

# SOUTHFIELD MS4 STORMWATER DISCHARGE APPLICATION

Permit No: MIG610027

Submitted by:



City of Southfield  
26000 Evergreen Rd.  
Southfield, MI 48076  
248-796-4806



*In collaboration with:*



46036 Michigan Ave., Suite 126  
Canton, Michigan 48188  
[www.allianceofcommunities.com](http://www.allianceofcommunities.com)

April 1, 2016



# State of Michigan

## National Pollutant Discharge Elimination System

### Permit Application for Discharge of Storm Water to Surface Waters of the State from a Municipal Separate Storm Sewer System

DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER RESOURCES DIVISION  
PERMITS SECTION  
TELEPHONE: 517-284-5568  
FAX: 517-241-9003



Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

**PURPOSE AND AUTHORITY**

The National Pollutant Discharge Elimination System (NPDES) Program protects the surface waters of the state by assuring that discharges of wastewater comply with state and federal regulations. Anyone discharging or proposing to discharge wastewater to the surface waters of the state are required to make application for and obtain a valid NPDES permit prior to wastewater discharge.

NPDES permits are required under Section 402 of the Federal Clean Water Act (the “Federal Act”), as amended (33 U.S.C. 1251 et seq., P.L. 92-500, 95-217), and under Part 31, Water Resources Protection, of Michigan’s “Natural Resources and Environmental Protection Act”, 1994 PA 451, as amended (NREPA). Part 31 of the NREPA also provides authority for the State to issue NPDES permits. The Michigan Department of Environmental Quality (DEQ) administers the NPDES permit program for the State of Michigan.

This Application should be used to apply for a storm water discharge from a regulated Municipal Separate Storm Sewer System (MS4) to the surface waters of the state.

**ELIGIBLE PERMITTEES**

Except as excluded below, any public body that owns or operates a regulated MS4 may be eligible for permit coverage including, but not limited to, the United States, the State of Michigan, a city, village, township, county, public school district, public college or university, a single purpose governmental agency, or any other governing body which is created by federal or state statute or law.

The DEQ will determine eligibility for permit coverage.

Nongovernmental entities, such as individuals, private schools, private colleges, and private universities, or industrial and commercial entities, are not eligible for permit coverage.

**PENALTIES**

The information in this Application is required by the Part 21 Rules of the NREPA. A municipality, business, or industry that violates the Part 21 Rules may be enjoined by action commenced by the Attorney General in a court of competent jurisdiction.

Federal and State laws provide penalties for submitting false application information. The laws imposing those penalties are cited below.

The Federal Act, Section 309(c)(4): “Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this chapter or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this chapter, shall upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or by both.”

The NREPA, Section 3115(2): “A person who at the time of the violation knew or should have known that he or she discharged a substance contrary to this part, or contrary to a permit or order issued or rule promulgated under this part, or who intentionally makes a false statement, representation, or certification in an application form pertaining to a permit or in a notice or report required by the terms and conditions of an issued permit, or who intentionally renders inaccurate a monitoring device or record required to be maintained by the department, is guilty of a felony and shall be fined not less than \$2,500.00 or more than \$25,000.00 for each violation. The court may impose an additional fine of not more than \$25,000.00 for each day during which the unlawful discharge occurred. If the conviction is for a violation committed after a first conviction of the person under this subsection, the court shall impose a fine of not less than \$25,000.00 per day and not more than \$50,000.00 per day of violation. Upon conviction, in addition to a fine, the court, in its discretion may sentence the defendant to imprisonment for not more than 2 years or impose probation upon a person for a violation of this part. With the exception of the issuance of criminal complaints, issuance of warrants, and the holding of an arraignment, the circuit court for the county in which the violation occurred has exclusive jurisdiction. However, the person shall not be subject to the penalties of this subsection if the discharge of the effluent is in conformance with and obedient to a rule, order, or permit of the department. In addition to a fine, the attorney general may file a civil suit in a court of competent jurisdiction to recover the full value of the injuries done to the natural resources of the state and the costs of surveillance and enforcement by the state resulting from the violation.”

The Michigan Department of Environmental Quality will not discriminate against any individual or group on the basis of race, sex, religion, age, national origin, color, marital status, disability, or political beliefs. Questions or concerns should be directed to the Office of Personnel Services, P.O. Box 30473, Lansing, MI 48909.

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

**Applicants for either new permit coverage or reissuance of a permit shall include all of the following requested information for Sections I-VIII.**

<b>SECTION I. APPLICANT NAME AND MAILING ADDRESS</b>	Current Permit/COC Number (if applicable)
------------------------------------------------------	-------------------------------------------

Additional Applicant Name Information

Street Address or P.O. Box	e-mail
----------------------------	--------

City or Village	State	ZIP Code
-----------------	-------	----------

Telephone (with area code)	FAX Number (with area code)
----------------------------	-----------------------------

<b>SECTION II. CONTACTS</b>	<input type="checkbox"/> Application Contact <input type="checkbox"/> Storm Water Program Manager <input type="checkbox"/> Storm Water Billing	First Name	Last Name		
		Title	Business		
		Address 1	Address 2		
		City	State	ZIP Code	
		Telephone (with area code)	FAX (with area code)	e-mail	
	<input type="checkbox"/> Application Contact <input type="checkbox"/> Storm Water Program Manager <input type="checkbox"/> Storm Water Billing	First Name	Last Name		
		Title	Business		
		Address 1	Address 2		
		City	State	ZIP Code	
		Telephone (with area code)	FAX (with area code)	e-mail	
	<input type="checkbox"/> Application Contact <input type="checkbox"/> Storm Water Program Manager <input type="checkbox"/> Storm Water Billing	First Name	Last Name		
		Title	Business		
		Address 1	Address 2		
		City	State	Zip Code	
		Telephone (with area code)	FAX (with area code)	e-mail	

**SECTION III.**  
 PERMIT ACTION REQUESTED:

New Authorization

Reissuance of Previous Authorization

Modification of Current Permit



Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

**SECTION IV. REGULATED AREA**

Provide a map identifying the urbanized area within the applicant's jurisdictional boundary as defined by the 2010 Census. The regulated municipal separate storm sewer system (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 in Section VI. that is located in an urbanized area and discharges storm water into surface waters of the state. The 2010 Census maps are located at [http://www.michigan.gov/documents/deq/wrd-stormwater-urbanizedareas\\_374344\\_7.pdf](http://www.michigan.gov/documents/deq/wrd-stormwater-urbanizedareas_374344_7.pdf)

Location of Urbanized Area Map: *e.g., Attachment A* \_\_\_\_\_

**SECTION V. OUTFALLS AND POINTS OF DISCHARGE**

Identify and provide the surface water of the state that receives the discharge from each of the applicant's outfalls and points of discharge in Table 1 or an alternative format. Please note that 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.

Outfalls and Points of Discharge Location Reference: *e.g., Attachment B* \_\_\_\_\_

**SECTION VI. 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.

**NESTED JURISDICTION NAME AND GENERAL DESCRIPTION:**

\_\_\_\_\_

**SECTION VII. 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.

When answering the questions in this section of the Application, the applicant's MS4 encompasses what the applicant identified in Sections IV, V, and VI, above. 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 [http://water.epa.gov/polwaste/npdes/swbmp/upload/measurablegoals.pdf#\\_ga=1.38737702.463004347.1438199466](http://water.epa.gov/polwaste/npdes/swbmp/upload/measurablegoals.pdf#_ga=1.38737702.463004347.1438199466).

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. It may be helpful to read all questions in each section first.***

**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.

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

1. Provide the ERP. The ERP shall include the applicant's expected response to violations to compel compliance with an ordinance or regulatory mechanism implemented by the applicant in the SWMP (e.g., written notices, citations, and fines). The ERP shall contain a method for tracking instances of non-compliance, including, as appropriate, the entity responsible for violating the applicant's ordinance or regulatory mechanism, the date and location of the violation, a description of the violation, a description of the enforcement response used, a schedule for returning to compliance, and the date the violation was resolved. The applicant may keep an electronic file or hard copy file of the enforcement tracking.

ERP Reference (page and paragraph of attachments): e.g., *Attachment A, Page 3, Section b.* \_\_\_\_\_

**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.

- Proposing to work collaboratively on any or all activities in the PPP during the permit cycle.

2. Provide the procedure 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.

Procedure Reference (page and paragraph of attachments): e.g., *Attachment A, Page 3, Section b.* \_\_\_\_\_

3. Provide the procedure for inviting public involvement and participation in the implementation and periodic review of the SWMP.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

**Public Education Program (PEP)**

The applicant shall describe the current and proposed BMPs to meet the minimum control measure requirements for the PEP 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 PEP during the permit cycle. The following questions represent the minimum requirements for the PEP. 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 VI.

- Proposing to work collaboratively on any or all activities in the PEP during the permit cycle.

4. Provide the procedure with the assessment of high priority, community-wide issues and targeted issues to reduce pollutants in storm water runoff as part of the PEP. The assessment shall include a list of the priority issues.

Procedure Reference (page and paragraph of attachments): e.g., *Attachment A, Page 3, Section b.* \_\_\_\_\_

Not applicable – PEP topics will not be prioritized.

5. The applicant shall identify applicable PEP topics below and, if prioritizing topics, prioritize based on the assessment in Question 4. The PEP topics may be prioritized as high, medium, and low or in order from 1-11 based on the assigned priority level (e.g., 1 being the highest priority topic and 11 being the lowest priority topic). For each applicable topic, identify the target audience; key message; delivery mechanism; year and frequency the BMP will be implemented; and the responsible party.

For each topic below, complete one or more of the following

- Fill out Table 2 for each applicable PEP topic.
- Reference the page number in your existing PEP document.
- Explain why the PEP activity is not applicable or a priority issue.

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

Priority Ranking \_\_\_\_\_

See Table 2

Attach existing approved PEP (page and paragraph of attachments): \_\_\_\_\_

Not applicable. Provide explanation below.

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

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.

Priority Ranking \_\_\_\_\_

See Table 2

Attach existing approved PEP (page and paragraph of attachments): \_\_\_\_\_

Not applicable. Provide explanation below.

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

Priority Ranking \_\_\_\_\_

See Table 2

Attach existing approved PEP (page and paragraph of attachments): \_\_\_\_\_

Not applicable. Provide explanation below.

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

Priority Ranking \_\_\_\_\_

See Table 2

Attach existing approved PEP (page and paragraph of attachments): \_\_\_\_\_

Not applicable. Provide explanation below.

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

Priority Ranking \_\_\_\_\_

See Table 2

Attach existing approved PEP (page and paragraph of attachments): \_\_\_\_\_

Not applicable. Provide explanation below.

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

Priority Ranking \_\_\_\_\_

See Table 2

Attach existing approved PEP (page and paragraph of attachments): \_\_\_\_\_

Not applicable. Provide explanation below.

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

Priority Ranking \_\_\_\_\_

See Table 2

Attach existing approved PEP (page and paragraph of attachments): \_\_\_\_\_

Not applicable. Provide explanation below.

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

Priority Ranking \_\_\_\_\_

See Table 2

Attach existing approved PEP (page and paragraph of attachments): \_\_\_\_\_

Not applicable. Provide explanation below.

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

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

Priority Ranking \_\_\_\_\_

See Table 2

Attach existing approved PEP (page and paragraph of attachments): \_\_\_\_\_

Not applicable. Provide explanation below.

J. Identify and educate commercial, industrial, and institutional entities likely to contribute pollutants to storm water runoff.

Priority Ranking \_\_\_\_\_

See Table 2

Attach existing approved PEP (page and paragraph of attachments): \_\_\_\_\_

Not applicable. Provide explanation below.

6. 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.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

**Illicit Discharge Elimination Program (IDEP)**

The applicant shall describe the current and proposed BMPs to meet the minimum control measure requirements for the IDEP 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 BMPs in the IDEP during the permit cycle (e.g., identify collaborative efforts in the procedures). The following questions represent the minimum control measure requirements for the IDEP. 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 VI.

The following definitions apply to the terms used below:

- **Illicit Discharge:** Any discharge to, or seepage into, an MS4 that is not composed entirely of storm water or uncontaminated groundwater except discharges pursuant to an NPDES permit. A discharge that originates from the applicant's property and meets the illicit discharge definition is considered an illicit discharge.
- **Illicit Connection:** A physical connection to an MS4 that primarily conveys non-storm water discharges other than uncontaminated groundwater into the MS4; or a physical connection not authorized or permitted by the local authority, where a local authority requires authorization or a permit for physical connections.

The following resources are available to assist with the development of an IDEP.

- The MDEQ has an IDEP Compliance Assistance Document available at [http://michigan.gov/documents/deg/wrd-storm-MS4-IDEP-ComplianceAssistance\\_473378\\_7.pdf](http://michigan.gov/documents/deg/wrd-storm-MS4-IDEP-ComplianceAssistance_473378_7.pdf).
- The Center for Watershed Protection has a guide available at [http://water.epa.gov/polwaste/npdes/stormwater/upload/idde\\_manualwithappendices.pdf#\\_ga=1.139876918.463004347.1438199466](http://water.epa.gov/polwaste/npdes/stormwater/upload/idde_manualwithappendices.pdf#_ga=1.139876918.463004347.1438199466).

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

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.

The map (or maps) is available at the following location: e.g., *The Department of Public Works front office* \_\_\_\_\_

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

Illicit Discharge Identification and Investigation

8. Provide the procedure for prioritizing the applicant's MS4 for detecting non-storm water discharges. The goal of the prioritization process is to target areas with high illicit discharge potential. The procedure shall document the process for selecting each priority area using the list below.
- 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

- Procedure Reference (page and paragraph of attachments): *e.g., Attachment A, Page 3, Section b* \_\_\_\_\_
- Not applicable – The applicant will perform illicit discharge identification and investigation throughout the entire MS4. Skip to Question 10.

9. Provide 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.

IDEP Prioritized Areas (page and paragraph of attachments): \_\_\_\_\_

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 |                       |

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

11. Provide the procedure 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.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

12. Provide the procedure 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.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

13. Provide the procedure 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.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

14. Provide the procedure 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 investigations as appropriate.

- Procedure Reference (page and paragraph of attachments): \_\_\_\_\_
- Not applicable – Field observations will be conducted at all outfalls and points of discharge

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

15. Provide the procedure that 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.*)

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

16. If the procedures requested in Questions 8 through 14 do not accurately reflect the applicant's procedure(s), describe the alternative approach to meet the minimum requirements.

Not applicable

17. Provide the procedure 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.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

IDEP Training and Evaluation

18. Provide the program 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.

Program Reference (page and paragraph of attachments): \_\_\_\_\_

19. Provide the procedure 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.*

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

Illicit Discharge Ordinance or Other Regulatory Mechanism

20. Provide the ordinance or regulatory mechanism in effect that prohibits non-storm water discharges into the applicant's MS4 (except the non-storm water discharges addressed in Questions 21 and 22).

Ordinance number(s) or regulatory mechanism title(s) (attach a copy): \_\_\_\_\_

21. Does the ordinance or other regulatory mechanism exclude prohibiting the discharges or flows from firefighting activities to the applicant's MS4 and require 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.

- Yes, ordinance or regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_  
 Not applicable – All non-storm water discharges into the applicant's MS4 will be prohibited.

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

22. Does the ordinance or other regulatory mechanism prohibit 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.)

- Yes, ordinance or regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_  
 Not applicable – All non-storm water discharges into the applicant's MS4 will be prohibited.

23. Provide the ordinance or regulatory mechanism that regulates the contribution of pollutants to the applicant's MS4.

Ordinance or regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_

24. Provide the ordinance or regulatory mechanism that prohibits illicit discharges, including illicit connections and the direct dumping or disposal of materials into the applicant's MS4.

Ordinance or regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_

25. Provide the ordinance or regulatory mechanism with the authority established to inspect, investigate, and monitor suspected illicit discharges into the applicant's MS4.

Ordinance or regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_

26. Provide the ordinance or regulatory mechanism that requires and enforces elimination of illicit discharges into the applicant's MS4, including providing the applicant the authority to eliminate the illicit discharge.

Ordinance or regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_

**Construction Storm Water Runoff Control Program**

The applicant shall describe the current and proposed BMPs to meet the minimum control measure requirements for the construction storm water runoff control program 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 requirements of this program during the permit cycle. The following questions represent the minimum control measure requirements for the construction storm water runoff control program. 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 VI.

- Proposing to work collaboratively on any or all requirements of the Construction Storm Water Runoff Control Program during the permit cycle.

Qualifying Local Soil Erosion and Sedimentation Control Programs

27. Is the applicant a Part 91 Agency? A list of Part 91 agencies is available at [http://www.michigan.gov/deq/0,4561,7-135-3311\\_4113-8870--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3311_4113-8870--,00.html).

- Yes. Choose type:  County Enforcing Agency  Municipal Enforcing Agency  Authorized Public Agency  
 No, the applicant relies on the following Qualifying Local Soil Erosion and Sedimentation Control Program (Part 91 Agency)

\_\_\_\_\_



Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

Construction Storm Water Runoff Control

28. Provide the procedure 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.

Procedure Reference (page and paragraph of attachments): *e.g., Attachment A, Page 3, Section b* \_\_\_\_\_

29. Provide the procedure for when 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.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

30. Provide the procedure 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.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

31. Provide the procedure 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).

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

**Post-Construction Storm Water Runoff Program**

Post-construction storm water 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.

The applicant shall describe the current and proposed BMPs to meet the minimum control measure requirements for the post-construction storm water runoff program to the maximum extent practicable, which shall be incorporated into the SWMP. Please complete the questions below as appropriate. If the "No" response is selected but a date is requested for the minimum requirement to be available, please provide a date to meet the minimum requirement. All dates provided by the applicant in this Application should be on or before **October 1, 2016**. Some questions are set up to allow for additional responses to meet the minimum requirements. If space is not available for an additional response, then the minimum requirement must be met in accordance with the question. 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 VI.

An applicant may reference in its ordinance or regulatory mechanism other technical documents used to implement the post-construction storm water runoff program. For example, an applicant may answer a question with a reference to a performance or technical standards document in the ordinance **and** the reference in the technical document. When referencing the ordinance, regulatory mechanism, or other technical documents, attach the document and provide the page and paragraph reference.

The MDEQ has the following resources available to assist with development of a Post-Construction Storm Water Runoff Program.

- A Post-Construction Storm Water Runoff Program Compliance Assistance Document available at [www.michigan.gov/documents/deq/wrd-storm-MS4-ComplianceAssistance\\_470350\\_7.pdf](http://www.michigan.gov/documents/deq/wrd-storm-MS4-ComplianceAssistance_470350_7.pdf)
- A manual titled *Low Impact Development Manual for Michigan* available at <http://www.semcoq.org/LowImpactDevelopment.aspx>. Chapter 9 of the manual provides a methodology for addressing post-construction storm water runoff.

Ordinance or Other Regulatory Mechanism

32. Is an ordinance or other regulatory mechanism in effect 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.

Yes, ordinance or regulatory mechanism reference (page and paragraph of attachments): *e.g., Attachment A, Pages 1-15* \_\_\_\_\_  
 No, the ordinance or regulatory mechanism will be available on \_\_\_\_\_

33. Does the ordinance or other regulatory mechanism apply 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?

Yes, ordinance or regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_  
 No, the ordinance or regulatory mechanism will be available on \_\_\_\_\_



Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

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?

- Yes
- No, skip to Question 36

35. Is the applicant implementing the post-construction storm water runoff control requirements in Section 438 of the Energy Independence and Security Act? A guidance document is available at [http://www.epa.gov/greeningepa/documents/epa\\_swm\\_guidance.pdf](http://www.epa.gov/greeningepa/documents/epa_swm_guidance.pdf)

- Yes, regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_
- No, the regulatory mechanism will be available on \_\_\_\_\_

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. Ordinance or other regulatory mechanism reference (page and paragraph of attachments) \_\_\_\_\_ Skip to Question 38.
- Treat the runoff generated from 90 percent of all runoff-producing storms for the project site. Ordinance or other regulatory mechanism reference (page and paragraph of attachments) \_\_\_\_\_
- No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_
- The ordinance or other regulatory mechanism is/will be available on \_\_\_\_\_ and includes the following water quality treatment standard. Provide an explanation as to how the water quality treatment standard will prevent or minimize water quality impacts.

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

- The MDEQ's memo dated March 24, 2006 providing the 90 percent annual non-exceedance storm statistics. The memo is available at [http://www.michigan.gov/documents/deq/lwm-hsu-nps-ninety-percent\\_198401\\_7.pdf](http://www.michigan.gov/documents/deq/lwm-hsu-nps-ninety-percent_198401_7.pdf).
- An analysis of at least ten years of local published rain gauge data following the method in the March 25, 2006, MDEQ memo titled *90 Percent Annual Non-Exceedance Storms* cited above.
- Other rainfall data source (page and paragraph of attachments) \_\_\_\_\_

38. Does the ordinance or other regulatory mechanism require 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 milligram per liter?

- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_
- No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_
- The ordinance or other regulatory mechanism defines treatment as follows:

Channel Protection Performance Standard

39. Does the ordinance or other regulatory mechanism require that the post-construction runoff rate and volume of discharges not exceed the pre-development rate and volume for all storms up to the 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. A spreadsheet to assist with these calculations is available at [www.michigan.gov/documents/deq/wb-storm-MS4-RunoffVolume\\_331235\\_7.xls](http://www.michigan.gov/documents/deq/wb-storm-MS4-RunoffVolume_331235_7.xls)

- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_
- No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_
- The ordinance or other regulatory mechanism is/will be available on \_\_\_\_\_ and includes the following channel protection standard. Provide an explanation as to how the channel protection standard will prevent or minimize water quality impacts.

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

40. Does the ordinance or other regulatory mechanism exclude any waterbodies from the channel protection performance standard? 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).
- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_
- No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_
- Not applicable

Site-Specific Requirements

41. Provide the procedure 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.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

42. Does the ordinance or other regulatory mechanism require 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.
- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_
- No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_

Off-Site Mitigation and Payment in Lieu Programs

43. Does the ordinance or other regulatory mechanism 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 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.*
- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_
- No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_
- Not pursuing this option

44. Does the ordinance or other regulatory mechanism 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.*
- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_
- No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_
- Not pursuing this option. If "not pursuing this option" was selected for both Questions 43 and 44, skip to Question 52.

45. Does the ordinance or other regulatory mechanism establish 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.
- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_
- No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

46. Does the ordinance or other regulatory mechanism establish 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.*

- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_  
 No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_  
 The ordinance or other regulatory mechanism requires the following:

47. Does the ordinance or other regulatory mechanism require 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?

- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_  
 No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_  
 The ordinance or other regulatory mechanism requires the following:

48. Does the ordinance or other regulatory mechanism require 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?

- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_  
 No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_  
 The ordinance or other regulatory mechanism requires the following:

49. Does the ordinance or other regulatory mechanism require 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.*

- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_  
 No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_  
 The ordinance or other regulatory mechanism requires the following:

50. Does the ordinance or other regulatory mechanism require that offsets and in-lieu projects be preserved and maintained in perpetuity, such as deed restrictions and long-term operation and maintenance?

- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_  
 No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_  
 The ordinance or other regulatory mechanism requires the following:

51. Describe the tracking system implemented, or to be implemented, to track off-site mitigation and/or in-lieu projects.

52. Are there 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? The applicant shall demonstrate how the exception provides an equivalent or greater level of protection as the performance standards.

- Yes, demonstration reference (page and paragraph of attachments): \_\_\_\_\_  No

Site Plan Review

53. Does the ordinance or other regulatory mechanism include a requirement to submit a site plan for review and approval of post-construction storm water runoff BMPs?

- Yes, ordinance or regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_  
 No, the ordinance or regulatory mechanism will be available on \_\_\_\_\_

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

54. Provide the procedure for site plan review and approval.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

55. Provide the reference in the site plan review and approval procedure to the process for determining how the developer meets the performance standards and ensures long-term operation and maintenance of BMPs.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

Long-Term Operation and Maintenance of BMPs

56. Does the ordinance or other regulatory mechanism require the long-term operation and maintenance of all structural and vegetative BMPs installed and implemented to meet the performance standards in perpetuity?

- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_  
 No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_

57. Does the ordinance or other regulatory mechanism require 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?

- Yes, ordinance or other regulatory mechanism reference (page and paragraph of attachments): \_\_\_\_\_  
 No, the ordinance or other regulatory mechanism will be available on \_\_\_\_\_  
 The ordinance or other regulatory mechanism requires the following:

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.

59. Provide the procedure for tracking compliance with a maintenance agreement or other legal mechanism to ensure the performance standards are met in perpetuity.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

**Pollution Prevention and Good Housekeeping Program**

The applicant shall describe the current and proposed BMPs to meet the minimum control measure requirements for the Pollution Prevention and Good Housekeeping Program to the maximum extent practicable, which shall be incorporated into the SWMP. The applicant shall develop and implement a Pollution Prevention and Good Housekeeping Program to prevent or reduce the discharge of pollutants from municipal facilities and operations.

The following definitions apply to the terms used below:

- Fleet: A group of vehicles owned or operated as a unit.
- Maintenance (includes, but not limited to): adding/changing vehicle fluids, fueling, lubrication, painting, mechanical repairs, parts degreasing, and vehicle/equipment washing.
- Storage Yard (includes, but not limited to): areas where vehicles are stored longer than overnight/weekend; areas where road maintenance materials are stored; areas where vehicle maintenance materials are stored; areas where chemicals in bulk are stored; areas where catch basin cleaning wastes are stored; and areas where maintenance equipment such as mowers, tractors, vector trucks, and sweepers is stored.

Please complete the questions below as appropriate. A "Not Applicable" response is appropriate in cases where the applicant does not own or operate a municipal facility or storm water structural control or does not perform the operation in the question. 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 VI.

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

Municipal Facility and Structural Storm Water Control Inventory

60. Provide an up-to-date inventory of 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).**

Inventory Reference (Page and Paragraph of Attachments): e.g., Attachment A, Page 3, Section b \_\_\_\_\_

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

- |                                                                 |                                                     |
|-----------------------------------------------------------------|-----------------------------------------------------|
| <input type="checkbox"/> Administration buildings and libraries | <input type="checkbox"/> Animal Control Building    |
| <input type="checkbox"/> Airports                               | <input type="checkbox"/> Cemeteries                 |
| <input type="checkbox"/> Chemical storage facilities            | <input type="checkbox"/> Fire Stations              |
| <input type="checkbox"/> Fuel Farms                             | <input type="checkbox"/> Parks                      |
| <input type="checkbox"/> Police Stations                        | <input type="checkbox"/> Public golf courses        |
| <input type="checkbox"/> Public parking lots                    | <input type="checkbox"/> Public schools             |
| <input type="checkbox"/> Recycling facilities                   | <input type="checkbox"/> Vacant land and open space |
| <input type="checkbox"/> Vehicle storage                        |                                                     |

Facilities that may have the high potential to discharge pollutants:

- |                                                                                |                                                                       |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <input type="checkbox"/> Bus Stations and Garages                              | <input type="checkbox"/> Composting facilities                        |
| <input type="checkbox"/> Hazardous waste handling/disposal/transfer facilities | <input type="checkbox"/> Equipment storage and maintenance facilities |
| <input type="checkbox"/> Fleet maintenance facilities                          | <input type="checkbox"/> Materials storage and Public Works yards     |
| <input type="checkbox"/> Outdoor wash areas                                    | <input type="checkbox"/> Salt storage facilities                      |

Other facilities – Provide a description below:

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

- |                                                |                                                              |
|------------------------------------------------|--------------------------------------------------------------|
| <input type="checkbox"/> Catch basins          | <input type="checkbox"/> Constructed wetlands                |
| <input type="checkbox"/> Detention basins      | <input type="checkbox"/> Infiltration basins and trenches    |
| <input type="checkbox"/> Oil/water separators  | <input type="checkbox"/> Porous pavement                     |
| <input type="checkbox"/> Pump Stations         | <input type="checkbox"/> Rain gardens                        |
| <input type="checkbox"/> Secondary containment | <input type="checkbox"/> Underground storage vaults or tanks |
| <input type="checkbox"/> Vegetated swales      |                                                              |

Other structural storm water controls – Provide a description below:

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: \_\_\_\_\_

62. Provide the procedure 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. *A suggested timeframe for updating/revising the inventory and map(s) is 30 days following adding/removing a facility or structural storm water control.*

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

Facility-Specific Storm Water Management

63. Provide the procedure 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

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

Not Applicable – 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.

64. Provide the list of prioritized facilities 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 submit a demonstration with a description of how the applicant's fleet maintenance and storage yard has the low potential to discharge pollutants to surface waters of the state.

Prioritized Facility List (page and paragraph of attachments): \_\_\_\_\_

Fleet Maintenance and Storage Yard Demonstrations (page and paragraph of attachments): \_\_\_\_\_

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

Not Applicable – The applicant does not own or operate any facilities with the high potential for pollutant runoff. Skip to Question 70.

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 (page and paragraph of attachments): \_\_\_\_\_

*This space is available to reference multiple site-specific SOPs*

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 (page and paragraph of attachments): \_\_\_\_\_

*This space is available to reference multiple site-specific 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 (page and paragraph of attachments): \_\_\_\_\_

*This space is available to reference multiple site-specific SOPs*

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

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 (page and paragraph of attachments): \_\_\_\_\_

*This space is available to reference multiple site-specific SOPs*

70. Provide the procedure 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.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

Structural Storm Water Control Operation and Maintenance Activities

71. Provide the procedure 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.*

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

Not Applicable – The applicant does not own or operate catch basins. Skip to Question 75.

72. Provide the geographic location of the catch basins in each priority level using either a narrative description or map.

Catch Basin Priority Location (page and paragraph of attachments): \_\_\_\_\_

73. Provide the procedure 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. *A compliance assistance document titled Catch Basin Cleaning Activities Guidance Document is available at [http://www.michigan.gov/documents/deq/wb-stormwater-CatchBasinGuidance\\_216198\\_7.pdf](http://www.michigan.gov/documents/deq/wb-stormwater-CatchBasinGuidance_216198_7.pdf).*

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

74. Provide the procedure for dewatering, storage, and disposal of materials extracted from catch basins. *A compliance assistance document titled Catch Basin Cleaning Activities Guidance Document is available at [http://www.michigan.gov/documents/deq/wb-stormwater-CatchBasinGuidance\\_216198\\_7.pdf](http://www.michigan.gov/documents/deq/wb-stormwater-CatchBasinGuidance_216198_7.pdf).*

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

75. Provide the procedure for inspecting and maintaining the 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. 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.*

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

Not Applicable – Applicant does not own or operate any structural storm water controls

76. Provide the procedure 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.

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

Municipal Operations and Maintenance Activities

77. Provide the procedure with the assessment of the applicant's operation and maintenance activities 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
- Right-of-way maintenance
- Unpaved road maintenance
- Cold weather operations (e.g., plowing, sanding, application of deicing agents, and snow pile disposal)
- Vehicle washing and maintenance of applicant-owned vehicles (e.g., police, fire, school bus, public works)

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

Not Applicable – Provide an explanation below.

78. Provide the procedure 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.*

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

Not Applicable – The applicant does not own or operate any streets, parking lots, or other impervious infrastructure. Skip to Question 82.

79. Provide the geographic location of the streets, parking lots, and other impervious surfaces in each priority level using either a narrative description or map.

Street Sweeping Priority Location (page and paragraph of attachments): \_\_\_\_\_

80. Provide the procedure 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.*

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

81. Provide the procedure for dewatering, storage, and disposal of street sweeper waste material. *A compliance assistance document titled Catch Basin Cleaning Activities Guidance Document is available at [http://www.michigan.gov/documents/deq/wb-stormwater-CatchBasinGuidance\\_216198\\_7.pdf](http://www.michigan.gov/documents/deq/wb-stormwater-CatchBasinGuidance_216198_7.pdf).*

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

Managing Vegetated Properties

82. Provide the procedure 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 categories is located at [http://www.michigan.gov/mdard/0,4610,7-125-1569\\_16988\\_35289-11992--,00.html](http://www.michigan.gov/mdard/0,4610,7-125-1569_16988_35289-11992--,00.html)

Procedure Reference (page and paragraph of attachments): \_\_\_\_\_

Not Applicable – Provide an explanation below (e.g., the applicant's pesticide applicator only uses ready-to-use products from the original container).



Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

Contractor Requirements and Oversight

83. Provide the procedure 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.

Procedure Reference (Page and Paragraph of Attachments): \_\_\_\_\_

Employee Training

84. Provide the employee training program 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.

Program Reference (Page and Paragraph of Attachments): \_\_\_\_\_

**Total Maximum Daily Load (TMDL) Implementation Plan**

The following questions address discharges to impaired waters with a USEPA approved TMDL that includes a pollutant load allocation assigned to the permittee's MS4. BMPs shall be implemented to reduce the discharge of the TMDL pollutant from the MS4 to make progress in meeting Water Quality Standards. Applicable TMDLs are TMDLs approved prior to the applicant being notified of the need to apply for permit reissuance. Applicable TMDLs for the applicant were provided in the application notice letter.

The applicant shall describe the current and proposed BMPs to meet the minimum requirements for the TMDL Implementation Plan, 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 TMDL Implementation Plan during the permit cycle. The following questions represent the minimum requirements for a TMDL Implementation Plan. Please complete the following questions as appropriate. 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 VI.

The USEPA has a document to assist with developing a TMDL Implementation Plan available at [http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/upload/region3\\_factsheet\\_tmdl.pdf](http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/upload/region3_factsheet_tmdl.pdf).

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

85. Was a TMDL included in the applicant's application notice?

Yes, the following approved USEPA TMDL(s) was included in my application notice letter:

No, Skip to Section VIII.

86. Provide the procedure 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.

Procedure Reference (page and paragraph of attachments): *e.g., Attachment A, Page 3, Section b* \_\_\_\_\_

87. Provide the list of 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.

TMDL BMP Priority List (page and paragraph of attachments): \_\_\_\_\_

88. Provide the monitoring plan 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.*

TMDL Monitoring Plan (page and paragraph of attachments): \_\_\_\_\_

Michigan Department of Environmental Quality – Water Resources Division  
**STORM WATER DISCHARGE PERMIT APPLICATION**

**SECTION VIII. CERTIFICATION**

Rule 323.2114(1-4), promulgated under the NREPA, requires that this Application be signed by either a principal executive officer or ranking elected official (e.g., mayor, village president, city or village manager, or clerk). Note: If the signatory is not a principal executive officer or ranking elected official, but is authorized to sign the Application, please provide documentation of the authorization.

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for having knowledge of violations."*

I understand that my signature constitutes a legal agreement to comply with the requirements of the NPDES Permit. I certify under penalty of law that I possess full authority on behalf of the legal owner/permittee to sign and submit this Application. I certify to the best of my knowledge that it is true, accurate and meets the minimum permit requirements for a SWMP to the MEP.

Print Name:

Title:

Representing:

Signature:

Date:

## STORM WATER DISCHARGE PERMIT APPLICATION

Table 2: Public Education Program Best Management Practices (BMPs)

PEP Topic	BMP Identifier	BMP Descriptor	Partner Collaboration	Target Audience	Key Messages	Delivery Mechanism	Year	Frequency	Responsible Party	Measurable Goal
A B C D E F G H I	1	Distribute pollution prevention literature on various topics through brochures, educational materials and other media	ARC member communities, counties and cooperative partners	General public	Educating on public connection of MS4 to area waterbodies, public reporting illicit discharge, septic system care and failure, proper disposal of pesticides, herbicides and fertilizers, public responsibility and stewardship in the Rouge River watershed, proper disposal of grass, leaf and animal wastes, promote HHHW including trailer, motor vehicle and chemical waste, GI and LID, cleaning materials and proper car, pavement and power washing.	Brochures, educational materials and electronic media	Ongoing	Current and new items annually	ARC member communities listed in Appendix D, Attachment A	Amount of materials distributed, number of views through electronic media
A B C D E F G H I J	2	Coordinate existing and create new community articles and ad graphics on pollution prevention and watershed restoration and stewardship	ARC member communities, counties and cooperative partners	General public, businesses	Educating on connection of MS4 to area waterbodies, public reporting illicit discharge, septic system care and failure, proper disposal of pesticides, herbicides and fertilizers, public responsibility and stewardship in the Rouge River watershed, proper disposal of grass, leaf and animal wastes, promote HHHW including trailer, motor vehicle and chemical waste, GI and LID, cleaning materials and proper car, pavement and power washing and educate commercial, industrial and educational institutional entities about pollution prevention.	Articles and ad graphics	Ongoing	Current items annually; five new articles and/or ad graphics during the permit cycle	ARC member communities listed in Appendix D, Attachment A	List of articles/ad graphics distributed, number of views on websites/social media
A B C D	3	Provide static displays and posters on pollution	ARC member communities, counties and	General public	Educating on connection of MS4 to area waterbodies, public reporting illicit discharge, septic system care	Static displays and posters	Current displays – ongoing; new	Current displays annually; up to 4 new	ARC member communities listed in	Date and title of events static displays used at, number of posters distributed annually and




PEP Topic	BMP Identifier	BMP Descriptor	Partner Collaboration	Target Audience	Key Messages	Delivery Mechanism	Year	Frequency	Responsible Party	Measurable Goal
E F G H I		prevention and watershed restoration and stewardship	cooperative partners		and failure, proper disposal of pesticides, herbicides and fertilizers, public responsibility and stewardship in the Rouge River watershed, proper disposal of grass, leaf and animal wastes, promote HHHW including trailer, motor vehicle and chemical waste, GI and LID, cleaning materials and proper car, pavement and power washing.		posters in 2016 and new displays during the permit cycle	posters in 2016 and then annually; new static displays annually upon completion	Appendix D, Attachment A	where posters were displayed
A B C E G J	4	Promote environmental hotlines to educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4	ARC member communities, Wayne County, Oakland County, Washtenaw County, State of Michigan	General public, municipal employees and businesses	Educating on connection of MS4 to area waterbodies, public reporting illicit discharge, public responsibility and stewardship in the Rouge River watershed, proper disposal of pesticides, herbicides and fertilizers, promote HHHW including trailer, motor vehicle and chemical waste, educate commercial, industrial and educational institutional entities about pollution prevention.	Websites, social media, brochures, electronic media, at events and trainings	Ongoing	Annually	ARC member communities listed in Appendix D, Attachment A	Number of materials distributed and number of views on website/social media
A B C D E F G H I	5	Development of "homeowners" materials to promote the importance of pollution prevention and watershed restoration and stewardship	ARC member communities, counties and cooperative partners	General public	Educating on connection of MS4 to area waterbodies, public reporting illicit discharge, septic system care and failure, proper disposal of pesticides, herbicides and fertilizers, public responsibility and stewardship in the Rouge River watershed, proper disposal of grass, leaf and animal wastes, promote HHHW including trailer, motor vehicle and chemical waste, GI and LID, and cleaning materials and proper car, pavement and power washing	Brochure	During the permit cycle	Annually	ARC member communities listed in Appendix D, Attachment A	Number of materials distributed
A B C D E F G H I	6	Develop and promote educational workshops and presentations	ARC member communities, Friends of the Rouge and counties and cooperative partners	General public, businesses	Educating on connection of MS4 to area waterbodies, public reporting illicit discharge, septic system care and failure, proper disposal of pesticides, herbicides and fertilizers, public responsibility and stewardship in the Rouge River watershed, proper	Workshops and presentations	Ongoing	6 during the permit cycle	ARC member communities listed in Appendix D, Attachment A	Sign-in sheets and topics from workshops/presentations and number of materials distributed


PEP Topic	BMP Identifier	BMP Descriptor	Partner Collaboration	Target Audience	Key Messages	Delivery Mechanism	Year	Frequency	Responsible Party	Measurable Goal
J					disposal of grass, leaf and animal wastes, promote HHHW including trailer, motor vehicle and chemical waste, GI and LID, cleaning materials and proper car, pavement and power washing and educate commercial, industrial and educational institutional entities about pollution prevention.					
A B C D E F G H I J	7	Promote and support volunteer activities	ARC member communities, Wayne County, Oakland County, Washtenaw County, Friends of the Rouge, Cranbrook Institute of Science, University of Michigan - Dearborn	General public, businesses and schools	Promoting the importance of volunteer activities in the Rouge River Watershed such as River Day, Rouge Rescue, workdays, water festivals and green schools programs will encourage public responsibility and stewardship in the Rouge River.	Website/social media, materials distributed and presentations and workdays	Ongoing	Promotion of activities will be annually and up to 4 workdays may be hosted during the permit cycle	ARC members listed in Appendix D, Attachment A	Number of views on website/social media, number of volunteers attending various events and survey results from various events
A B C I J	8	Promotion and support volunteer monitoring activities within the Rouge River Watershed	ARC member communities, Wayne County, Oakland County, Washtenaw County, Friends of the Rouge	General public and businesses	Promote the importance of pollution prevention and watershed restoration and stewardship through volunteer monitoring. This monitoring may include general macroinvertebrates, stoneflies, and frogs and toads and/or fish. Volunteer monitoring will provide education, build stewardship and provided valuable data for the protection and restoration of the Rouge River.	Website/social media, materials distributed and presentations	Ongoing	Minimum of once during the permit cycle with 1 Winter Stonefly Search and 1 Spring Bug Hunt or other like programs, 1 Fall Bug Hunt and 2 other volunteer monitoring training exercises and/or workshops	ARC members listed in Appendix D, Attachment A	Number of public and businesses attending monitoring events and survey results from various events

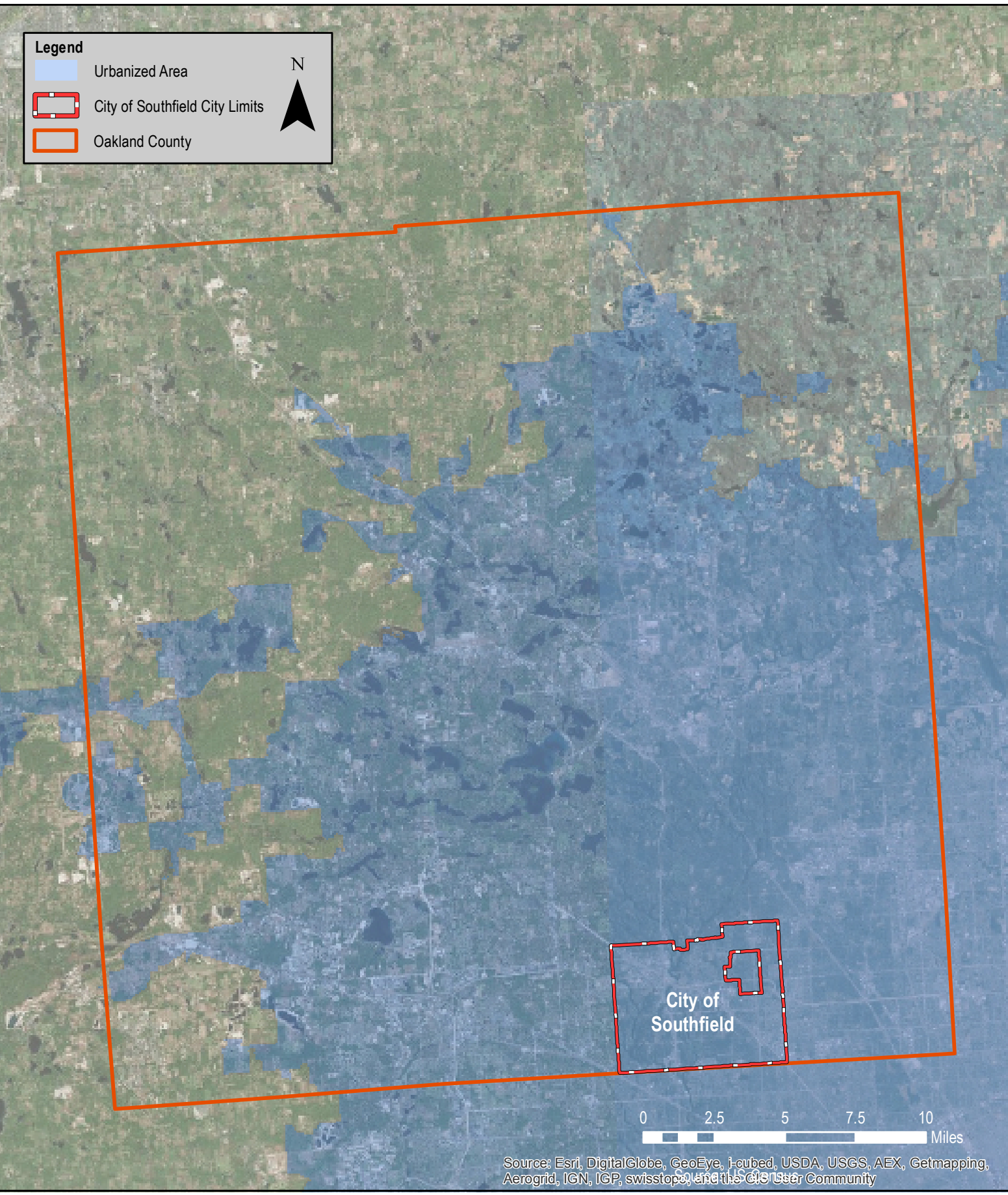
PEP Topic	BMP Identifier	BMP Descriptor	Partner Collaboration	Target Audience	Key Messages	Delivery Mechanism	Year	Frequency	Responsible Party	Measurable Goal
A B F I	9	Rouge River Watershed signage	ARC member communities, Wayne County, Oakland County, and Washtenaw County	General public	River/Road Crossing signs, Don't Feed the Geese/Waterfowl signs, and Grow Zone signs and disposal practices of animal waste or other pollution prevention topic. This activity helps to educate and increase public awareness about the interconnectedness of the watershed and the storm sewer system.	Signs and sticker	Ongoing and one new sign and/or bumper sticker during the permit cycle	Annually	ARC members listed in Appendix D, Attachment A	Documentation of current signage, maintenance required, and future signage placement and the number of new signs/stickers distributed
A B C D E F G H I J	10	Continued participation in regional partnership activities	ARC member communities, Wayne County, Oakland County, Washtenaw County, SEMCOG, and various other organizations as opportunities arise	Organizations, businesses and governmental agencies	To build partnerships with organizations like the Alliance of Downriver Watersheds, SEMCOG, Great Lakes Commission and other regional partners to coordinate storm water permit related public education and other storm water related initiatives.	Participate and collaborate with regional partners	Ongoing	Annually	ARC members listed in Appendix D, Attachment A	Meeting dates, summaries of activities and partner annual reports

**APPENDIX A**  
**Outfall and Point of Discharge Information**

**Legend**

-  Urbanized Area
-  City of Southfield City Limits
-  Oakland County

N  




Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

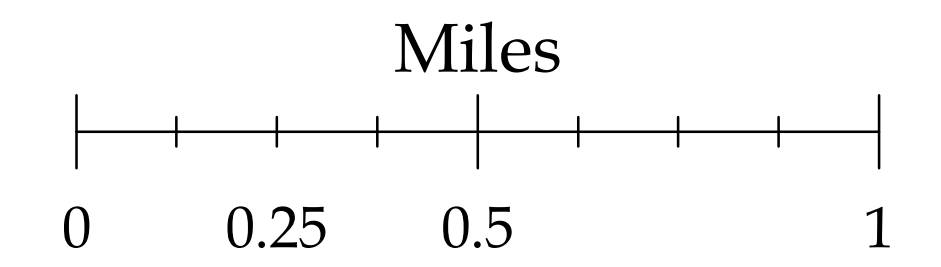
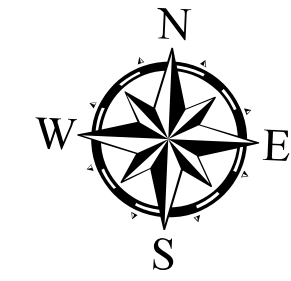
**City of Southfield - Urbanized Area**  
 Detroit Area Cluster  
 Alliance of Rouge Communities



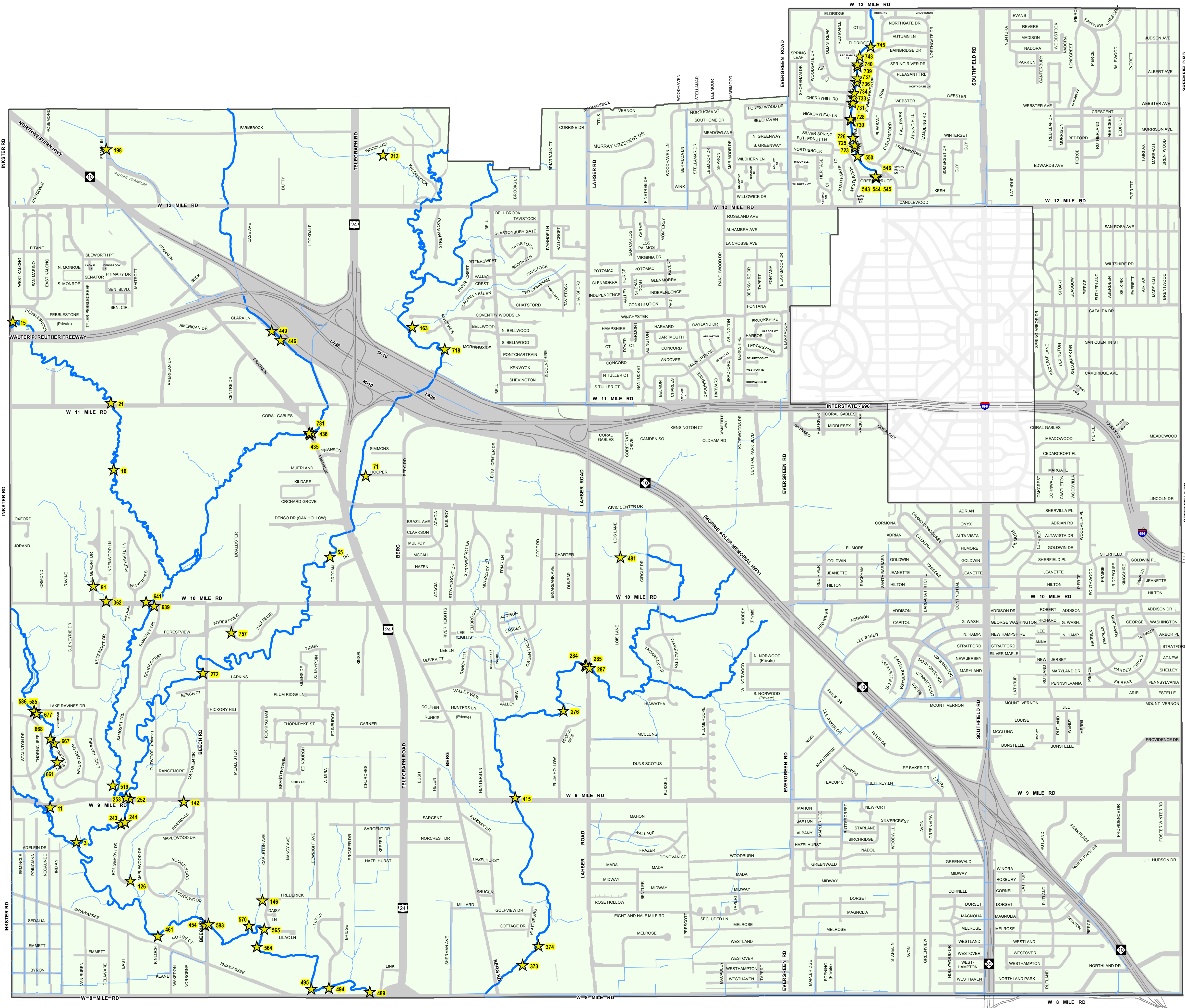
**Alliance of Rouge Communities**  
**OURS TO PROTECT**  
*Working together, restoring the river*



# Outfalls



- ★ Outfalls
- Rivers
- County Drains / Ditches / Streams





**APPENDIX B**  
**Enforcement Response Procedure**

# STANDARD OPERATING PROCEDURE FOR ENFORCEMENT RESPONSE

PREPARED FOR:

THE CITY OF SOUTHFIELD  
26000 EVERGREEN RD, SOUTHFIELD, MICHIGAN 48076



APRIL 2016

## **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 procedure for Enforcement Response to address violations of the ordinances or regulatory mechanism identified in the Stormwater Management Plan.

## **SECTION B – GENERAL PENALTY**

Section 1-15 defines the penalties levied by the City of Southfield for ordinance violations. The section defines penalties for misdemeanors and municipal civil infractions, as well as repeated offenses.

### **B.1 Section 1-15 – Penalty**

*“Unless another penalty is expressly provided by this Code for any particular provision or section, every person convicted of a violation of any provision of this Code or any rule or regulation adopted or issued in pursuance thereof shall be punished by a fine of not more than five hundred dollars (\$500.00) and costs of prosecution or by imprisonment for not more than ninety (90) days, or both such fine and imprisonment. Each act of violation and every day upon which any such violation shall occur shall constitute a separate offense. The penalty provided by this section, unless another penalty is expressly provided, shall apply to the amendment of any section of this Code whether or not such penalty is re-enacted in the amendatory ordinance.”*

## **SECTION C – PART 91 MUNICIPAL ENFORMENT AGENCY**

The City 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 is responsible for implementing and enforcing their Grading and Soil Erosion Control Ordinance.

### **C.1 Section 5-503 – Municipal Enforcement Agency**

*“The engineering department is hereby designated as the municipal enforcing agency responsible for administering and enforcing part 91, the rules, and this chapter.”*

### **C.2 Section 5-521 – Enforcement**

*“The city engineer or soil erosion engineer, in cooperation with the building department, may issue a stop work order, or revoke a permit upon its findings that there is a violation of part 91, the rules, or this chapter, or a finding that there is a violation of a permit or an approved soil erosion and sedimentation control plan.”*

### **C.3 Section 5-526 – Violations; penalties**

- a. *A person who violates part 91, the rules or this chapter is responsible for a municipal civil infraction issued by an authorized local official and may be*

*ordered to pay a civil fine of not more than two thousand five hundred dollars (\$2,500.00).*

- b. A person who knowingly violates part 91, the rules or this chapter or knowingly makes a false statement in an application for a permit or in a soil erosion and sedimentation control plan is responsible for the payment of a civil fine of not more than ten thousand dollars (\$10,000.00) for each day of violation.*
- c. A person who knowingly violates part 91, the rules or this chapter after receiving a notice of violation under section 5.521 or 5.522 is responsible for payment of a civil fine of not less than two thousand five hundred dollars (\$2,500.00), or more than twenty-five thousand dollars (\$25,000.00) for each day of the violation.*
- d. Civil fines collected under subsection (a), (b) and (c) that are payable to the city shall be deposited into the city's general fund.*
- e. A municipal civil infraction citation shall be filed with the 46th Judicial District Court for resolution pursuant to chapter 87 of the revised Judicature Act, MCL 600.8701 et seq.*
- f. A default in payment of a civil fine or costs ordered under this section or an installment of the fine or costs may be remedied by any means authorized under the revised Judicature Act of 1961, 1961 PA 236, as amended, being MCL 600.101 et seq.*
- g. In addition to a fine assessed under this section, a person who violates part 91, the rules, or this chapter, is liable to the state and/or the city for damages for injury to, destruction of, or loss of natural resources resulting from the violation. The court may order a person who violates this part to restore the area or areas affected by the violation to their condition as existing immediately prior to the violation.*
- h. Lessees, contractors, or other individuals undertaking an earth change, as well as the landowner and on-site authorized agent, are liable for civil penalties prescribed in section 5.526.*

## **SECTION D – ENFORCEMENT TRACKING**

The City 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.

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

Sec. 1.15. - Penalty.

Unless another penalty is expressly provided by this Code for any particular provision or section, every person convicted of a violation of any provision of this Code or any rule or regulation adopted or issued in pursuance thereof shall be punished by a fine of not more than five hundred dollars (\$500.00) and costs of prosecution or by imprisonment for not more than ninety (90) days, or both such fine and imprisonment. Each act of violation and every day upon which any such violation shall occur shall constitute a separate offense. The penalty provided by this section, unless another penalty is expressly provided, shall apply to the amendment of any section of this Code whether or not such penalty is re-enacted in the amendatory ordinance.

Sec. 5.503. - Municipal enforcing agency.

The engineering department is hereby designated as the municipal enforcing agency responsible for administering and enforcing part 91, the rules, and this chapter.

*(Ord. No. 1564, § 1, 11-27-08)*



Sec. 5.521. - Enforcement.

The city engineer or soil erosion engineer, in cooperation with the building department, may issue a stop work order, or revoke a permit upon its findings that there is a violation of part 91, the rules, or this chapter, or a finding that there is a violation of a permit or an approved soil erosion and sedimentation control plan.

*(Ord. No. 1564, § 1, 11-27-08)*

**State law reference**— Similar provisions, R323.1712.

Sec. 5.526. - Violations; penalties.

- (a) A person who violates part 91, the rules or this chapter is responsible for a municipal civil infraction issued by an authorized local official and may be ordered to pay a civil fine of not more than two thousand five hundred dollars (\$2,500.00).
- (b) A person who knowingly violates part 91, the rules or this chapter or knowingly makes a false statement in an application for a permit or in a soil erosion and sedimentation control plan is responsible for the payment of a civil fine of not more than ten thousand dollars (\$10,000.00) for each day of violation.
- (c) A person who knowingly violates part 91, the rules or this chapter after receiving a notice of violation under section 5.521 or 5.522 is responsible for payment of a civil fine of not less than two thousand five hundred dollars (\$2,500.00), or more than twenty-five thousand dollars (\$25,000.00) for each day of the violation.
- (d) Civil fines collected under subsection (a), (b) and (c) that are payable to the city shall be deposited into the city's general fund.
- (e) A municipal civil infraction citation shall be filed with the 46th Judicial District Court for resolution pursuant to chapter 87 of the revised Judicature Act, MCL 600.8701 et seq.
- (f) A default in payment of a civil fine or costs ordered under this section or an installment of the fine or costs may be remedied by any means authorized under the revised Judicature Act of 1961, 1961 PA 236, as amended, being MCL 600.101 et seq.
- (g) In addition to a fine assessed under this section, a person who violates part 91, the rules, or this chapter, is liable to the state and/or the city for damages for injury to, destruction of, or loss of natural resources resulting from the violation. The court may order a person who violates this part to restore the area or areas affected by the violation to their condition as existing immediately prior to the violation.
- (h) Lessees, contractors, or other individuals undertaking an earth change, as well as the landowner and on-site authorized agent, are liable for civil penalties prescribed in section 5.526

*(Ord. No. 1564, § 1, 11-27-08)*

**State law reference**— Similar provisions, MCL 324.9121.

## **APPENDIX C**

**Collaborative Public Participation/Involvement Program (PPP)**

Click [here](#) for link to Collaborative PPP Plan

**APPENDIX D**

**Collaborative Public Education Program (PEP)**

Click [here](#) for link to Collaborative PEP Plan

**APPENDIX E**

**Collaborative Illicit Discharge Elimination Plan (IDEP)**

Click [here](#) for link to Collaborative IDEP

**APPENDIX F**  
**Construction Stormwater Runoff Control**

# STANDARD OPERATING PROCEDURE CONSTRUCTION STORMWATER RUNOFF CONTROL PROGRAM

PREPARED FOR:

THE CITY OF SOUTHFIELD  
26000 EVERGREEN RD, SOUTHFIELD, MICHIGAN 48076



APRIL 2016

## **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 Southfield 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 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 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 or is reviewed by an approved Authorized Public Agency through the site plan review process. These requirements are documented in the City's Soil Erosion Control Ordinances.

### **B.1 Section 5-509a – Activities require a soil erosion and sedimentation control permit**

- a. *“A landowner or designated agent who contracts for, allows, or engages in an earth change in this city shall obtain a soil erosion and sedimentation control permit in the landowner's name from the engineering department, unless exempted in [section 5.510](#) of this chapter, before commencing an earth change which:*
  1. *Disturbs one (1) or more acres of land; or*
  2. *Is located within five hundred (500) feet of the waters of the state regardless of the amount of land disturbed; or*
  3. *Is located within five hundred (500) feet of a storm drain inlet regardless of the amount of land disturbed.”*

### **B.2 Section 5-511a – Permit application; designated agent; meeting with soil erosion engineer**

*“A landowner or designated agent shall submit a soil erosion and sedimentation control permit application to the engineering department. Copies of the permit application containing state prescribed information are available from the engineering department or the city website.”*

### **B.3 Section 5-518 – Earth change requirements generally**

*“A person, the landowner, and the on-site authorized agent engaged in an earth change shall:*



- (a) Conduct the earth change in a manner that will effectively reduce accelerated soil erosion and resulting sedimentation.*
- (b) Plan, implement, and maintain acceptable soil erosion and sedimentation control measures in conformance with part 91, the rules, and this chapter, which effectively reduce accelerated soil erosion and off-site sedimentation.*
- (c) Carry out the earth change activities in accordance with an approved soil erosion and sedimentation control plan and in compliance with all the requirements of the soil erosion and sedimentation control permit, part 91, the rules, and this chapter.*
- (d) The soil and erosion sedimentation control permit must be posted on-site and clearly visible from the road. The soil erosion and sedimentation control plan must be available for inspection to the site of the earth change at all times.”*

## **SECTION C – INSPECTIONS/COMPLAINTS**

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

### **C.1 Section 5-528 – Right of entry and inspection**

*“An agent appointed by MDEQ or the city engineering department may enter at all reasonable times in or upon any private or public property for the purpose of inspecting and investigating conditions or practices that may be in violation of part 91, the rules, or this chapter.”*

Complaints regarding soil erosion and sedimentation issues made by the public will be forward 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 24 to 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.

## **SECTION C – MEASUREABLE GOALS**

To demonstrate the effectiveness of the County’s Part 91 program, the following metrics will be tracked for reporting purposes:

- Number of Part 91 related complaints received and referred to the County by the City building inspector.
- Number of Part 91 permits issued by the County within the City.

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

## **SECTION D – REPORTABLE DISCHARGES**

The City 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 Appendix H of the Stormwater Management Plan (SWMP), the City will notify the MDEQ through the Pollution Emergency Alert System (PEAS) at 1-800-292-4706.

## **SECTION E – STATE OF MICHIGAN PERMIT BY RULE**

The City 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 F – PROCESS FOR REVISION**

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

Sec. 5.509. - Activities requiring a soil erosion and sedimentation control permit.

- (a) A landowner or designated agent who contracts for, allows, or engages in an earth change in this city shall obtain a soil erosion and sedimentation control permit in the landowner's name from the engineering department, unless exempted in section 5.510 of this chapter, before commencing an earth change which:
1. Disturbs one (1) or more acres of land; or
  2. Is located within five hundred (500) feet of the waters of the state regardless of the amount of land disturbed; or
  3. Is located within five hundred (500) feet of a storm drain inlet regardless of the amount of land disturbed.
- (b) If an earth change is under the jurisdiction of two (2) or more municipal or county enforcing agencies, a soil erosion and sedimentation control permit from the engineering department is required for the activities under the jurisdiction of this chapter.
- (c) If a soil erosion engineer serves a notice of violation in person or by certified mail, with return receipt requested, to a person who owns land on which an earth change has been made that may result in or contribute to soil erosion or sedimentation or adjacent properties or waters of the state, the landowner shall obtain a soil erosion and sedimentation control permit and implement and maintain soil erosion and sedimentation control measures that will effectively reduce soil erosion or sedimentation from the land on which the earth change has been made (see section 324.9116).
- (d) An earth change activity that does not require a soil erosion and sedimentation control permit under part 91, the rules or this chapter is not exempt from enforcement procedures under part 91, the rules or this chapter, if the activity exempted results in soil erosion and off-site sedimentation of adjacent properties or the waters of the state (see R323.1704(2)).

*(Ord. No. 1564, § 1, 11-27-08)*

**State law reference**— Similar provisions, MCL 324.9116; R323.1704.

Sec. 5.511. - Permit application; designated agent; meeting with soil erosion engineer.

- (a) A landowner or designated agent shall submit a soil erosion and sedimentation control permit application to the engineering department. Copies of the permit application containing state prescribed information are available from the engineering department or the city website.
- (b) The permit application shall be signed and dated by the landowner or designated agent. If the landowner is a corporation, include the name and title of the authorized corporate representative.
- (c) If a designated agent is signing the application for the landowner, the landowner shall either also sign the application or provide a letter authorizing the designated agent to act on his/her behalf including authority for the designated agent to designate an on-site authorized agent.
- (d) The soil erosion and sedimentation control permit application shall be accompanied by a soil erosion and sedimentation control plan, the required fees and any other documents that the soil erosion engineer may require.
- (e) The landowner or designated agent shall meet with the soil erosion engineer, if requested, to ensure that the soil erosion and sedimentation control plan meets the provisions of this chapter.

*(Ord. No. 1564, § 1, 11-27-08)*

**State law reference**— Similar provisions, R323.1706.

Sec. 5.518. - Earth change requirements generally.

A person, the landowner, and the on-site authorized agent engaged in an earth change shall:

- (a) Conduct the earth change in a manner that will effectively reduce accelerated soil erosion and resulting sedimentation.
- (b) Plan, implement, and maintain acceptable soil erosion and sedimentation control measures in conformance with part 91, the rules, and this chapter, which effectively reduce accelerated soil erosion and off-site sedimentation.
- (c) Carry out the earth change activities in accordance with an approved soil erosion and sedimentation control plan and in compliance with all the requirements of the soil erosion and sedimentation control permit, part 91, the rules, and this chapter.
- (d) The soil and erosion sedimentation control permit must be posted on-site and clearly visible from the road. The soil erosion and sedimentation control plan must be available for inspection to the site of the earth change at all times.

*(Ord. No. 1564, § 1, 11-27-08)*

**State law reference**— Similar provisions, R323.1702; R323.1704(4).

Sec. 5.528. - Right of entry and inspection.

An agent appointed by MDEQ or the city engineering department may enter at all reasonable times in or upon any private or public property for the purpose of inspecting and investigating conditions or practices that may be in violation of part 91, the rules, or this chapter.

*(Ord. No. 1564, § 1, 11-27-08)*

**APPENDIX G**  
**Post-Construction Stormwater Runoff Program**

# STANDARD OPERATING PROCEDURE POST CONSTRUCTION STORMWATER RUNOFF CONTROL

PREPARED FOR:

THE CITY OF SOUTHFIELD  
26000 EVERGREEN RD, SOUTHFIELD, MICHIGAN 48076



APRIL 2016



## **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 COUNTY STANDARDS**

The City of Southfield intends to adopt the Oakland County Stormwater Management Standards. Should any revisions to these standards be implemented by the County, the City will subsequently review and implement the revised standards as appropriate.

## **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 requested and completed
- Number of maintenance violations of constructed BMPs
- Number of instances where the City had to undertake corrective measures

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



CITY OF SOUTHFIELD  
DEPARTMENT OF PUBLIC WORKS  
ENGINEERING DIVISION

# ENGINEERING DESIGN STANDARDS

APPROVED BY:

Gary M. Mekjian, P.E.  
City of Southfield  
Director of Public Works

Dated: Oct. 1, 2007  
Revised:

Engineering Division  
City of Southfield  
26000 Evergreen Road  
Southfield, MI 48037-2055  
Phone: (248) 796-4810

A note from the Director of Public Works:

Welcome to the City of Southfield! We are very pleased that you and your organization are considering a real estate development within our fine city. In order to assist you in your efforts, the Engineering Division of the Department of Public Works is proud to provide you with this manual. It is the intent of our Engineering Design Standards Manual to provide a clear, concise, and easy to follow guide on the procedures, processes, standards and fees associated with your construction project. Of course, if you have any questions, our highly professional and well trained staff are always available to work with you to address your issues.

We hope that you find this information useful and easy to follow, and once again, thank you for doing business in the City of Southfield!!

Sincerely,

A handwritten signature in black ink, appearing to read "Gary M. Mekjian". The signature is fluid and cursive, written in a professional style.

Gary M. Mekjian, P.E.  
Director of Public Works

## INTRODUCTION

The following design standards are intended to provide a basis upon which all commercial, industrial and multiple sites within the City of Southfield are to be designed. The requirements outlined herein reflect the requirements of the Engineering Division of the Department of Public Services and conform to current engineering practices in the Metropolitan Detroit area. The review of the submitted plans will be done by the City Engineer, indicated herein, or his designee. By no means are these standards intended as a substitute for sound professional engineering judgment. It is suggested that the applicant obtain a copy of the City of Southfield Zoning Ordinance to supplement these standards.

## CONTENTS

I.	GENERAL REQUIREMENTS AND PROCEDURES .....	4
II.	SURVEY .....	13
III.	SOIL EROSION AND SEDIMENTATION CONTROL .....	14
IV.	WATER MAIN .....	15
V.	SANITARY SEWER .....	17
VI.	STORM SEWER .....	20
VII.	PAVING AND GRADING .....	23
VIII.	REQUIREMENTS FOR CITY ACCEPTANCE OF UTILITIES.....	27
IX.	SOUTHFIELD STANDARD NOTES .....	28

## I. GENERAL REQUIREMENTS AND PROCEDURES

### A. GENERAL SUBMITTAL PROCEDURES:

1. Prior to the issuance of a building permit, the plans must first receive an approval from the Engineering and Planning Divisions.
2. A minimum of FOUR complete sets of civil site construction plans will be required, depending on the various agencies influenced by the proposed development. It is recommended that the applicant meet with the Engineering Division prior to submittal of any plans. The plans will be received at the Engineering Division Office, 26000 Evergreen Road, Southfield. All plans must be sealed by an Engineer or Land Surveyor registered to practice in the State of Michigan.
3. The Engineering Division will forward the plans to all departments within the City that may have jurisdiction over a certain phase or area of the site. The review comments of these other departments will then be incorporated in the Engineering review. The intent of this distribution is to restrict the review to one agency (the City), thereby eliminating any discrepancies in requirements between two or more departments.
4. Upon completion of the review, the Engineering Division will return one set of plans or provide a detailed review letter to the engineer or surveyor with revisions and/or corrections noted on the plans. Direction will be given at that time as to how many plans must be resubmitted.
5. AFTER THE REVIEW COMMENTS HAVE BEEN ADDRESSED BY THE ENGINEER OR SURVEYOR, A MEETING WITH THE REVIEW ENGINEER IS ENCOURAGED TO RESOLVE ANY QUESTIONS.
6. Upon Engineering approval, the City Engineer will issue a Preliminary Engineering Approval Letter to the engineer or surveyor of record for the project, detailing the number of sets of plans and fees necessary for permit routing to other governmental agencies for water and sewer permits. It shall be the responsibility of the developer to apply for and receive all permits related to work within Road Commission for Oakland County or MDOT rights-of-way.
7. Once all permits have been received by the City, the City Engineer will issue a Final Engineering Letter detailing any additional permits, fees, bonds, and insurance policies that the City must also receive prior to scheduling a preconstruction meeting **NO PARTIAL APPROVALS WILL BE GRANTED.**

8. Once all permits, fees, bonds and insurance policies have been received and approved by the Engineering Division, a preconstruction meeting will be scheduled.
9. For all residential projects, building permits will not be issued until all utilities and streets have been inspected, dedicated and accepted by the City of Southfield.
10. For all commercial projects, no certificates of occupancy shall be issued prior to the dedication of all utilities and streets to the City of Southfield.

B. FEES, BONDS AND INSURANCE:

1. Review Fee:

This fee must be paid with plan submittal. This fee is non-refundable and approval cannot be given without its receipt.

You will be charged two (2%) percent, or a minimum \$250, of the construction cost for all water main, sanitary sewer, paving, grading, drainage improvements and soil erosion measures, where applicable; regardless of whether private or public.

The minimum fee provides for the plan review and two site inspections. If additional inspections are required, a fee of seventy-five (\$75) dollars per inspection will be charged.

This fee will be based on either the signed contract for the work or an approved sealed engineer's or land surveyor's itemized estimate for the work.

2. Inspection and Administrative Fees:

This is a cash amount to be deposited in an escrow (trust) account to cover the costs of City Engineering inspection, administration of the escrow account, and testing. The deposit is based on the construction cost of all water main, sanitary sewers, storm sewers and paving that require Engineering inspection. The construction cost shall be defined as either the signed contract for the work, or an approved sealed engineer's or surveyor's itemized estimate for the work.

<u>Cost of Construction</u>	<u>Deposit to Cover Inspection Fees</u>
\$0 - \$5,000	\$1,000.00
\$5,000.01 - \$50,000.00	20% but not less than \$1,000.00
\$50,000.01 - \$100,000.00	18% but not less than \$10,000.00
\$100,000.01 - Plus	15% but not less than \$18,000.00

Inspection fees will be billed at an hourly rate of seventy five (\$75.00) dollars/hour regular time and one hundred twelve dollars and fifty cents (\$112.50) /hour overtime. This is based on an eight (8) hour day and includes a one (1) hour paid lunch period.

A minimum of four hours will be charged if the inspector keeps a scheduled inspection appointment and the Contractor does not work. All costs incurred for consulting services and testing requirements will be billed against this account.

If this account is depleted during the course of construction, additional deposits will be necessary, as required by the Engineering Division.

Upon final approval of the site, the balance remaining in the trust account will be refunded.

3. Utility Dedication Surety:

A cash surety deposit or Letter of Credit shall be posted with the Engineering Division. Release of escrow shall be made after public improvements of the project have been installed properly and the site has been properly graded in accordance with the approved plans and city standards, and have been accepted by the City Council. The escrow shall be established in accordance with the schedule below:



<u>Cost of Construction</u>	<u>Surety Amounts</u>
\$0 - \$10,000.00	\$1,000.00
\$10,000.01 - \$50,000.00	10% but not less than \$3,000.00
\$50,000.01 - \$100,000.00	10%
\$ 100,000.01 - Plus	\$10,000.00

4. Soil Erosion Fee:

A fee for a Soil Erosion and Sedimentation Control Permit is included as part of the engineering review fee.

5. Performance Guarantee:

At the time of the issuance of a permit and before conducting any pre-construction meetings, the owner shall deposit a performance guarantee in the amount of one hundred (100%) percent of the estimated construction cost of the required improvements and it shall be in the form of cash, certified check, or irrevocable bank letter of credit. It is the intent of the performance guarantee to ensure that a permitted improvement, once undertaken, is completed or is, at the owner's option, terminated in a manner which leaves the City's existing utility system undamaged or restored and intact.

6. Insurance:

At the time of issuance of a permit for residential and commercial projects and project improvements under the ultimate jurisdiction of the Department of Public Services of the City, the contractor shall procure and maintain, during the life of any contract or agreement for such construction, insurance meeting the requirements of the general supplementary conditions as adopted by resolution of the City Council. The insurance policy shall also include the City of Southfield and its engineering consultants as additional insureds, if applicable.

C. GENERAL PLAN REQUIREMENTS:

1. All plans, easements, legal descriptions and design computations, maps and sketches shall be prepared by a registered engineer or registered land surveyor. All such documents shall bear the seal and signature of the person who prepared them.
2. Plans submitted shall be on twenty-four by thirty-six (24" x 36") inch white prints having blue or black lines, and shall be neatly and accurately prepared. Judgment should be exercised in the design, layout and presentation of proposed improvements. Acceptable scales shall be:  
  
1"=20'; 1"=30'; 1"=40'; 1"=50', according to the size of the site.
3. For projects or subdivisions having more than one (1) sheet of plans, a cover sheet displaying a general plan having a scale of 1"=100' shall be provided showing the overall project or subdivision and indicating the location of all improvements shown in the detailed plans. Superimposed on this general plan shall be one-foot contours of the area, including the area at least one hundred (100') feet outside of the subdivision or project site. Street names, street and easement width, lot lines, lot dimensions and lot numbers shall be shown in all plans. Where possible, the utilities shall be located in accordance with the City standards, as established by the Director of the Department of Public Works. Water main easements shall have a minimum width of twelve (12') feet while storm and sanitary sewers shall be centered within an easement twenty (20') feet wide. Sewers in easements shall be kept at least two (2') feet away from side or rear lot lines
4. All plans submitted for review must contain a cover sheet that includes but is not limited to: the name of the project; a location map of where the project is located; a sheet index; the name, telephone number and address of the developer; the engineer of record and the office of the City Engineer; and the name, address and telephone number of property owner.
5. City standard detail sheets for water main shall be included. The City uses OCDC detail sheets for sanitary sewers, storm sewers and soil erosion.
6. The standard notes, as adopted by the City of Southfield, shall be placed on the plans.

7. A legal description of the property must be included on the cover sheet.
8. The requirements of Chapter 19, which relates to the site grading and drainage, and of Chapter 49, Soil Erosion and Sedimentation Control of this Code, may be combined on the plans with the requirements of this Chapter.
9. Easements shall be shown on the plans.
10. Note on the plans any other permits from other governmental agencies.
11. Note on the plans the testing required for acceptance of the improvements.
12. Prior to starting any improvement design, the applicant may make use of maps and information available at the Engineering Division. It shall be the responsibility of the applicant to verify utility locations provided by the City.
13. All types of sewers shall be shown in plan and profile. Profiles of sewers shall indicate the size, class of pipe, invert and slope of the sewer and type of bedding, and shall indicate the existing ground along the route of the sewer and the proposed, or existing, top of the curb or edge of pavement grade. The locations of required compacted porous backfill shall be indicated on the profile, together with other existing, or proposed, utilities.
14. All profiles shall have a vertical scale of one inch to five feet (1" – 5') where applicable. The profile shall be shown below the plan view, where possible, with as close an alignment as possible.
15. All plans within the set shall have a title block containing: the name of the project, the name of the developer, a revision block and table of contents, etc.
16. Elevations shall be on the USGS datum. Benchmarks for the work shall be indicated on all of the pertinent plans.
17. Finished grades of structures and hydrants shall be indicated on the plan and profile for all structures.
18. Water main fittings. The plan shall indicate only such fittings, such as bends and reducers, which are not obviously otherwise identified. Indicate the locations, by proper dimensions, of such fittings.
19. Curve data for all streets and properly line curves shall be indicated.

20. The top of curb elevation shall be indicated on the plan or profile for proposed paving project.
21. A positive (white) Photostat of the plat for subdivisions, accurately reduced to a scale of one (1") inch equals two hundred (200') feet, shall be furnished to the City for the purpose of obtaining addresses for lots in subdivisions.
22. A copy of the computed plat for subdivisions shall be submitted with the engineering plans.
23. For all sites, Mylar as-builts (three (3) mils thick) along with two (2) copies on bond media will be required prior to final approval of the construction.
24. All setbacks and building separations must be indicated in accordance with the Zoning Ordinance requirements.
25. Loading spaces must be indicated in accordance with the Zoning Ordinance.
26. If a wall or berm is required as part of the project, it must be shown on the plan with a detail indicating the cross section.
27. If above-ground tanks are proposed, their use, capacity and location must be indicated.
28. Required plantings, in accordance with the Zoning Ordinance, must be shown on the plan. A copy of the proposed landscaping plan must be included in the set of engineering construction site plans and, conversely, a copy of the proposed grading plan should be a part of the landscaping submittal.

D. FIELD REQUIREMENTS:

1. The City of Southfield, or its agent, will provide inspection on all public utilities and improvements proposed within the project. Wherever possible, inspection will be full-time on water mains, sanitary sewers, storm sewers and paving. Part-time inspection may be provided at the discretion of the Engineering Division for sidewalks, approaches, taps to public utilities, on-site paving and private storm sewers.
2. A minimum of forty-eight (48) hours notice is required to ensure the presence of a City Inspector, or his agent, when work commences.
3. Prior to starting any construction, the Contractor must obtain all required permits.
4. All public improvements must be field-staked under the supervision of the Engineer or Land Surveyor that prepared the plans. Staking must be in accordance with the approved plans.
5. All construction must conform to the current MIOSHA safety standards.
6. At the time of final inspection for all public improvements, the owner, or his contractor, shall provide all necessary labor and equipment to allow the City to inspect the system.
7. Generally, one inspector will be assigned to a particular project and will be responsible for that project until its completion. The contractor and the inspector may make arrangements for day-to-day inspection. Any interruption or moratorium on the flow of work may result in a re-assignment of that inspector to another project and require the normal forty-eight (48) hour notice before work is resumed.
8. At the completion of the project, a certification from the developer's engineering consultant will be required, indicating that all work has been completed in accordance with the approved plans.

D. PERMIT REQUIREMENTS:

1. Site Plan.

The approved site plan constitutes a permit from the Planning Department. The Engineering Division will issue a permit for the construction of the site improvements. Note, however, that other Divisions of the City and other agencies may require additional permits.

The other agencies, such as, the Michigan Department of Transportation (MDOT), the Oakland County Drain Commission (OCDC) and the Road Commission for Oakland County (RCOC), requiring permits will generally be listed on the approved plan.

2. Soil Erosion and Sedimentation Control Permit:

This permit is required prior to final construction plan approval. Applications are available at the City Engineering Division offices. A bond may be required in accordance with City Code, Chapter 49, Article XI.

3. Michigan Department of Environmental Quality Water Main:

All water main requires a water supply permit from the Michigan Department of Environmental Quality (MDEQ). Submit an Act 399 permit application [[http://www.michigan.gov/deq/0,1607,7-135-3313\\_3675\\_3691-72232--,00.html](http://www.michigan.gov/deq/0,1607,7-135-3313_3675_3691-72232--,00.html)] to the Engineering Division upon request. The City of Southfield's WSSN number is 06160. The City will directly request approval from the MDEQ during the course of engineering plan approval.

4. Michigan Department of Environmental Quality Sanitary Sewer:

All sanitary sewers require a permit from the Michigan Department of Environmental Quality (MDEQ). Submit a Part 41 permit application [[http://www.michigan.gov/deq/0,1607,7-135-3313\\_44117---,00.html](http://www.michigan.gov/deq/0,1607,7-135-3313_44117---,00.html)] to the Engineering Division upon request. The City will submit the request for approval from the MDEQ during the course of engineering plan approval.

5. Oakland County Drain Commission:

All taps to sanitary sewers require permits from the Oakland County Drain Commission (OCDC.)

6. Road Commission for Oakland County:

All work in roads under the jurisdiction of the Road Commission for Oakland County (RCOC) requires a permit from the Road Commission for Oakland County.

7. Other Permits:

Other agencies that may require a permit will be designated on the approved plan. These permits are generally the contractor's responsibility and will generally be required prior to construction.

City of Southfield;  
Michigan Department of Transportation;  
Michigan Department of Environmental Quality;  
Oakland County Drain Commission.

## II. SURVEY

### A. GENERAL:

1. A complete topographical survey is required for all sites. Existing off-site elevations must be given at a minimum of fifty (50') feet and one-hundred (100') feet abutting the entire perimeter of the site. Grades shall be indicated at all property corners and along all property lines. On-site, intermittent elevations or defined contours are required to establish the existing site drainage.
2. All existing conditions shall be indicated. Locations and elevations must be given on the following:
  - Existing drainage courses;
  - Upstream and downstream culverts;
  - All utilities, including sanitary, water main, gas, telephone, electrical, etc. Inverts and castings and finish grades are required where applicable;
  - Sidewalks;
  - Finished grades of all adjacent buildings;
  - All easements.
3. A USGS Benchmark (B.M.) is required and a site B.M. for construction purposes must be identified on the plan.

4. Road topography shall extend across the entire site with grades shown on both sides of the street for:
  - Property line;
  - Ditch center line;
  - Top of bank;
  - Edge of shoulder;
  - Edge of pavement or top of curb;
  - Street crown or center line.
5. Property lines must be indicated by distances and bearings where applicable and property corners must be identified as either *found* or *set*.
6. Existing rights-of-way of adjacent roads must be indicated.

### III. SOIL EROSION AND SEDIMENTATION CONTROL

#### A. SITES REQUIRING PERMITS:

All sites having a construction area of one or more acres require a Soil Erosion Permit. All sites within five hundred (500') feet of a drainage course require a Soil Erosion Permit.

#### B. INTENT OF PERMIT:

The intent of this requirement is to ensure that no silt or sediment enters the public streams or water courses. This is accomplished through means of siltation basins, filters, diversions, etc.

#### C. PLAN REQUIRED:

A separate soil erosion and sedimentation control plan is required for all sites that require a permit. Itemized on this plan shall be step-by-step requirements for controlling siltation. No work (including site clearing) will be allowed until approved siltation control measures are in effect.

Accelerated erosion and sedimentation must be prevented during all phases of construction, including:

- Initial site clearing;
- Utility construction;
- Building construction;
- Site paving;
- Final site approval.

#### D. INSPECTION:



Inspections will be made periodically throughout construction on the maintenance and effectiveness of soil sedimentation control methods.

The costs of these inspections are charged against the inspection escrow account. If inspection reveals that the controls are not being implemented, a Stop Work Order on all site construction may be issued.

NOTE: THE SILTATION CONTROL REQUIREMENTS MAY CONTROL THE PROGRESS AND SCHEDULING OF ALL CONSTRUCTION ON THE SITE.

#### IV. WATER MAIN

##### A. NOTES:

1. When applicable, the City of Southfield detail sheets must be included with the plans.
2. A quantity list itemizing all proposed public water main construction must appear on the plan.

##### B. SIZES AND DISTRIBUTION:

1. The minimum size water main in the City of Southfield shall be eight inches. Six-inch mains may be used only for single fire hydrant leads having a maximum length of forty (40) feet. No service leads are allowed from a six (6") inch main. Maximum dead end mains are as follows:

- 400 ft. for eight (8") inch Mains;
- 1,000 ft. for twelve (12") inch Mains.

Reducers are not allowed to meet the dead end requirements.

2. Twelve-inch water main may be considered as minimum for internal transmission on industrial and multiple sites.
3. Looping of mains will be required, wherever possible. All mains must end with a hydrant or blow-off.
4. The extension of water main will generally be required across the entire frontage of the site.
5. All water main installations must be in accordance with the City's water Master Plan.

C. VALVES:

Gate valve spacing will generally be regulated by providing the following provisions.

In the event of a breakage:

- No more than thirty (30) single or multiple family units will lose service;
- No more than one hydrant will be out of service;
- No more than four valves shall have to be closed to isolate the break, and where possible, three valves should isolate the break;
- On-line valve spacing shall be a maximum of one thousand (1,000') feet.

D. AUTOMATIC FIRE SPRINKLER SERVICE CONNECTIONS:

The City will allow installation of an un-metered fire service connection provided adequate provision is made to prevent the use of water from such fire service for purposes other than fire extinguishing. In no case should hydrants be placed downstream of any check valve used for automatic sprinkler protection. Where hydrants are necessary, separate mains shall be installed for fire sprinkler service and hydrant protection. Sprinkler systems are not a substitute for standard requirements for hydrants and the fire suppression system supply line shall have its own isolation valve so that the water supply to the structure can be turned off while still keeping the fire suppression system in service.

E. HYDRANTS:

1. Single family residential spacing shall be a maximum of six hundred (600') feet.
2. Commercial, industrial and multiple spacing shall generally be a maximum of five hundred (500') feet on line, but may vary to meet the following requirements:

All points on the exterior of a building shall be no closer than fifty (50') feet, nor further than two hundred-and-fifty (250') feet from a hydrant. Distances shall be measured along the shortest feasible exterior route (never through buildings) for laying hose.

3. Any hydrant located in a parking lot shall be protected by a minimum of six (6") inch curb or standard hydrant guard posts. In all cases, the visibility of the hydrant must be considered. No parking will be allowed within ten feet of the hydrant.

4. A hydrant is required to be located within one hundred (100') feet from the fire department connection on a building. Additional hydrants may be required depending on the specific use.

F. MATERIALS:

All materials shall be in conformance with the City of Southfield current standards and specifications.

G. CONSTRUCTION:

No building permits for wood frame construction will be issued above the foundation for any development prior to the active service of the required mains and hydrants and adequate access for fire fighting equipment. No occupancy shall be allowed in any instance without the required mains, hydrants and sprinklers being officially dedicated to the City of Southfield.

H. EASEMENTS:

All public water mains must be located in an easement or public right-of-way. Standard easement forms are available at the City Engineering Division. The minimum easement shall be twelve (12') feet. The dedication of the easement will be required prior to use of the system.

## V. SANITARY SEWER

A. GENERAL:

1. Public sanitary sewers are required when two or more connections are made to the same sewer. In most instances, including multiple unit developments, the sewers may have to be public, even though the project has one owner.
2. The extension of the sanitary sewers will generally be required across the entire frontage of the site, and to provide for upstream discharge.
3. All construction shall conform to the current OCDC sanitary sewer standards and specifications.

B. NOTES:

1. Where required, OCDC sanitary sewer detail sheets shall be included with plans.
2. A quantity summary, itemizing all proposed public sanitary sewer construction, must appear on the plans.

C. SEWERAGE:

Downspouts, weep tile, footing drains, or any conduit that carries storm or ground water shall not be allowed to discharge into the sanitary system.

D. GRADE:

1. The following table represents the minimum and maximum grade for public sanitary sewers. Maximum velocity may not exceed ten (10') feet per second.

<u>Size</u>	<u>Standard Grade</u>	<u>Minimum Grade</u>
10"	0.60%	0.30%
12"	0.40%	0.22%
15"	0.24%	0.15%
18"	0.18%	0.12%
21"	0.14%	0.10%

2. All upstream dead-end sewers shall have a minimum last run grade of one (1.0%) percent.

E. MANHOLES:

1. Sanitary Sewer Manholes shall be spaced as follows:

<u>Size</u>	<u>Standard Run</u>	<u>Maximum Sewer Run</u>
10"	300 Ft.	330 Ft.
12"	400 Ft.	450 Ft.
15"	500 Ft.	500 Ft.
18"	600 Ft.	600 Ft.
21"	600 Ft.	600 Ft.

2. A manhole will be required at all changes in alignment, size or grade.

F. LOCATION:

1. Sanitary sewers shall be located so as to provide unrestricted access for maintenance and inspection. A minimum alignment separation of ten (10') feet must be maintained between the sewer and all water mains. The water main and sanitary sewer shall be located on opposite sides of the street, wherever possible.
2. All public sewers must be located in a public right-of-way or an easement. Standard Easement forms are available at the City Engineering Division. The easement size will vary individually as required for maintenance and access. The minimum sanitary sewer easement shall be twenty (20') feet. The dedication of the easement will be required prior to use of the system.

G. LEADS:

1. Service leads shall be a minimum of six (6") inches in diameter with a minimum slope of one (1.0%) percent.
2. Private sanitary sewer leads of excessive length, although not a public sewer, may require inspection and testing. Each site will be considered individually by the Engineering Division.
3. Service leads shall not be made into a manhole without written permission from the City Engineer.
4. The maximum depth of a sewer lead is ten (10') feet at the property line.

H. PROFILE:

The following information shall be indicated on the sanitary sewer profile:

- Length of run between manholes;
- Type and class of pipe between manholes;
- Size and grade of pipe between manholes;
- Top of casting and invert of all manholes;
- Existing and proposed ground elevation along the run of sewer;
- Progressive numbering system;
- All utility crossings;
- Special backfill areas;
- Provisions for infiltration testing.

I. DROP CONNECTIONS:

External drop connections are required where the invert of the outlet pipe is eighteen (18") inches or more below the invert of the inlet pipe. Internal drop connections will generally not be allowed.

J. SEPTIC TANK:

If sanitary sewer is not available, a copy of a valid septic system permit from the Oakland County Health Division must be submitted prior to approval.

VI. STORM SEWER

A. GENERAL:

1. All storm sewers must conform to the project's grading plan.
2. All construction must conform to Southfield's City Code and OCDC standards.
3. Where required, the OCDC storm drain detail sheets shall be included with plans.
4. Underground drainage facilities will generally be required. All run-off on-site must be accommodated and discharged in a controlled manner. The minimum on site pipe size is eight (8") inches. All public systems shall have a minimum pipe size of twelve (12") inches. A minimum pipe size of twelve (12") inches shall also be required for all storm sewer from the tap to the public system to the first structure upstream.
5. Sump pump discharge must be directed into the storm sewer via an enclosed system. A minimum of four (4") inch pipe shall be utilized and will also be allowed to discharge unrestricted.

B. STRUCTURE:

1. Catch basins at the upstream end of the system shall be a minimum of twenty-four (24") inches in diameter. Catch basins with an inlet pipe shall have a minimum diameter of thirty-six (36") inches. All manholes and public catch basins shall be a minimum of forty-eight (48") inches in diameter.
2. The first structure upstream from a public system within the confines of the private development shall be forty-eight (48") inches in diameter and have a twenty-four (24") inch sump.
3. Manholes shall be located at:
  - a) All changes in alignment;
  - b) Points where the sewer changes size;
  - c) Points where the grade changes;
  - d) Junction of sewer lines.

C. STORM SEWER DESIGN:

1. Storm sewers shall be designed using the Manning Equation for pipes flowing full. Runoff shall be determined using the Rational Method with an intensity formula of  $I = 175/T+25$ . The initial time of concentration shall generally be twenty (20) minutes and  $T+25$  minutes maximum.
2. Storm sewer design computations must be submitted for review by the City Engineer. The velocity shall be a minimum of two and one-half (2.5) fps and shall not exceed ten (10) fps.
3. The hydraulic gradient must be maintained within the pipe, wherever possible.
4. Runoff coefficients shall be determined for each individual drainage area and calculations for each drainage area must be submitted as part of the design computations.
5. A storm drainage district map must be provided showing all drainage districts within the development. The district limits must be overlaid on a proposed grading plan for the site. Color coding is encouraged.
6. All upstream drainage must be accommodated on-site. Allowances for upstream area must be based on ultimate improvements and runoff. Discharge must not be diverted onto abutting properties.

7. The outlet must be in accordance with the project's grading plan and the existing natural drainage courses in the area.

D. PLAN AND PROFILE:

1. All public storm sewers must be shown in profile. For developments larger than one acre, the private sewer must also be shown in profile.
2. The following must be shown in profile:
  - Length of run between manholes and catch basins;
  - Type and class of pipe between manholes and catch basins;
  - Size and grade of sewer between manholes;
  - Top of casting elevations;
  - Inverts of all pipes at manholes;
  - Proposed and existing ground elevations along the run of sewer;
  - Progressive numbering system on all manholes and catch basins;
  - All utility crossings;
  - Special backfill areas;
  - Type of joint.

E. TAPS:

Connections must be made at manholes. Blind taps are generally not allowed.

F. DETENTION:

1. All sites within the City of Southfield shall be required to provide detention of storm water runoff for the one hundred (100) year design storm, treating and storing for the first flush and bank-full flood. Design shall be per the current Oakland County Drain Commission Engineering Design Standards for storm water facilities.
2. All open detention basins must be fenced if the side slopes exceed one (1) vertical to six (6) horizontal. This may be waived by the Engineering Division when the design is an integral part of the landscaping and the location and depth does not present a potential hazard. The earthen side slope shall be one (1) vertical to three (3) minimum horizontal. Fences shall be a minimum of six (6') feet high chain link with a locking access gate, eight (8') feet wide.
3. Minimum grade on the bottom of the detention basin shall be one and two-tenths (1.2%) percent when sodded.
4. All detention systems are required to be maintained as part of the site Maintenance Agreement on file with the approved Site Plan.

G. PUBLIC STORM SEWER:



1. All public storm sewers must be located in a public right-of-way or an easement. Standard easement forms are available at the Engineering Division. The easement size will vary as required for maintenance and access. The minimum storm sewer easement shall be twenty (20') feet. The dedication of the easement will be required prior to use of the system.
2. Any storm sewer that accepts runoff from abutting property or public right-of-way must be placed in a minimum twenty (20') foot storm sewer easement.
3. All public storm sewer shall be a minimum of twelve (12") inch diameter CI.IV concrete pipe with premium gasketed joints.

## VII. PAVING AND GRADING

### A. GENERAL:

1. All public paving shall conform to the current standards and specifications of the City of Southfield.
2. Where required, the City of Southfield pavement details shall appear on the plans.

### B. ON SITE:

1. A cross section of all on-site paving is required on the plans.

Minimum requirements are as follows:

a) Commercial and Multiple:

Three (3") inch asphalt on six (6") inch gravel base;  
Six (6") inch concrete.

b) Industrial:

Four (4") inch asphalt on eight (8") inch gravel base;  
Eight (8") inch concrete.

These minimum requirements are based on adequate sub-grade, sub-grade drainage and average live loads. Each site will be examined individually and additional pavement thickness and/or increased base requirements may be necessary.

2. Minimum surface grade for asphalt paving shall be one (1.0%) percent. Minimum surface grade for concrete paving shall be six-tenths (0.6%) of an inch.

C. CITY PUBLIC RIGHT-OF-WAY:

1. A cross section of all off-site paving is required. Minimum requirements are dependent on the type of existing pavement as follows:
  - Concrete major thoroughfare and collector roads require nine (9") inches of PC concrete on sand sub-base;
  - Asphalt major thoroughfare and collector roads require eight (8") inches of asphalt;
  - Concrete local roads generally require seven (7") inches of PC concrete sand sub-base;
  - Asphalt local roads generally require three (3") inches of asphalt on an eight (8") inch gravel base;
  - Requirements for existing gravel roads will be considered on an individual basis by the City Engineering Division.
2. Six (6") inch concrete curb and gutter is required on all approaches.
3. Passing lanes, acceleration lanes and tapers, and deceleration lanes and tapers will be required in accordance with the current Road Commission for Oakland County specifications and guidelines. If curb is required on the passing acceleration, or deceleration lanes, it shall be six (6") inch concrete curb and gutter.

4. The dedication of the following right-of-way along the frontage of the site to the ultimate requirement for future improvement is requested:
  - 120 feet - major thoroughfare;
  - 86 feet - collector road;
  - 60 feet - local road.
5. All shoulders shall be eight (8") inches of 22A gravel, eight (8') feet wide on thoroughfares and four (4') feet wide on local roads.
6. Sufficient proposed grades must be given to determine proposed grading of all right-of-way improvements.

D. DRAINAGE IN RIGHT-OF-WAY:

1. Enclosures of drainage ditches across the frontage of the site will generally not be permitted. The City Engineering Division may, however, require the enclosure if adequate controls on pavements and shoulders cannot be maintained and the health, safety and welfare of the general public is endangered.
2. Side slopes on open ditch drainage shall be three (3) minimum horizontal to one (1) vertical. The ditch bottom shall be two (2') feet wide.

E. SIDEWALKS AND NON-MOTORIZED PATH:

1. Sidewalks are required along all rights-of-way. They shall be located in the right-of-way, one foot from the ultimate right-of-way line.
2. The walk shall be five (5') feet wide, constructed of four (4") inches of PC concrete on compacted porous sub-grade. The walk must be continued through driveway sections where it shall be increased in thickness to six (6") inches on major thoroughfares and collector roads and six (6") inches at corners and through driveways. Curbs must be tapered to meet the walk. Cross slopes on the sidewalk shall be one-quarter (1/4") inch per foot toward the street. Non-motorized paths must be eight (8') feet wide, constructed of two (2") inch bituminous surface on a minimum of four (4") inches of compacted porous base.
3. Proposed grades must be indicated along the property line and on the walk, driveways, and intermittent locations along the length of the walk, at no less than intervals of fifty (50') feet.
4. Any structures, hydrants, poles, etc. that are existing along the alignment of the walk, must be adjusted or relocated at the expense and coordination of the developer. All sidewalk construction shall be in accordance with the Americans with Disabilities Act (ADA) of 1990.

5. All sidewalk ramps are required to have Detectable Warning Strips. Detectable Warnings shall be cast-in-place or adhesive. Imprinting of concrete will not be permitted.

F. SITE GRADING:

1. Sufficient proposed grades must be indicated on the plan to ensure that:
  - Drainage is adequately discharged off-site with proper retention;
  - No upstream drainage is restricted;
  - Paving is in accordance with standards outlined herein;
  - The site, in general, drains without standing water.
2. Elevations representing the brick ledge, finished grade, and the first floor grade must be indicated.
3. Proposed grading shall meet abutting property line elevations. Differentials in grade must incorporate a minimum four (4) horizontal to one (1) vertical slope to the abutting property line.
4. Retaining walls are discouraged. Any wall separating a differential grade of more than twelve (12") inches shall be considered a retaining structure and will require a structural engineering design and review.
5. The finish grade adjacent to the structure must be a minimum of eighteen (18") inches above the side yard swale elevation.

## IX. REQUIREMENTS FOR CITY ACCEPTANCE OF UTILITIES

### GENERAL

The City of Southfield shall take over water supply, sewage disposal systems and streets existing in developments which have been constructed under a Michigan Department of Health permit issued to the City of Southfield. Before taking over the above mentioned infrastructure, and before Building Permits are issued, or taps are made to the system, the following must be submitted to the Department of Public Works:

1. A Quit Claim Deed or Bill-of-Sale from the developer for the materials used in these improvements.
2. A letter from the engineer who designed the improvements stating the final construction cost of these improvements and also indicating that this construction has been completed in accordance with the approved plans.
3. Two (2) sets of As-Built drawings on bond paper, one (1) set on mylar.
4. Sworn statement from the contractor indicating that all labor and materials have been paid in full.
5. Maintenance and Guarantee Bond in favor of the City of Southfield in the amount of 100% of the final construction cost of the improvement. This bond is to be on the City's form and shall run for two (2) years from the date of acceptance by the City Council.

Dedicate to the City all necessary easements and rights-of-way.

## CITY OF SOUTHFIELD STANDARD NOTES

1. Notify the City of Southfield Engineering Division (248) 796-4831 a minimum of forty-eight (48) hours prior to the start of construction.
2. All construction must conform to the current standards and specifications adopted by the City of Southfield.
3. Utilities must be located underground.
4. Call MISS DIG (1-800-647-7344 / 1-800-MISS DIG) a minimum of seventy-two (72) hours prior to the start of construction.
5. All soil erosion and silt must be controlled and contained on-site.
6. All excavation under or within three (3') feet of public pavement, existing or proposed, shall be backfilled and compacted with sand (Class II MDOT).
7. The contractor is responsible for all damage to existing utilities.
8. Prior to the issuance of an occupancy permit, engineering site inspection is required.

## CITY OF SOUTHFIELD SITE PLAN APPLICATION

<p style="text-align: center;"><b>City of Southfield Planning Department</b>  <b>26000 Evergreen Road</b>  <b>Southfield, MI 48076</b></p> <p>Telephone: 248-796-4150                  Fax : 248-796-4105                  E-mail: <a href="mailto:contactplanning@cityofsouthfield.com">contactplanning@cityofsouthfield.com</a></p>	<b>Date Submitted:</b>	
	<b>Reference Number:</b>	
	<b>Sidwell Number:</b>	
	<b>Associated Special Use/ Rezoning File Number(s) (if applicable):</b>	

**NOTICE TO THE APPLICANT:** *Petitions must be filed with the Planning Office by 12:00 noon 40 calendar days prior to being placed on the Planning Commission agenda.*

I (We) the undersigned do hereby make application to the Planning Department of the City of Southfield to develop the property herein described.

1. Name of the Proposed Development: \_\_\_\_\_
2. Description of the Subject Property: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Nearest Cross Streets: \_\_\_\_\_  
 Acreage: \_\_\_\_\_
3. Gross Building Area (G.B.A.) this project: \_\_\_\_\_ Total G.B.A on site \_\_\_\_\_
4. Zoning classification of the subject property: \_\_\_\_\_.
5. Description of proposed use:  
 \_\_\_\_\_  
 \_\_\_\_\_
6. Value of development: \$ \_\_\_\_\_; New FTE Jobs \_\_\_\_\_

7. APPLICANT INFORMATION	8. PROPERTY OWNER INFORMATION
Company _____	Company _____
Name _____	Name _____
Address _____	Address _____
City _____ State _____ Zip _____	City _____ State _____ Zip _____
Email _____	Email _____
Phone _____	Phone _____

9. Applicant's interest in the property (if other than owner) \_\_\_\_\_
10. Signature of Applicant \_\_\_\_\_ Date \_\_\_\_\_
11. Signature of Property Owner \_\_\_\_\_ Date \_\_\_\_\_

**Supplemental Forms:**

- Site Plan Checklist
- Community Impact Statement (if determined by the Planning Department)
- Site Plan Flow Chart
- Site Maintenance Agreement (if determined by the Planning Department)
- LID Guidelines

# Current City of Southfield Site Plan Application Process

MONTH 1

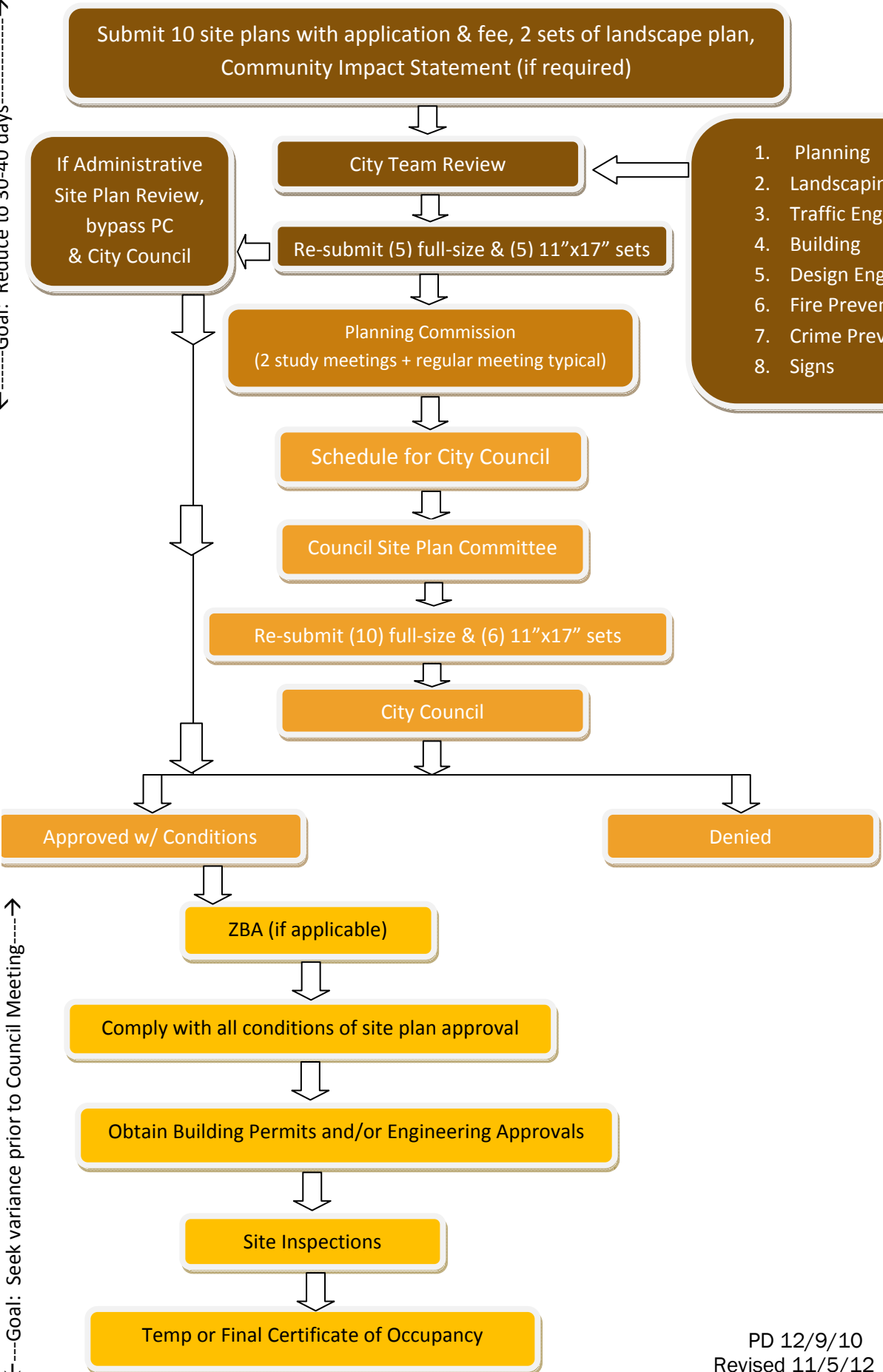
MONTH 2

MONTH 3-4

MONTH 5+



←---Goal: Reduce to 30-40 days----->  
 ←---Goal: Seek variance prior to Council Meeting----->



1. Planning
2. Landscaping
3. Traffic Engineering
4. Building
5. Design Engineering
6. Fire Prevention
7. Crime Prevention
8. Signs



**PLANNING DEPARTMENT REVIEW FEE SCHEDULE  
1/1/16**

Pursuant to the Provisions of Chapter 45, Zoning, of the Code of the City of Southfield, Article 4, Section 5.44, the Council of the City of Southfield has prescribed that the following fees be charged petitioners for amendments to the Zoning Ordinance and for review of site plans. These fees are necessary and reasonably related to the expense incurred in processing such zoning applications and site plans, and are to be paid at the time of submittal of the following applications and site plans.

Application Fee Required City-wide for all permit and application types	\$40
Non-Residential Fence Permit Fee (when not part of a site plan)	\$50
Commercial zoning review fee when not part of a site plan (i.e. zoning compliance letters)	\$100
Rezoning Requests	\$1,000 + \$40 for each acre over one (1)
Overlay Development District Requests	\$2,400 + \$40 for each acre over one (1)
Special Use Requests	\$600
Vacation Requests	\$1,000
Subdivision Plat Review	\$1,000 + \$10 for each lot
Items withdrawn by Petitioners	25% of original filing fee
Site Maintenance Agreement	Prevailing Oakland County Recording Fee Costs (current costs are \$14 for first page and \$3 for each additional page)
<b>Site Plans Reviewed by Council:</b>	
Single Family Residential (R-A, R-1, R-2, R-3, R-4, R-E) - Cluster Option - Nonresidential Uses	\$1,000 + \$5 per dwelling unit \$1,000 + \$5 for each 1,000 sq.ft. of gross building area
Mobile Home Park (RMH)	\$1,000 + \$5 per each mobile home
Multiple Family (R-T, RM, RMM, RMU)	\$1,000 + \$10 for each proposed unit
Office-Service (O-S)	\$1,000 + \$5 for each 1,000 sq.ft. of gross building area

Education-Research-Office-Limited (ERO-M) and Education-Research-Office (ERO)	\$1,000 + \$5 for each 1,000 sq.ft. of gross building area
Regional Center (RC)	\$1,000 + \$10 for each proposed unit and/or \$5 for each 1,000 sq. ft. of gross building area of office or retail space
Neighborhood Business (B-1)	\$1,000 + \$5 for each 1,000 sq.ft. of gross building area
Planned Business (B-2)	\$1,000 + \$5 for each 1,000 sq.ft. of gross building area
General Business (B-3)	\$1,000 + \$5 for each 1,000 sq.ft. of gross building area
Neighborhood Shopping (NS)	\$1,000 + \$5 for each 1,000 sq.ft. of gross building area
Regional Shopping (RS)	\$1,000 + \$5 for each 1,000 sq.ft. of gross building area
<b>Site Plans Reviewed Administratively:</b>	
Television-Radio-Office-Studio (TV-R)	\$750 + \$5 for each 1,000 sq.ft. of gross building area
Industrial, Vehicular Parking (I-1, I-L, P)	\$750 + \$5 for each 1,000 sq.ft. of gross building area
Amendments to previously approved site plans (all districts) EXCEPT ITEMS LISTED SEPARATELY BELOW	\$750 + \$5 for each 1,000 sq.ft. of gross building area or \$10 for each proposed unit
AMENDMENTS TO PREVIOUSLY APPROVED SITE PLANS (ALL DISTRICTS) SUCH AS: DUMPSTER ENCLOSURES, GENERATORS, MINOR PARKING STRIPING REVISIONS, & RAMPS.	\$250
<b>Wetland Review Fees for Site Plan</b>	
Administrative Review City Council Review	\$750 (\$175 permit; \$575 escrow) \$1,575 (\$575 permit; \$1,000 escrow)

Revised 1/1/16

**CITY OF SOUTHFIELD SITE PLAN REVIEW CHECKLIST  
PLANNING COMMISSION/CITY COUNCIL**

In order to facilitate site plan review and official submittal to the City of Southfield and to provide consistency in the review, the following checklist must be returned with the application with the acknowledgment of the architect or developer that the item has been indicated on the plan.

<b>Required</b>	<b>Provided</b>	
<input type="checkbox"/>	<input type="checkbox"/>	Value of development \$ _____ New FTE Jobs (if applicable) _____
<input type="checkbox"/>	<input type="checkbox"/>	Parcel identification, including existing zoning, general location map, size of parcel, dimensions of parcel.
<input type="checkbox"/>	<input type="checkbox"/>	Name, address, email address, telephone number and seal of the architect, planner, or engineer responsible for the preparation of the plan.
<input type="checkbox"/>	<input type="checkbox"/>	Date, north point and scale (1" = 20' minimum or 1" = 50' for sites over three (3) acres).
<input type="checkbox"/>	<input type="checkbox"/>	Location and dimensions of all existing and proposed structures and all existing structures within one hundred (100') feet.
<input type="checkbox"/>	<input type="checkbox"/>	Summary schedule (number of units if applicable, types of units if applicable, gross and net square feet per use, building height, parking requirements, provided spaces and required spaces, etc.).
<input type="checkbox"/>	<input type="checkbox"/>	Relationship of proposed site and subject use to adjacent sites, properties, driveways, buildings, etc., and those across the street, showing how these relate to the site, especially in regard to vehicular parking.
<input type="checkbox"/>	<input type="checkbox"/>	Setback and yard requirements (required and proposed).

- |                          |                          |                                                                                                                                                                                                                                                                               |
|--------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Utilities: public (storm sewer, sanitary sewer, water, gas, sidewalks, existing and proposed right-of-ways); private (propane gas, retention ponds, existing and proposed overhead utilities, etc.).                                                                          |
| <input type="checkbox"/> | <input type="checkbox"/> | Enclosed refuse storage and location (if applicable).                                                                                                                                                                                                                         |
| <input type="checkbox"/> | <input type="checkbox"/> | Ground mounted electric transformer location and liquefied petroleum (LP) tanks if required.                                                                                                                                                                                  |
| <input type="checkbox"/> | <input type="checkbox"/> | Building servicing (loading zones, drop-off areas, etc.)                                                                                                                                                                                                                      |
| <input type="checkbox"/> | <input type="checkbox"/> | Existing natural features (topography, trees, ponds, streams, floodplain, etc.)                                                                                                                                                                                               |
| <input type="checkbox"/> | <input type="checkbox"/> | Internal traffic circulation and traffic control devices (curbing, landscaping, signing, aisle widths, angle of parking, curb cut radius, and deceleration and acceleration lanes, if required).                                                                              |
| <input type="checkbox"/> | <input type="checkbox"/> | Walls where required (six (6') foot, unpierced with face brick on residential side).                                                                                                                                                                                          |
| <input type="checkbox"/> | <input type="checkbox"/> | Pedestrian amenities and circulation (internal walkways, public sidewalks, connections to public pathway system and public transit stops, bike routes, accessible routes, etc.).                                                                                              |
| <input type="checkbox"/> | <input type="checkbox"/> | Building elevations indicating building materials & colors.                                                                                                                                                                                                                   |
| <input type="checkbox"/> | <input type="checkbox"/> | One (1) colored site plan indicating buildings, landscape areas, parking and drives.                                                                                                                                                                                          |
| <input type="checkbox"/> | <input type="checkbox"/> | Digital copies of the following: colored site plan, colored landscape plan, colored building elevations, & colored 3-D building perspective (if available. Digital information should be submitted via CD or emailed via file sharing service (e.g. Dropbox, Filemail, etc.). |

One (1) colored rendering or elevation or model.

Landscape plan indicating types, sizes, and number of existing and proposed plant materials on site and within 50' of the site AND one (1) colored landscape plan. Landscape plans must be sealed by a registered landscape architect.

Parking lot screening, snow storage\*

Plans folded into 9"x12" packet with bottom right hand corner visible

- Initial submittal: Ten (10) 24" x 36" sets
- Re-submittals: Four (4) 24" x 36" sets, Four (4) 11" x 17" sets

Plans signed and sealed by registered architect or engineer

Signature of a registered architect, planner or engineer submitting for site plan or special use review.

Date

\*See new parking amendments as well

## COMMUNITY IMPACT STATEMENT TABLE

In accordance with the provisions of Section 5.51 of the Zoning Ordinance which states that a community impact statement shall be submitted when:

- a. A request for rezoning or site plan approval is submitted, whichever shall occur first, for parcels having an area of ten (10) acres or greater, or
- b. A development of one hundred and fifty thousand (150,000) square feet of gross floor area or more is submitted for site plan review, or
- c. A development of two hundred (200) dwelling units or more is submitted for site plan review, or
- d. When three (3) or more points are accumulated from the following table: (Check if conditions exist)

Conditions	Point Value	Points Applied
Displacement of community residents	1 point	
Natural features in the project area which are unique to the area. (e.g. streams, lakes, soils, etc.)	1 point	
Area serves as a habitat, food source, nesting place, etc., for wildlife as determined by the City of Southfield Department of Parks and Recreation.	1 point	
<i>The site involves</i> land designated as floodplain	1 point	
The site is considered a woodlot (a minimum of twenty (20%) percent of the site consisting of a well stocked stand of trees with a majority having a three (3") inch caliper or greater) and/or a wetland (poorly drained lands that are generally or intermittently covered with water which, by nature of its surface and/or subsurface soil characteristics, either contribute to the replenishment of subsurface water supply, or are self- contained water resources, including marshes, swamps and bogs).	1 point	
The property is located on other than a major thoroughfare	1 point	
The site has slopes or grades of twenty-five (25%) percent or greater.	1 point	
The development of the property will necessitate the widening of adjacent thoroughfares.	1 point	
The development of the property will necessitate the extension of the following public utilities to adequately serve it:		
Storm Sewer	1 point	
Sanitary Sewer	1 point	
Water Main	1 point	
Roadway related carbon monoxide concentration exceeding Federal standard of 10 mg. per cubic meter for an eight (8) hour period	1 point	
<b>Total Points Applied</b>		

## SITE MAINTENANCE AGREEMENT

As a condition of site plan approval, the land owner is to provide the City of Southfield with a perpetual Site Maintenance Agreement for this property. Please note that:

- The attached Site Maintenance Agreement form must be signed and completed in accordance with these instructions and returned to the City of Southfield prior to the City's issuance of any building permits.
- This agreement will be recorded by the City of Southfield with the Oakland County Register of Deeds and will be binding on the land owner and his successors.

INSTRUCTIONS for the processing and recording of this Site Maintenance Agreement:

1. **PROVIDE A SIGNED AND EXECUTED SITE MAINTENANCE AGREEMENT.** The attached Site Maintenance Agreement and these instructions are to be delivered to and signed by the land owner.
  - A. **The land owner is to sign only one** of the attached Page 3 signature forms. Please sign the one that applies to your method of holding title.
  - B. If a tenant or management company is responsible for site maintenance, they also must sign this Agreement (see Page 4).
  - C. A notary is required for the owner's signature on Page 3 and for the tenant or management company's signature on Page 4.

**NOTE:** The land owner's name on the signed Agreement must be the same as on the recorded deed, or the person signing this agreement must have legal authority to sign for the owner; i.e., be a corporate officer, or have power of attorney, etc.

All signatures and printing must be in black ink.

2. **PROVIDE A RECORDING FEE (\$20 for the first three pages, and \$3 per page thereafter).** Make check payable to **Oakland County Register of Deeds**. The City will then record this Agreement with Oakland County.

Please mail the signed and notarized **Site Maintenance Agreement** and the **Recording Fee** to the City of Southfield Planning Department, 26000 Evergreen Road, P.O. Box 2055, Southfield, MI, 48037-2055.

If you have any questions regarding this matter, contact the City of Southfield Planning Department at (248) 796-4150.

SITE MAINTENANCE AGREEMENT

\_\_\_\_\_  
(Site Plan #)

\_\_\_\_\_  
(Building Name or Address)

This agreement is entered into this \_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_, by (name of land owner as appears on the deed) \_\_\_\_\_, hereinafter referred to as the "**Owner**", whose address is \_\_\_\_\_.

WHEREAS, on \_\_\_\_\_ the City of Southfield, a Michigan municipal corporation, hereinafter referred to as "**Southfield**", whose address is 26000 Evergreen Road, P.O. Box 2055, Southfield, Michigan 48037, approved the Owner's site plan for a development located at \_\_\_\_\_, hereinafter referred to as the "**Property**", which property is described as follows:

and

WHEREAS, as a condition of the above site plan approval the Owner is to provide for the perpetual maintenance of the Property,

NOW, THEREFORE, the Owner hereby agrees to perpetually adhere to the following site maintenance practices on the Property:

1. All lawn areas on the Property will be mowed at least every ten (10) days, during the months of April through October of each year.



2. All lawn areas of the Property shall be kept in a vigorous growing condition by regularly scheduled lawn care practices (i.e., fertilization, irrigation, and similar measures). Each year all dead and sparse grass areas shall be restored to a dense and healthy condition.
3. The Owner shall maintain detention ponds and natural areas on the Property, if any, by keeping said areas free of debris, mud, or other unsightly conditions. Drainage systems shall be kept fully operable as designed and built.
4. Trees and shrubs on the Property shall be pruned and maintained according to standard horticulture practices to keep plants in a neat and healthy condition. Broken, dead and unsafe branches shall be removed as they occur.
5. Trees, shrubs and other plantings on the Property shall be replaced with similar material when individual plantings are more than fifty percent (50%) dead.
6. All planting beds, mulched tree rings, and similar areas on the Property shall be kept weed free and shall have additional shredded bark mulch provided every two (2) years, or sooner if needed.
7. All landscape irrigation systems on the Property shall be kept operable as designed and shall be utilized as site and weather conditions dictate to ensure healthy, quality lawns and landscape throughout the Property.
8. Litter shall be removed from all paved areas, lawns, and planting beds on the Property on an as needed basis to keep the site litter free.
9. Dumpsters and trash containers on the Property shall be kept within dumpster enclosures and shall be serviced as often as necessary to ensure that said dumpsters, trash containers and trash enclosure areas are kept clean and orderly.
10. All paved surfaces, curbs, public and private walks, fencing, signs, lighting and other structures and surfaces on the Property shall be maintained in a complete, safe and attractive condition, as they were originally designed and constructed. Needed repairs or replacements shall be made which conform to the approved City of Southfield site, building, engineering and landscape plans.
11. All paved areas on the Property that are striped shall be re-striped when faded pursuant to applicable City of Southfield Zoning Ordinance specifications.
12. In the event the Owner fails to comply with the terms of this Agreement, Southfield may serve a written notice on the Owner in accordance with the provisions of Section 1.14 of the Southfield City Code setting forth the manner in which there has been failure to comply with this Agreement and requiring that the deficiencies be cured within ten (10) days from the date of said notice. If the deficiencies set forth in the notice shall not be cured within ten (10) days, or any extension thereof granted by Southfield, Southfield shall have a right to enter upon the property and correct such deficiencies, and the cost thereof shall be charged, assessed, and collected pursuant to Section 1.13 of the Southfield City Code.
13. This Agreement shall run with the Property and shall be binding upon the Owner and his successors and assigns.

\_\_\_\_\_  
\* BUILDING NAME OR ADDRESS

**INDIVIDUAL OWNERSHIP:**

(property owner(s) must sign)

\_\_\_\_\_  
Signature of Property Owner

\_\_\_\_\_  
\* (type or print name)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
\* (type or print name)

\_\_\_\_\_  
Telephone: (     )

*\* type or print in black ink only*

**NOTARY PUBLIC:** Please provide the name of the state and county in which this document was signed and all other information required below.

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ ) SS

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

by \_\_\_\_\_.  
\*[type or print name(s) of property owner(s)]

\_\_\_\_\_  
Notary Public \_\_\_\_\_

\_\_\_\_\_  
County, State of \_\_\_\_\_

My Commission expires: \_\_\_\_\_

Drafted by: Southfield City Attorney's Office  
26000 Evergreen Road  
Southfield, MI 48076

When recorded return to: Planning Department  
City of Southfield  
26000 Evergreen Road  
Southfield, MI 48076

\_\_\_\_\_
\* BUILDING NAME OR ADDRESS

PARTNERSHIP OWNERSHIP:

(property owner must sign)

\_\_\_\_\_  
\* Name of Partnership

By: \_\_\_\_\_  
Signature of Property Owner

\_\_\_\_\_  
\* (type or print name)

Its: \_\_\_\_\_  
\* Title

Telephone: ( ) \_\_\_\_\_

\* type or print in black ink only

NOTARY PUBLIC: Please provide the name of the state and county in which this document was signed and all other information required below.

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) SS

The foregoing instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, 20\_\_\_,  
by \_\_\_\_\_, a / the \_\_\_\_\_ on behalf  
\*(type or print name of Property Owner) \*(title)  
of \_\_\_\_\_, a partnership.  
\*(type or print name of Partnership)

\_\_\_\_\_  
Notary Public \_\_\_\_\_  
\_\_\_\_\_ County, State of \_\_\_\_\_  
My Commission expires: \_\_\_\_\_

Drafted by: Southfield City Attorney's Office  
26000 Evergreen Road  
Southfield, MI 48076

When recorded return to: Planning Department  
City of Southfield  
26000 Evergreen Road  
Southfield, MI 48076

\_\_\_\_\_  
\* BUILDING NAME OR ADDRESS

**CORPORATE OWNERSHIP:**

(property owner must sign)

\_\_\_\_\_  
\* Name of Corporation

By: \_\_\_\_\_  
Signature of Corporate Officer

\_\_\_\_\_  
\* (type or print name)

Its: \_\_\_\_\_  
\* Title of Officer

Telephone ( ) \_\_\_\_\_

*\* type or print in black ink only*

**NOTARY PUBLIC:** Please provide the name of the state and county in which this document was signed and all other information required below.

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) SS

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20 \_\_,

by \_\_\_\_\_, the \_\_\_\_\_  
\*(Name of Corporate Officer) \*(Title of Officer)

of \_\_\_\_\_, a \_\_\_\_\_ corporation, on  
\*(Name of Corporation) \*(State of Incorporation)

behalf of the Corporation.

\_\_\_\_\_  
Notary Public \_\_\_\_\_

\_\_\_\_\_  
County, State of \_\_\_\_\_

My Commission expires: \_\_\_\_\_

Drafted by: Southfield City Attorney's Office  
26000 Evergreen Road  
Southfield, MI 48076

When recorded return to: Planning Department  
City of Southfield  
26000 Evergreen Road  
Southfield, MI 48076

\_\_\_\_\_  
\*BUILDING NAME OR ADDRESS

If a tenant or management company will be responsible for site maintenance, either the tenant or management company must acknowledge said responsibility on this page (Page 4) of this Agreement. (This tenant/management company acknowledgement of responsibility must be notarized and is required in addition to the Property Owner's acknowledgment on Page 3.)

**MANAGEMENT COMPANY**

Responsible for Site Maintenance

**TENANT**

Responsible for Site Maintenance

\_\_\_\_\_  
\*Name of Management Company

\_\_\_\_\_  
\*Name of Company or Tenant

By: \_\_\_\_\_  
Signature of Company Officer

By: \_\_\_\_\_  
Signature of Tenant/Company Officer

\_\_\_\_\_  
\*(type or print name)

\_\_\_\_\_  
\*(type or print name)

Its: \_\_\_\_\_  
\*Title

Its: \_\_\_\_\_  
\*Title

( \_\_\_\_\_ )  
Telephone

( \_\_\_\_\_ )  
Telephone

*\*All printing to be in black ink*

**NOTARY PUBLIC:** Please provide the name of the state and county in which this document was signed and all other information required below.

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ ) SS

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ ,

by \_\_\_\_\_  
\*[type or print name of person / title / company name]

\_\_\_\_\_  
Notary Public \_\_\_\_\_

\_\_\_\_\_  
County, State of \_\_\_\_\_

My Commission expires: \_\_\_\_\_

Drafted by: Southfield City Attorney's Office  
26000 Evergreen Road  
Southfield, MI 48076

When recorded return to: Planning Department  
City of Southfield  
26000 Evergreen Road  
Southfield, MI 48076

### Sec. 5.22. - Site plan requirements.

Whenever in this chapter a site plan is required, the following information shall be included on the site plan:

- (1) A scale of not less than 1" = 20' (2.54 centimeters = 6.1 meters) if the subject property is less than three (3) acres (1.215 hectares) and 1" = 100' (2.54 centimeters = 30.5 meters) if three (3) acres (1.215 hectares) or more.
- (2) Date, north point, and scale.
- (3) The dimensions of all lot and property lines, showing the relationship of the subject property to abutting properties.
- (4) The location of all existing and proposed structures on the subject property and all existing structures within one hundred (100) feet (30.5 meters) of the subject property. Structures include the location and size of all existing trees and utility lines on and directly adjacent to the site.
- (5) The location of all existing and proposed drives and parking areas.
- (6) The location and right-of-way widths of all abutting streets and alleys.
- (7) A landscaping plan, including an itemized plant materials schedule with botanical and common names of materials, sizes, quantities, and the name, address and registration number of the registered landscape architect who is responsible for the preparation of the landscape plan.
- (8) The names, addresses and registration number of the professionally registered architect, planner or engineer responsible for the preparation of the site plan.
- (9) Once a site plan has been approved, that site plan shall be strictly adhered to and maintained as approved, including the landscaping, and shall not be altered or modified in any way without first securing permission of the approving body.
- (10) The city planner shall be authorized to review and approve amendments to previously approved site plans, when said amendment is for expansion of floor space in an existing building which was previously approved by the city council which expansion is no greater than twenty-five (25) percent of the gross square footage of the building area and not to exceed ten thousand (10,000) square feet (nine hundred thirty (930) square meters) of floor space of the previously approved building, or construction of a customary accessory structure, such as a garage, shed, carport, or dumpster screen, to an existing building when the site is already the subject of an existing or previously approved site plan by city council, provided that the accessory structure does not exceed ten (10) percent of the building area and not to exceed one thousand (1,000) square feet, (ninety-three (93) square meters) and provided the amendment meets all the requirements of this chapter, and does not require the granting of any variance by the zoning board of appeals in order to meet the requirements of this chapter.

*(Ord. No. 1153, 11-26-84; Ord. No. 1618, § 1, 3-9-14)*

### Sec. 5.70-2. - Site plan review.

No mobile home shall be placed on a site in a Mobile Home Park District (RMH) unless a site plan therefor has been approved by the city council. The city council shall not approve the site plan unless it receives a recommendation in connection with the site plan from the planning commission within sixty

(60) days after it has been requested by the council. In addition to general considerations of health, safety and welfare, the city council shall not approve the site plan unless it shall find as follows:

- (1) The site plan does show that ingress and egress is provided to a major thoroughfare or freeway service drive and that a proper relationship exists between the major thoroughfare and any proposed service roads, driveways, and parking areas to encourage pedestrian and vehicular traffic safety except:
  - (a) Ingress and egress driveways may be permitted to other than a major thoroughfare or freeway service drive where such ingress and egress is provided to a street where the property directly across the street from such driveways and all property abutting such street between the driveways and a major thoroughfare or freeway service drive is zoned for multiple-family use, any nonresidential uses, or is developed with permanent uses other than single-family residences. This exception shall only apply if the council finds that there are special circumstances which indicate that there will be a substantial improvement in traffic safety.

#### Sec. 5.72. - Site plan review.

No building, structure or land shall be erected or used in an Attached Single-Family Residential District (R-T) unless the site plan therefor has been approved by the city council. The city council shall not approve the site plan unless it receives a recommendation in connection with the site plan from the planning commission but the council may act on the site plan if a recommendation is not received from the planning commission within sixty (60) days after it has been requested by the council. The city council shall not approve the site plan unless it shall find as follows:

- (1) The site plan does show that ingress and egress is provided to a secondary thoroughfare, major thoroughfare, or freeway service drive and that a proper relationship exists between the secondary thoroughfare, major thoroughfare, and any proposed service roads, driveways and parking areas to encourage pedestrian and vehicular traffic safety, except:
  - (a) Ingress and egress driveways may be permitted to other than a major or secondary thoroughfare or freeway service drive where such ingress and egress is provided to a street where the property directly across the street from such driveway and all property abutting such street between the driveway and the major or secondary thoroughfare or freeway service drive is zoned for multiple-family use, any nonresidential uses, or is developed with permanent uses other than single-family residences. This exception shall only apply if the council finds that there are special circumstances which indicate that there will be a substantial improvement in traffic safety or that the property will be a transitional zone between a single-family zoning district and a nonresidential district.
  - (b) All the development features including the principal building and any accessory buildings, open spaces, service roads, driveways and parking areas are located so as to minimize the possibility of any adverse effects upon adjacent properties and so as to relate properly to pedestrian and vehicular traffic safety.

#### Sec. 5.82. - Site plan review.

In an RM, Multiple-Family Residential District, no building, structure or land shall be erected or used except for the following specified uses unless otherwise provided in this chapter. No building, structure or land shall be erected or used in an RM, Multiple-Family Residential District unless the site plan therefor

has been approved by the city council. The city council shall not approve the site plan until it receives a recommendation in connection with the site plan from the planning commission but the council may act on the site plan if a recommendation is not received from the planning commission within thirty (30) days after it has been requested by the council. The city council shall not approve the site plan unless it shall find as follows:

- (1) The site plan does show that ingress and egress is provided only to a secondary thoroughfare, major thoroughfare or freeway service drive and that a proper relationship exists between the major thoroughfare and any proposed service roads, driveways and parking areas to encourage pedestrian and vehicular traffic safety except:
  - (a) Ingress and egress driveways may be permitted to other than a secondary thoroughfare, major thoroughfare or freeway service drive where such ingress and egress is provided to a street where the property directly across the street from such driveways and all property abutting such street between the driveway and the major thoroughfare or freeway service drive is zoned for multiple-family use, any nonresidential uses, or is developed with permanent uses other than single-family residences. This exception shall only apply if the council finds that there are special circumstances which indicate that there will be a substantial improvement in traffic safety or that the property will be a transitional zone between a single-family zoning district and a nonresidential district.
- (2) All the development features, including the principal building and any accessory buildings, open spaces, and any service roads, driveways and parking areas, are so located and related to minimize the possibility of any adverse effects upon adjacent properties.
- (3) The traffic engineer shall submit to the planning commission and city council a report regarding the improvements in the public right-of-way which are necessary for the satisfactory operation of contiguous roadways.
- (4) To the extent possible, all the natural features of the property such as large trees, natural groves, watercourses, and similar assets that will add attractiveness and value to the property and will promote the health and welfare of the community shall be preserved.

Such review of the site plan is required to minimize the possibility of any adverse effects upon adjacent properties and, furthermore, to find proper relationships between the following development features as they relate to traffic safety: service roads, driveways, parking areas, accessory buildings and uses, and open spaces.

#### Sec. 5.92. - Site plan review.

In an RMM or RMU Multiple-Family Residential District, no building, structure or land shall be erected or used in an RMM or RMU Multiple-Family Residential District unless the site plan therefor has been approved by the city council. The city council shall not approve the site plan until it receives a recommendation in connection with the site plan from the planning commission but the council may act on the site plan if a recommendation is not received from the planning commission within thirty (30) days after it has been requested by the council. The city council shall not approve the site plan unless it shall find as follows:

- (1) The site plan does show that ingress and egress is provided only to a major thoroughfare or freeway service drive except that the RMM District may have ingress and egress to a secondary thoroughfare, and that a proper relationship exists between the thoroughfare and any proposed



service roads, driveways and parking areas to encourage pedestrian and vehicular traffic safety, except:

- (a) Ingress and egress driveways may be permitted to other than a major thoroughfare or freeway service drive where such ingress and egress is provided to a street where the property directly across the street from such driveway and all property abutting such street between the driveway and the major thoroughfare or freeway service drive is zoned for multiple-family use, any nonresidential uses, or is developed with permanent uses other than single-family residences. This exception shall only apply if the council finds that there are special circumstances which indicate that there will be a transitional zone between a single-family zoning district and a nonresidential district.
- (2) Such review of the site plan is required to minimize the possibility of any adverse effects upon adjacent properties and furthermore, to find proper relationships between the following development features as they relate to traffic safety, service roads, driveways, parking areas, accessory buildings and uses, and open spaces.
- (3) The traffic engineer shall submit to the planning commission and city council, a report regarding the improvements in the public rights-of-way which are necessary for the satisfactory operation of contiguous roadways.

#### Sec. 5.102. - Site plan review.

No building, structure or land shall be erected or used in an Office-Service District (O-S) unless a site plan therefor has been approved by the city council. The city council shall not approve the site plan unless it receives a recommendation in connection with the site plan from the planning commission, but the council may act on the site plan if a recommendation is not received from the planning commission within thirty (30) days after it has been requested by the council. The city council shall not approve the site plan unless it shall find as follows:

- (1) All the development features, including the principal building and any accessory buildings, open spaces, service roads, driveways and parking areas, are located so as to minimize the possibility of any adverse effects upon adjacent properties and so as to relate properly to pedestrian and vehicular traffic safety.
- (2) The site plan does show that access is provided only to a major or secondary thoroughfare or freeway service drive and that a proper relationship exists between the major or secondary thoroughfare and any proposed service roads, driveways and parking areas in order to encourage pedestrian and vehicular traffic safety, except that: access driveways may be permitted to other than a major or secondary thoroughfare or freeway service drive where such access is provided to a street where the property directly across the street from such driveway and all property abutting such street between the driveway and the major or secondary thoroughfare or freeway service drive is within a multiple-family district or any nonresidential district, or is developed with permanent uses which are other than single-family residences. This exception shall apply only to property having frontage on a major or secondary thoroughfare or freeway service drive and shall apply only upon a finding that there are special circumstances which indicate that there will be a substantial improvement in traffic safety.

The site plan shall not be approved unless all interior and abutting streets have sufficiently improved rights-of-way to accommodate the vehicular traffic generated by the uses permitted in the district or unless adequate provision is made at the time of the approval of the site plan for

such sufficiently improved rights-of-way.

(Ord. No. 1046, 1-5-81)

Sec. 5.111. - Site plan review.

In an ERO-M (Education-Research-Office-Limited) or ERO (Education-Research-Office) District no building, structure or land shall be erected or used except for the following specified uses unless otherwise provided in this chapter. No building, structure or land shall be erected or used in an ERO-M (Education-Research-Office-Limited) or ERO (Education-Research-Office) District unless the site plan therefor has been approved by the city council. The city council shall not approve the site plan until it receives a recommendation in connection with the site plan from the planning commission but the council may act on the site plan if a recommendation is not received from the planning commission within thirty (30) days after it has been requested by the council. The city council shall not approve the site plan unless it shall find as follows:

- (1) The site plan does show that ingress and egress is provided only to a major thoroughfare or freeway service drive and that a proper relationship exists between the major thoroughfare and any proposed service roads, driveways and parking areas to encourage pedestrian and vehicular traffic safety, except:
  - (a) Ingress and egress driveways may be permitted to other than a major thoroughfare or freeway service drive where such ingress and egress is provided to a street where the property directly across the street from such driveway and all property abutting such street between the driveway and the major thoroughfare or freeway service drive is zoned for multiple-family use, any nonresidential uses, or is developed with permanent uses other than single-family residences. This exception shall only apply if the council finds that there are special circumstances which indicate that there will be a substantial improvement in traffic safety or that the property will be a transitional zone between a single-family zoning district and a nonresidential district.
- (2) All the development features, including the principal building and any accessory buildings, open spaces, and any service roads, driveways and parking areas are so located and related to minimize the possibility of any adverse effects upon the adjacent properties.
- (3) The traffic engineer shall submit to the planning commission and city council a report regarding the improvements in the public rights-of-way which are necessary for the satisfactory operation of contiguous roadways.
- (4) To the extent possible, all the natural features of the property such as large trees, natural groves, watercourses, and similar assets that will add attractiveness and value to the property and will promote the health and welfare of the community shall be preserved.

Such review of the site plan is required to minimize the possibility of any adverse effects upon adjacent properties and, furthermore, to find proper relationships between the following development features as they relate to traffic safety: service roads, driveways, parking areas, accessory buildings and uses, and open spaces.

Failure to begin construction within twelve (12) months of approval of the city council shall make the approval null and void unless an extension is requested, in writing, by the applicant and the request is granted by the city council.

Sec. 5.126. - Site plan review.

No building, structure or land shall be erected or used in a Neighborhood Shopping (NS) District unless a site plan therefore has been approved by the city council. The city council shall not approve the site plan unless it receives a recommendation in connection with the site plan from the planning commission, but the council may act on the site plan if a recommendation is not received from the planning commission within thirty (30) days after it has been requested by the council. The council shall not approve the site plan unless it shall find as follows:

- (1) All the development features, including the principal building and any accessory buildings, open spaces, service roads, driveways, and parking areas are so located as to minimize the possibility of any adverse effects upon adjacent properties and so as to relate properly to pedestrian and vehicular traffic safety.
- (2) The site plan does show that access is provided only to a major or secondary thoroughfare and that a proper relationship exists between the major or secondary thoroughfare and any proposed service roads, driveways, and parking areas in order to encourage pedestrian and vehicular traffic safety.
- (3) The site plan shall not be approved unless all interior and abutting streets have sufficiently improved rights-of-way to accommodate the vehicular traffic generated by the uses permitted in the district or unless adequate provision is made at the time of the approval of the site plan for such sufficiently improved rights-of-way.

*(Ord. No. 1483, 2-16-03)*

#### Sec. 5.132. - Site plan review.

No building, structure or land shall be erected or used in a Regional Shopping (RS) Center District unless a site plan therefore has been approved by the city council. The city council shall not approve the site plan unless it receives a recommendation in connection with the site plan from the planning commission, but the council may act on the site plan if a recommendation is not received from the planning commission within thirty (30) days after it has been requested by the council. The council shall not approve the site plan unless it shall find as follows:

- (1) All the development features, including the principal building and any accessory buildings, open spaces, service roads, driveways, and parking areas, are so located as to minimize the possibility of any adverse effects upon adjacent properties and so as to relate properly to pedestrian and vehicular traffic safety.
- (2) The site plan does show that access is provided only to a major or secondary thoroughfare and that a proper relationship exists between the major or secondary thoroughfare and any proposed service roads, driveways, and parking areas in order to encourage pedestrian and vehicular traffic safety.
- (3) The site plan shall not be approved unless all interior and abutting streets have sufficiently improved rights-of-way to accommodate the vehicular traffic generated by the uses permitted in the district or unless adequate provision is made at the time of the approval of the site plan for such sufficiently improved rights-of-way.

*(Ord. No. 1484, 2-16-03)*

#### Sec. 5.138-B. - Site plan review.

In an RC, Regional Center, District no building, structure or land shall be erected or used except for the following specified uses unless otherwise provided in this chapter. No building, structure, or land shall be erected or used in an RC, Regional Center District unless the site plan therefor has been approved by the city council. The city council shall not act on the site plan until it receives a recommendation in connection with the site plan from the planning commission but the council may act on the site plan if a recommendation is not received from the planning commission within ninety (90) days after it has been requested by the council. The city council shall not approve the site plan unless it shall find as follows:

- (1) All the development features, including principal buildings and any accessory buildings, open spaces, service roads, driveways and parking areas, are located so as to minimize the possibility of any adverse effects upon adjacent properties and so as to relate properly to traffic safety.
- (2) The site plan does show that access is provided only to a major thoroughfare or freeway service drive and that a proper relationship exists between the major thoroughfare and any proposed service roads, driveways, and parking areas in order to encourage pedestrian and vehicular traffic safety except that: access driveways may be permitted to other than a major thoroughfare or freeway service drive where such access is provided to a street where the property directly across the street from such driveway and all property abutting such street between the driveway and the major thoroughfare or freeway service drive is within a multiple-family district or any nonresidential district, or is developed with permanent uses which are other than single-family residences.

The site plan shall not be approved unless all interior and abutting streets have sufficiently improved rights-of-way to accommodate the vehicular traffic generated by the uses permitted in the district or unless adequate provision is made at the time of approval of the site plan for such sufficiently improved rights-of-way.

In order that the public health, safety, morals and general welfare be furthered in an era of increasing urbanization and of growing demand for housing; to provide for necessary office space; and to allow for commercial facilities located conveniently to the population of the housing and office space; to encourage innovations in residential, office and commercial development so that the growing demands of the population may be met by great variety in type, design and layout of buildings and by the conservation and more efficient use of open space ancillary to said buildings; in order to encourage a more efficient use of land and of public services; to lessen the burden of traffic on streets and highways; to provide a procedure which can relate the type, design and layout of residential, office and commercial development to the particular site, it is necessary to review site plans on a master plan concept for the property indicating the staging of development and defining the location and acreages to be devoted to specific uses.

The traffic engineer shall submit to the planning commission and city council a report regarding the improvements in the public rights-of-way which are necessary for the satisfactory operation of contiguous roadways based upon the submitted master plan.

#### **Editor's note—**

Ord. No. 678 as amended through November 13, 2005, enacted provisions to be designated as § 5.138. Inasmuch as there already exists a § 5.138, and in order to maintain the numeric style of the Code, said provisions have been redesignated as § 5.138-B

#### Sec. 5.148. - Site plan review.

No building, structure, or land shall be erected or used in a B-1, Neighborhood Business District unless a site plan therefore has been approved by the city council. The city council shall not approve the site plan until it receives a recommendation in connection with the site plan from the planning commission but the council may act on the site plan if a recommendation is not received from the planning commission within thirty (30) days after it has been requested by the council. The city council shall not approve the site plan unless it shall find as follows:

- (1) All the development features, including the principal building and any accessory buildings, open spaces, service roads, driveways, and parking areas are located so as to minimize the possibility of any adverse effects upon adjacent properties and so as to relate properly to pedestrian and vehicular traffic safety.
- (2) The site plan does show that access is provided only to a major or secondary thoroughfare or freeway service drive and that a proper relationship exists between the major or secondary thoroughfare and any proposed service roads, driveways, and parking areas in order to encourage pedestrian and vehicular traffic safety, except that: access driveways may be permitted to other than a major or secondary thoroughfare or freeway service drive where such access is provided to a street where the property directly across the street from such driveway and all property abutting such street between the driveway and the major or secondary thoroughfare or freeway service drive is within a multiple-family district or any nonresidential district, or is developed with permanent uses which are other than single-family residences. This exception shall apply only to property having frontage on a major or secondary thoroughfare or freeway service drive and shall apply only upon a finding that there are special circumstances which indicate that there will be a substantial improvement in traffic safety.

The site plan shall not be approved unless all interior and abutting streets have sufficiently improved rights-of-way to accommodate the vehicular traffic generated by the uses permitted in the district or unless adequate provision is made at the time of the approval of the site plan for such sufficiently improved rights-of-way.

*(Ord. No. 1047, 1-5-81)*

#### Sec. 5.157. - Site plan review.

No building, structure, or land shall be erected or used in a B-2, Planned Business District unless a site plan therefore has been approved by the city council. The city council shall not approve the site plan until it receives a recommendation in connection with the site plan from the planning commission but the council may act on the site plan if a recommendation is not received from the planning commission within ninety (90) days after it has been requested by the council. The city council shall not approve the site plan unless it shall find as follows:

- (1) All the development features, including the principal building and any accessory buildings, open spaces, service roads, driveways, and parking areas are so located as to minimize the possibility of any adverse effects upon adjacent properties and so as to relate properly to pedestrian and vehicular traffic safety.
- (2) The site plan does show that access is provided only to a major or secondary thoroughfare or freeway service drive and that a proper relationship exists between the major or secondary thoroughfare and any proposed service roads, driveways, and parking areas in order to

encourage pedestrian and vehicular traffic safety, except that: access driveways may be permitted to other than a major or secondary thoroughfare or freeway service drive where such access is provided to a street where the property directly across the street from such driveway and all property abutting such street between the driveway and the major or secondary thoroughfare or freeway service drive is within a multiple-family district or any nonresidential district, or is developed with permanent uses which are other than single-family residences. This exception shall apply only to property having frontage on a major or secondary thoroughfare or freeway service drive and shall apply only upon a finding that there will be a substantial improvement in traffic safety.

The site plan shall not be approved unless all interior and abutting streets have sufficiently improved rights-of-way to accommodate the vehicular traffic generated by the uses permitted in the district or unless adequate provision is made at the time of the approval of the site plan for such sufficiently improved rights-of-way.

Sec. 5.167. - Site plan review.

No building, structure or land shall be erected or used in a B-3, General Business District unless a site plan therefore has been approved by the city council. The city council shall not approve the site plan until it receives a recommendation in connection with the site plan from the planning commission, but the council may act on the site plan if a recommendation is not received from the planning commission within thirty (30) days after it has been requested by the council. The city council shall not approve the site plan unless it shall find as follows:

- (1) All the development features, including the principal building and any accessory buildings, open spaces, service roads, driveways, and parking areas are located so as to minimize the possibility of any adverse effects upon adjacent properties and so as to relate properly to pedestrian and vehicular traffic safety.
- (2) The site plan does show that access is provided only to a major or secondary thoroughfare or freeway service drive and that a proper relationship exists between the major or secondary thoroughfare and any proposed service roads, driveways, and parking areas in order to encourage pedestrian and vehicular traffic safety, except that: access driveways may be permitted to other than a major or secondary thoroughfare or freeway service drive where such access is provided to a street where the property directly across the street from such driveway and all property abutting such street between the driveway and the major or secondary thoroughfare or freeway service drive is within a multiple-family district or any nonresidential district, or is developed with permanent uses which are other than single-family residences. This exception shall apply only to property having frontage on a major or secondary thoroughfare or freeway service drive and shall apply only upon a finding that there are special circumstances which indicate that there will be a substantial improvement in traffic safety.

The site plan shall not be approved unless all interior and abutting streets have sufficiently improved rights-of-way to accommodate the vehicular traffic generated by the uses permitted in the district or unless adequate provision is made at the time of the approval of the site plan for such sufficiently improved rights-of-way.

*(Ord. No. 1048, 1-5-81)*

**APPENDIX H**  
**Pollution Prevention and Good Housekeeping**

# STANDARD OPERATING PROCEDURE POLLUTION PREVENTION AND GOOD HOUSEKEEPING

## GENERAL PROCEDURES

PREPARED FOR:

THE CITY OF SOUTHFIELD  
26000 EVERGREEN RD, SOUTHFIELD, MICHIGAN 48076



APRIL 2016



## 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 Best Management Practices (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 Southfield 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 as outlined in the NPDES permit application:

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 water bodies
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 that are included in Appendix H of the Stormwater Management Plan (SWMP).

## SECTION C – UPDATES AND PRIORITY REVISION

This inventory shall be updated within 120 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 120 days of discharging stormwater at a new facility, or when the storage of materials, equipment, or vehicles changes at a facility.

## SECTION D – MUNICIPAL INVENTORY AND ASSESSMENT

The following table identifies the City'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 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.

**Table 1**

Facility Name	Structural Controls	Priority Level	Assessment Factors	BMP's Implemented
DPW Facility	Catch Basins (5) Storm Manholes (1) Dumpster (2) Stockpiles (3) Salt dome (1) Underground Storage Tank (2) Compactor (1) Above Ground Storage Tank (1)	High	1, 3, 4	See Section E
Civic Center & Evergreen Hills Golf Course	Catch Basins (98) Storm Manholes (39) Stockpiles (8) Above Ground Storage Tank (1) Underground Storage Tank (2) Rain Garden (1) Pervious Pavement	High	1, 3	See Section E
Beech Woods Golf Course	Catch Basins (8) Storm Manholes (4) Pervious Pavement	Low	1	Catch basin cleaning Street sweeping
Fire Department Headquarters	Catch Basins (7) Storm Manholes (3) Above Ground Storage Tank (1)	High	1	Catch basin cleaning Street Sweeping See Section E
Fire Station #1	Above Ground Storage Tank (1)	High	1	See Section E
Fire Station #2	Catch Basins (8) Detention Basin (1) Above Ground Storage Tank (1)	High	1	Catch basin cleaning Street sweeping Basin maintenance
Fire Station #3	Catch Basins (2) Above Ground Storage Tank (1)	High	1	Catch basin cleaning Street sweeping See Section E
Burgh Historical Park	Catch Basins (1) Storm Manholes (2)	Low	1	Catch basin cleaning Street sweeping
Inglenook Park	Catch Basins (9) Storm Manholes (1) Ditch (1) Rain Garden (1) Pervious Pavement	Low	1	Catch basin cleaning Street sweeping Ditch maintenance
Pebble Creek Park	Catch Basins (4)	Low	1	Catch basin cleaning Street sweeping
Miller Park	Catch Basins (3)	Low	1	Catch basin cleaning Street sweeping
Carpenter Lake Nature Preserve	Bioswale (1) Pervious Pavement	Low	1	Street sweeping Swale maintenance

In addition to the properties in Table 1, the City also owns several other lots with no structural stormwater controls.

## 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 majority of the City's Department of Public Works (DPW) operations is conducted at their 25501 Clara Lane facility. The City's parks and golf maintenance facility, located at the City Civic Center at 26000 Evergreen Road, has a fueling area and conducts grounds maintenance operations. Additional fueling areas are located at the Fire Department Headquarters and Fire Stations #1, #2, and #3. All six sites are considered high priority sites due the following operations:

#### **DPW Facility – 25501 Clara Lane**

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

#### **Civic Center & Evergreen Hills Golf Course – 26000 Evergreen Road**

- Fuel Storage and Fueling
- Maintenance and cleaning of vehicles and equipment
- Stockpiled materials
- Storage of pesticides, herbicides, and fertilizers

#### **Fire Stations – 24477 Lahser Road, 18400 W Nine Mile Road, 25753 W Nine Mile Road & 20135 W Twelve Mile Road**

- Fuel Storage and Fueling

Site specific standard operating procedures have been developed for these facilities and are included as separate documents. Please see the Standard Operating Procedures – DPW Facility, Standard Operating Procedures – Civic Center, and Standard Operating Procedures – Fire Stations.

## SECTION F –CATCH BASIN MAINTENANCE PRIORITY

Catch basins that are inspected and maintained by the City have been prioritized for routine inspection, maintenance, and cleaning. The criteria for the priority levels that include low, medium, and high are defined as follows:

**Low Priority** – Catch basins that are of low priority have very little sediment accumulation and do not require routine maintenance. Low priority catch basins are

inspected on an as needed basis based on complaints or by DPW staff during normal work activities.

**Medium Priority** – Catch basins that are of medium priority have a higher rate of sediment accumulation and will require maintenance more frequently than low priority catch basins.

**High Priority** – Catch basins that are of high priority have a high rate of sediment accumulation and will require regular routine maintenance and inspection. These catch basins are typically located in areas where sediment is easily mobilized and transported by runoff.

All of the City's catch basins have very little sediment accumulation rates, require little maintenance and are of low priority. 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 as needed. At that time, it will be determined if the catch basin will require maintenance on a more frequent interval and warrants a reclassification to a medium priority rating. In the event the priority rating of a catch basin is changed, or new catch basins are constructed, this procedure will be updated and revised to reflect the change in priority within 120 days.

## **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 using a standardized form. Structure repairs are prioritized based on public safety concerns. City owned catch basins are inspected concurrently with cleaning activities on a three year cycle. DPW field staff utilizes a Vactor truck to remove all solids and liquids from the structure to the extent possible. 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.

## **SECTION H – DISPOSAL OF COLLECTED MATERIAL**

Collected material from catch basin maintenance and street sweeping activities is transported to the DPW Facility where it is stored temporarily in a closed dumpster before being hauled away by a third party.

## **SECTION I – STREET SWEEPING PRIORITIZATION**

City owned and maintained streets have been prioritized for street sweeping. The criteria for the priority levels that include low, medium, and high are defined as follows:

**Low Priority** – Residential streets within the City are of low priority due to their minimal sediment accumulation rates. They are generally swept at least two times per year.

**Medium Priority** – Major roads throughout the City are of medium priority due to the higher rate of sediment accumulation rates in comparison to low priority residential streets. Medium priority areas are generally swept three to four times per year.

**High Priority** – Areas that are of high priority have a high rate of sediment accumulation and will require regular, frequent sweeping. These areas are typically located in areas where sediment is easily mobilized and transported by runoff. Additionally, areas that prompt resident complaint or are subject to excessive road sediments are also considered a high priority area. There are currently no areas that have been assigned a high priority rating due to excessive road sediments and resident complaints. However, if DPW receives a complaint, a determination of the area will be made by DPW staff to increase sweeping on a more frequent interval as well as a reclassify the area to high priority rating.

In the event a priority rating is changed, or new City owned streets are constructed, this procedure will be updated and revised to reflect the change in priority within 120 days.

Street sweeping activities are conducted by the City's DPW staff using mechanical street sweeping equipment according to the manufacturer's operating instructions. Collected sediment from street sweeping activities is disposed of as described in Section H.

## **SECTION J – OTHER STRUCTURAL STORMWATER CONTROLS**

In addition to implementing the catch basin maintenance and street sweeping programs, the City also performs inspections of drainage ditches and pump stations that are located throughout the City.

### **J.1 Drainage Ditch Inspection/Maintenance**

The routine inspection of drainage ditches located on City owned properties (i.e. parks) consists of visual evaluation of blockages or excessive sedimentation. Inspections generally occur during the course of daily park operations, or 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 within the ditch.

### **J.2 Pump Stations**

The City currently owns and operates a total of five (5) stormwater pump stations. Routine inspection of the pump stations is conducted on a monthly basis. Any maintenance that is needed is conducted on an as-needed basis and documented by the DPW.

### **J.3 Rain Garden/Bioretention Basin Inspection/Maintenance**

Rain gardens and bioretention basins should be inspected on a biannual basis. Inspections should assess the vegetation, presence of invasive species, erosion, flow

channelization, bank stability, inlet/outlet conditions, embankment, and sediment and debris accumulations. The inspections should also determine if the basin is properly dewatering 24-48 hours after a major storm event. Based on the inspections, maintenance tasks that include re-seeding and/or replanting bare areas, removal of accumulated sediment, floatables and litter, and treatment of invasive species should be undertaken if the basin has reduced functional capacity.

#### **J.4 Pervious Pavement**

Areas with pervious pavement should be inspected for sediment accumulation and clogging, and should be swept and kept free of leaves, grass, debris, and sediment at least on a quarterly basis. Pervious pavement should be vacuumed at least once every ten years to prevent frequent ponding that is not addressed through regular sweeping activities.

#### **J.5 Detention Basin Inspection/Maintenance**

Detention basins that are owned and operated by the City are inspected on an annual basis. Inspections should assess the vegetation, erosion, flow channelization, bank stability, inlet/outlet conditions, embankment, and sediment and debris accumulations. Sediment should be removed from the basin forebay. If it is determined that maintenance activities are needed, the City will document the needed maintenance actions and perform any maintenance activities 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 120 days.

### **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 Oakland County. Site plans will be reviewed by the City, or its consultants, to ensure the appropriate standards are met.

### **SECTION L – CERTIFIED PESTICIDE APPLICATOR**

The DPW department has certified pesticide applicators on staff. Pesticides and fertilizers are used for golf course applications only and are stored indoors at the Parks Maintenance building. In the event the application of pesticides or fertilizers is needed for other purposes, the City shall retain the services of a licensed applicator.

### **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, Oakland and/or

Wayne County, the Alliance of Rouge Communities, and others as deemed appropriate. Employee training components for the City public works and parks maintenance staff includes:

Employees Trained	Training Description and Frequency
New DPW and Parks Employees	Upon hire, employees will: <ul style="list-style-type: none"> <li>• Read and become familiar with the City of Southfield SOPs</li> <li>• Participate in a job shadow program where new staff is paired with a DPW foreman or grounds crewman for 30 days.</li> </ul>
All DPW Staff	Once per permit cycle: <ul style="list-style-type: none"> <li>• View the Municipal Storm Water Pollution Prevention Storm Watch training video (or similar).</li> <li>• Review proper materials storage and handling.</li> <li>• Review good housekeeping and pollution prevention practices</li> <li>• Review examples of illicit discharges to storm sewer system</li> <li>• Review City’s Spill Response Procedure</li> <li>• Incorporation of stormwater BMPs into recurring staff meetings (DPW)</li> </ul>
Key staff	Attend relevant training workshops by the Alliance of Rouge Communities, SEMCOG, or others, when available.

**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. All work performed by outside contractors is monitored by City staff through observation to ensure quality of work, adherence to the specified contract language, and to ensure that potential impacts to stormwater are minimized.

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

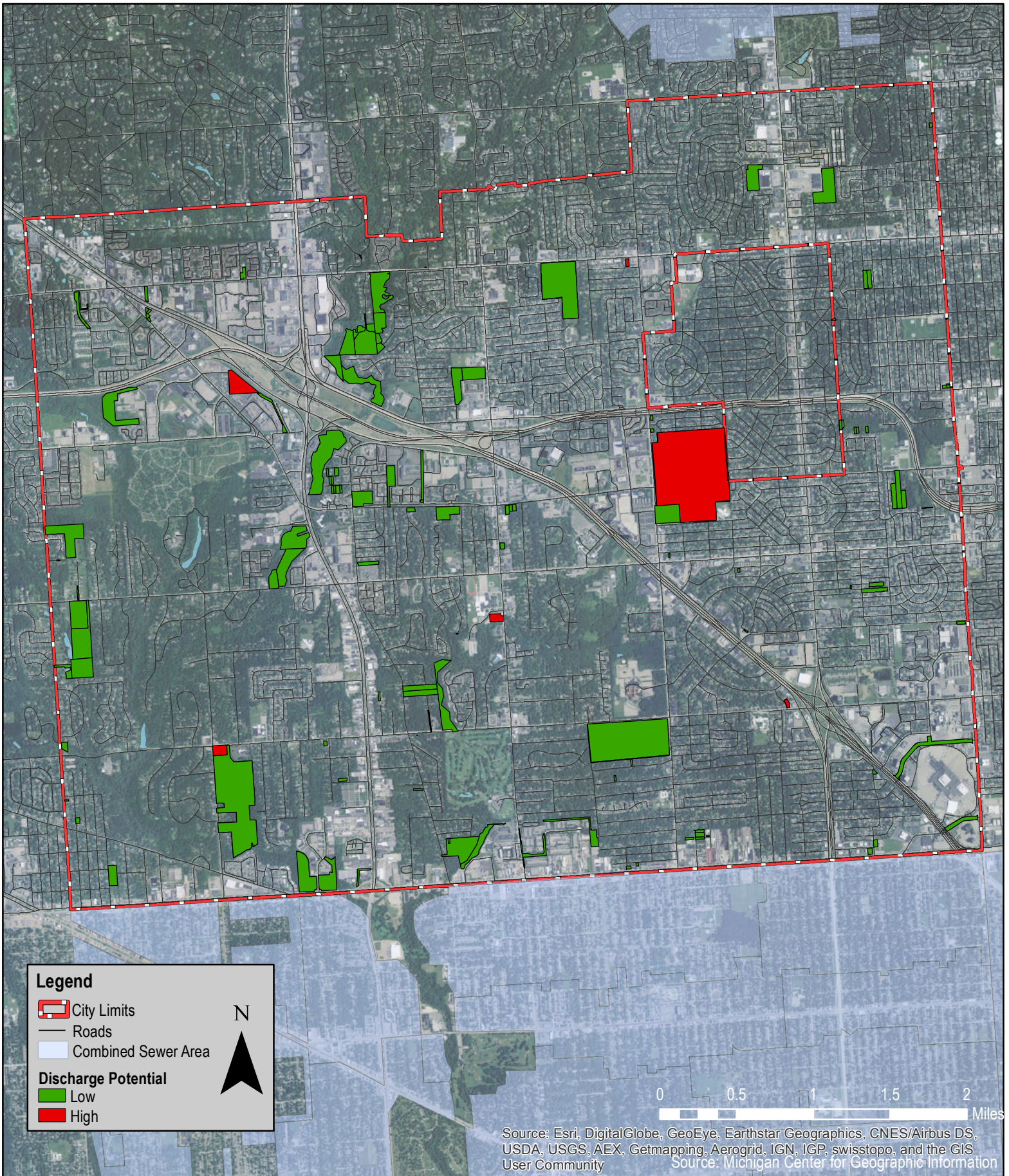
- Number of stormwater pollution related incidents pertaining to activities or work performed by the contractor.
- Number of incidents where the City required corrective action by the contractor.

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

**SECTION O – PROCESS FOR REVISION**

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





# City of Southfield Facilities Location Map

Oakland County, Michigan





# STANDARD OPERATING PROCEDURE POLLUTION PREVENTION AND GOOD HOUSEKEEPING

## DPW FACILITY

PREPARED FOR:

THE CITY OF SOUTHFIELD  
26000 EVERGREEN RD, SOUTHFIELD, MICHIGAN 48076



APRIL 2016

## **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. The following standard operating procedure is intended for the City of Southfield Department of Public Works (DPW) Facility, which has been deemed as a high priority based on the operations that are conducted at the site.

## **SECTION B – FACILITY ASSESSMENT AND PRIORITIZATION**

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. The DPW Facility 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 as outlined in the NPDES permit application:

- 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)
- Potential for polluting activities to be conducted outside (i.e. vehicle washing)
- Proximity to water bodies

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.

## **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 (5)
- Storm sewer manhole structures (1)
- Dumpsters (2)
- Materials stockpiles (3)
- Salt dome (1)
- Compactor (1)
- 3,000 gallon underground storage tanks (gasoline, diesel) (2)
- 1,000 gallon above ground storage tank (waste oil) (1)

### **C.1 DPW Inventory and Description of Materials and Activities**

The City's DPW Facility is located at 25501 Clara Lane and consists of one (1) building, which encompasses DPW administration, fleet maintenance, sign production, water and sewer maintenance, and general storage. Municipal activities that occur at the facility include the following:

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

### **SECTION D – FUEL STORAGE AND FUELING**

The City's DPW Facility currently has two (2) underground storage tanks with a maximum capacity of 3,000 gallons each that are used to store both gasoline and diesel fuel, and one (1) above ground storage tank with a capacity of 1,000 gallons that stores waste oil. 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:

- Both underground tanks are double-walled, comprised of fiberglass and located outside within a paved, designated fueling area.
- The above ground tank is double-walled, comprised of steel, and located next to the garage on a paved area. This tank also has secondary containment measures.
- All tanks are equipped with an emergency power shut-off, leak detection and volume monitoring controls. The tanks are only filled on an as-needed basis.
- All bulk liquid tanker delivery vehicles will only be allowed on site if contact has been made with properly trained personnel and it has been confirmed that these personnel will be present at the delivery point.
- Properly trained personnel will be in attendance to monitor the entire transfer process. They are authorized to terminate or to order the driver to terminate the transfer and have the driver move the tanker in case of an emergency. Attending personnel will be alert, have an unobstructed view of the cargo tank connections and be within 25 feet of the cargo tank during transfer operations.
- Properly trained DPW staff will direct the tanker for proper positioning, verify, and provide access to the correct fill port. Access to other fill ports or unlocking pipeline caps in anticipation of other delivery vehicles is strictly prohibited.
- Properly trained DPW staff will ensure a potential spill or release cannot enter storm drains by placing a protective barrier on or around affected storm drains (i.e. spill blanket).

- Wheel chocks or other approved methods to prevent the tanker from moving during the transfer process or driving off without following proper disconnection practices.
- Inspection of the truck to ensure that there are no leaks will be conducted before and after the transfer operation.
- Connected hoses and connections will be reviewed and verified prior to the transfer.
- The available volume of the tank will be verified prior to transfer to prevent over-filling.
- During removal of the transfer lines, trained staff will ensure that excess material is drained into the appropriate receiving tank or receptor to prevent a release of materials to the environment.
- Trained staff will monitor the termination process and inspect the lower most tanker manifold for evidence of leaks or damage prior to the tanker's departure.
- A spill kit will be stationed next to the storage tanks at all times.

A fueling log is maintained to track and record the volume of fuel dispersed for City vehicles and equipment. Completion of these logs is mandatory and used as secondary control to track the volume of fuel stored in the tanks.

All other vehicle fluids are stored indoors. Floor drains within the DPW building are connected to the sanitary sewer. Vehicle maintenance activities are conducted indoors.

## **SECTION E – ON SITE WASTE DISPOSAL**

A total of two (2) dumpsters are kept on site for office trash, construction refuse, and scrap metal storage. There is also a compactor located in a paved area that drains to the sanitary sewer. The dumpsters and compactor are not used for the disposing of hazardous materials. The dumpsters are to be covered when not in use.

## **SECTION F – WINTER OPERATIONS**

The City's DPW field staff applies rock salt as part of their deicing procedures during the winter months. Bulk storage of road salt and brine is located at the DPW Facility.

### **F.1 Salt Storage and Loading**

The City has one (1) salt dome, which has a maximum capacity of 3,000 tons of salt. The floor is comprised of an impervious cement pad. The salt dome not located within 50 feet of a lake shore, stream bank, or wetland, nor is it located in a 100-year floodplain.

Loading of salt takes place inside the structure entrance. The loading area is maintained after each use, with excess salt being swept back inside the salt dome. There are no catch basins located near the salt dome.

Salt storage and application training is performed annually for DPW staff. Staff has been trained to minimize any track-out from loading operations. Salt application vehicles are calibrated before the winter season.

## **SECTION G – ROAD, PARKING LOT, AND SIDEWALK MAINTENANCE**

Road, parking lot, and sidewalk maintenance activities includes pothole repair, sidewalk repair/replacement, and curb and gutter repair. These services are addressed by DPW field staff as determined in the field on an as needed basis. Materials are purchased in quantities as needed to reduce waste. Left-over materials are stored in designated stockpile areas at the DPW Facility and covered. In cases where a contractor is retained to perform these activities, a City representative is on site to oversee the work and ensure that left over material, concrete washout, and other associated pollutants are disposed of properly. Disposing of concrete washout and other excess repair materials into the storm sewer is strictly prohibited by the City.

## **SECTION H – VEHICLE WASHING AND MAINTENANCE**

Vehicle maintenance activities are conducted by DPW staff for the City'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 using the City's computer system which is used to document all vehicle maintenance and repair activities.

Vehicle washing activities are conducted indoors. Floor drains within the DPW facility are connected to the sanitary sewer.

## **SECTION I – STRUCTURAL STORMWATER CONTROLS**

The following structural stormwater controls are in place at the DPW facility to prevent or minimize impacts to stormwater.

### **I.1 Stockpiled Materials**

Designated stockpile areas are located on the east side of the property. Materials are stockpiled at this location infrequently and include sand, gravel, and other earthen materials as needed. All stockpiles have perimeter controls in place to prevent erosion which are comprised of precast concrete blocks that are positioned at rear and sides of the stockpile. The front is left open to provide access for loading. When not in use, the stockpiles are covered with a tarp to minimize erosion.

### **I.2 Secondary Containment**

The on-site AST is placed in a secondary containment to mitigate spills and leaks. Containment measures are comprised of a self-contained, steel tray that is not equipped with an outlet. Secondary containment measures are inspected over the course of daily operations by DPW staff and during waste disposal operations. If DPW staff observes that the secondary containment structure is nearing capacity (typically from precipitation), a licensed waste hauler is contracted to pump out the structure using a Vactor truck. Collected liquids are transported and disposed at an appropriate wastewater treatment facility by the third party.

## **SECTION J – NON-STRUCTURAL CONTROLS**

The City is committed to employing preventative maintenance practices through the use of several nonstructural 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:

### **J.1 Routine Inspections and Good Housekeeping Procedures**

Preventive maintenance involves the regular inspection, testing, and cleaning of facility equipment, vehicles, and operational systems. DPW foremen meet with field staff on a daily basis to discuss daily assignments and objectives. A routine inspection is conducted by facility staff during site walkthroughs during normal operations activities. The purpose of these inspections is to identify and prevent conditions that could lead to stormwater pollution. A log of corrective actions will be kept on file using the City's computer system.

Staff inspect all vehicles consistent with Commercial Drivers 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.

### **J.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) 6 months which generally coincides with a planned cleaning of the entire facility. Documentation of the comprehensive site inspection results will be prepared and kept on file.

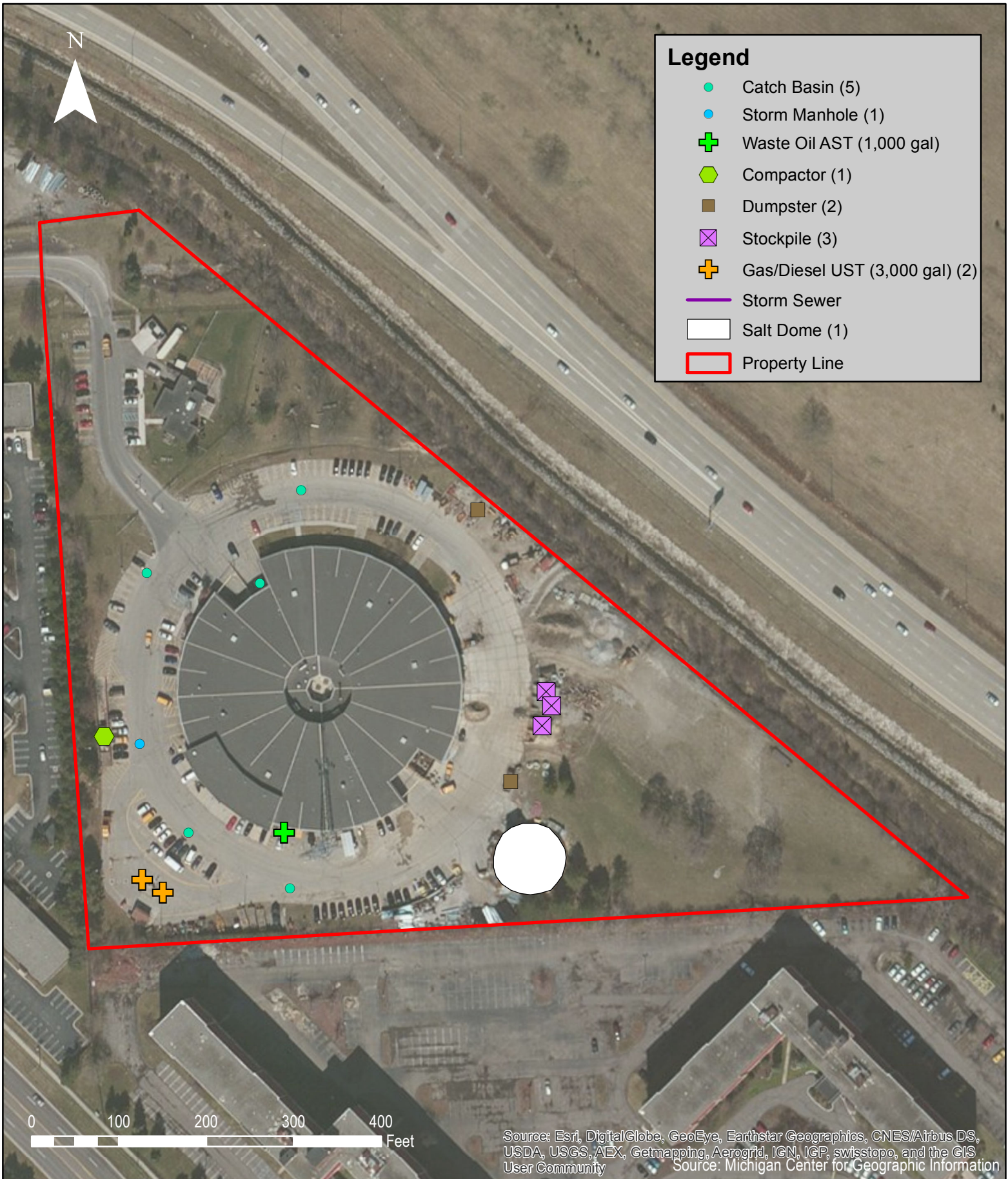
### **J.3 Employee Training Program**

Employee training programs will be implemented to inform appropriate personnel at all levels of responsibility of safety, environmental impacts, and good housekeeping practices. The standard operating procedure for employee training can be found in the City's general Pollution Prevention and Good Housekeeping Standard Operating Procedure.

## **SECTION K – PROCESS FOR REVISION**

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





# City of Southfield - Department of Public Works

25501 Clara Ln  
 Southfield, MI 48034





# STANDARD OPERATING PROCEDURE POLLUTION PREVENTION AND GOOD HOUSEKEEPING

## CIVIC CENTER

PREPARED FOR:

THE CITY OF SOUTHFIELD  
26000 EVERGREEN RD, SOUTHFIELD, MICHIGAN 48076



APRIL 2016

## **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. The following standard operating procedure is intended for the City of Southfield Civic Center, which has been deemed as a high priority based on the operations that are conducted at the site.

## **SECTION B – FACILITY ASSESSMENT AND PRIORITIZATION**

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. The Civic Center 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 as outlined in the NPDES permit application:

- 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)
- Potential for polluting activities to be conducted outside (i.e. vehicle washing)

Based on these criteria, the Civic Center 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.

## **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 (98)
- Storm sewer manhole structures (39)
- Above ground storage tank (diesel) (1)
- Underground storage tank (diesel) (1)
- Underground storage tank (gasoline) (1)
- Materials stockpiles (8)
- Dumpster (1)

### **C.1 Civic Center Inventory and Description of Materials and Activities**

The City's Civic Center is located at 26000 Evergreen Road and consists of seven (7) buildings that include City Hall, the Police Department, the Southfield Sports Arena, the

Parks Maintenance building, a public library, and the 46<sup>th</sup> District Court. Municipal activities that occur at the facility include the following:

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

## **SECTION D – FUEL STORAGE AND FUELING**

The City Civic Center currently has two (2) underground storage tanks, one each for storing gasoline and diesel fuel. There is also one (1) above ground diesel fuel tank at the parks maintenance facility. 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:

- Both underground tanks are double-walled and comprised of fiberglass. The gasoline tank is located outside within a paved, designated fueling area. The underground diesel tank is used for an emergency generator.
- The above ground tank is double-walled, comprised of steel, and located next to the garage on a paved area. This tank also has secondary containment measures.
- All tanks are equipped with an emergency power shut-off, leak detection and volume monitoring controls. The tanks are only filled on an as-needed basis.
- All bulk liquid tanker delivery vehicles will only be allowed on site if contact has been made with properly trained personnel and it has been confirmed that these personnel will be present at the delivery point.
- Properly trained personnel will be in attendance to monitor the entire transfer process. They are authorized to terminate or to order the driver to terminate the transfer and have the driver move the tanker in case of an emergency. Attending personnel will be alert, have an unobstructed view of the cargo tank connections and be within 25 feet of the cargo tank during transfer operations.
- Properly trained DPW or Parks Staff will direct the tanker for proper positioning, verify, and provide access to the correct fill port. Access to other fill ports or unlocking pipeline caps in anticipation of other delivery vehicles is strictly prohibited.
- Properly trained DPW or Parks Staff will ensure a potential spill or release cannot enter storm drains by placing a protective barrier on or around affected storm drains (i.e. spill blanket).
- Wheel chocks or other approved methods to prevent the tanker from moving during the transfer process or driving off without following proper disconnection practices.
- Inspection of the truck to ensure that there are no leaks will be conducted before and after the transfer operation.
- Connected hoses and connections will be reviewed and verified prior to the transfer.

- The available volume of the tank will be verified prior to transfer to prevent over-filling.
- During removal of the transfer lines, trained staff will ensure that excess material is drained into the appropriate receiving tank or receptor to prevent a release of materials to the environment.
- Trained staff will monitor the termination process and inspect the lower most tanker manifold for evidence of leaks or damage prior to the tanker's departure.
- A spill kit will be stationed next to the storage tanks at all times.

A fueling log is maintained to track and record the volume of fuel dispersed for City vehicles and equipment. Completion of these logs is mandatory and used as secondary control to track the volume of fuel stored in the tank.

All other vehicle fluids are stored in the parks maintenance building which has floor drains connected to the sanitary sewer.

## **SECTION E – VEHICLE WASHING AND MAINTENANCE**

Vehicle maintenance activities for parks vehicles and equipment include, but are not limited to, oil changes and other vehicle fluids, brakes, tune ups, and general repair tasks. A maintenance log is maintained using to document all vehicle maintenance and repair activities.

Vehicle washing activities are conducted in the parks maintenance building which has floor drains connected to the sanitary sewer.

## **SECTION F – WINTER OPERATIONS**

The City's parks department staff applies rock salt as part of their deicing procedures during the winter months. The use of salt is limited to the Civic Center and parking lots. Bulk storage of salt is located at the parks maintenance facility.

### **F.1 Salt Storage and Loading**

The City Civic Center has one (1) salt storage bin consisting of precast concrete blocks that are positioned at rear and sides of the stockpile. The front is left open to provide access for loading, and the floor is comprised of an impervious cement pad. The loading area is swept regularly and maintained to be free of salt residue. When not in use, the stockpile is covered with a tarp to minimize erosion. The bin is not located within 50 feet of a lake shore, stream bank, or wetland, nor is it located in a 100-year floodplain.

Parks staff has been trained to minimize any track-out from loading operations.

## **SECTION G – STRUCTURAL STORMWATER CONTROLS**

The following structural stormwater controls are in place at the Civic Center to prevent or minimize impacts to stormwater.

### **G.1 Materials Stockpiles**

Designated stockpile areas are located at the parks maintenance facility. Stockpiled materials at this location include topsoil, sand, gravel, compost, and other earthen materials as needed. All stockpiles have perimeter controls in place to prevent erosion which are comprised of precast concrete blocks that are positioned at rear and sides of the stockpile. The front is left open to provide access for loading. When not in use, the stockpiles are covered with a tarp to minimize erosion.

### **G.2 Secondary Containment**

The on-site AST is placed in a secondary containment to mitigate spills and leaks. Containment measures are comprised of a self-contained, steel tray that is not equipped with an outlet. Secondary containment measures are inspected over the course of daily operations by parks staff and during fueling operations. If parks staff observes that the secondary containment structure is nearing capacity (typically from precipitation), a licensed waste hauler is contracted to pump out the structure using a Vactor truck. Collected liquids are transported and disposed of at an appropriate wastewater treatment facility by the third party.

## **SECTION H – NON-STRUCTURAL CONTROLS**

The City is committed to employing preventative maintenance practices through the use of several nonstructural 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 Civic Center are as follows:

### **H.1 Routine Inspections and Good Housekeeping Procedures**

Preventive maintenance involves the regular inspection, testing, and cleaning of facility equipment, vehicles, and operational systems. Parks department field staff meets on a daily basis to discuss daily assignments and objectives. A routine inspection is conducted by facility staff during site walkthroughs during normal operations activities. The purpose of these inspections is to identify and prevent conditions that could lead to stormwater pollution. A log of corrective actions will be kept on file by the City.

Staff inspects all vehicles consistent with Commercial Drivers License Procedures, and performs detailed vehicle inspections every month. Completed vehicle maintenance records and fueling logs are kept on file at the parks maintenance facility.

Part 5 rules also require surveillance of polluting materials. The routine inspections will include this information for the salt storage and fueling areas.

### **H.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 parks maintenance 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 parks department areas will be conducted every six (6) months which generally coincides with a planned cleaning of the entire facility. Documentation of the comprehensive site inspection results will be prepared and kept on file.

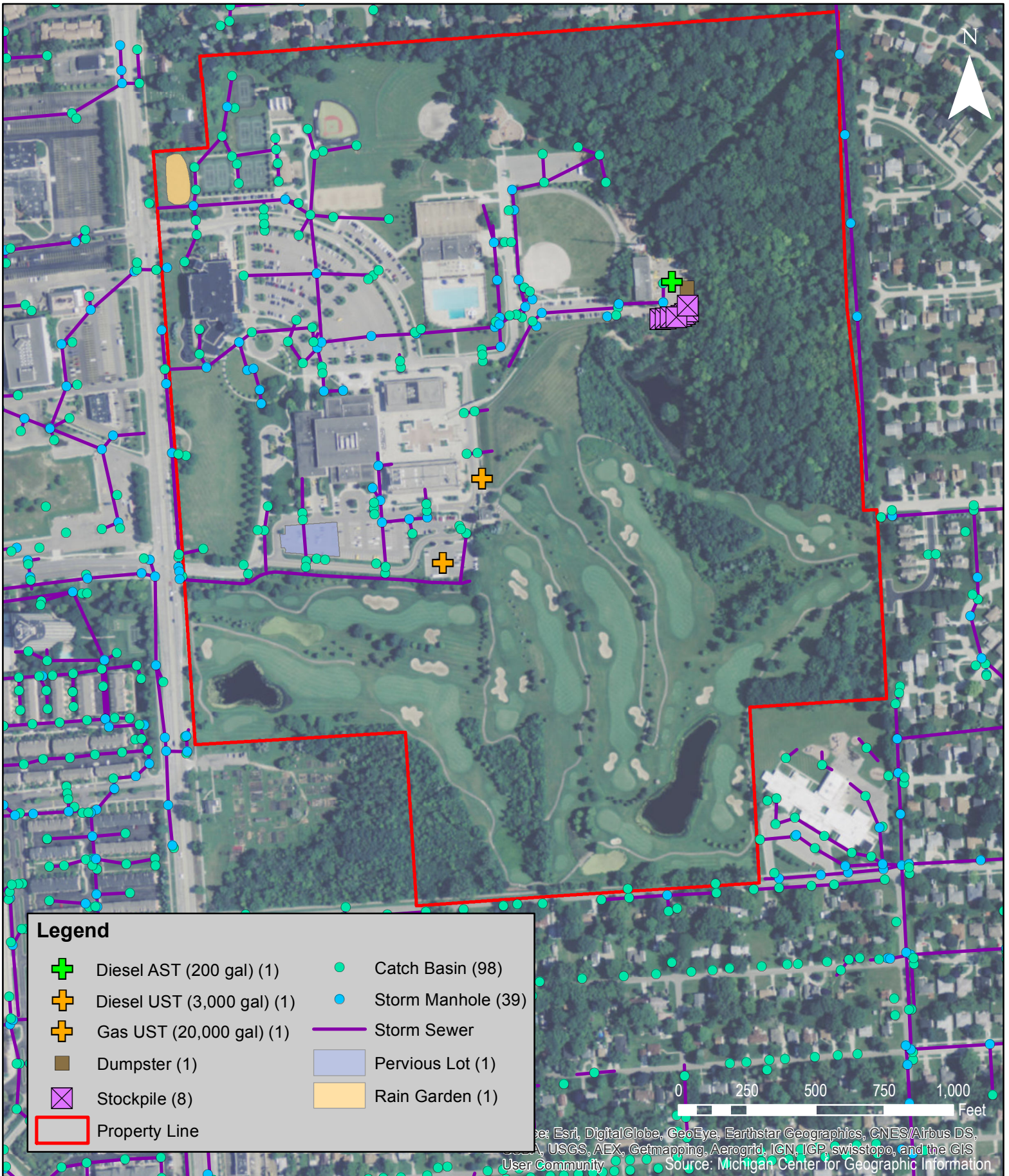
### **H.3 Employee Training Program**

Employee training programs will be implemented to inform appropriate personnel at all levels of responsibility of safety, environmental impacts, and good housekeeping practices. The standard operating procedure for employee training can be found in the City's general Pollution Prevention and Good Housekeeping Standard Operating Procedure.

## **SECTION I – PROCESS FOR REVISION**

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



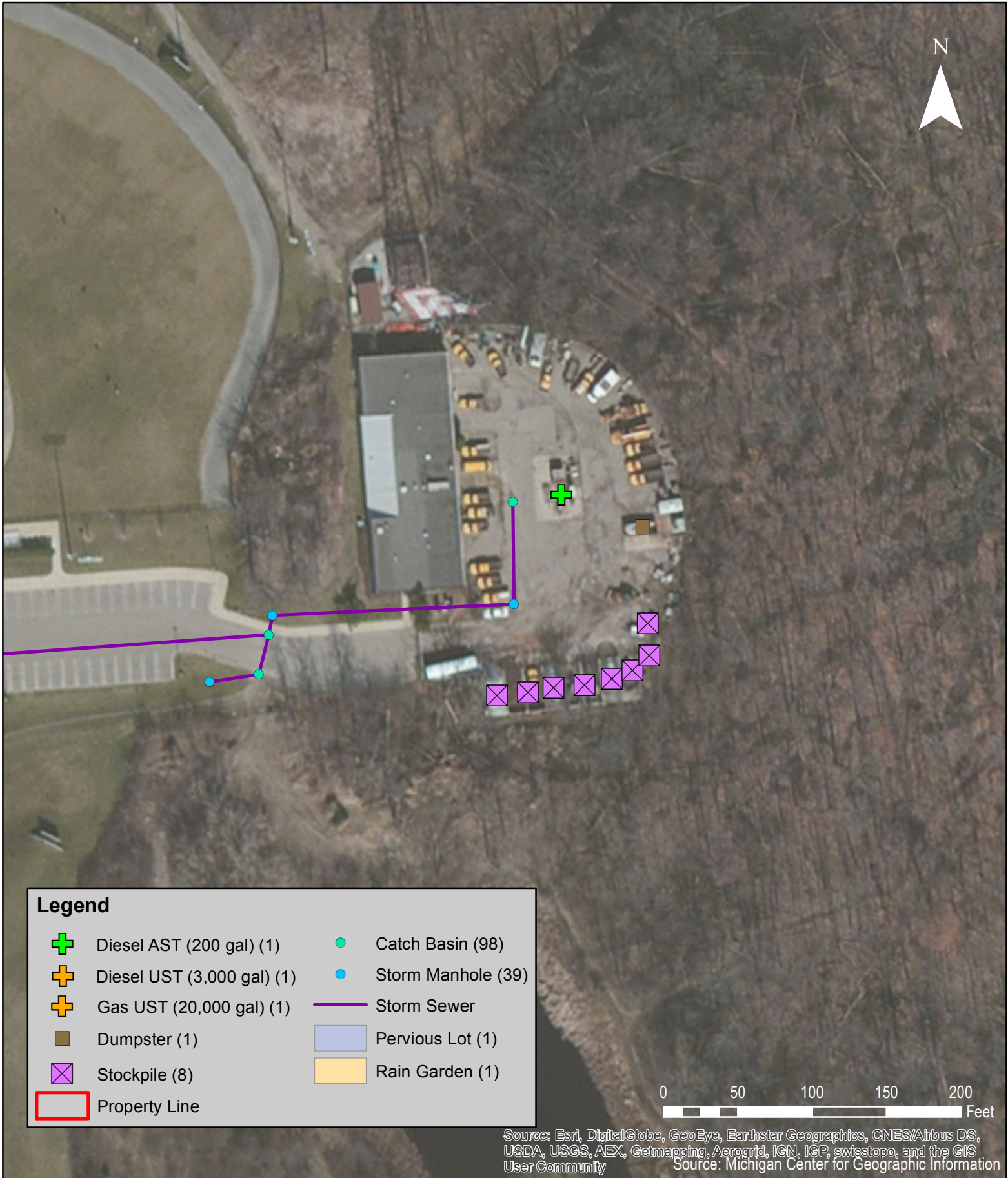


# City of Southfield - Civic Center

26000 Evergreen Rd  
 Southfield, MI 48076







# City of Southfield - Civic Center

26000 Evergreen Rd  
 Southfield, MI 48076





# STANDARD OPERATING PROCEDURE POLLUTION PREVENTION AND GOOD HOUSEKEEPING

## FIRE STATIONS

PREPARED FOR:

THE CITY OF SOUTHFIELD  
26000 EVERGREEN RD, SOUTHFIELD, MICHIGAN 48076



APRIL 2016

## 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. The following standard operating procedure is intended for the City of Southfield Fire Department Headquarters and Fire Stations #1, #2, and #3, which have been deemed high priority based on the operations that are conducted at these sites.

## SECTION B – FACILITY ASSESSMENT AND PRIORITIZATION

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. The Fire Stations were assessed for their potential to discharge pollutants to the waters of the state and as deemed a high priority based on the following applicable criteria as outlined in the NPDES permit application:

- 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)

Based on these criteria, these four Fire Stations have each been deemed high priority sites, 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.

## 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.

### **Fire Department Headquarters – 24477 Lahser Road**

- Stormwater catch basins (7)
- Storm sewer manhole structures (3)
- Above ground storage tank (diesel) (1)

### **Fire Station #1 – 18400 W Nine Mile Road**

- Above ground storage tank (diesel) (1)

### **Fire Station #2 – 25753 W Nine Mile Road**

- Stormwater catch basins (8)
- Above ground storage tank (diesel) (1)
- Detention basin (1)

### **Fire Station #3 – 20135 W Twelve Mile Road**

- Stormwater catch basins (2)
- Above ground storage tank (diesel) (1)

#### **C.1 Fire Stations Inventory and Description of Materials and Activities**

The City's Fire Department Headquarters and Fire Stations #1, #2, and #3 each consist of a single building. Municipal activities that occur at the facility include the following:

- Fuel Storage and Fueling

### **SECTION D – FUEL STORAGE AND FUELING**

The City's Fire Department Headquarters and Fire Stations #1, #2, and #3 all currently have a single above ground storage tank that is used to store diesel fuel. 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 above ground diesel fuel tanks are located outside in a paved area. They are equipped with an emergency power shut-off, leak detection and volume monitoring controls. The tanks are only filled on an as-needed basis.
- All bulk liquid tanker delivery vehicles will only be allowed on site if contact has been made with properly trained personnel and it has been confirmed that these personnel will be present at the delivery point.
- Properly trained personnel will be in attendance to monitor the entire transfer process. They are authorized to terminate or to order the driver to terminate the transfer and have the driver move the tanker in case of an emergency. Attending personnel will be alert, have an unobstructed view of the cargo tank connections and be within 25 feet of the cargo tank during transfer operations.
- Properly trained staff will direct the tanker for proper positioning, verify, and provide access to the correct fill port. Access to other fill ports or unlocking pipeline caps in anticipation of other delivery vehicles is strictly prohibited.
- Properly trained staff will ensure a potential spill or release cannot enter storm drains by placing a protective barrier on or around affected storm drains (i.e. spill blanket).
- Wheel chocks or other approved methods to prevent the tanker from moving during the transfer process or driving off without following proper disconnection practices.
- Inspection of the truck to ensure that there are no leaks will be conducted before and after the transfer operation.
- Connected hoses and connections will be reviewed and verified prior to the transfer.
- The available volume of the tank will be verified prior to transfer to prevent over-filling.

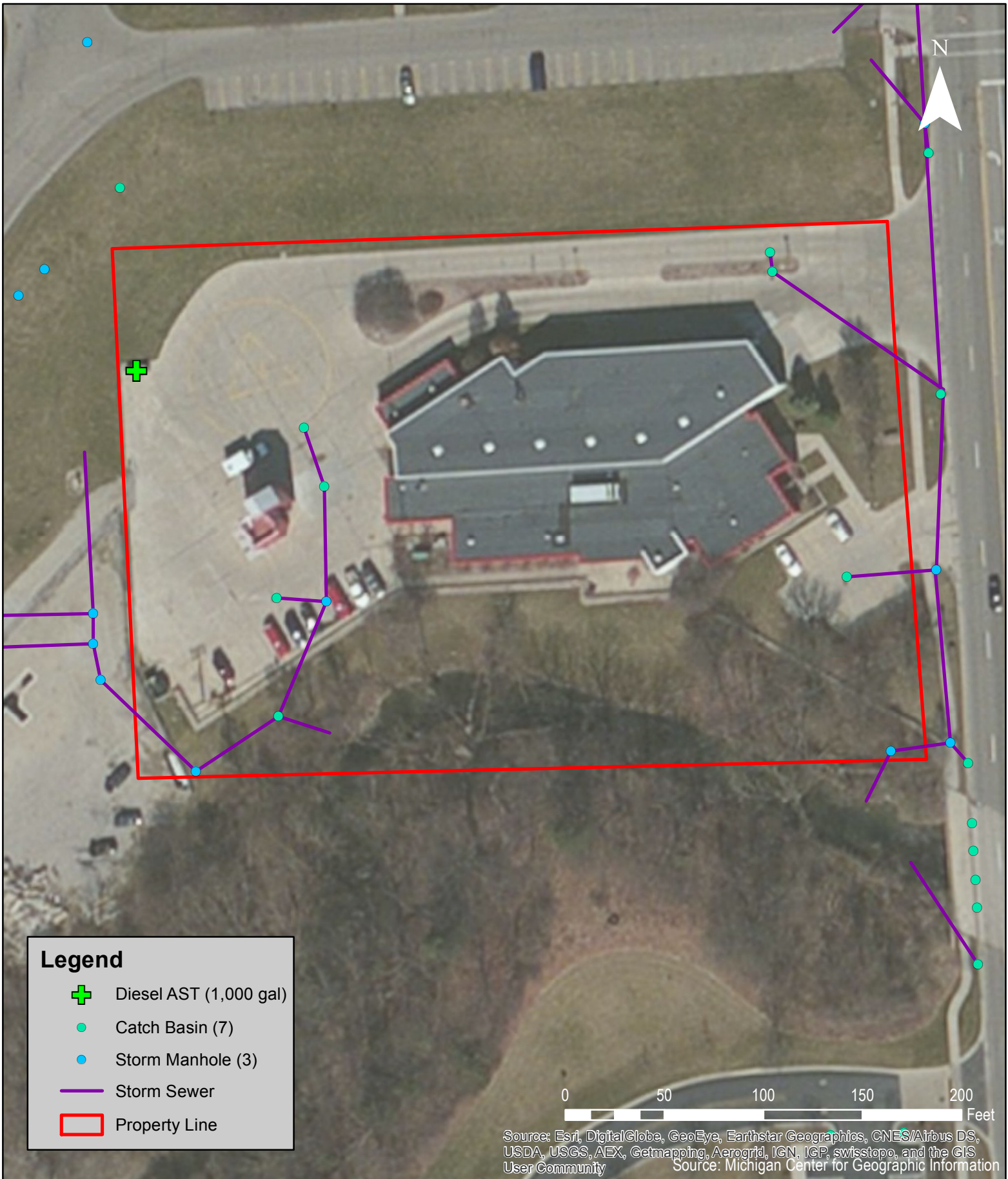
- During removal of the transfer lines, trained staff will ensure that excess material is drained into the appropriate receiving tank or receptor to prevent a release of materials to the environment.
- Trained staff will monitor the termination process and inspect the lower most tanker manifold for evidence of leaks or damage prior to the tanker's departure.
- A spill kit will be stationed next to the storage tanks at all times.

A fueling log is maintained to track and record the volume of fuel dispersed for department vehicles and equipment. Completion of these logs is mandatory and used as secondary control to track the volume of fuel stored in the tanks.

There are no other vehicle fluids are stored on site. Vehicle maintenance and washing activities for the fire department are conducted at the DPW facility.

### **SECTION E – PROCESS FOR REVISION**

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



# City of Southfield - Fire Department Headquarters

24477 Lahser Rd  
 Southfield, MI 48033





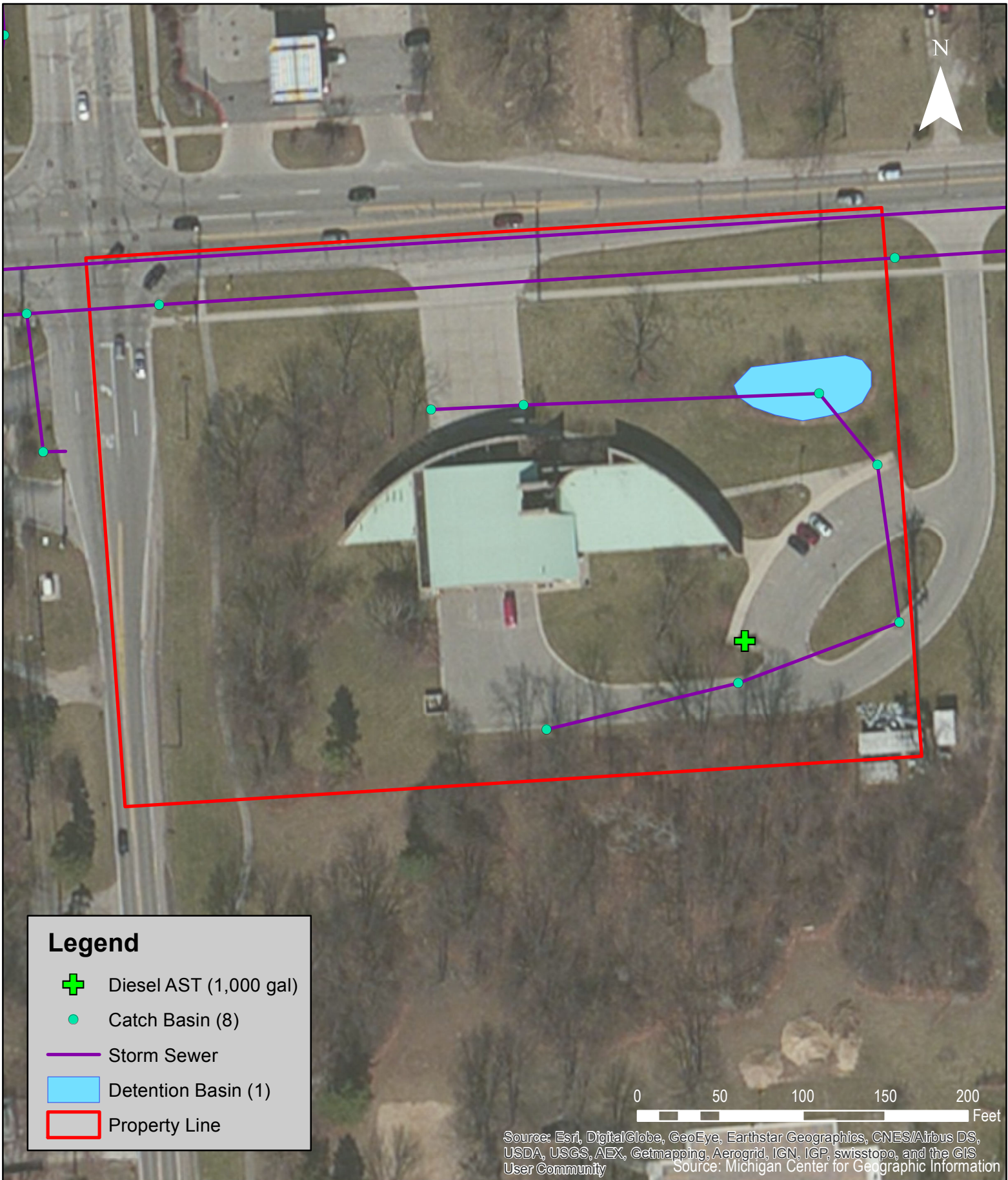


# City of Southfield - Fire Station No. 1

18400 W Nine Mile Rd  
 Southfield, MI 48075







## City of Southfield - Fire Station No. 2

25753 W Nine Mile Rd  
 Southfield, MI 48033





## City of Southfield - Fire Station No. 3

20135 W Twelve Mile Rd  
 Southfield, MI 48076





# STANDARD OPERATING PROCEDURE POLLUTION PREVENTION AND GOOD HOUSEKEEPING

## SPILL RESPONSE

PREPARED FOR:

THE CITY OF SOUTHFIELD  
26000 EVERGREEN RD, SOUTHFIELD, MICHIGAN 48076



APRIL 2016

## SECTION A – PERSONNEL

The following City of Southfield personnel have been identified as key staff in charge of spill response planning, implementation and maintenance of the Spill Response Plan.

Name	Phone
Southfield Police Dispatch – Spill Coordinator	(248) 796-5500
Alternate Fire Chief – Spill Coordinator	(248) 796-5650
Kevin Clarke – Spill Coordinator 1	(248) 796-4871
Justin Beck – Spill Coordinator 2	(248) 796-4862

### A.1 Responsibilities

- The **Facility Responsible Person** has primary responsibility for coordinating the response to emergencies, including chemical spills
- **Supervisors** should ensure that employees are familiar with these procedures and receive the necessary training
- **All employees** should follow these procedures in the event of a chemical spill

### A.2 Emergency Contact Numbers

The following telephone numbers should be posted near telephones and in other conspicuous locations:

Name	Affiliation	Phone
Southfield Police Dispatch – Spill Coordinator	Southfield Police Department	(248) 796-5500
Alternate Fire Chief – Spill Coordinator	Southfield Fire Department	(248) 796-5650
Kevin Clarke – Spill Coordinator 1	Southfield DPW	(248) 796-4871
Justin Beck – Spill Coordinator 2	Southfield DPW	(248) 796-4862
MDEQ 24-Hour Pollution Emergency Alerting System (PEAS)		1-800-292-4706
MDEQ Southeast Michigan District Office		(586) 753-3794
City of Detroit Wastewater Treatment Plant		(313) 297-9400
National Response Center		1-800-424-8802
	Environmental Contractor	

## SECTION B – CLEAN-UP PROCEDURES

Spilled chemical should be effectively and quickly contained and cleaned up. Employees should clean up spills themselves **only if properly trained and protected**. Employees who are not trained in spill cleanup procedures should report the spill to the Responsible Person(s) listed above, warn other employees, and leave the area.

The following general guidelines should be followed for evacuation, spill control, notification of proper authorities, and general emergency procedures in the event of a chemical incident in which there is potential for a significant release of hazardous materials.

### B.1 Evacuation

Persons in the immediate vicinity of a spill should *immediately evacuate* the premises (except for employees with training in spill response in circumstances described below). If the spill is of “medium” or “large” size, or if the spill seems hazardous, immediately notify emergency response personnel.

### B.2 Spill Control Techniques

Once a spill has occurred, the employee needs to decide whether the spill is small enough to handle without outside assistance. Only employees with training in spill response should attempt to contain or clean up a spill.

NOTE: If you are cleaning up a spill yourself, make sure you are aware of the hazards associated with the materials spilled, have adequate ventilation, and proper personal protective equipment. Treat all residual chemical and cleanup materials as hazardous waste.

Spill control equipment should be located wherever significant quantities of hazardous materials are received or stored. Material Safety Data Sheets (SDSs), absorbents, over-pack containers, container patch kits, spill dams, shovels, floor dry, acid/base neutralizers, and “caution-keep out” signs are common spill response items.

### B.3 Spill Response and Clean-up

Chemical spills are divided into three categories: Small, Medium, and Large. Response and cleanup procedures vary depending on the size of the spill.

**Small Spills:** Any spill where the major dimension is less than 18 inches in diameter. Small spills are generally handled by internal personnel and usually do not require an emergency response by police or fire department HAZMAT teams.

- Quickly control the spill by stopping or securing the spill source. This could be as simple as up-righting a container and using floor-dry or absorbent pads to soak up spilled material. Wear gloves and protective clothing, if necessary.

- Put spill material and absorbents in secure containers if any are available.
- Consult with the Facility Responsible Person and the SDS for spill and waste disposal procedures.
- Use Dry Cleanup Methods and **never** wash spills down the drain, onto a storm drain or onto the driveway or parking lot.
- Both the spilled material and the absorbent may be considered hazardous waste and must be disposed of in compliance with state and federal environmental regulations.

**Medium Spills:** Spills where the major dimension exceeds 18 inches, but are less than 6 feet. Outside emergency response personnel (police and fire department HAZMAT teams) may be called for medium spills. Common sense, however, will dictate when it is necessary to call them.

- Immediately try to help contain the spill at its source by simple measures only. This means quickly up-righting a container, or putting a lid on a container, if possible. Do not use absorbents unless they are immediately available. Once you have made a quick attempt to contain the spill, or once you have quickly determined you cannot take any brief containment measures, leave the area and alert Emergency Responders at 911. Closing doors behind you while leaving helps contain fumes from spills. Give police accurate information as to the location, chemical, and estimated amount of the spill.
- Evaluate the area outside the spill. Engines and electrical equipment near the spill area must be turned off. This eliminates various sources of ignition in the area. Advise Emergency Responders on how to turn off engines or electrical sources. Do not go back into the spill area once you have left. Help emergency responders by trying to determine how to shut off heating, air conditioning equipment, or air circulating equipment, if necessary.
- If emergency responders evacuate the spill area, follow their instructions in leaving the area.
- After emergency responders have contained the spill, be prepared to assist them with any other information that may be necessary, such as SDSs and questions about the facility. Emergency responders or trained personnel with proper personal protective equipment will then clean up the spill residue. Do not re-enter the area until the responder in charge gives the all clear. Be prepared to assist these persons from outside the spill area with SDSs, absorbents, and containers.
- Reports must be filed with proper authorities. It is the responsibility of the spiller to inform both his/her supervisor and the emergency responders as to what caused the spill. The response for large spills is similar to the procedures for medium spills, except that the exposure danger is greater.

**Large Spills:** Any spill involving flammable liquid where the major dimension exceeds 6 feet in diameter; and any “running” spill, where the source of the spill has not been contained or flow has not been stopped.

- Leave the area and notify Emergency Responders (911). Give the operator the spill location, chemical spilled, and approximate amount.
- From a safe area, attempt to get SDS information for the spilled chemical for the emergency responders to use. Also, be prepared to advise responders as to any ignition sources, engines, electrical power, or air conditioning/ventilation systems that may need to be shut off. Advise responders of any absorbents, containers, or spill control equipment that may be available. This may need to be done from a remote area, because an evacuation that would place the spiller far from the scene may be needed. Use radio or phone to assist from a distance, if necessary.
- Only emergency response personnel, in accordance with their own established procedures, should handle spills greater than 6 feet in any dimension or that are continuous. Remember, once the emergency responders or HAZMAT team is on the job cleaning up spills or putting out fires, the area is under their control and no one may re-enter the area until the responder in charge gives the all clear.
- Provide information for reports to supervisors and responders, just as in medium spills.

## **SECTION C – REPORTING SPILLS**

All chemical spills, regardless of size, should be reported as soon as possible to the Facility Responsible Person. The Responsible Person will determine whether the spill has the potential to affect the environment outside of the facility and must be reported to local, state, or federal agencies. Examples of spills that could affect the outside environment include spills that are accompanied by fire or explosion and spills that could reach nearby waterbodies.

### **C.1 Reporting Thresholds**

The spill coordinator will report spills to MDEQ PEAS for spills that involve the following:

- Salt spills over 50 pounds or 50 gallons of brine onto the ground or into water (required by Part 5 rules)
- Gasoline release of 32 gallons or more onto the ground (required by Part 201)
- Oil release of 50 pounds (approximately 7½ gallons) onto the ground (required by Part 5 rules)
- Any amount of oil or fuel that reaches surface water or shorelines, call MDEQ PEAS and the National Response Center (as required by the Clean Water Act and Part 31)
- Any spill that is in doubt about reporting

## **C.2 Reporting Requirements**

Within ten (10) days of release, submit a written report for the reportable releases to the following:

- MDEQ Water Resources Division Field Operations Chief, PO Box 30273, Lansing, Michigan 48909-7773
- Oakland County Water Resources Commissioner, 1 Public Works Road, Waterford, Michigan 48328 (248) 858-0931

Note: the optional report form EPQ 3465 can be found at:

[http://www.michigan.gov/deg/0,4561,7-135-3307\\_29894\\_5959-20341--,00.html](http://www.michigan.gov/deg/0,4561,7-135-3307_29894_5959-20341--,00.html)

The MDEQ may request other follow-up reports depending on the situation.

## **SECTION D – SPILL KIT INVENTORY**

The following is a list of spill response equipment that will be maintained by the designated spill response coordinators at all locations where fuel products are stored and dispensed.

### **D.1 Minimum Spill Response Equipment**

- 20 pounds of floor dry
- 1 shovel
- 1 broom
- Caution tape
- 2 Absorbent booms
- 20 Absorbent Pads
- Container for clean-up (30 gallons)
- Sample bottles

## **SECTION E – PROCESS FOR REVISION**

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

**APPENDIX I**  
**Total Maximum Daily Loads (TMDL)**  
Click [here](#) for link to Collaborative TMDL