR 20.2003 Written report also required for occurrences as specified in 10 CFR 20 Section 20.2203 and after the occurrence of any lost, stolen, or missing licensed material becomes known to the licensee, and if at the time the report is filed all licensed material in a quantity greater than 10 times the quantity specified in appendix C to part 20 is still missing.	US Nuclear Regulatory Commission (USNRC) 301-816-5100 For further information contact DEQ-OWMRP Radiological Protection Section 517-284-5185
MIOSHA 1974 PA 154 Section 61, Records & Reports; Notice of **Fatalities or Hospitalization**	Any release that results in one **death** or the **hospitalization** of 3 or more persons.	Within 8 hours: to MIOSHA Hotline.	Not required.	MIOSHA Fatality or Catastrophe Hotline 800-858-0397 For further information contact LARA-MIOSHA 517-322-1831

SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*				
Act & Regulation	**Reporting Criteria**	**Initial Notification**	**Written Follow-up Report**	**Notes**
TSCA 40 CFR 761.125 (**PCBs**)	Spills of **PCB**s at concentrations of 50 ppm or more and subject to decontamination requirements under TSCA that: contaminate surface water, sewers, drinking water supplies, grazing lands or vegetable gardens, or exceed 10 pounds. (TSCA specifies that these requirements are in addition to any under CWA or CERCLA. e.g. CERCLA requires spills of 1 pound or more to be reported to NRC.)	As soon as possible after discovery, and within 24 hours: to EPA Region 5.	Not required to be submitted. Records of cleanup and certification of decontamination shall be documented.	EPA Region 5 Corrective Action Section 312-886-7890 For further information contact EPA Region 5 Corrective Action Section
SARA Title III Section 313 40 CFR 372 (**Toxic chemical** release reporting)	Covered facilities as defined in 40 CFR 372 subpart B are subject to **toxic** chemical release reporting for toxic chemicals and chemical categories listed in 40 CFR 372 subpart D.	Not applicable.	Annually by July 1: to EPA & SERC on EPA's Form R "Toxic Chemical Release Inventory Reporting Form" (EPA Form 9350-1, Rev. 10/2011) Report aggregate releases (permitted & unpermitted)	Michigan SARA Title III Program accepts reports on behalf of SERC For further information contact Michigan SARA Title III Program 517-284-7272

Acronyms used in table:

AQD = Air Quality Division
AST = Above Ground Storage Tank
CAA = Clean Air Act
CAFO = Concentrated Animal Feeding Operation
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act of 1980
CFR = Code of Federal Regulations

CWA = Clean Water Act
DEQ = Michigan Department of Environmental Quality
DOT = Department of Transportation
EHS = Extremely Hazardous Substance
EPA = U. S. Environmental Protection Agency
EPCRA = Emergency Planning & Community Right-to-Know Act
FIFRA = Federal Insecticide, Fungicide, & Rodenticide Act
FL/CL = Flammable and combustible liquids
FR = Federal Register
HAP = Hazardous Air Pollutant

HazMat = Hazardous Materials
HB = House Bill
LARA = Michigan Department of Licensing & Regulatory Affairs
LEPC = Local Emergency Planning Committee
LNG = Liquefied Natural Gas

LPG = Liquefied Petroleum Gas
MCL = Michigan Compiled Laws

MDARD = Michigan Department of Agriculture & Rural Development
MIOSHA = Michigan Occupational Safety and Health Administration
MSP = Michigan Department of State Police
NRC = National Response Center (U.S. Coast Guard)
NREPA = Natural Resources & Environmental Protection Act
ODWMA = Office of Drinking Water & Municipal Assistance

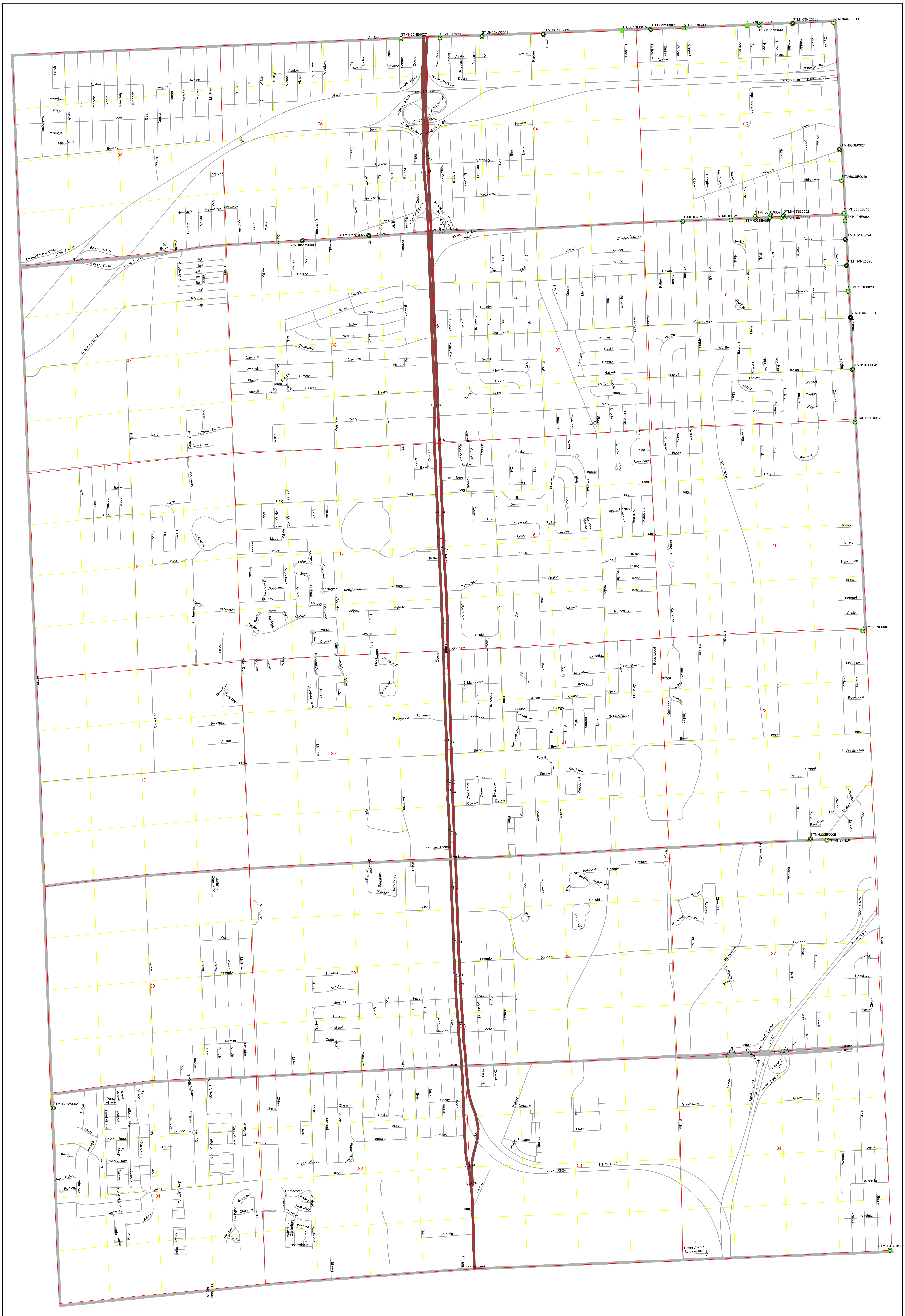
OOGM = Office of Oil, Gas, and Minerals
OPS = Office of Pipeline Safety (US DOT)
OSC = On Scene Coordinator
OWMRP = Office of Waste Management & Radiological Protection

PA = Public Act (Michigan)
PCB = Polychlorinated biphenyl
PEAS = Pollution Emergency Alerting System
PHMSA = Pipeline & Hazardous Materials Safety Administration
RMP = Risk Management Program

RRD = Remediation and Redevelopment Division
SARA = Superfund Amendments and Reauthorization Act of 1986
SERC = State Emergency Response Commission
TRI = Toxic Chemical Release Inventory
TSCA = Toxic Substance Control Act
TSDF = Treatment, Storage & Disposal Facility
US DOT = U.S. Department of Transportation
USNRC = U. S. Nuclear Regulatory Commission

UST = Underground Storage Tank
WRD = Water Resources Division

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.
*This table covers only those reporting requirements found in rules and regulations that apply in Michigan. **Releases might be reportable under multiple regulations**. **Additional reporting requirements** might be found **in permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.



Legend

- Points of Discharge (Catch Basins)
- Points of Discharge (Manholes
- City of Taylor Sections
- City of Taylor Quarter-Quarter Sections
- Streets
- State-Owned Roads
- MDOT-Owned Roads

City of Taylor

Storm Water Points of Discharge

0 500 1,000 2,000 Feet

WADE TRIM

2521 Northline Taylor, MI 48180
734.947.9700 www.wadetrim.com

Public Participation Program for the Alliance of Downriver WatershedsMS4s

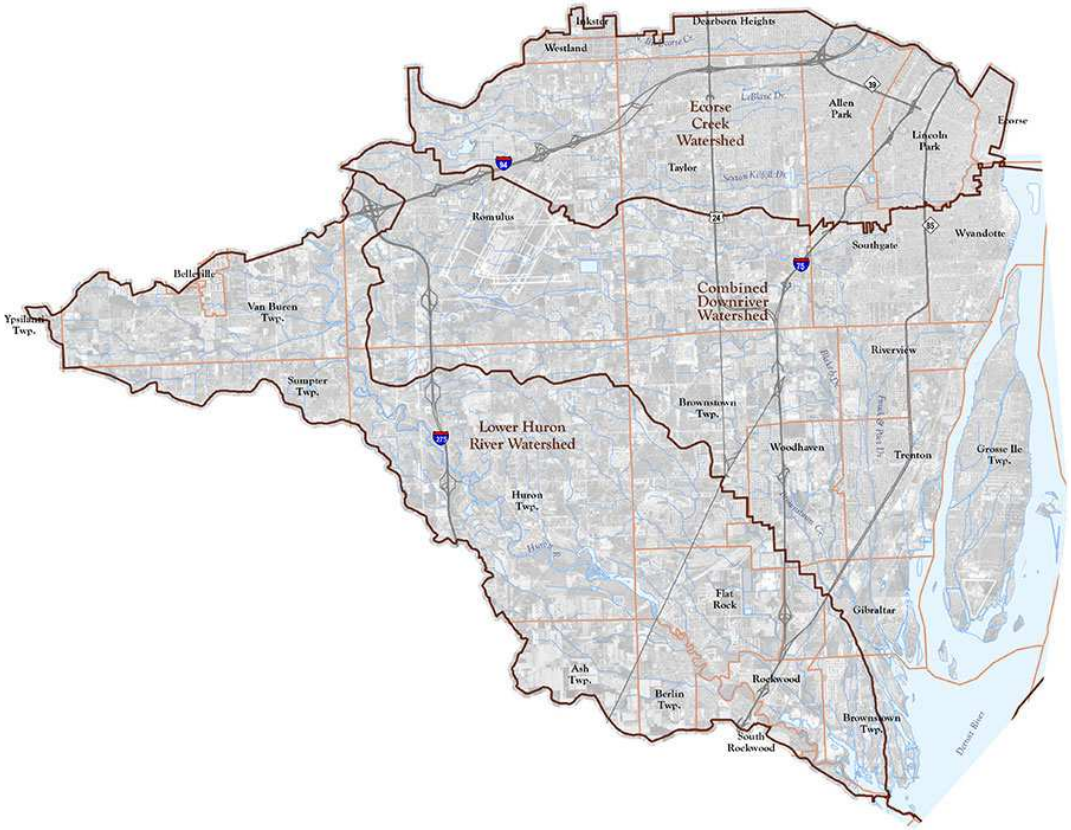
The Public Participation/Involvement Program (PPP) is required by the State of Michigan National Pollutant Discharge Elimination System (NPDES) Permit Application for Discharge of Stormwater to Surface Waters of the State from a Municipal Separate Storm Sewer System (MS4).

The purpose of this PPP is to **facilitate the involvement of MS4s in the watershed, and the general public in the revision of MS4 Stormwater Management Plans** (SWMPs). This PPP is designed to involve all entities in the watersheds identified below with the authority, ability, and desire to carry out the implementation of SWMPs in seeking comment on and implementing those plans.

I. GENERAL INFORMATION

The Alliance of Downriver Watersheds (ADW) is a permanent watershed organization in southeast Michigan and formed under Public Act 517 of the Public Laws of 2004. The ADW wasformally established in 2007 but its members have been working together for many years to manage the area's water resources. The ADW consists of 23 public agenciesin the Ecorse Creek, Combined Downriver and Lower Huron River Watersheds within Wayne and Monroe Counties. ADW collaborative efforts include long-term water quality monitoring, stormwater permit compliance and reporting to the State, submittal of grant applications for water quality improvements, and public education.

The ADW is urban in nature consisting of 203.3 square miles and more than 450,000 people (2010 census). Major watercourses within the ADW that drain to the Detroit River and Lake Erie include the Ecorse Creek, Sexton Kilfoil Drain, Frank and Poet Drain, Blakely Drain, Brownstown Creek, Huron River, Smith Creek, Silver Creek and Woods Creek. There are three Watershed Management Plans



for the ADW area, approved by the Michigan Department of Environmental Quality in 2012—Ecorse Creek, Combined Downriver and Lower Huron.

This PPP is submitted by the ADWon behalf of the following Phase I and II MS4s within the Ecorse Creek, Combined Downriver and Lower Huron watersheds. Activities will be implemented collaboratively during the permit cycle by the ADW its cooperating partners and these MS4 permittees:

Allen Park
Belleville
Brownstown Township
Dearborn Heights
Ecorse
Flat Rock
Gibraltar
Grosse Ile Township
Inkster
Lincoln Park
Melvindale
Riverview
Rockwood
Romulus
Southgate
Sumpter Township
Taylor
Van Buren Township
Wayne County
Westland
Woodhaven
Woodhaven-Brownstown School District
Wyandotte

II. COMMUNICATION DURING THE SWMP DEVELOPMENT PROCESS

The practices listed in this section will be used to solicit public participation during the SWMP development process for each MS4. Public input shall be encouraged in all aspects of the stormwater management program. The following minimum actions shall be taken to encourage public input:

1. Each individual MS4 shall follow local public notice requirements, as appropriate, when informing the public that a stormwater management program must be implemented. Copies of the SWMP shall be available for public inspection, and the public shall be notified of when and where it is available.

2. Each individualMS4 shall participate in and cooperate with the ADWby informing it of activities under their SWMPs, providing copies of the SWMPs and pursuing public input on them,and seeking ways to meet general permit requirements through ongoing programs for water resource protection and enhancement, including water quality monitoring.

III. PROCEDURES FOR PUBLIC INSPECTION, COMMENT AND PARTICIPATION IN IMPLEMENTATION AND REVIEW

The following Best Management Practices (BMPs) will be carried out to meet public participation requirements:

BMP 1.1. **Public Notice**
Description: Each individual MS4 will provide electronic copies of draft SWMPs to the ADW to share with the general public. The ADWand MS4s will notify the public that SWMPs were developed and encourage public input in the revision process. This will be done primarily through posting SWMPs and forms for collecting public comments on the ADW website and sending out an electronic notice to

ADWpublic contact lists.Individual MS4s will post links to the SWMPs (housed on the ADW website)ontheir individual MS4 websites.Additionally, other means of communication will be used for announcing progress on SWMP elements and soliciting input. These may include publication in local news media outlets, announcements to local boards, associations,other interested groups, at public meetings or major public events, articles in local newsletters, or posts on web sitesand social networking sites.Each MS4 will follow any public notice requirements specific to their local jurisdiction. The same public notice procedure will be used following any major SWMP revision.
*Timeline:*Notice will be provided upon release of a draft permit.
Evaluation: Publication of notice in news media, impressions on ADW website.
Responsible Parties: Listed MS4s will provide SWMPs to the ADW and the ADWwill notify the public within the ADW area via email distribution and posting to the ADW website. Each MS4 will notify the public in their local jurisdictions.

BMP 1.2Public Access to SWMPs
Description: The ADW and the MS4s will publish and make available copies of the SWMPs on the ADW websiteand ateach MS4 office.
Timeline: Following review by MDEQ and revision by MS4s, SWMPs will be made available when the draft permit becomes available for public review.
Evaluation: Number of views each of the plansget at each website.
Responsible Parties: The ADW and individual MS4s.

BMP 1.3SWMP Implementation
Description: The ADWis a watershed implementation group that is open to and encourages public participation. This groupmeets three times a year (on average). Meeting schedules are posted to the ADW web site and via e-mail distribution lists. Meetings of this group will be the primary point of public input into SWMP implementation and for providing feedback to MS4 representatives.
Timeline: On-going; start in year one of permit.
Evaluation: Document MS4 representative and citizen participation in meetings.
Responsible Parties: MS4 representatives, ADW.

BMP 1.4SWMP Review
Description: Following public notice of the SWMPs, the ADW and MS4s will accept and consider comments from the public and MDEQ. After revising SWMPs, the ADWand MS4s will post revised drafts and accept public comments before each MS4 finalizes their SWMP.
Timeline: Review completed following initial application and prior to permit issuance.
Evaluation: Comments from the general public.
Responsible Parties: ADW and MS4s.

Legend

Storm Manholes

Storm Pipes, with Diameter

City of Taylor

Storm System

Map Printed: October 2016

N

0 500 1,000 2,000 Feet

WADETRIM

25251 Northline Road
Taylor, MI 48180

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STANDARD OPERATING PROCEDURE POLLUTION PREVENTION AND GOOD HOUSEKEEPING

DEPARTMENT OF PUBLIC WORKS FACILITY

PREPARED FOR:

THE CITY OF TAYLOR

APRIL 2017

SECTION A – PURPOSE

The Michigan Department of Environmental Quality (MDEQ) National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Phase II Stormwater Discharge Permit Application requires a description of current and proposed BMPs to meet the minimum control measure requirements for the Pollution Prevention and Good Housekeeping Program to the maximum extent practicable to prevent or reduce the discharge of pollutants from municipal facilities and operations. The following standard operating procedure (SOP) is intended for the City of Taylor DPW facility, which has been deemed as high priority based on the operations that are conducted at the site.

SECTION B – FACILITY ASSESSMENT AND PRIORITIZATION

The MDEQ NPDES MS4 Permit Application requires an SOP for identifying the structural and non-structural stormwater controls implemented and maintained to prevent or reduce pollutant runoff at each facility with the high potential for pollutant runoff. The DPW was assessed for its potential to discharge pollutants to the waters of the state and as deemed a high priority based on the following applicable criteria:

1. Amount of urban pollutants stored at the site (i.e. sediment, nutrients, metals, hydrocarbons, pesticides, fertilizers, herbicides, chlorides, trash, bacteria, or other site-specific pollutants)
2. Potential for polluting activities to be conducted outside (i.e. salt loading)

Based on these criteria, the DPW facility has been deemed a high priority site, which has prompted the need for a site-specific standard operating procedure to prevent or minimize the potential for pollutants from entering surface waters of the state as outlined in the NPDES permit application.

SECTION C –INVENTORY AND ASSESSMENT

The following is an inventory and assessment of stormwater controls (i.e. catch basins, detention basins, etc.) and facility operations that occur on site.

- Stormwater Catch Basins (10)
- Oil/Water Separator (1)
- Dumpster (1)
- Underground Tank – Diesel Fuel Tank (1)
- Underground Tank – Gasoline Fuel Tank (1)
- 55 Gallon Drum Oil (multiple)
- 55 Gallon Drum Mixture of Oil Waste and other Maintenance Fluids (multiple)
- 55 Gallon Drum Transmission Fluid (1)
- 60 ft x 60 ft enclosed Salt Dome (1)
- 10 Yard Dumpster (1)
- 20 Yard Dumpster (2)

C.1 DPW Inventory and Description of Materials and Activities

The City of Taylor's DPW Facility is located at 25605 Northline Rd. Taylor, MI 48180. Municipal activities that occur at the facility include the following:

- Fuel Storage and Fueling
- Maintenance and cleaning of vehicles and equipment
- Salt Storage
- Stockpiling

SECTION D – FUEL STORAGE AND FUELING

The City's DPW Facility currently has two underground storage tanks. One is diesel storage and one is gasoline storage. Part 5 Rules indicate that fuel storage areas "shall be designed, constructed, maintained, and operated to prevent the release of polluting materials through sewers, drains, or otherwise directly or indirectly into any public sewer system or to the surface or groundwater's of this state." The City has met this requirement through the proper storage and pollution prevention methods currently in place. These include the following:

- The tanker trucks park near the fueling station, and once the hose is property attached, begins fueling. The shop mechanic supervises this process.
- Cat litter and/or floor dry is stored near the fueling pad for small spills.
- A spill kit is located at the fueling station to prevent migration from the spill site. Employees undergo training regarding proper fueling methods and spill response tactics.

All other vehicle fluids are stored indoors. There is secondary containment by storage on spill pads for all vehicle fluids. Vehicle maintenance activities, including vehicle washing, are conducted indoors. All runoff is directed into the sanitary sewer via catch basins, which was recently dye tested.

SECTION E – ON SITE WASTE DISPOSAL

A total of three (3) dumpsters are kept on site for refuse. There are two (2) 20-yard dumpsters, and one (1) 10 yard dumpster.

E.1 Household Hazardous Waste

The City relies on the services of the Wayne County Department of Public Services' Household Hazardous Waste Program. The County hosts 4 Household Hazardous Waste Collection Days per year, which are open to Wayne County residents. The City advertises this service to its residents. http://www.waynecounty.com/doe/household-hazardous-waste-program.htm.

SECTION F – VEHICLE WASHING AND MAINTENANCE

Vehicle maintenance activities are conducted by DPW staff for the City of Taylor's entire vehicle fleet. Maintenance activities conducted by DPW staff include, but are not limited to, oil changes

and other vehicle fluids, brakes, tune-ups, and general repair tasks. A maintenance log is maintained by DPW staff to document all vehicle maintenance and repair activities.

Vehicle washing activities is conducted indoors in a designated area inside the main DPW building. The area is sloped inward to contain wash water to prevent wash water from flowing outside of the designated washing area. Wash water is collected by a catch basin located within the vehicle washing area and is connected to the sanitary sewer.

SECTION G – WINTER OPERATIONS

The City DPW field staff applies rock salt as part of their deicing procedures during the winter months.

G.1 Salt Storage and Loading

The City of Taylor has one (1) 60 ft. x 60 ft. enclosed salt storage structure. The floor of the salt dome is comprised of an impervious cement pad. The structure is not located within 50 feet of a lakeshore, stream bank, or wetland, nor is it located in a 100-year floodplain.

Loading of salt at both structures takes place at the structure entrance on a paved surface. The loading area is maintained after each use, with excess salt being swept back inside the storage facility. There are no catch basins located near the salt storage structures.

Salt storage and application training is provided annually to DPW staff. Staff has been trained to minimize any track-out from loading operations.

SECTION H – STOCKPILED MATERIALS

Gravel, sand, topsoil, woodchips, concrete, and coal patch are either kept in piles under lean-tos or uncovered in open air. After loading, materials are either swept or pushed back into the appropriate bin. The loading does not occur over any catch basin. However, there is one catch basin located about 30 feet from the loading area for gravel and topsoil. Due to this fact, there is a restrictor plate to prevent any contamination.

SECTION I – NON-STRUCTURAL CONTROLS

The City of Taylor is committed to employing preventative maintenance practices with several non-structural controls to prevent stormwater pollution. These non-structural controls are everyday types of activities undertaken by employees at the facility. The non-structural controls implemented at the DPW facility are as follows:

I.1 Routine Inspections and Good Housekeeping Procedures

Preventive maintenance involves the regular inspection, testing, and cleaning of facility equipment, vehicles, and operational systems. Facility staff conduct a routine inspection

during site walkthroughs during normal operations activities. The purpose of these inspections is to identify and prevent conditions that could lead to stormwater pollution.

Staff inspects all vehicles consistent with Commercial Driver's License Procedures, and performs detailed vehicle inspections every month. Completed vehicle maintenance records and fueling logs are kept on file at the DPW facility.

Part 5 rules also require surveillance of polluting materials. The routine inspections will include this information for the salt storage and fueling areas. This evaluation occurs monthly.

I.2 Comprehensive Site Inspections

The comprehensive site inspection will include the areas and equipment identified in the preventive maintenance program, good housekeeping procedures, a review of the routine preventive maintenance reports, and any other paperwork associated with this SOP. All DPW related activities will be evaluated during the comprehensive inspection. In contrast to the routine inspections, comprehensive inspections will focus on areas that have a reasonable potential for significant materials to contaminate stormwater runoff. The comprehensive site inspection for DPW areas will be conducted every six months.

I.3 Employee Training Program

Employee training programs will be implemented to inform appropriate personnel at all levels of responsibility of safety, environmental impacts, and good housekeeping practices. New employees are required to watch safety and best practices videos, as well as receive on the job training for proper procedures.

SECTION J – PROCESS FOR REVISION

This procedure shall be reviewed once per permit cycle by the Stormwater Manager for any updates to streamline the requirements.

ASSETID	OWNERSHIP	EASTING	NORTHING
OUT29SE002	City of Taylor	13420301.70	258545.17
OUT29SE003	City of Taylor	13420292.82	258512.58
OUT29SE004	City of Taylor	13420292.92	258494.12
OUT29SE005	City of Taylor	13420292.67	258459.78
OUT29SE006	City of Taylor	13420521.13	258213.47
OUT31NE001	City of Taylor	13414221.14	253609.01
OUT31NE002	City of Taylor	13414231.87	253595.50
OUT31NE003	City of Taylor	13414297.84	253560.53
OUT31NE004	City of Taylor	13413946.90	253723.02
OUT31NE005	City of Taylor	13413941.01	253714.78
OUT31NE006	City of Taylor	13414557.34	253189.12
OUT31SE001	City of Taylor	13414563.87	253084.25
OUT31SW001	City of Taylor	13413362.66	251355.03
OUT31SE002	City of Taylor	13415979.36	251134.63
OUT31SE003	City of Taylor	13415984.26	251099.42
OUT32SE001	City of Taylor	13419488.01	251217.47
OUT31NE007	City of Taylor	13414661.72	255536.20
OUT31NE008	City of Taylor	13414732.71	255517.44
OUT22SE001	City of Taylor	13428871.79	263378.72
OUT22SE002	City of Taylor	13428905.41	263358.35
OUT22SE003	City of Taylor	13428832.53	263350.08
OUT16NW001	City of Taylor	13421992.28	269698.54
OUT16NW002	City of Taylor	13421990.73	269688.15
OUT16NW003	City of Taylor	13422167.44	269700.05
OUT16NW004	City of Taylor	13422170.87	269713.15
OUT16NW005	City of Taylor	13422224.33	269692.37
OUT16NW006	City of Taylor	13422705.64	269745.78
OUT16NW007	City of Taylor	13422702.67	269768.80
OUT16NW008	City of Taylor	13423058.75	269987.83
OUT16NW009	City of Taylor	13422713.81	269757.14
OUT16NW010	City of Taylor	13423080.68	269965.85
OUT16NW011	City of Taylor	13423106.00	269952.68
OUT16NW012	City of Taylor	13423164.28	269952.23
OUT16NW013	City of Taylor	13423128.86	270038.23
OUT15SE002	City of Taylor	13431183.12	267830.20
OUT15SE003	City of Taylor	13429994.69	267338.80
OUT15SE004	City of Taylor	13429960.29	267337.08
OUT34SE005	City of Taylor	13430585.48	251474.02
OUT34SE006	City of Taylor	13430456.68	252456.23
OUT34SE004	City of Taylor	13430249.30	252446.92
OUT33NW001	City of Taylor	13423774.09	255227.99
OUT33NW002	City of Taylor	13423767.95	255211.90
OUT33NW003	City of Taylor	13423025.61	254885.19
OUT33NE001	City of Taylor	13423874.60	255236.44
OUT33NE002	City of Taylor	13424348.17	255383.94
OUT33NE003	City of Taylor	13424438.75	255464.50

ASSETID	OWNERSHIP	EASTING	NORTHING
OUT15SE005	City of Taylor	13431092.00	268772.86
OUT15SE006	City of Taylor	13430750.96	268732.67
OUT15SE007	City of Taylor	13430741.39	268733.41
OUT15SW001	City of Taylor	13428293.43	268952.92
OUT15SW002	City of Taylor	13428197.35	268952.16
OUT15SW003	City of Taylor	13427586.48	268921.23
OUT15SW004	City of Taylor	13427586.75	268910.42
OUT15SW005	City of Taylor	13427041.52	268982.14
OUT33NE004	City of Taylor	13425405.67	255938.61
OUT15SE018	City of Taylor	13431286.86	267880.45
OUT15SW006	City of Taylor	13428473.59	267474.76
OUT15SW007	City of Taylor	13428430.78	267515.03
OUT15SW008	City of Taylor	13428014.81	267456.16
OUT15SW009	City of Taylor	13427644.10	267454.54
OUT15SW010	City of Taylor	13427608.56	267445.44
OUT15SW011	City of Taylor	13427504.86	267408.68
OUT15SW012	City of Taylor	13426987.73	267496.97
OUT15SW013	City of Taylor	13426995.76	267510.05
OUT15SW014	City of Taylor	13426950.30	267510.46
OUT15SW015	City of Taylor	13426947.90	267495.39
OUT15SW016	City of Taylor	13426322.49	267627.92
OUT15SW017	City of Taylor	13426290.62	267629.65
OUT15SW018	City of Taylor	13426329.27	267607.07
OUT15SW019	City of Taylor	13426287.50	267616.55
OUT15SW020	City of Taylor	13426010.96	267654.89
OUT16SE001	City of Taylor	13424580.62	267498.87
OUT16SE002	City of Taylor	13424689.37	267475.23
OUT16SE003	City of Taylor	13423948.41	267275.31
OUT16SE004	City of Taylor	13423905.22	267289.42
OUT16SE005	City of Taylor	13423861.41	267266.49
OUT16SE006	City of Taylor	13423617.86	267256.27
OUT16SE007	City of Taylor	13423534.42	267236.15
OUT16SW001	City of Taylor	13423026.89	267267.17
OUT16SW002	City of Taylor	13422995.82	267267.51
OUT16SW003	City of Taylor	13422988.03	267279.93
OUT16SW004	City of Taylor	13422900.54	267271.04
OUT16SW005	City of Taylor	13422377.17	267090.89
OUT16SW006	City of Taylor	13422374.37	267099.17
OUT16SW007	City of Taylor	13422340.07	267101.17
OUT16SW008	City of Taylor	13422004.73	266996.91
OUT16SW009	City of Taylor	13421800.92	266999.34
OUT16SW010	City of Taylor	13421650.75	266988.46
OUT16SW011	City of Taylor	13421641.37	266999.17
OUT16SW012	City of Taylor	13421582.08	266996.50
OUT16SW013	City of Taylor	13421577.30	266982.20
OUT16SW014	City of Taylor	13421439.35	266987.01

ASSETID	OWNERSHIP	EASTING	NORTHING
OUT16SW015	City of Taylor	13420986.21	266971.35
OUT16SW016	City of Taylor	13423185.40	268922.86
OUT16SW017	City of Taylor	13423197.35	268911.50
OUT16SE008	City of Taylor	13423438.84	268716.34
OUT16SE009	City of Taylor	13423454.59	268711.62
OUT16SE010	City of Taylor	13423545.43	268690.65
OUT16SE011	City of Taylor	13423626.94	268684.35
OUT16SW018	City of Taylor	13423098.81	269013.61
OUT16SW019	City of Taylor	13423100.82	269018.35
OUT16SW020	City of Taylor	13423099.18	269115.96
OUT16SW021	City of Taylor	13423200.57	269216.82
OUT16NE001	City of Taylor	13423253.99	269474.17
OUT16SE012	City of Taylor	13424403.02	267555.54
OUT15SE008	City of Taylor	13430542.04	267833.73
OUT15SE009	City of Taylor	13430359.93	267786.89
OUT15SE010	City of Taylor	13430063.52	267567.39
OUT15SE011	City of Taylor	13429667.91	267227.39
OUT15SE012	City of Taylor	13429270.80	267318.54
OUT22NE001	City of Taylor	13428710.99	266938.36
OUT22NW001	City of Taylor	13428175.50	266801.12
OUT28NE001	City of Taylor	13424363.37	259214.28
OUT28NW001	City of Taylor	13422002.60	261398.84
OUT21SW004	City of Taylor	13421929.86	261521.32
OUT28NW002	City of Taylor	13421711.47	261237.48
OUT21SW005	City of Taylor	13422136.72	262417.92
OUT21SW006	City of Taylor	13422141.73	262398.21
OUT21SW007	City of Taylor	13422142.02	262064.22
OUT15SE013	City of Taylor	13429524.43	267229.53
OUT15SE014	City of Taylor	13429345.72	267344.43
OUT22NE002	City of Taylor	13428896.06	267061.01
OUT15SE015	City of Taylor	13428994.57	267187.59
OUT22NW002	City of Taylor	13428459.51	266907.18
OUT22NW003	City of Taylor	13428459.41	266899.11
OUT22NW004	City of Taylor	13427913.74	266702.97
OUT22NW005	City of Taylor	13427908.85	266701.97
OUT22NW006	City of Taylor	13427780.49	266758.34
OUT22NW007	City of Taylor	13427775.58	266761.94
OUT22NW008	City of Taylor	13427668.50	266837.86
OUT22NW009	City of Taylor	13427632.85	266859.47
OUT22NW010	City of Taylor	13427046.73	266267.59
OUT22NW011	City of Taylor	13427010.11	266241.60
OUT22NW012	City of Taylor	13426695.77	266065.21
OUT21NE001	City of Taylor	13425342.82	265705.26
OUT21NE002	City of Taylor	13425340.32	265693.79
OUT22NW013	City of Taylor	13426089.46	266021.23
OUT21NE003	City of Taylor	13425828.48	265876.04

ASSETID	OWNERSHIP	EASTING	NORTHING
OUT21NE004	City of Taylor	13424722.25	265468.58
OUT21NE005	City of Taylor	13424989.71	265571.79
OUT21NE006	City of Taylor	13424996.84	265574.17
OUT21NE007	City of Taylor	13425159.51	265643.79
OUT22SW001	City of Taylor	13427538.63	262297.12
OUT27NW001	City of Taylor	13427766.00	259880.19
OUT27NW002	City of Taylor	13427765.97	259880.21
OUT27NE001	City of Taylor	13430274.67	259252.67
OUT27NE002	City of Taylor	13430244.72	259244.35
OUT27SE001	City of Taylor	13429778.36	258099.21
OUT27SE002	City of Taylor	13429725.78	258035.51
OUT27SE003	City of Taylor	13429387.04	257627.16
OUT27SE004	City of Taylor	13429290.67	257629.85
OUT27SE005	City of Taylor	13429306.62	258508.37
OUT27SW001	City of Taylor	13428621.40	257730.81
OUT27SW002	City of Taylor	13428621.81	257734.36
OUT27SE006	City of Taylor	13429338.98	258510.10
OUT27SE007	City of Taylor	13429674.85	258615.82
OUT27SE008	City of Taylor	13429695.44	258635.57
OUT27SE009	City of Taylor	13429782.16	258688.20
OUT27SE010	City of Taylor	13430570.50	259076.65
OUT27SE011	City of Taylor	13430794.82	258941.59
OUT27SE012	City of Taylor	13430836.94	258925.54
OUT27NE013	City of Taylor	13431555.39	259360.91
OUT27NE003	City of Taylor	13431529.93	259579.60
OUT27NE004	City of Taylor	13431527.26	259672.39
OUT27NE005	City of Taylor	13431520.71	259854.42
OUT27NE006	City of Taylor	13431509.44	260208.76
OUT27NE007	City of Taylor	13431499.86	260261.85
OUT27NE008	City of Taylor	13431494.03	260341.13
OUT27NE009	City of Taylor	13431501.12	260413.11
OUT27NE010	City of Taylor	13431486.69	260602.79
OUT27NE011	City of Taylor	13431480.67	260682.92
OUT27NE012	City of Taylor	13431472.48	260901.70
OUT34NE001	City of Taylor	13431074.63	255326.08
OUT34NE002	City of Taylor	13431112.80	255319.15
OUT34NE003	City of Taylor	13431074.53	255320.99
OUT34NE004	City of Taylor	13431759.02	254171.24
OUT34NE005	City of Taylor	13431755.79	254185.42
OUT34NE006	City of Taylor	13430469.96	255832.87
OUT34NE007	City of Taylor	13430469.05	255850.96
OUT34NE008	City of Taylor	13430493.78	255848.64
OUT34NE009	City of Taylor	13430422.14	255882.28
OUT34NE010	City of Taylor	13430420.51	255901.04
OUT34NE011	City of Taylor	13430011.63	256182.50
OUT34NE012	City of Taylor	13429998.08	256169.69

ASSETID	OWNERSHIP	EASTING	NORTHING
OUT34NE013	City of Taylor	13429998.71	256154.42
OUT34NE014	City of Taylor	13429961.88	256168.96
OUT34NE015	City of Taylor	13429962.67	256153.94
OUT33NW004	City of Taylor	13422299.42	254775.47
OUT33NW005	City of Taylor	13422735.06	254763.34
OUT33NW006	City of Taylor	13422146.52	254706.85
OUT33NW007	City of Taylor	13422105.29	254730.78
OUT28SE001	City of Taylor	13426353.45	256941.62
OUT28SE002	City of Taylor	13426062.88	256895.66
OUT28SE003	City of Taylor	13426028.12	256877.71
OUT28SE004	City of Taylor	13425578.73	256636.09
OUT28SE005	City of Taylor	13425577.32	256647.05
OUT28SE006	City of Taylor	13425577.24	256657.71
OUT28SE007	City of Taylor	13425492.48	256582.20
OUT28SE008	City of Taylor	13425491.81	256592.21
OUT28SE009	City of Taylor	13425487.79	256603.00
OUT28SE010	City of Taylor	13425435.55	256570.53
OUT28SE011	City of Taylor	13425149.47	256473.25
OUT28SE012	City of Taylor	13425150.31	256463.44
OUT28SE013	City of Taylor	13425150.32	256453.82
OUT28SE014	City of Taylor	13425042.39	256470.65
OUT28SE015	City of Taylor	13425043.84	256460.48
OUT28SE016	City of Taylor	13425043.93	256448.97
OUT28SE017	City of Taylor	13424873.80	256462.06
OUT28SE018	City of Taylor	13424353.49	256436.83
OUT28SE019	City of Taylor	13424295.47	256433.52
OUT28SE020	City of Taylor	13424295.85	256423.07
OUT28SE021	City of Taylor	13424296.58	256413.27
OUT28SE022	City of Taylor	13424206.52	256429.70
OUT28SE023	City of Taylor	13424206.50	256418.28
OUT28SE024	City of Taylor	13424207.02	256407.94
OUT28SE025	City of Taylor	13424174.23	256428.20
OUT28SE026	City of Taylor	13423787.79	256405.83
OUT28SE027	City of Taylor	13423788.14	256390.92
OUT28SW031	City of Taylor	13423697.63	256401.55
OUT28SW032	City of Taylor	13423697.78	256386.35
OUT28SW033	City of Taylor	13423247.09	256366.91
OUT28SW034	City of Taylor	13423246.85	256375.72
OUT28SW005	City of Taylor	13423259.49	256381.01
OUT28SW006	City of Taylor	13423192.87	256364.11
OUT28SW007	City of Taylor	13423192.12	256373.13
OUT28SW008	City of Taylor	13422854.70	256349.13
OUT28SW009	City of Taylor	13422854.50	256358.68
OUT28SW010	City of Taylor	13422790.67	256346.77
OUT28SW011	City of Taylor	13422790.61	256355.71
OUT28SW012	City of Taylor	13422588.23	256334.81

ASSETID	OWNERSHIP	EASTING	NORTHING
OUT28SW013	City of Taylor	13422584.10	256343.75
OUT28SW014	City of Taylor	13422591.11	256351.93
OUT28SW015	City of Taylor	13422539.63	256310.97
OUT28SW016	City of Taylor	13422535.44	256319.53
OUT28SW017	City of Taylor	13422432.67	256268.55
OUT28SW018	City of Taylor	13422434.99	256280.27
OUT28SW019	City of Taylor	13423471.29	256379.02
OUT28SW020	City of Taylor	13422090.32	256255.26
OUT28SW021	City of Taylor	13422087.79	256244.10
OUT28SW022	City of Taylor	13421606.70	256241.70
OUT28SW023	City of Taylor	13421432.63	256361.40
OUT28SW024	City of Taylor	13421126.30	256616.68
OUT28SW025	City of Taylor	13421737.12	256249.21
OUT28SW026	City of Taylor	13421795.10	256247.86
OUT28SW027	City of Taylor	13421785.91	256258.51
OUT27SW003	City of Taylor	13426480.31	256931.69
OUT27SW004	City of Taylor	13426698.98	256447.66
OUT34NW001	City of Taylor	13426732.80	256330.44
OUT34NW002	City of Taylor	13426693.62	256311.41
OUT34NW003	City of Taylor	13426692.65	256305.01
OUT34NW004	City of Taylor	13426953.79	256160.38
OUT34NW005	City of Taylor	13426989.01	256188.19
OUT34NW006	City of Taylor	13427697.86	256096.55
OUT34NW007	City of Taylor	13427771.79	256099.67
OUT34NW008	City of Taylor	13427781.05	256112.41
OUT28SE028	City of Taylor	13425796.95	256847.08
OUT28SW028	City of Taylor	13422016.40	256250.39
OUT28SW029	City of Taylor	13421971.89	256248.47
OUT28SW030	City of Taylor	13421707.45	256238.38
OUT34NW009	City of Taylor	13427830.26	255749.63
OUT34NW010	City of Taylor	13427830.85	255739.15
OUT34NW011	City of Taylor	13427831.04	255729.12
OUT34NW012	City of Taylor	13427808.28	255735.49
OUT34NW013	City of Taylor	13427884.92	255728.21
OUT34NW014	City of Taylor	13427884.86	255739.22
OUT34NW015	City of Taylor	13427883.92	255749.76
OUT34NW016	City of Taylor	13427906.19	255750.11
OUT34NW017	City of Taylor	13428171.85	255756.65
OUT34NW018	City of Taylor	13428413.41	255667.69
OUT34NW019	City of Taylor	13428409.18	255657.29
OUT34NW020	City of Taylor	13428408.91	255653.58
OUT34NW021	City of Taylor	13428628.57	255612.81
OUT34NW022	City of Taylor	13428626.38	255603.55
OUT34NW023	City of Taylor	13428758.33	255571.48
OUT34NW024	City of Taylor	13428762.92	255581.94
OUT34NW025	City of Taylor	13428763.53	255582.64

ASSETID	OWNERSHIP	EASTING	NORTHING
OUT34NW026	City of Taylor	13428756.88	255572.32
OUT34NW027	City of Taylor	13428824.79	255561.24
OUT34NE016	City of Taylor	13429137.11	255658.23
OUT34NE017	City of Taylor	13429146.48	255656.53
OUT34NE018	City of Taylor	13429169.45	255397.90
OUT34NE019	City of Taylor	13429161.17	255392.45
OUT34NE020	City of Taylor	13429183.94	255382.14
OUT34NE021	City of Taylor	13429176.83	255375.57
OUT34NE022	City of Taylor	13429445.73	255370.25
OUT34NE023	City of Taylor	13429629.11	255379.33
OUT34NE024	City of Taylor	13429727.74	255347.75
OUT33SW001	City of Taylor	13421362.57	251621.31
OUT33SW002	City of Taylor	13421417.32	251604.20
OUT33SW003	City of Taylor	13421500.04	251488.93
OUT33SW004	City of Taylor	13421877.21	251176.88
OUT33SW005	City of Taylor	13421923.09	251127.38
OUT33SW006	City of Taylor	13422002.63	251092.69
OUT33SW007	City of Taylor	13422032.75	251091.09
OUT33SW027	City of Taylor	13422181.24	251021.00
OUT33SW026	City of Taylor	13422149.77	251012.54
OUT33SW025	City of Taylor	13422142.29	251008.23
OUT33SW024	City of Taylor	13422200.45	251010.29
OUT34SW002	City of Taylor	13426861.68	251214.08
OUT34SW003	City of Taylor	13426857.96	251202.37
OUT34SW001	City of Taylor	13426858.11	251296.23
OUT34SW002	City of Taylor	13426680.63	251359.48
OUT33SE001	City of Taylor	13426499.66	251591.05
OUT33SE002	City of Taylor	13426400.01	251715.13
OUT33SE003	City of Taylor	13426383.88	251739.83
OUT33SE004	City of Taylor	13425046.40	252065.51
OUT33SE005	City of Taylor	13425029.08	252061.17
OUT30NE001	City of Taylor	13414316.36	259516.28
OUT30NE002	City of Taylor	13413081.10	259470.30
OUT30NW001	City of Taylor	13413047.81	259483.45
OUT30NW002	City of Taylor	13413043.25	259496.35
OUT30NW003	City of Taylor	13410493.93	259468.59
OUT30NW004	City of Taylor	13411381.43	259565.52
OUT30NE003	City of Taylor	13414416.12	259494.77
OUT30NE004	City of Taylor	13414652.08	259394.19
OUT30NE005	City of Taylor	13414753.23	259417.31
OUT30NE006	City of Taylor	13414977.73	259414.09
OUT30NE007	City of Taylor	13415202.81	259333.44
OUT30NE008	City of Taylor	13415318.22	259235.40
OUT30NE009	City of Taylor	13415438.85	259141.00
OUT29NW001	City of Taylor	13415708.74	258925.36
OUT30NE010	City of Taylor	13415685.79	258948.33

ASSETID	OWNERSHIP	EASTING	NORTHING
OUT30SE001	City of Taylor	13414531.37	256984.09
OUT30SE002	City of Taylor	13414762.72	257013.50
OUT30SE003	City of Taylor	13414839.86	257023.65
OUT30SE004	City of Taylor	13415021.07	256955.93
OUT30SE005	City of Taylor	13415103.97	256876.31
OUT30SE006	City of Taylor	13415169.08	256856.05
OUT30SE007	City of Taylor	13415234.78	256848.98
OUT30SE008	City of Taylor	13415287.11	256837.71
OUT30SE009	City of Taylor	13415195.18	256856.56
OUT30SE010	City of Taylor	13415303.66	256830.74
OUT30SE011	City of Taylor	13415502.45	256813.56
OUT30SE012	City of Taylor	13415611.25	256821.99
OUT29SW001	City of Taylor	13415785.04	256915.60
OUT29SW002	City of Taylor	13415784.73	256945.84
OUT29SW003	City of Taylor	13415778.74	257013.84
OUT29SW004	City of Taylor	13415780.63	257041.90
OUT29SW005	City of Taylor	13415777.29	257087.37
OUT29SW006	City of Taylor	13415776.20	257115.61
OUT29SW007	City of Taylor	13415779.21	257127.75
OUT29SW008	City of Taylor	13415775.08	257130.73
OUT30SE013	City of Taylor	13413210.30	256909.63
OUT30SE014	City of Taylor	13413206.26	256914.49
OUT30SE015	City of Taylor	13413841.65	256904.53
OUT30SE016	City of Taylor	13414193.80	256939.25
OUT30SE017	City of Taylor	13414455.18	256971.78
OUT30SE018	City of Taylor	13413172.22	256882.10
OUT30SE019	City of Taylor	13413171.83	256889.34
OUT30SW001	City of Taylor	13410596.23	256681.19
OUT30SW002	City of Taylor	13410563.64	256689.31
OUT30NW005	City of Taylor	13410457.13	259465.55
OUT33SW008	City of Taylor	13423701.33	252080.18
OUT33SW009	City of Taylor	13423652.86	252078.69
OUT33SE006	City of Taylor	13423991.53	252108.91
OUT33SE007	City of Taylor	13423957.31	252109.46
OUT33SW010	City of Taylor	13423552.77	252071.72
OUT33SW011	City of Taylor	13423521.91	252069.69
OUT33SW012	City of Taylor	13423278.79	252142.80
OUT33SW013	City of Taylor	13423276.62	252172.73
OUT33SW014	City of Taylor	13423236.06	252875.39
OUT33SW015	City of Taylor	13423239.34	252874.81
OUT33SW016	City of Taylor	13423241.62	252897.84
OUT33SW017	City of Taylor	13423234.62	252898.99
OUT33SW018	City of Taylor	13423182.28	252821.56
OUT33SW019	City of Taylor	13423153.27	252824.95
OUT33SW020	City of Taylor	13422905.27	252797.21
OUT33SW021	City of Taylor	13422700.45	252860.18

ASSETID	OWNERSHIP	EASTING	NORTHING
OUT33SW022	City of Taylor	13422661.46	252853.24
OUT33SW023	City of Taylor	13422833.05	252869.07
OUT15SE016	City of Taylor	13429901.99	268648.73
OUT15SE017	City of Taylor	13429944.69	268650.55
OUT15SW021	City of Taylor	13427450.42	268914.27
OUT15SW022	City of Taylor	13427584.46	268916.54
OUT05SW001	City of Taylor	13415427.02	278373.10
OUT04SE001	Private	13425118.47	279035.91
OUT17SW001	City of Taylor	13416108.63	266763.62
OUT17SW002	City of Taylor	13416092.14	266853.68
OUT33NE006	Private	13426396.35	254042.02
OUT33NE005	Private	13426427.87	253991.13
OUT20NE003	Private	13418928.21	265893.19
OUT20NE002	Private	13418887.76	265866.51
OUT20NE004	Private	13418770.24	265361.45
OUT20NE005	Private	13418779.66	265806.41
OUT20NE006	Private	13418862.06	266084.28
OUT20NE007	Private	13418876.82	265972.39
OUT20NE001	Private	13418864.52	266160.17
OUT04SE002	Private	13425164.80	279067.48
OUT04SE003	Private	13424886.46	279381.09
OUT28SW004	City of Taylor	13422724.93	257873.10
OUT28SW003	City of Taylor	13422764.65	257983.97
OUT28SW002	City of Taylor	13422724.67	257958.53
OUT28SW001	City of Taylor	13422889.16	257928.62
OUT07SE001	City of Taylor	13414162.21	272973.79
OUT07SE002	City of Taylor	13414224.46	272584.01
OUT07SE003	City of Taylor	13414250.53	272512.70
OUT07SE004	City of Taylor	13414218.41	272407.69
OUT07SE005	City of Taylor	13414248.59	272336.90
OUT05SW002	City of Taylor	13415117.51	278527.29
OUT16SW022	City of Taylor	13420917.01	268792.66
OUT16SW023	City of Taylor	13420892.78	268815.78
OUT27SW005	City of Taylor	13426713.09	256466.46
OUT19NW001	City of Taylor	13412393.75	264731.00
OUT19NW002	City of Taylor	13412368.69	264672.95
OUT19NW003	City of Taylor	13412438.98	264781.57
OUT19NW004	City of Taylor	13412236.20	264752.95
OUT19NW005	City of Taylor	13412235.41	264748.66
OUT19NW006	City of Taylor	13412136.15	264774.41
OUT19NW007	City of Taylor	13412136.93	264778.64
OUT20NE008	City of Taylor	13419777.84	266277.53
OUT18NE001	City of Taylor	13413879.56	266966.09
OUT18NE002	City of Taylor	13413985.13	267001.18
OUT18NE003	City of Taylor	13414018.76	267105.62
OUT21SW001	City of Taylor	13422054.64	261913.75

ASSETID	OWNERSHIP	EASTING	NORTHING
OUT21SW002	City of Taylor	13421737.54	262062.42
OUT21SW003	City of Taylor	13421840.05	262075.55
OUT34SE001	City of Taylor	13430407.71	252211.41
OUT34SE002	City of Taylor	13430391.71	253617.13
OUT34SE003	City of Taylor	13430361.80	252221.44
OUT34SE004	City of Taylor	13430510.45	252214.36
OUT19NW008	City of Taylor	13411727.12	265883.24
OUT19NW009	City of Taylor	13411728.11	265815.39
OUT28SW035	City of Taylor	13423663.12	256404.43
OUT15SE019	City of Taylor	13429471.33	267423.68
OUT15SE020	City of Taylor	13429470.77	267432.52
OUT15SE021	City of Taylor	13429413.04	267418.88
OUT15SE022	City of Taylor	13429412.48	267428.41
OUT15SE024	City of Taylor	13429851.61	267494.38
OUT15SE026	City of Taylor	13429202.06	267414.01
OUT15SE027	City of Taylor	13429201.19	267404.22
OUT15SE028	City of Taylor	13429094.00	267413.34
OUT15SE029	City of Taylor	13429094.67	267422.23
OUT15SE030	City of Taylor	13429022.20	267508.11
OUT15SE031	City of Taylor	13428911.88	267564.54
OUT15SE032	City of Taylor	13428853.34	267534.50
OUT15SE033	City of Taylor	13428143.14	269720.42
OUT15SE035	City of Taylor	13429182.72	269867.48
OUT15SE037	City of Taylor	13430064.47	270611.30
OUT15SE036	City of Taylor	13429112.27	270442.60
OUT15SE034	City of Taylor	13428166.91	269648.64
OUT15SE023	City of Taylor	13429851.06	267502.76
OUT15SE025	City of Taylor	13429736.10	267613.06
OUT30NW006	City of Taylor	13411772.88	258561.82
OUT30NW007	City of Taylor	13411668.81	258794.88
OUT30NW008	City of Taylor	13411661.95	258893.91
OUT30NW009	City of Taylor	13410965.87	258908.63
OUT30NW010	City of Taylor	13410955.11	258852.00
OUT32SE001	City of Taylor	13416084.71	251106.33
OUT29NE001	City of Taylor	13420286.97	261240.64
OUT29NE002	City of Taylor	13420198.91	261236.45

Asset ID	Ownership	Structure Type	Northing	Easting
STCB04NE0015	City of Taylor	Catch Basin	282382.4353	13425042.15
STCB03NW0013	City of Taylor	Catch Basin	282443.435	13426611.15
STCB03NE0007	City of Taylor	Catch Basin	282509.435	13428215.14
STMH05NE0027	City of Taylor	Manhole	282183.1706	13419455.04
STMH04NW0001	City of Taylor	Manhole	282198.4355	13420435.16
STMH04NW0008	City of Taylor	Manhole	282235.4356	13421501.16
STMH04NE0002	City of Taylor	Manhole	282292.4354	13423053.15
STM03NW0002	City of Taylor	Manhole	282419.4351	13425781.15
STMH03NE0001	City of Taylor	Manhole	282527.4349	13428519.14
STMH03NE0006	City of Taylor	Manhole	282564.4348	13429379.14
STMH03NE0011	City of Taylor	Manhole	282581.4347	13430413.14
STMH03SE0045	City of Taylor	Manhole	277758.0274	13430676.36
STMH10NE0031	City of Taylor	Manhole	275126.7587	13430840.95
STMH22NE0007	City of Taylor	Manhole	267178.4856	13431157.22
STMH31NW002	City of Taylor	Manhole	255092.6348	13410640.21
STMH34SE017	City of Taylor	Manhole	251493.9531	13431837.84
STMH05SW0009	City of Taylor	Manhole	277069.5308	13416959.27
STMH05SE0027	City of Taylor	Manhole	277197.3965	13418631.24
STMH03SE0057	City of Taylor	Manhole	277676.6865	13428424.31
STMH10NW0032	City of Taylor	Manhole	277589.9227	13427816.03
STMH10NE0008	City of Taylor	Manhole	277647.1718	13429089.26
STMH03SE0055	City of Taylor	Manhole	277690.3267	13428822.92
STMH10NE0006	City of Taylor	Manhole	277635.6927	13428785.08
STMH03SE0052	City of Taylor	Manhole	277702.5065	13429149.43
STMH10NE0021	City of Taylor	Manhole	277567.338	13430699.29
STMH10NE0024	City of Taylor	Manhole	277098.1779	13430709.25
STMH03SE0027	City of Taylor	Manhole	279372.9194	13430558.75
STMH03SE0040	City of Taylor	Manhole	278581.1628	13430610.98
STMH10NE0028	City of Taylor	Manhole	275780.3454	13430775.96
STMH10NE0026	City of Taylor	Manhole	276438.767	13430743.19
STMH10SE0041	City of Taylor	Manhole	273808.1134	13430891.57
STMH15NE0012	City of Taylor	Manhole	272472.166	13430950.61
STMH22SE0005	City of Taylor	Manhole	261916.3961	13429829.28
STMH27NE014	City of Taylor	Manhole	261881.3863	13430244.21
STMH10NW0007	City of Taylor	Manhole	277553.049	13426593.49

City of Taylor

Storm Water Outfall Locations

Legend

- County Storm Drain
- Outfall Locations
- City of Taylor Sections
- City of Taylor Quarter-Quarter Sections

March 27, 2017

N W E S

0 245 490 980 Feet

WADETRIM
25251 Northline Taylor, MI 48180
734.947.9700 www.wadetrim.com

STANDARD OPERATING PROCEDURE POLLUTION PREVENTION AND GOOD HOUSEKEEPING

SCHOOL BUS YARD - 24711 WICK RD

PREPARED FOR:

THE CITY OF TAYLOR
24711 WICK RD

APRIL 2017

SECTION A – PURPOSE

The Michigan Department of Environmental Quality (MDEQ) National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Phase II Stormwater Discharge Permit Application requires a description of current and proposed BMPs to meet the minimum control measure requirements for the Pollution Prevention and Good Housekeeping Program to the maximum extent practicable to prevent or reduce the discharge of pollutants from municipal facilities and operations. The following standard operating procedure (SOP) is intended for the City of Taylor School Bus Yard facility, which has been deemed as high priority based on the operations that are conducted at the site.

SECTION B – FACILITY ASSESSMENT AND PRIORITIZATION

The MDEQ NPDES MS4 Permit Application requires an SOP for identifying the structural and non-structural stormwater controls implemented and maintained to prevent or reduce pollutant runoff at each facility with the high potential for pollutant runoff. The School Bus Yard was assessed for its potential to discharge pollutants to the waters of the state and as deemed a high priority based on the following applicable criteria:

1. Amount of urban pollutants stored at the site (i.e. sediment, nutrients, metals, hydrocarbons, pesticides, fertilizers, herbicides, chlorides, trash, bacteria, or other site-specific pollutants)
2. Potential for polluting activities to be conducted outside (i.e. vehicle washing)

Based on these criteria, the School Bus Yard facility has been deemed a high priority site, which has prompted the need for a site-specific standard operating procedure to prevent or minimize the potential for pollutants from entering surface waters of the state as outlined in the NPDES permit application.

SECTION C –INVENTORY AND ASSESSMENT

The following is an inventory and assessment of stormwater controls (i.e. catch basins, detention basins, etc.) and facility operations that occur on site.

- Stormwater Catch Basins (8)
- Gravel Parking Lot (1)
- Oil/Water Separator (1)
- Pump Stations (2)
- Dumpster (1)
- 10,000 Gallon Underground Diesel Fuel Tank (1)
- 10,000 Gallon Underground Gasoline Fuel Tank (1)
- 250 Gallon Drum Oil (1)
- 55 Gallon Drum Transmission Fluid (1)
- 120 lb Drum Grease (2)
- 250 Gallon Drum Anti-freeze
- 250 Gallon Drum Soap (1)
- 35 Gallon Container Soap (2)
- 7 Yard Dumpsters (2)

C.1 School Bus Yard Inventory and Description of Materials and Activities

The City of Taylor's School Bus Yard is located at 24711 Wick Rd. Taylor, MI 48180. Activities that occur at the facility include the following:

- Fuel Storage and Fueling
- Maintenance and cleaning of vehicles and equipment

SECTION D – FUEL STORAGE AND FUELING

Taylor's School Bus Yard currently has two underground storage tanks. One is diesel storage and one is gasoline storage. Part 5 Rules indicate that fuel storage areas "shall be designed, constructed, maintained, and operated to prevent the release of polluting materials through sewers, drains, or otherwise directly or indirectly into any public sewer system or to the surface or groundwater's of this state." The City has met this requirement through the proper storage and pollution prevention methods currently in place. These include the following:

- The tanker trucks park near the fueling station, and once the hose is property attached, begin fueling. The shop mechanic supervises this process.
- The fuel tanks are equipped with leak detention devices with alarms, emergency stop buttons, and automatic shut off valves.
- A spill kit is located at the fueling station to prevent migration from the spill site. Employees undergo training regarding proper fueling methods and spill response tactics. There is a full remediation plan on site.

All other vehicle fluids are stored indoors. There is secondary containment by storage on spill pads for all vehicle fluids. Vehicle maintenance activities, including vehicle washing, are conducted indoors. All runoff is directed into the sanitary sewer via catch basins.

SECTION E – ON SITE WASTE DISPOSAL

Two (2) 7-yard dumpsters are kept on site for refuse. Each dumpster is to be covered at all times to prevent any refuse from leaving the dumpster.

E.1 Household Hazardous Waste

The City relies on the services of the Wayne County Department of Public Services' Household Hazardous Waste Program. The County hosts four (4) Household Hazardous Waste Collection Days per year, which are open to Wayne County residents. The City advertises this service to its residents. http://www.waynecounty.com/doe/household-hazardous-waste-program.htm.

SECTION F – VEHICLE WASHING AND MAINTENANCE

Bus Yard staff conduct all maintenance activities of Taylor's school bus fleet. Maintenance activities conducted by Bus Yard staff include, but are not limited to, oil changes and other vehicle fluids, brakes, tune-ups, and general repair tasks. Bus Yard staff maintain a maintenance log for

all vehicle maintenance and repair activities. All maintenance liquids and materials have secondary containment and spill kits present.

All vehicles are washed indoors in a designated area inside the main School Bus Yard building. The area is sloped inward to contain wash water to prevent wash water from flowing outside of the designated washing area. Wash water is collected by a catch basin located within the vehicle washing area and is connected to the sanitary sewer.

SECTION G – NON-STRUCTURAL CONTROLS

The City of Taylor is committed to employing preventative maintenance practices with several non-structural controls to prevent stormwater pollution. These non-structural controls are everyday types of activities undertaken by employees at the facility. The non-structural controls implemented at the Bus Yard are as follows:

G.1 Routine Inspections and Good Housekeeping Procedures

Preventive maintenance involves the regular inspection, testing, and cleaning of facility equipment, vehicles, and operational systems. Facility staff conduct a routine inspection during site walkthroughs during normal operations activities. The purpose of these inspections is to identify and prevent conditions that could lead to stormwater pollution.

Staff inspects all vehicles consistent with Commercial Driver's License Procedures, and performs detailed vehicle inspections every month. Completed vehicle maintenance records and fueling logs are kept on file at the Bus Yard. Part 5 rules also require surveillance of polluting materials. The routine inspections will include this information for the fueling areas. This evaluation occurs monthly.

G.2 Comprehensive Site Inspections

The comprehensive site inspection will include the areas and equipment identified in the preventive maintenance program, good housekeeping procedures, a review of the routine preventive maintenance reports, and any other paperwork associated with this SOP. All Bus Yard related activities will be evaluated during the comprehensive inspection. In contrast to the routine inspections, comprehensive inspections will focus on areas that have a reasonable potential for significant materials to contaminate stormwater runoff. The comprehensive site inspection for Bus Yard areas will be conducted every six months.

G.3 Employee Training Program

Employee training programs will be implemented to inform appropriate personnel at all levels of responsibility of safety, environmental impacts, and good housekeeping practices. New employees are required to watch safety and best practices videos, as well as receive on the job training for proper procedures.

SECTION H – PROCESS FOR REVISION

This procedure shall be reviewed once per permit cycle by the Stormwater Manager for any updates to streamline the requirements.

Total Maximum Daily Load (TMDL) Implementation Plan for the Alliance of Downriver Watersheds MS4s in Wayne County

TMDL Plan Approved by Water Resources Division on May 31, 2019
Detroit River TMDL added on August 19, 2019 and approved August 26, 2019

The Michigan Department of Environmental Quality (MDEQ), under the National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit application, requires a plan or other documentation outlining how each Municipal Separate Stormwater Sewer System (MS4) will "make progress toward achieving the pollutant load reduction requirement" in each TMDL listed in each applicant's application notice. The purpose of this document is to provide the collective watershed plan for **addressing relevant TMDLs in the Alliance of Downriver Watersheds in Wayne County by MS4s** for the purpose of stormwater permit compliance through the permit cycle starting after 2016. This document addresses the permit application sections VII.86 through VII.88. It should be noted that this plan addresses only stormwater sources of impairments related to TMDLs and is not a *comprehensive* TMDL implementation plan.

I. TMDL AND MS4 COVERAGE

This TMDL Plan is submitted on behalf of the following Phase I and II MS4s within the Alliance of Downriver Watersheds, for each of the below-listed TMDLs, with their target loads included:

A. *Excessive bacteria (E. coli), and sediment in the Ecorse River*

Targets: For bacteria, May-October – 300 E. coli per 100 ml daily maximum and 130 E. coli per 100 ml as a 30-day geometric mean. November-April – 1,000 E. coli per 100 ml daily maximum. For sediment, Primary – macroinvertebrate Procedure 51 score of at least -4, or a rating of "acceptable." Secondary – Annual mean wet-weather TSS concentration of 80 mg/l or less.

- Allen Park
- Dearborn Heights
- Ecorse
- Inkster
- Lincoln Park
- Melvindale
- Romulus
- Southgate
- Taylor
- Wayne County
- Westland
- Wyandotte

B. *Sediment in Brownstown Creek and Blakely Drain – Marsh Creek*

Target: Primary – macroinvertebrate Procedure 51 score of at least -4, or a rating of "acceptable." Secondary – Annual mean wet-weather TSS concentration of 80 mg/l or less.

- Gibraltar
- Riverview
- Romulus
- Taylor
- Trenton
- Wayne County
- Woodhaven

C. *Sediment in Frank and Poet Drain*

Target: Primary – macroinvertebrate Procedure 51 score of at least -4, or a rating of "acceptable." Secondary – Annual mean wet-weather TSS concentration of 80 mg/l or less.

Gibraltar	Taylor
Riverview	Trenton
Romulus	Wayne County
Southgate	Woodhaven

D. *Habitat and Flow Alterations in Smith and Silver Creeks*

Note: These creeks are listed on the impaired waters list, but do not have a TMDL developed. While no additional stormwater management effort is required for these, the ADW partners will endeavor to meet the below targets that are used in drainages with existing TMDLs.

Target: Primary – macroinvertebrate Procedure 51 score of at least -4, or a rating of "acceptable." Secondary – Annual mean wet-weather TSS concentration of 80 mg/l or less.

Flat Rock	Wayne County
Gibraltar	Woodhaven
Rockwood	

E. Excessive bacteria (E. coli) in the Detroit River

Targets: May-October – 300 E. coli per 100 ml daily maximum and 130 E. coli per 100 ml as a 30-day geometric mean. November-April – 1,000 E. coli per 100 ml daily maximum.

Allen Park	Southgate
Dearborn Heights	Taylor
Ecorse	Van Buren Township
Gibraltar	Wayne County
Grosse Ile Township	Westland
Inkster	Woodhaven
Lincoln Park	Woodhaven-Brownstown School
Melvindale	District
Riverview	Wyandotte
Romulus	

II. PRIORITIZING AND IMPLEMENTATION BMPS

The MS4s in the Alliance of Downriver Watersheds have put forth substantial effort and resources to reduce the sources of impairments related to the TMDLs listed in the previous section. These partner organizations, along with non-MS4 entities have developed a number of general and specific plans to address watershed impairments. These plans direct the current and future project and program priorities. The suite of projects and programs already put in place contributed to significant impairment reduction, as evidenced by data collected through on-going monitoring (see monitoring report for

details, or in Appendix B for example).

To comply with NPDES stormwater permit requirements, the above-listed MS4s submit that the suite of Best Management Practices (BMPs) contained in the attached Priority Actions table represents each MS4's project priorities that will be implemented during the permit cycle to collectively make progress toward achieving each of the TMDL pollutant load reduction targets. Each MS4 has attached a table of BMPs that identifies the targeted TMDL pollutants (i.e. sediments, flow alterations or bacteria where relevant) and the priority of the BMP. In many cases, no additional prioritization is needed, as the activity is a general (G) stormwater treatment BMP and will be applied across the MS4 and watershed, and not specific to a particular drainage or impairment. For those BMPs that are area or pollutant specific, data from the monitoring program will be used to help establish priorities for implementation. In these cases, BMPs are classified as high (H), medium (M) or low (L) priority for each TMDL. The high priority BMPs will first be implemented in creeksheds or drainage areas that are determined (through monitoring) to be greater sources of the TMDL pollutant or impairment. Conversely, medium and low priority BMPs will be implemented in these TMDL-pollutant source areas after high priority BMPs are implemented.

III. MONITORING PLAN

A summary of past monitoring results and conclusions related to TMDLs in the watershed is included in monitoring reports found on the ADW Initiatives page. The most recent published report is included in Appendix B, but updated monitoring results will be found on the webpage above. The summaries provided are based primarily on data collected through HRWC's Water Quality Monitoring Program, which has been funded in part by MS4s. Currently the MS4s and other watershed partners plan to continue to support this program to seasonally monitor ADW tributaries for TMDL pollutants. However, for the purposes of NPDES stormwater permit compliance, the MS4s commit to the following Monitoring Plan.

1. MS4s will support the collection of water quality samples from sites that are located at or near major tributary mouths. Figure 1 shows a map of the original long-term monitoring sites. An additional site was added as an investigative site in 2016 and then converted to a long-term site thereafter, bringing the total number of long-term sites to nine. The added site is located on the Huron River at the Fort Street bridge crossing. A current map of all water quality monitoring sites is located at the Chemistry and Flow Monitoring website.

2. Samples will be collected at least twice during the permit cycle, not including the data included from previous monitoring. Sampling years will be in year one and year four. At least one sampling event will take place at each of the nine sites. An effort will be made to sample water quality parameters during a representative (i.e. >0.25" and <1.5") wet-weather event. For these wet-weather events, samples will be collected during the rising period of the flow hydrograph or within 6 hours of the peak storm flow. Currently, sampling under the ADW monitoring program occurs much more frequently than this – twice per month, April through September each year, with additional sampling at 3-4 upstream investigative sites each year. Several wet-weather events are sampled during this schedule, plus an autosampler is used to sample multiple times during wet weather events from the beginning of the storm to after peak flow. The ADW plans to continue this monitoring regime, though it commits to twice during the permit cycle.

3. Samples will be collected following procedures identified in ADW's Monitoring Program QAPP (see Appendix A). Samples will be analyzed by the Ypsilanti Community Utility Authority Laboratory or other certified lab for the following concentrations: Total Phosphorus (TP), Total Suspended Solids (TSS), and *E. coli.*

4. Stream flow estimates will be obtained from existing stations during the dates and times water quality samples are collected.

5. The pollutant concentrations and stream flow estimates will be used to update pollutant loading models and estimate pollutant load reductions. These results will be summarized in a brief report to be shared with the public via HRWC and/or MS4 websites at least twice during the permit cycle.

6. Depending on the results from long-term monitoring sites, additional short-term investigative sites will be selected upstream in attempt to identify potential source areas. These sites will be sampled within an hour of sampling at the downstream site so that results can be compared and better define pollutant source locations. Results from this investigation will be shared with the appropriate contacts under the Illicit Discharge Elimination Program (see separate IDEP plan).

7. Any sites with sample results above the previously listed TMDL targets will be resampled to confirm and average results.

8. A plan for implementing BMPs in TMDL areas was developed and described in section II and a list of BMPs to be implemented by MS4s was included with each MS4's permit application. BMP implementation will begin within a year in these areas. If after implementation of high-priority BMPs TMDL targets continue to be exceeded or target parameter values increase in severity, MS4s will re-evaluate the plan and begin implementing additional high or medium-priority BMPs within a year after making this determination. BMPs will be selected for implementation according to the strategy described in section II.

9. Based on a review of year one and year four data and summary reports, BMP implementation will be reviewed and BMP implementation plans may be updated or revised to ensure progress toward achieving TMDL pollutant load reductions. BMPs that are employed will be evaluated using a before and after analysis of the parameter that is deemed impaired in a given TMDL. For bacteria TMDL areas, a sampling event with levels exceeding the single-sample *E. coli* standard will be compared to dry-weather sampling results (during warm-weather, productive months, or other conditions similar to original samples) after the BMP (or suite of BMPs) is deployed.

   For sediment-based TMDLs, wet-weather TSS sample results from before and after BMP implementation will be compared. Ideally, multiple samples will be collected before and several years after BMPs are implemented. A before-after decrease in target parameters will be considered "progress" toward TMDL targets. If the after-implementation results are below target water quality standards, the BMPs will be considered successful at meeting the TMDL targets for the waterbody sampled and the MS4s in the contributing area (watershed). If multiple samples are collected, trend lines will be established to determine the degree of progress towards TMDL targets. Geometric means of qualified (i.e. meeting sampling condition

requirements) post-implementation results will be used for *E. coli*, and simple means will be used for TSS results. Ultimately, to delist an impairment, additional sampling will be needed, which is beyond the scope of MS4 permit requirements to comply with water quality standards.

In addition to this stormwater sampling plan, ADW partners currently collect macroinvertebrates three times a year at sites throughout the Watershed (see Figure 2), which helps track progress towards the primary target of biota (sediment) TMDLs. Improvements in macroinvertebrate diversity (i.e. Procedure 51) will ultimately be necessary for delisting biota impairments. Sampling protocols for macroinvertebrates are also included in Appendix A, and results are reported along with water quality results in summary reports on the ADW Initiatives page. The most recent published complete report (2013) is included in Appendix B. Figure 2 illustrates the Fall 2014 status and trends of macroinvertebrate sampling sites.

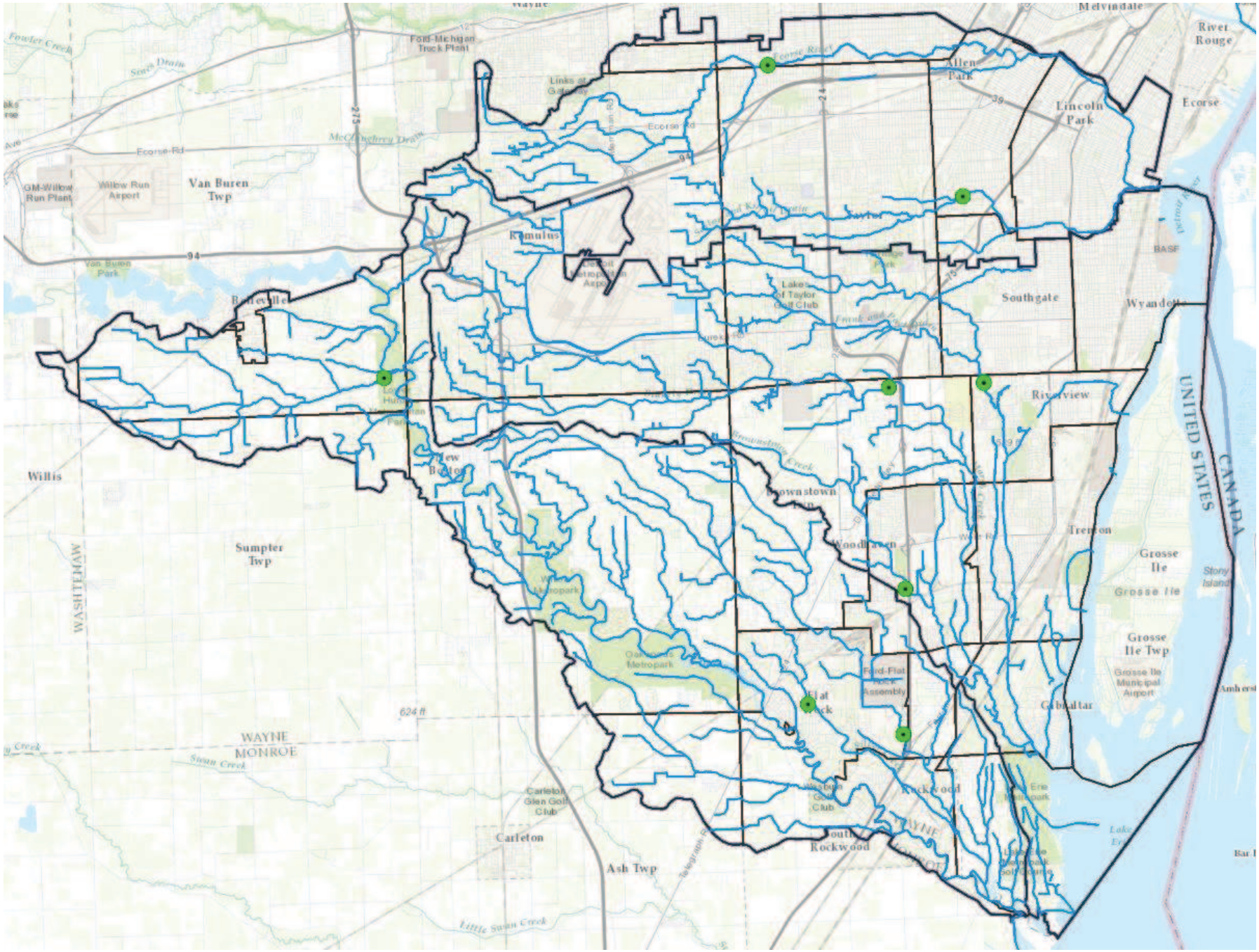

Figure 1. Long-term water quality monitoring stations in the Alliance of Downriver Watersheds

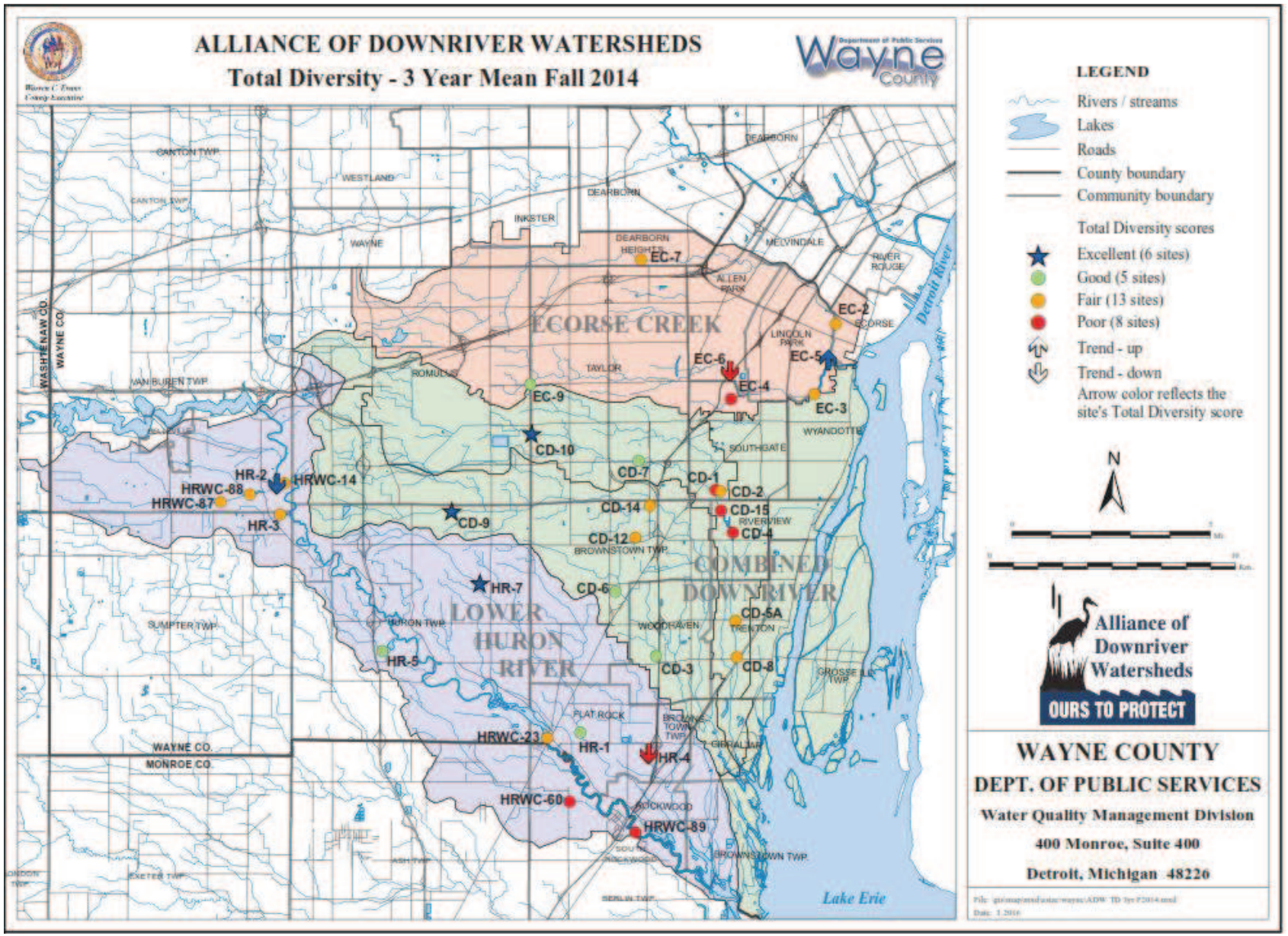

Figure 2. 2014 macroinvertebrate sampling locations and results in ADW.