



MS4 SWPPP Application for Reauthorization

for the NPDES/SDS General Small Municipal Separate Storm Sewer System (MS4) Permit MNR040000 reissued with an effective date of August 1, 2013 Stormwater Pollution Prevention Program (SWPPP) Document

Doc Type: Permit Application

Instructions: This application is for authorization to discharge stormwater associated with Municipal Separate Storm Sewer Systems (MS4s) under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Permit Program. No fee is required with the submittal of this application. Please refer to "Example" for detailed instructions found on the Minnesota Pollution Control Agency (MPCA) MS4 website at http://www.pca.state.mn.us/ms4.

Submittal: This MS4 SWPPP Application for Reauthorization form must be submitted electronically via e-mail to the MPCA at ms4permitprogram.pca@state.mn.us from the person that is duly authorized to certify this form. All questions with an asterisk (*) are required fields. All applications will be returned if required fields are not completed.

Questions: Contact Claudia Hochstein at 651-757-2881 or claudia.hochstein@state.mn.us, Dan Miller at 651-757-2246 or daniel.miller@state.mn.us, or call toll-free at 800-657-3864.

General Contact Information (*Required fields)

MS4 Owner (with ownership or operational responsibility, or control of the MS4)

*MS4 permittee name: City of Osseo *County: Hennepin
(city, county, municipality, government agency or other entity)

*Mailing address: 415 Central Avenue

*City: Osseo *State: MN *Zip code: 55369

*Phone (including area code): 763-425-2624 *E-mail: rkorfiatis@ci.osseo.mn.us

MS4 General contact (with Stormwater Pollution Prevention Program [SWPPP] implementation responsibility)

*Last name: Korfiatis *First name: Randy
(department head, MS4 coordinator, consultant, etc.)

*Title: Public Services Director

*Mailing address: 415 Central Avenue

*City: Osseo *State: MN *Zip code: 55369

*Phone (including area code): 763-425-5741 *E-mail: rkorfiatis@ci.osseo.mn.us

Preparer information (complete if SWPPP application is prepared by a party other than MS4 General contact)

Last name: Leichty First name: Lanol
(department head, MS4 coordinator, consultant, etc.)

Title: MS4 Coordinator

Mailing address: 12224 Nicollet Avenue

City: Burnsville State: MN Zip code: 55337

Phone (including area code): 952-890-0509 E-mail: lanile@bolton-menk.com

Verification

- 1. I seek to continue discharging stormwater associated with a small MS4 after the effective date of this Permit, and shall submit this MS4 SWPPP Application for Reauthorization form, in accordance with the schedule in Appendix A, Table 1, with the SWPPP document completed in accordance with the Permit (Part II.D.). [X] Yes
2. I have read and understand the NPDES/SDS MS4 General Permit and certify that we intend to comply with all requirements of the Permit. [X] Yes

Certification (All fields are required)

- Yes - 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 gathered and evaluated the information submitted.

I certify that 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 civil and criminal penalties.

This certification is required by Minn. Stat. §§ 7001.0070 and 7001.0540. The authorized person with overall, MS4 legal responsibility must certify the application (principal executive officer or a ranking elected official).

By typing my name in the following box, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing my application.

Name: Randy Korfiatis
(This document has been electronically signed)

Title: Public Services Director Date (mm/dd/yyyy): 12/17/2013

Mailing address: 415 Central Avenue

City: Osseo State: MN Zip code: 55369

Phone (including area code): 763-425-2624 E-mail: rkorfiatis@ci.osseo.mn.us

Note: The application will not be processed without certification.

Stormwater Pollution Prevention Program Document

I. Partnerships: (Part II.D.1)

- A. List the **regulated small MS4(s)** with which you have established a partnership in order to satisfy one or more requirements of this Permit. Indicate which Minimum Control Measure (MCM) requirements or other program components that each partnership helps to accomplish (List all that apply). Check the box below if you currently have no established partnerships with other regulated MS4s. If you have more than five partnerships, hit the tab key after the last line to generate a new row.

No partnerships with regulated small MS4s

Name and description of partnership	MCM/Other permit requirements involved
Shingle Creek Watershed Management Commission	MCM 1 – Public Education and Outreach

- B. If you have additional information that you would like to communicate about your partnerships with other regulated small MS4(s), provide it in the space below, or include an attachment to the SWPPP Document, with the following file naming convention: *MS4NameHere_Partnerships*.

II. Description of Regulatory Mechanisms: (Part II.D.2)

Illicit discharges

- A. Do you have a regulatory mechanism(s) that effectively prohibits non-stormwater discharges into your small MS4, except those non-stormwater discharges authorized under the Permit (Part III.D.3.b.)? Yes No

1. If **yes**:

- a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

- Ordinance Contract language
 Policy/Standards Permits
 Rules
 Other, explain: _____

- b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

City of Osseo Ordinance - Title V: Public Works, Chapter 52: Sewers, 52.016 Illicit Discharge Detection and Elimination

Direct link:

Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere_IDDEreg*.

2. If **no**:

Describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

Construction site stormwater runoff control

A. Do you have a regulatory mechanism(s) that establishes requirements for erosion and sediment controls and waste controls? Yes No

1. If **yes**:

a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

- Ordinance Contract language
- Policy/Standards Permits
- Rules
- Other, explain: _____

b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

City of Osseo Ordinance - Title XV:Land Usage, Chapter 153: Land Usage, 153.051 Land Alteration; Erosion Control

Direct link:

Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere_CSWreg*.

B. Is your regulatory mechanism at least as stringent as the MPCA general permit to Discharge Stormwater Associated with Construction Activity (as of the effective date of the MS4 Permit)? Yes No

If you answered **yes** to the above question, proceed to C.

If you answered **no** to either of the above permit requirements listed in A. or B., describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

The City's existing ordinance will be reviewed to determine what changes need to be made in order to bring the code up to compliance with the 2013 general construction permit. This action will occur within 12 months from the approval date of this application.

C. Answer **yes** or **no** to indicate whether your regulatory mechanism(s) requires owners and operators of construction activity to develop site plans that incorporate the following erosion and sediment controls and waste controls as described in the Permit (Part III.D.4.a.(1)-(8)), and as listed below.

- 1. Best Management Practices (BMPs) to minimize erosion. Yes No
- 2. BMPs to minimize the discharge of sediment and other pollutants. Yes No
- 3. BMPs for dewatering activities. Yes No
- 4. Site inspections and records of rainfall events Yes No
- 5. BMP maintenance Yes No
- 6. Management of solid and hazardous wastes on each project site. Yes No
- 7. Final stabilization upon the completion of construction activity, including the use of perennial vegetative cover on all exposed soils or other equivalent means. Yes No
- 8. Criteria for the use of temporary sediment basins. Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

The City's existing ordinance will be reviewed to determine what changes need to be made in order to bring the code up to compliance with the 2013 general construction permit. In particular, Items C.3, C.4, C.6 and C.8 will be addressed in the ordinance update. This action will occur within 12 months from the approval date of this application.

Post-construction stormwater management

A. Do you have a regulatory mechanism(s) to address post-construction stormwater management activities? Yes No

1. If **yes**:

a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

- Ordinance Contract language
- Policy/Standards Permits
- Rules

Other, explain: _____

- b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

City of Osseo Ordinance - Title XV:Land Usage, Chapter 150: Building Regulations; Construction, 150.20 Drainage and Grading

Direct link:

Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere_PostCSWreg*.

- B. Answer **yes** or **no** below to indicate whether you have a regulatory mechanism(s) in place that meets the following requirements as described in the Permit (Part III.D.5.a.):

1. **Site plan review:** Requirements that owners and/or operators of construction activity submit site plans with post-construction stormwater management BMPs to the permittee for review and approval, prior to start of construction activity. Yes No
2. **Conditions for post construction stormwater management:** Requires the use of any combination of BMPs, with highest preference given to Green Infrastructure techniques and practices (e.g., infiltration, evapotranspiration, reuse/harvesting, conservation design, urban forestry, green roofs, etc.), necessary to meet the following conditions on the site of a construction activity to the Maximum Extent Practicable (MEP):
 - a. For new development projects – no net increase from pre-project conditions (on an annual average basis) of: Yes No
 - 1) Stormwater discharge volume, unless precluded by the stormwater management limitations in the Permit (Part III.D.5.a(3)(a)).
 - 2) Stormwater discharges of Total Suspended Solids (TSS).
 - 3) Stormwater discharges of Total Phosphorus (TP).
 - b. For redevelopment projects – a net reduction from pre-project conditions (on an annual average basis) of: Yes No
 - 1) Stormwater discharge volume, unless precluded by the stormwater management limitations in the Permit (Part III.D.5.a(3)(a)).
 - 2) Stormwater discharges of TSS.
 - 3) Stormwater discharges of TP.
3. **Stormwater management limitations and exceptions:**
 - a. Limitations
 - 1) Prohibit the use of infiltration techniques to achieve the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)) when the infiltration structural stormwater BMP will receive discharges from, or be constructed in areas: Yes No
 - a) Where industrial facilities are not authorized to infiltrate industrial stormwater under an NPDES/SDS Industrial Stormwater Permit issued by the MPCA.
 - b) Where vehicle fueling and maintenance occur.
 - c) With less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.
 - d) Where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating stormwater.
 - 2) Restrict the use of infiltration techniques to achieve the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)), without higher engineering review, sufficient to provide a functioning treatment system and prevent adverse impacts to groundwater, when the infiltration device will be constructed in areas: Yes No
 - a) With predominately Hydrologic Soil Group D (clay) soils.
 - b) Within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features.
 - c) Within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13.
 - d) Where soil infiltration rates are more than 8.3 inches per hour.
 - 3) For linear projects where the lack of right-of-way precludes the installation of volume control practices that meet the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)), the permittee's regulatory mechanism(s) may allow exceptions as described in the Permit (Part III.D.5.a(3)(b)). The permittee's regulatory Yes No

mechanism(s) shall ensure that a reasonable attempt be made to obtain right-of-way during the project planning process.

4. **Mitigation provisions:** The permittee's regulatory mechanism(s) shall ensure that any stormwater discharges of TSS and/or TP not addressed on the site of the original construction activity are addressed through mitigation and, at a minimum, shall ensure the following requirements are met:
- a. Mitigation project areas are selected in the following order of preference: Yes No
 - 1) Locations that yield benefits to the same receiving water that receives runoff from the original construction activity.
 - 2) Locations within the same Minnesota Department of Natural Resource (DNR) catchment area as the original construction activity.
 - 3) Locations in the next adjacent DNR catchment area up-stream
 - 4) Locations anywhere within the permittee's jurisdiction.
 - b. Mitigation projects must involve the creation of new structural stormwater BMPs or the retrofit of existing structural stormwater BMPs, or the use of a properly designed regional structural stormwater BMP. Yes No
 - c. Routine maintenance of structural stormwater BMPs already required by this permit cannot be used to meet mitigation requirements of this part. Yes No
 - d. Mitigation projects shall be completed within 24 months after the start of the original construction activity. Yes No
 - e. The permittee shall determine, and document, who will be responsible for long-term maintenance on all mitigation projects of this part. Yes No
 - f. If the permittee receives payment from the owner and/or operator of a construction activity for mitigation purposes in lieu of the owner or operator of that construction activity meeting the conditions for post-construction stormwater management in Part III.D.5.a(2), the permittee shall apply any such payment received to a public stormwater project, and all projects must be in compliance with Part III.D.5.a(4)(a)-(e). Yes No
5. **Long-term maintenance of structural stormwater BMPs:** The permittee's regulatory mechanism(s) shall provide for the establishment of legal mechanisms between the permittee and owners or operators responsible for the long-term maintenance of structural stormwater BMPs not owned or operated by the permittee, that have been implemented to meet the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)). This only includes structural stormwater BMPs constructed after the effective date of this permit and that are directly connected to the permittee's MS4, and that are in the permittee's jurisdiction. The legal mechanism shall include provisions that, at a minimum:
- a. Allow the permittee to conduct inspections of structural stormwater BMPs not owned or operated by the permittee, perform necessary maintenance, and assess costs for those structural stormwater BMPs when the permittee determines that the owner and/or operator of that structural stormwater BMP has not conducted maintenance. Yes No
 - b. Include conditions that are designed to preserve the permittee's right to ensure maintenance responsibility, for structural stormwater BMPs not owned or operated by the permittee, when those responsibilities are legally transferred to another party. Yes No
 - c. Include conditions that are designed to protect/preserve structural stormwater BMPs and site features that are implemented to comply with the Permit (Part III.D.5.a(2)). If site configurations or structural stormwater BMPs change, causing decreased structural stormwater BMP effectiveness, new or improved structural stormwater BMPs must be implemented to ensure the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)) continue to be met. Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within twelve (12) months of the date permit coverage is extended, these permit requirements are met:

An post-construction storm water ordinance that addresses the requirements of Minimum Control Measure 5 will be prepared within 12 months from the date of application approval.

III. Enforcement Response Procedures (ERPs): (Part II.D.3)

- A. Do you have existing ERPs that satisfy the requirements of the Permit (Part III.B.)? Yes No

1. If **yes**, attach them to this form as an electronic document, with the following file naming convention: *MS4NameHere_ERPs*.
2. If **no**, describe the tasks and corresponding schedules that will be taken to assure that, with twelve (12) months of the date permit coverage is extended, these permit requirements are met:
Within 12 months from the date of application approval the City will develop ERPs that address illicit discharge.

B. Describe your ERPs:

IV. Storm Sewer System Map and Inventory: (Part II.D.4.)

A. Describe how you manage your storm sewer system map and inventory:

The storm sewer map is updated annually as new development or redevelopment occurs.

B. Answer **yes** or **no** to indicate whether your storm sewer system map addresses the following requirements from the Permit (Part III.C.1.a-d), as listed below:

1. The permittee's entire small MS4 as a goal, but at a minimum, all pipes 12 inches or greater in diameter, including stormwater flow direction in those pipes. Yes No
2. Outfalls, including a unique identification (ID) number assigned by the permittee, and an associated geographic coordinate. Yes No
3. Structural stormwater BMPs that are part of the permittee's small MS4. Yes No
4. All receiving waters. Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

C. Answer **yes** or **no** to indicate whether you have completed the requirements of 2009 Minnesota Session Law, Ch. 172. Sec. 28: with the following inventories, according to the specifications of the Permit (Part III.C.2.a.-b.), including:

1. All ponds within the permittee's jurisdiction that are constructed and operated for purposes of water quality treatment, stormwater detention, and flood control, and that are used for the collection of stormwater via constructed conveyances. Yes No
2. All wetlands and lakes, within the permittee's jurisdiction, that collect stormwater via constructed conveyances. Yes No

D. Answer **yes** or **no** to indicate whether you have completed the following information for each feature inventoried.

1. A unique identification (ID) number assigned by the permittee. Yes No
2. A geographic coordinate. Yes No
3. Type of feature (e.g., pond, wetland, or lake). This may be determined by using best professional judgment. Yes No

If you have answered **yes** to all above requirements, and you have already submitted the Pond Inventory Form to the MPCA, then you do not need to resubmit the inventory form below.

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

E. Answer **yes** or **no** to indicate if you are attaching your pond, wetland and lake inventory to the MPCA on the form provided on the MPCA website at: <http://www.pca.state.mn.us/ms4>, according to the specifications of Permit (Part III.C.2.b.(1)-(3)). Attach with the following file naming convention: *MS4NameHere_inventory*. Yes No

If you answered **no**, the inventory form must be submitted to the MPCA MS4 Permit Program within 12 months of the date permit coverage is extended.

V. Minimum Control Measures (MCMs) (Part II.D.5)

A. MCM1: Public education and outreach

- The Permit requires that, within 12 months of the date permit coverage is extended, existing permittees revise their education and outreach program that focuses on illicit discharge recognition and reporting, as well as other specifically selected stormwater-related issue(s) of high priority to the permittee during this permit term. Describe your **current** educational program, including **any high-priority topics included**:

The City's educational focus is on reducing chloride and nutrient inputs into stormwater runoff. The City of Osseo is completely built out, therefore any new construction consists mainly of property redevelopment and street/utility reconstruction projects. Educational articles emphasize citizen best management practices related to stormwater.

- List the categories of BMPs that address your public education and outreach program, including the distribution of educational materials and a program implementation plan. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the U.S. Environmental Protection Agency's (EPA) *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
E-Newsletter	Osseo circulates an e-newsletter on its website to interested citizens on a quarterly basis.
BMP categories to be implemented	Measurable goals and timeframes
Update City website with new SWPPP information	Maintain and update stormwater webpage annually.
Create an educational brochure to be distributed from City Hall	Track number of brochures taken annually.

- Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

MS4 Coordinator

B. MCM2: Public participation and involvement

- The Permit (Part III.D.2.a.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement a public participation/involvement program to solicit public input on the SWPPP. Describe your current program:

An annual public meeting is held at City Hall where a presentation of the City's MS4 program is made that details what has occurred in the previous year and what is planned for the next year regarding implementation of the City's Stormwater Pollution Prevention Program. This is also an opportunity for public input regarding the program. The public meeting notice is published in advance at least 30 days prior to the meeting.

- List the categories of BMPs that address your public participation/involvement program, including solicitation and documentation of public input on the SWPPP. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Annual MS4 Meeting	Maintain annual public meetings.
30-day Public Notice	Place public notice at least 30-days prior to the public meeting.
Solicit public input	Provide opportunities for public comment at the public meeting.

Availability of SWPPP document	Provide access to the City's SWPPP on their website
BMP categories to be implemented	Measurable goals and timeframes
Availability of SWPPP document	Provide a copy of the SWPPP document in the local library by end of year 1.

3. Do you have a process for receiving and documenting citizen input? Yes No

If you answered **no** to the above permit requirement, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

4. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

MS4 Coordinator

C. MCM 3: Illicit discharge detection and elimination

1. The Permit (Part III.D.3.) requires that, within 12 months of the date permit coverage is extended, existing permittees revise their current program as necessary, and continue to implement and enforce a program to detect and eliminate illicit discharges into the small MS4. Describe your current program:

An illicit discharge, detection and elimination ordinance was passed during the last permit cycle that prohibits illicit discharges and connections. A storm sewer map has been created that shows the locations of all storm catch basins, manholes, pipes and outfalls within the City.

2. Does your Illicit Discharge Detection and Elimination Program meet the following requirements, as found in the Permit (Part III.D.3.c.-g.)?

- a. Incorporation of illicit discharge detection into all inspection and maintenance activities conducted under the Permit (Part III.D.6.e.-f.) Where feasible, illicit discharge inspections shall be conducted during dry-weather conditions (e.g., periods of 72 or more hours of no precipitation). Yes No
- b. Detecting and tracking the source of illicit discharges using visual inspections. The permittee may also include use of mobile cameras, collecting and analyzing water samples, and/or other detailed procedures that may be effective investigative tools. Yes No
- c. Training of all field staff, in accordance with the requirements of the Permit (Part III.D.6.g.(2)), in illicit discharge recognition (including conditions which could cause illicit discharges), and reporting illicit discharges for further investigation. Yes No
- d. Identification of priority areas likely to have illicit discharges, including at a minimum, evaluating land use associated with business/industrial activities, areas where illicit discharges have been identified in the past, and areas with storage of large quantities of significant materials that could result in an illicit discharge. Yes No
- e. Procedures for the timely response to known, suspected, and reported illicit discharges. Yes No
- f. Procedures for investigating, locating, and eliminating the source of illicit discharges. Yes No
- g. Procedures for responding to spills, including emergency response procedures to prevent spills from entering the small MS4. The procedures shall also include the immediate notification of the Minnesota Department of Public Safety Duty Officer, if the source of the illicit discharge is a spill or leak as defined in Minn. Stat. § 115.061. Yes No
- h. When the source of the illicit discharge is found, the permittee shall use the ERPs required by the Permit (Part III.B.) to eliminate the illicit discharge and require any needed corrective action(s). Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

The following will be implemented within 12 months from the date of this application:

- A training agenda will be established that is commensurate with the employee job duties.
- A map identifying high priority illicit discharge areas will be created.

- The ordinance that prohibits illicit discharge and connections will be amended to include notification of the Minnesota Department of Public Safety Officer, if a spill or leak occurs as defined by Minn. Statute 115.061

3. List the categories of BMPs that address your illicit discharge, detection and elimination program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
IDDE Ordinance	Approved by City Council during last permit cycle.
IDDE Inspections	City employees are on the lookout for illicit discharges as they perform their normal job duties.
BMP categories to be implemented	Measurable goals and timeframes
Identification of high priority areas	Develop a map/system for identifying high priority areas of IDDE and communicating this information with City staff within 12 months of the date permit coverage is extended.
Public education of hazards associated with illegal discharges	Number of articles written on an annual basis.

4. Do you have procedures for record-keeping within your Illicit Discharge Detection and Elimination (IDDE) program as specified within the Permit (Part III.D.3.h.)? Yes No

If you answered **no**, indicate how you will develop procedures for record-keeping of your Illicit Discharge, Detection and Elimination Program, within 12 months of the date permit coverage is extended:

A tracking and reporting system will be established for IDDE within 12 months from the date of application approval.

5. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

MS4 Coordinator / Public Services Director

D. MCM 4: Construction site stormwater runoff control

1. The Permit (Part III.D.4) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement and enforce a construction site stormwater runoff control program. Describe your current program:

The City requires a grading permit for all earthwork activity over 50 cubic yards. Site plans are reviewed against the City ordinances related to site development standards. Erosion control plans are required to be submitted to the City for review and approval prior to the start of construction activities.

2. Does your program address the following BMPs for construction stormwater erosion and sediment control as required in the Permit (Part III.D.4.b.):
- a. Have you established written procedures for site plan reviews that you conduct prior to the start of construction activity? Yes No
 - b. Does the site plan review procedure include notification to owners and operators proposing construction activity that they need to apply for and obtain coverage under the MPCA's general permit to *Discharge Stormwater Associated with Construction Activity No. MN R100001*? Yes No
 - c. Does your program include written procedures for receipt and consideration of reports of noncompliance or other stormwater related information on construction activity submitted by the public to the permittee? Yes No

- d. Have you included written procedures for the following aspects of site inspections to determine compliance with your regulatory mechanism(s):
- 1) Does your program include procedures for identifying priority sites for inspection? Yes No
 - 2) Does your program identify a frequency at which you will conduct construction site inspections? Yes No
 - 3) Does your program identify the names of individual(s) or position titles of those responsible for conducting construction site inspections? Yes No
 - 4) Does your program include a checklist or other written means to document construction site inspections when determining compliance? Yes No
- e. Does your program document and retain construction project name, location, total acreage to be disturbed, and owner/operator information? Yes No
- f. Does your program document stormwater-related comments and/or supporting information used to determine project approval or denial? Yes No
- g. Does your program retain construction site inspection checklists or other written materials used to document site inspections? Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met.

Written procedures will be established for noncompliance, identifying priority sites, responsible position and a checklist for conducting site inspections. This will be accomplished within 12 months from the date of application approval.

3. List the categories of BMPs that address your construction site stormwater runoff control program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). **If you have more than five categories**, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Permit requirement	Process all land disturbing activities that require a permit.
Ordinance	Enforce the site development ordinance during review of site plans.

BMP categories to be implemented	Measurable goals and timeframes
Procedures for noncompliance	Write procedures for responding to reports of noncompliance of construction activities within 12 months of the date permit coverage is extended.
Identification of priority sites	Include in the program procedures for identifying priority sites during construction inspections within 12 months of the date permit coverage is extended.
Frequency of site inspections	Include in the program the frequency for conducting site inspections within 12 months of the date permit coverage is extended.
Identification of responsible position conducting for site inspections	Include in the program the position responsible for conducting site inspections within 12 months of the date permit coverage is extended.
Checklist for site inspections	Include in the program a checklist for conducting site inspections within 12 months of the date permit coverage is extended.

4. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:
MS4 Coordinator

E. MCM 5: Post-construction stormwater management

1. The Permit (Part III.D.5.) requires that, within 12 months of the date permit coverage is extended, existing permittees

shall revise their current program, as necessary, and continue to implement and enforce a post-construction stormwater management program. Describe your current program:

The City's Drainage and Grading ordinance describes the post-construction BMPs to be used for development and redevelopment projects.

2. Have you established written procedures for site plan reviews that you will conduct prior to the start of construction activity? Yes No
3. Answer **yes** or **no** to indicate whether you have the following listed procedures for documentation of post-construction stormwater management according to the specifications of Permit (Part III.D.5.c.):
- a. Any supporting documentation that you use to determine compliance with the Permit (Part III.D.5.a), including the project name, location, owner and operator of the construction activity, any checklists used for conducting site plan reviews, and any calculations used to determine compliance? Yes No
- b. All supporting documentation associated with mitigation projects that you authorize? Yes No
- c. Payments received and used in accordance with Permit (Part III.D.5.a.(4)(f))? Yes No
- d. All legal mechanisms drafted in accordance with the Permit (Part III.D.5.a.(5)), including date(s) of the agreement(s) and names of all responsible parties involved? Yes No

If you answered **no** to any of the above permit requirements, describe the steps that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met.

Procedures for documenting mitigation projects and payments, along with preparing an agreement for City inspection and maintenance, as necessary, of privately owned structural stormwater BMPs will be created. This work will be accomplished within 12 months from the date of application approval.

4. List the categories of BMPs that address your post-construction stormwater management program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Ordinance with development standards	Enforce development standards during the plan review process.
Database of structural BMPs	Maintain database on an on-going basis.

BMP categories to be implemented	Measurable goals and timeframes
Low Impact Development (LID)	Encourage implementation of LID practices during the site planning/review process of projects within 12 months of the date permit coverage is extended.
BMP retrofit	Consider retrofit potential of existing infrastructure during annual redevelopment of City roads/infrastructure projects within 12 months of the date permit coverage is extended.
MN Stormwater Manual	Encourage developers to consult the MN Stormwater Manual for design of BMPs within 12 months of the date permit coverage is extended.

5. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

MS4 Coordinator / Public Services Director

F. MCM 6: Pollution prevention/good housekeeping for municipal operations

1. The Permit (Part III.D.6.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement an operations and maintenance program that prevents or reduces the discharge of pollutants from the permittee owned/operated facilities and operations to the small MS4. Describe your current program:

The City of Osseo inspects structural pollution control devices annually. Ponds and outfalls are inspected at least once every five years. Maintenance is performed on ponds and structural control devices based upon the outcome of the inspections.

2. Do you have a facilities inventory as outlined in the Permit (Part III.D.6.a.)? Yes No
3. If you answered **no** to the above permit requirement in question 2, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:
- An inventory of City owned facilities will be created within 12 months from the date of application approval.*

4. List the categories of BMPs that address your pollution prevention/good housekeeping for municipal operations program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. For an explanation of measurable goals, refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Inspection of structural pollution control devices	Annual inspections.
Street sweeping	Sweep streets a minimum of four times per year.
Inspection of ponds and outfalls on standardized forms	Inspect 100% of ponds and outfalls within the 5-year permit cycle.
Road salt application tracking	Continue annual tracking of data.
BMP categories to be implemented	Measurable goals and timeframes
Facility inventory	Develop a facility inventory within 12 months of the date permit coverage is extended.
Pond assessment procedures and schedule	In year 1 develop procedures for determining TSS and TP treatment effectiveness of city-owned ponds. Implement schedule in years 2-5.
Conduct quarterly inspections of stockpiles, and storage and material handling areas identified as part of the facility inventory	Implement inspections within 12 months of the date permit coverage is extended.

5. Does discharge from your MS4 affect a Source Water Protection Area (Permit Part III.D.6.c.)? Yes No
- a. If **no**, continue to 6.
- b. If **yes**, the Minnesota Department of Health (MDH) is in the process of mapping the following items. Maps are available at <http://www.health.state.mn.us/divs/eh/water/swp/maps/index.htm>. Is a map including the following items available for your MS4:
- 1) Wells and source waters for drinking water supply management areas identified as vulnerable under Minn. R. 4720.5205, 4720.5210, and 4720.5330? Yes No
- 2) Source water protection areas for surface intakes identified in the source water assessments conducted by or for the Minnesota Department of Health under the federal Safe Drinking Water Act, U.S.C. §§ 300j – 13? Yes No
- c. Have you developed and implemented BMPs to protect any of the above drinking water sources? Yes No
6. Have you developed procedures and a schedule for the purpose of determining the TSS and Yes No

TP treatment effectiveness of all permittee owned/operated ponds constructed and used for the collection and treatment of stormwater, according to the Permit (Part III.D.6.d.)?

7. Do you have inspection procedures that meet the requirements of the Permit (Part III.D.6.e.(1)-(3)) for structural stormwater BMPs, ponds and outfalls, and stockpile, storage and material handling areas? Yes No
8. Have you developed and implemented a stormwater management training program commensurate with each employee's job duties that:
- a. Addresses the importance of protecting water quality? Yes No
 - b. Covers the requirements of the permit relevant to the duties of the employee? Yes No
 - c. Includes a schedule that establishes initial training for new and/or seasonal employees and recurring training intervals for existing employees to address changes in procedures, practices, techniques, or requirements? Yes No
9. Do you keep documentation of inspections, maintenance, and training as required by the Permit (Part III.D.6.h.(1)-(5))? Yes No

If you answered **no** to any of the above permit requirements listed in **Questions 5 – 9**, then describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

BMPs will be developed that protect the source water drinking area considered vulnerable. A method will be created to analyze the City's existing stormwater ponds effectiveness for removing TSS and TP. A stormwater management training program, commensurate with each employee's job duties, will be developed.. These tasks will be accomplished within 12 months from the date of application approval.

10. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

MS4 Coordinator / Public Services Director

VI. Compliance Schedule for an Approved Total Maximum Daily Load (TMDL) with an Applicable Waste Load Allocation (WLA) (Part II.D.6.)

- A. Do you have an approved TMDL with a Waste Load Allocation (WLA) prior to the effective date of the Permit? Yes No
1. If **no**, continue to section VII.
 2. If **yes**, fill out and attach the MS4 Permit TMDL Attachment Spreadsheet with the following naming convention: *MS4NameHere_TMDL*.

This form is found on the MPCA MS4 website: <http://www.pca.state.mn.us/ms4>.

VII. Alum or Ferric Chloride Phosphorus Treatment Systems (Part II.D.7.)

- A. Do you own and/or operate any Alum or Ferric Chloride Phosphorus Treatment Systems which are regulated by this Permit (Part III.F.)? Yes No
1. If **no**, this section requires no further information.
 2. If **yes**, you own and/or operate an Alum or Ferric Chloride Phosphorus Treatment System within your small MS4, then you must submit the Alum or Ferric Chloride Phosphorus Treatment Systems Form supplement to this document, with the following naming convention: *MS4NameHere_TreatmentSystem*.

This form is found on the MPCA MS4 website: <http://www.pca.state.mn.us/ms4>.

VIII. Add any Additional Comments to Describe Your Program

Compliance Schedule PART II.D.6.f.-g.

Is your MS4 currently meeting its WLA for any approved TMDLs?

- NO** (Complete Table 1, Strategies for continued BMP implementation beyond the term of this permit, and [Table 1](#) **Go to:** [Strategies...](#) **Go to:** [Table 2](#))
- YES** (Provide the following information below)

If YES, indicate the WLAs (may be grouped by TMDL Project) you believe are reasonably being met. For each WLA, list the implemented BMPs and provide a narrative strategy for the long-term continuation of meeting each WLA. PART II.D.6.g.(1)-(2)

Shingle Creek; Chloride (all flow conditions)

The City is not a major contributor of chloride to the watershed, because the City has only 1% of the total lane miles of roadway in the watershed that flow to Shingle Creek. Since the Shingle Creek Implementation Plan was approved for the chloride TMDL, which was in 2007, the City has addressed each of the stakeholder activities identified in the plan. The City calibrates its salt trucks on an annual basis. Bulk salt storage is stored in a salt shed. All of the City's operators are certified as road salt applicators. Clean-up and snow stockpiling BMPs are evaluated annually. The City uses ClearLane® enhanced deicer and monitors new products and equipment for effectiveness. This City will continue to maintain these existing BMPs to ensure they remain sufficient to address any loading generated from our system.

Table 1

Fill in the following table with your Interim Milestones, BMP IDs, and Implementation Dates. Replace "TMDL Project Name & Pollutant" Columns with each TMDL Project Name and the corresponding pollutant. Then put an "X" in the boxes for the TMDL that corresponds with each BMP. PART II.D.6.f.(1)-(2)

Interim Milestone (Best Management Practice)	BMP ID	Implementation Date	Shingle Creek and Bass Creek Biota and Dissolved Oxygen TMDL
Develop a public education campaign focused on dissolved oxygen BMPs.	NS-001	6/20/2014	X
Identify and prioritize areas for pet waste disposal sites.	NS-002	6/20/2015	X
Install pet waste disposal stations.	STR-001	6/20/2016	X
Monitor pet waste disposal sites, record number of bags purchased annually.	NS-003	6/20/2017	X
Evaluate alternative BMPs the City could use related to the DO TMDL.	NS-004	6/20/2018	X

Strategies for continued BMP implementation beyond the term of this permit. PART II.D.6.f.(3)

The City will take advantage of redevelopment opportunities to install new or retrofit existing BMPs during the redevelopment process. The City will also consider the implementation of low impact development practices if prudent and feasible. The City will be updating their Surface Water Management Plan by 2015 to comply with the Watershed updates. This will include actions to achieve the load reductions identified in the TMDL Implementation Plans and adopting the infiltration standard for 1" of runoff volume. Upon reevaluation of the TMDL waters on a ten-year monitoring cycle conducted by the state, the City will consider any necessary modifications to this approach.

Table 2

Target dates the applicable WLA(s) will be achieved. PART II.D.6.f.(4)

TMDL Project	Target Date to Achieve WLA
Shingle Creek and Bass Creek Biota and Dissolved Oxygen TMDL	2030
Shingle Creek Chloride TMDL	2013

TMDL Wasteload Allocation Excel Spreadsheet PART II.D.6.a.-e.

Copy and paste from the Master List MS4 TMDL Spreadsheet for your MS4 to the space below.

Attach this completed form with your SWPPP Document at the time of submittal. At a **minimum**, provide all of the information "" items (TMDL Project Name, Type of WLA, Numeric WLA, Unit, Flow Condition, and Pollutant of Concern).

Permittee name	Preferred ID	TMDL project name*	Waterbody ID	Type of WLA*	Numeric WLA*	Unit*	Percent reduction	Flow condition*	Waterbody name	Pollutant of concern*	Date approved
Oseo City	MS400043	Shingle Creek and Bass Creek Biota and Dissolved Oxygen TMDL	07010206-506	Categorical	11.8	kg/day		N/A	Shingle Creek; Lower Shingle Creek Watershed	Nitrogenous biochemical oxygen demand	11/4/2011
Oseo City	MS400043	Shingle Creek and Bass Creek Biota and Dissolved Oxygen TMDL	07010206-506	Categorical	35.8	kg/day		N/A	Shingle Creek; Upper Shingle Creek Watershed	Nitrogenous biochemical oxygen demand	11/4/2011
Oseo City	MS400043	Shingle Creek Chloride TMDL	07010206-506	Categorical			63%	Winter Low Flow (60% to 100%)	Shingle Creek	Chloride	2/14/2007
Oseo City	MS400043	Shingle Creek Chloride TMDL	07010206-506	Categorical			71%	Winter Runoff (60% to 0%)	Shingle Creek	Chloride	2/14/2007
Oseo City	MS400043	Shingle Creek Chloride TMDL	07010206-506	Categorical	24.8	tons/day		High	Shingle Creek	Chloride	2/14/2007
Oseo City	MS400043	Shingle Creek Chloride TMDL	07010206-506	Categorical	8.8	tons/day		Mid	Shingle Creek	Chloride	2/14/2007
Oseo City	MS400043	Shingle Creek Chloride TMDL	07010206-506	Categorical	4.5	tons/day		Mid-Range	Shingle Creek	Chloride	2/14/2007
Oseo City	MS400043	Shingle Creek Chloride TMDL	07010206-506	Categorical	3.4	tons/day		Dry	Shingle Creek	Chloride	2/14/2007
Oseo City	MS400043	Shingle Creek Chloride TMDL	07010206-506	Categorical	1.9	tons/day		Low	Shingle Creek	Chloride	2/14/2007

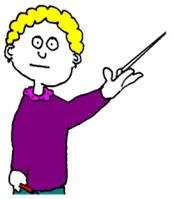
MS4 Pond, Wetland, and Lake Inventory Form

Municipal Separate Storm Sewer System (MS4) Program

Doc Type: Plans/Specifications/Maps

Name of MS4 Permittee	Date form completed	Unique ID Number	Type of Feature (Pond, Wetland or Lake)	Feature Common Name (If Applicable)	Y Coordinate (Latitude) Decimal Degrees	X Coordinate (Longitude) Decimal Degrees
City of Osseo	10/25/2013	Pond 1	Pond		45.1174	-93.4067
City of Osseo	10/25/2013	Pond 2	Pond		45.1143	-93.4012
City of Osseo	10/25/2013	Outfall 1	Outfall		45.1232	-93.4015
City of Osseo	10/25/2013	Outfall 2	Outfall		45.1232	-93.3945
City of Osseo	10/25/2013	Outfall 3	Outfall		45.1223	-93.3929
City of Osseo	10/25/2013	Sump 1	Manhole Sump		45.1234	-93.4016

EDUCATION WORK PLAN



Introduction

The City of Osseo's Storm Sewer Pollution Prevention Plan (SWPPP) Minimum Control Measure (MCM) 1 addresses public education and outreach. The following plan determines the education focus for the current permit cycle through 2018 and the programs and tools to be implemented in educating the public about their roles in the protection, preservation and management of water resources.

Target Audience

Educational needs are dependent on the target audience. Each target audience plays a different role in the protection, preservation and management of water resources. Thus, programs and tools are tailored to different target audiences. This plan lays out the priority area education programs and tools according to the target audiences listed below.

- Local Officials & Decision makers: appointed/elected officials such as city councils and planning commissions.
- Staff: planners, engineers and public works staff.
- Homeowners/Landowners: citizens.

Topic Areas/Issues of Concern

- For citizens we want to increase awareness of protecting and improving the water quality of our lakes, streams and wetlands in the watershed concerning pet waste.
- For public works staff we want to increase awareness on illicit discharges, illicit discharge detection and municipal operations best management practices (BMPs) concerning chloride.

Responding to Public Comments

- The appropriate City staff will provide a response to any comments received regarding the SWPPP within three business days, if possible, given the nature of the comment. The public comment and City response will be saved in the SWPPP binder or digital folder of the latest or most applicable program plan or annual report.

Timeline, Methods and Responsibilities

- Quarterly
 - The City of Osseo will develop or solicit from outside entities stormwater articles for the City newsletter to inform private residents and businesses about stormwater issues. Currently the newsletter is published quarterly. The City will attempt to publish an article in each of the newsletters that discusses Stormwater Pollution Prevention and generally cover such issues concerning pet waste and proper use of chloride; however, other topics will be covered as necessary.

EDUCATION WORK PLAN



- Annually
 - The City staff will prepare a presentation to the City Council, or provide an update to the City Administrator, on an annual basis to explain the past progress towards implementing the SWPPP provisions and what is planned for the upcoming year. This presentation will be used as an opportunity to increase Council, and/or City Administrator, on awareness of storm water runoff issues and justify the importance of implementing the SWPPP provisions. The City will cover issues relating to each of the six minimum control measures in the presentation.
- Annually
 - The City will conduct an annual public meeting to receive public opinion on the adequacy and effectiveness of the SWPPP program, and serve as an opportunity to provide public awareness of stormwater runoff issues.
- Annually
 - The City of will conduct annual employee training for the public works staff to educated employees on how to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and MS4 maintenance activities in general.
- Ongoing
 - City Website – Storm Water Education Page: The City will maintain a stormwater web page, which provides the audience with general information regarding the effects of polluted stormwater, prevention techniques, and resources for additional information. As a goal, the City will provide information on the website to address each of the six minimum control measures. Also, the City plans to post the approved SWPPP on the website for public viewing.
- Ongoing
 - The City will accept phone calls and other correspondence to report illicit discharge, provide comments regarding the SWPPP, and report construction site sedimentation and erosion violations. All comments received will be routed to the appropriate staff person. Comments will be received will be routed to the appropriate staff person. Comments will be reviewed by City staff, SWPPP revisions will conducted as appropriate, and responses to each comment will be provided in the annual report. Also, the City will incorporate their existing complaint procedures and filing system to document calls.



ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM



**City of Osseo
Public Works Department
800 Broadway Street East
Osseo, MN 55369**

TABLE OF CONTENTS

Introduction	2
SECTION 1: Municipal Storm System Mapping	3
SECTION 2: City Ordinance	3
SECTION 3: Incorporating IDDE into Maintenance and Inspection Activities.....	3
SECTION 4: Visual IDDE Inspection Procedures.....	4
SECTION 5: Training Staff on Implementation of the IDDE Program	7
SECTION 6: Locating Priority Areas	8
SECTION 7: Response Procedures.....	9
SECTION 8: Incident Reporting	11

APPENDIX A: Stormwater IDDE Report & Response Form

APPENDIX B: Enforcement Response Procedures (ERPs)

APPENDIX C: Dye Testing, Video Testing/Televising & Smoke Testing

APPENDIX D: Illicit Discharge Ordinance

Illicit Discharge Detection and Elimination Program

Introduction

The purpose of the Illicit Discharge Detection and Elimination (IDDE) Program is to detect and eliminate sources of pollution to the municipal separate storm sewer system (MS4) as required by the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) permit program, permit number: MNR040000.

The goal of this plan is to identify and then eliminate illicit discharges. Examples of illicit discharges include:

- Direct or indirect sanitary wastewater discharges that connect to the storm sewer or watercourse, such as a shop floor drain connected to a storm drain, a cross-connection between the municipal sewer and storm sewer systems, a damaged sanitary sewer line that is leaking sewage into a cracked storm sewer line, or a failing septic system that is leaking into a water course.
- Materials (e.g., used motor oil) that have been dumped illegally into a storm drain catch basin or other stormwater facility.
- Improper home or business owner activities such as washing paint brushes into a catch basin, washing new textured concrete driveways into a storm drain, draining swimming pools to the storm system (swimming pools have high pH and chlorine), excess use of fertilizers, or washing cars with chemicals that enter the storm drain system.

Additional goals of the IDDE program include:

- Improve water-quality in local waterways by reducing incidences of pollution to MS4s
- Increase awareness among municipal employees, businesses, and the general public of the direct connection between the MS4 and local waterways
- Educate municipal employees, businesses, and the general public of the hazards associated with illicit discharges and the best management practices (BMPs) available
- Facilitate consistency in response to incidences of discharges of pollutants to City's stormwater system through a coordinated system of procedures and training of municipal employees,

The NPDES Permit sets forth the minimum elements of the plan which are listed below. These minimum elements are described throughout the remainder of this document.

- Municipal Storm Sewer System Mapping (Part III.D.3.a)
- Ordinances (that effectively prohibit illicit discharges) (Part III. D.3.b)
- Incorporating IDDE into Maintenance and Inspection Activities (Part III.D.3.c)
- Visual IDDE Inspections (Part III.D.3d)
- Staff Training (Part III.D.3e)
- Locating Priority Areas (Part III.D.3.f)
- Response Procedures (Part III.D.3.g)
- Incident Reporting (Part III.D.3.h)

Section 1: Municipal Storm System Mapping

The NPDES Phase II Permit outlines minimum information that should be included in the City's municipal storm sewer system map:

- Location of all known municipal storm sewer conveyances 12" or greater in diameter, including the stormwater flow direction in the pipes,
- Outfalls, including a unique identification (ID) number assigned by the City, and an associated geographic number,
- Structural stormwater BMPs that are part of the City's small MS4,
- All receiving waters.

The City has completed GIS mapping of the city's stormwater system, including all basins, pipes, ditches and stormwater facilities, including outfall identification. Updating and maintenance is ongoing. This map will be used to schedule and track maintenance activities and plan for capital improvement projects.

The GIS map information is currently not available on-line. A wall map showing the mapped system to date is available at Public Works.

All City owned stormwater facilities have been identified. Outfalls have been mapped. Stormwater BMP's are in the process of being mapped (on-going process).

Receiving waters have been prioritized and identified on the GIS Stormwater Map.

Section 2: City Ordinance

Current Ordinance

Section 52.016 of the City's current municipal code prohibits illicit discharges. Connections to the stormwater system must contain only stormwater and groundwater, otherwise they are to be eliminated. The fines and penalties that can be levied against code violations that are considered a petty misdemeanor or misdemeanor are identified in Section 10.99. The IDDE ordinance is included in the appendix for reference.

Section 3: Incorporating IDDE into Maintenance and Inspection Activities

Purpose

Potential illicit discharge problems can be revealed through outfall inspections or reports from staff, tenants, or the public as described in Section 4. When a complaint is reported, the Phase II Permit requires that a follow-up investigation be initiated within seven (7) days, on average. The follow-up investigation could include a site visit to look at the problem area, review of mapping information, review of past complaints or investigations at the location, or other data collection and review. Once a problem has been verified (either through a routine outfall inspection or follow-up to a called-in complaint) the City will begin an official illicit discharge investigation, following the procedures outlined in this section.

When an illegal dumping or illicit discharge problem is directly observed by a member of the City staff, it is generally not necessary to follow these investigation procedures. In those scenarios, the source of the problem discharge is already known. Problems revealed through direct observation are referred directly to the corrective action information in Section 7. In the event that a reported problem does not have a defined source, the procedures in this section should be followed to trace the source of the illicit discharge.

Section 4: Visual Illicit Discharge Detection Inspection Procedures

4.1 Tracing the Source

This section outlines the basic tools that can be used to trace the source of a suspected illicit discharge. Source tracing begins when a suspected problem area is identified through outfall inspections, field assessment/testing, or a complaint call. When the source of the non-stormwater discharge is not known, one of two primary methods can be used to locate the source of an illicit discharge:

- Method A – Storm Drain Network Investigations
- Method B – Drainage Area Investigations

The method used will depend on the type of information collected or reported, level of understanding of the drainage network, and existing knowledge of operations and activities on the surrounding properties. All source tracing investigations should be documented and recorded.

4.1.1 Start a File

When problems are identified, a report should be started, and assigned an incident number, creation date, case description and the primary staff contact/investigator. A report is created listing the property name, person responsible, and tracking all information related to the observed or suspected problem. The investigator assigned to the case shall keep an accurate log of labor, materials and costs associated with the investigation for invoicing the responsible party. The report should be started prior to completing any additional field work unless the nature of the discharge necessitates immediate response. In addition to filling out the report, the file should include copies of the following, if applicable:

- GIS Inspection Map;
- Photographs;
- Field notes;
- Lab testing results;
- Compliance letters sent and responses received;
- Correspondence (mail, email, telephone logs);
- Proof of corrected problems (contract and invoice or clean field investigation report).

Any field investigations, photographs, corrective actions, or other activities associated with the suspected problem area should be documented in the case log. This becomes the City's official record of the IDDE investigation. Additional record keeping information is included in Section 8.

4.1.2 Method A – Storm Drain Network Investigations

The source of some illicit connections or discharges can be located by systematically isolating the area from which the polluted discharge originates. This method involves progressive investigation at manholes in the storm drain network to narrow down the location where the illegal discharge is entering the drainage system. This method is best used to identify constant or frequent discharge sources such as an illicit connection from a sewer system or sink drain into the storm drainage network. One-time illegal discharges (such as a surface spill or intentional dumping into the storm drain system) should be investigated using Method B described later in this section.

Field crews should work progressively upstream from the outfall and inspect manholes until indicators reveal the discharge is no longer present. Manhole observations can be time consuming, but they are generally a necessary step before conducting other tests. In particularly large storm drain systems, it may be helpful to first identify major branches of the system and test one manhole at the downstream end of each branch. This can help to reduce the area that must be investigated.

Storm drain network investigations include the following steps:

1. Consult the drainage system map and identify the major branches. If a drainage system map is not available or major branches cannot be identified, then sketches of the system shall be made and the system shall be identified in the GIS project queue for adding to the City's drainage system map.
2. Starting from the outfall, observe the next upstream manhole or junction to see if there is evidence of polluted discharge. As with the outfall inspections, field crews are looking for the presence of flow during dry weather, foul odors, colors or stained deposits, oily sheen, floatable materials, and/or other unusual observations.
3. Repeat observations at each upstream manhole or junction until a junction is found with no evidence of discharge; the discharge source is likely located between the junction with no evidence of discharge and the next downstream junction.
4. Work downstream from the "clean" manhole or junction to isolate the location where the polluted discharge is entering the storm drain system.
5. If discharge is evident from private property initiate private property site entry procedures.
6. Document all findings in field notes and keep them in the file.

When visual inspections are not enough to isolate the source of the illegal discharge, a number of additional field tests can be performed. These include:

- Dye testing,
- Video Testing/Televising,
- Smoke testing,

The Center for Watershed Protection's Illicit Discharge Detection and Elimination: A Guidance Manual provides instructions for employing these testing techniques. The relevant pages from that manual are included in Appendix C.

Confirmed illicit discharge sources should be referred to the follow-up actions and corrective action procedures described at the end of this section and in Section 7.

4.1.3 Method B – Drainage Area Investigations

The source of some illegal discharges can be determined through a survey or analysis of the drainage area of the problem outfall. Drainage area investigations are particularly useful when the discharge observed at the outfall has a distinct or unique characteristic that can allow field crews to quickly determine the type of activity or non-point source that is generating the discharge. However, drainage area investigations are generally not helpful in tracing sewage discharges, since they are not related to a specific land use.

Drainage area investigations should begin with a discussion between the field crews, inspectors, engineers, and other knowledgeable City staff to identify the type of site most likely to produce the observed discharge. Table 4-1 shows some of the activities or land uses most likely associated with specific discharge problems.

Table 4-1 Common Discharges and Potential Sources	
Observed Discharge	Potential Causes
Clogging Sediment	<ul style="list-style-type: none"> • Construction activity without proper erosion and sediment controls • Roadway sanding operations • Outdoor work areas or material storage areas
Thick Algae Growth	<ul style="list-style-type: none"> • Fertilizer leak or spill • Landscaping operations • Hydroseeding following construction • Failing or leaking septic system
Oil	<ul style="list-style-type: none"> • Refueling operations • Vehicle or machinery maintenance activities
Sudsy Discharge	<ul style="list-style-type: none"> • Power washing of buildings • Vehicle or equipment washing operations • Mobile cleaning crew dumping • Laundry or Cleaner • Household greywater discharge
Clogged Grease	<ul style="list-style-type: none"> • Restaurant sink drain connection to stormwater system
Sewage	<ul style="list-style-type: none"> • Failing or leaking septic systems

Staff should make a list of likely discharge sources and consult City land use and drainage system maps to identify areas of likely pollutions sources near the storm drain network. Field crews should then conduct a windshield survey of the drainage area to confirm and identify potential sources of the discharge. Once potential discharge sites are identified, City staff should conduct individual site inspections to locate the specific source of the illegal discharge.

In some cases, dye testing (See Appendix C) may be needed to confirm that a suspected activity is actually draining into the storm drain network.

All drainage area investigations should be documented in field notes and entered in the report file.

4.1.4 Equipment

Prior to conducting field work, crews should assemble all required equipment (see Table 4-2) and review the outfall inspection records or water quality incident reports from the area to become familiar with the background information and potential pollution sources.

Minimum 2 person crew	<ul style="list-style-type: none">• Watch with second hand
Safety Gear – vest, work boots, cones	<ul style="list-style-type: none">• Flash light or head lamp
Field Notebook/Pencils	<ul style="list-style-type: none">• Tool Box – hammer, tape measure, duct tape, zip ties
Map or Aerial Photo of Inspection Area	<ul style="list-style-type: none">• First Aid Kit
Digital camera w/ charged battery	<ul style="list-style-type: none">• Clear sample bottles
Cell phone w/ charged battery	<ul style="list-style-type: none">• Wide mouth container

4.2 Follow-Up Actions

Once the source of an illicit discharge has been identified, the investigator should notify the property owner or operator of the problem, and provide the appropriate educational materials and/or a notice of violation. This is an important first step in the corrective action process. The investigator completes the information to document the findings. The investigator can then begin working through the corrective action steps outlined in Section 7.

Section 5: Training Staff on Implementation of the IDDE Program

The City has developed a training schedule to meet the requirements of the NPDES Phase II Permit. Two primary trainings have been identified related to IDDE:

- Training for all staff that are routinely in the field to educate them on what constitutes an illicit discharge problem and how to report suspected problems.
- Training for illicit discharge responders on proper identification, investigation, clean-up, disposal, and reporting techniques for illicit discharges.

These trainings are generally conducted using materials developed for the IDDE program. General training will primarily include Power Point presentations, webcast material, and printed material distributed to staff at staff meetings. The City has met the permit requirement of developing a program to train all field staff, and the City will schedule follow-up trainings as needed to keep the information fresh or introduce new information acquired during implementation of the IDDE program.

Training for illicit discharge responders will also include distribution and review of this procedure manual as well as a refresher on City spill response procedures. Follow-up trainings for illicit discharge responders may take the form of debriefings following significant IDDE incidents. Debriefings allow staff to review the actions taken and identify what worked well and what should be modified for future responses.

Section 6 – Locating Priority Areas

Identification of priority areas likely to have illicit discharges, including at a minimum, evaluating land uses associated with business/industrial activities, areas where illicit discharges have been identified in the past, and areas with storage of large quantities of significant materials that could result in an illicit discharge. Based on this evaluation, the permittee shall conduct additional illicit discharge inspections in those areas identified as having a higher likelihood for illicit discharges.

6.1 Developing Priority Areas

Identifying priority areas is vital to the development of an IDDE program. This process can be broken down into three fundamental steps:

1. Use all available information to identify where illicit discharges may be found in the community;
2. Conduct dry weather field screenings to locate non-stormwater discharges;
3. Conduct water quality sampling and analysis to determine if non-stormwater discharges are present.

6.2 Locating Priority Areas

The first step in locating priority areas is to identify areas that have a high potential for illicit discharges within your community. These can be broken down into a list of commonly high probability locations where illicit discharges may be or are likely to occur.

1. Locations where there have been repeated problems in the past. This includes locations with known water quality data, as well as locations where numerous complaints have been received. These areas should be known by community officials as well as other agencies that collaborate on specific problem areas. For example: Osseo Utilities works on many sanitary sewer problems that can impact the MS4. Utilities would be a division within Public Works that should be contacted for such information. Likewise, the MDOH, MPCA, county health department, or a variety of other agencies/groups should be contacted when compiling this information.
2. Using existing information to assess where illicit discharges may be found and what waterbodies are particularly sensitive (e.g. drinking water sources, areas containing unique biodiversity, and swimming areas).
3. Older areas of a community may indicate possible locations where there will be illicit discharges detected. These locations may have a higher percentage of illegal connections and/or have deteriorating sewer lines leading to infiltration problems from the older infrastructure found in that area.
4. The commercial and/or industrial areas of the community will tend to have a higher percentage of illicit discharges as well. Historically, these locations have significant numbers of illegal

connections and have discharges with a high potential to affect water quality (Tuomari, 1999 and Pitt et al., 1993).

5. Stormwater outfalls and structural pollution control devices should be inspected for illicit discharges during the normal inspection period for these structures/facilities.
6. Areas with storage of large quantities of materials that could result in a spill or areas with many storage vessels of hazardous solids or liquids.

Priority Areas Identified by the City of Osseo:

Using the guidelines provided above, the City of Osseo staff has identified the following priority areas within the city limits:

- Industrial and commercial businesses along County Road 81.

Section 7: Response Procedures

Immediate Response Procedures

The field crew should be prepared to take immediate action in the event of encountering one of the following situations:

- Individuals actively in the process of introducing possible illegal substances or materials to the storm drain system
- Very strong chemical odor emanating from storm drain system
- Presence of fumes or smoke emanating from storm drain system
- Visible significant stream of a controlled chemical or petroleum product flowing in storm system or downstream waters
- Large chemical plume in stream or river downstream of a City outfall
- Any condition that poses or could pose an immediate threat to property, human health or safety, or aquatic life. The crew should take the following steps if one of the above situations is encountered:
 - Ensure crew safety and the public by instructing people to stay clear of the area.
 - **Call 911 to report a major spill, active illegal dumping or a potential fire incident.**
 - The following offices must all be called if an unauthorized discharge of oil or hazardous material such as a spill has occurred:
 - a. Non-Emergency Police Dispatch at 763-424-5444; and
 - b. Minnesota Duty Officer at 651-649-5451.
- If a spill is encountered the following information should be recorded if possible:
 - a. Where is the spill?
 - b. What spilled?
 - c. How much spilled?
 - d. How concentrated is the spilled material?
 - e. Who spilled the material?
 - f. Is anyone cleaning up the spill?
 - g. Are there resource damages (e.g. dead fish or oiled birds)?
 - h. Who is reporting the spill?

i. Your contact information?

- If possible isolate or contain visible chemical pollution in the effected waterbody with any materials that are accessible. For small discharges earth dams, absorbent pads, and containers may be useful to contain part of the illicit discharge.
- Take detailed notes and photos/video for subsequent investigation by City or other agencies.

At a minimum, follow-up work includes contacting the Minnesota Pollution Control Agency (651-296-6300) to determine if any additional reporting or investigative actions are necessary.

7.1 Corrective Action

7.1.1 Purpose

The City will respond to identified illicit discharges, illicit connections, or illegal dumping activities using progressive enforcement actions. Corrective actions will focus first on education to promote voluntary compliance and escalate to increasingly severe enforcement actions if voluntary compliance is not obtained.

7.1.2 Voluntary Compliance

The preferred approach to address illicit discharge problems is to pursue voluntary compliance through property owner or responsible party education. Often, business operators and property owners are not aware of the existence of illicit connections or activities on their properties that may constitute an illegal discharge. In these cases, providing the responsible party with information about the connection or operation, the environmental consequences, and suggestions on how to remedy the problem may be enough to secure voluntary compliance.

Education begins during the site investigation when the operation or connection is first confirmed. Property owners and operators should be notified that the problems must be corrected in a timely manner and that the City will be conducting a follow-up site visit to verify compliance. Field staff should also provide the property operator with an educational brochure describing illicit discharge violations and a copy of the applicable City code. Field staff should also remind property owners of their obligation to report discharges to the proper agencies.

7.1.3 Operational Problems

Property owners are responsible for correcting operational problems that are leading to illegal discharges to the storm drainage system. This could include moving washing activities indoor or undercover, covering material storage areas, locating an appropriate discharge location for liquid wastes, or other operational modifications. Through site visits and education, the City can provide technical assistance to aid property owners in identifying the required modifications.

7.1.4 Structural Problems

Most illicit connection problems will require a structural modification to correct the problem. Structural repairs can be used to redirect discharges such as sewage, industrial, and commercial

cross-connections. Such cross-connections must be re-routed to an approved sanitary sewer system. Correcting structural problems is the responsibility of the property owner, though the City may provide technical assistance throughout the process.

Section 8 – Incident Reporting

8.1 Purpose

Illicit discharges and connections are identified through citizen reporting, interdepartmental or interagency referral, or other routine MS4 inspection activities. The City relies on local citizens, field staff, and inspections to detect potential problem areas quickly, so that they can be addressed before they cause significant water quality degradation.

Call the Public Services Director at (763-425-5741) to report any city water quality incident/spill/trouble concerns. This convenience encourages residents to participate in the reporting process and helps the City to receive timely information about problems like illegal dumping, spills, or strong odors. The City's related MS4 maintenance activities provide opportunities to document and identify potential problems that may not be obvious to the general public.

8.2 Incident Reporting

Field staff shall be observant in their daily routines to watch for evidence of illicit discharges or unusual flows from the storm drain systems. Should a suspected discharge be discovered, it must be reported to the City of Osseo at 763-425-5741 (Public Services Director).

When a suspected illicit discharge is observed, the employee may elect to fill out a City of Osseo Stormwater IDDE Report & Response Form (Appendix A). However, if a suspected illicit discharge is observed, to assist the City the information that should be recorded at a minimum is:

- ▶ Location
- ▶ Date
- ▶ Time
- ▶ License plate number (if applicable)
- ▶ And take photos

Once this information is submitted to the City a field investigation of the discharge shall occur. The employee initially observing the suspect discharge need NOT approach the potential violator at the time of the incident. However, if the violator does not appear threatening, personal information for the Illicit Discharge Reporting & Tracking Form would be beneficial.

Once recorded, incident information is referred to the appropriate City department and/or staff person for follow-up. In most cases, IDDE problems should be referred to the City for further investigation. Staff will either follow the investigation procedures in Section 6 to identify the source of the problem or, if the source is known, the corrective action procedures outlined in Section 7 will apply.

APPENDIX A

Stormwater IDDE Report & Response Form

Stormwater IDDE Report & Response Form

I. Incident Report

Incident Number: _____

Date/Time: _____ AM / PM Received By: _____

Location: _____

Initial Report of Conditions: _____

Reported By: _____ Phone: _____

II. Investigation

Date: _____ By: _____

Location Description/Storm Drain ID/Outfall: _____

Discharge Entered Storm Drain System/Receiving Waters? ___ Yes ___ No

Material Type

- | | | |
|-------------------------------------|--------------------------------------|-------------------------------------|
| <input type="checkbox"/> Hazardous | <input type="checkbox"/> Sediment | <input type="checkbox"/> Wastewater |
| <input type="checkbox"/> Oil/Grease | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Unknown |

Est. Quantity: _____

Additional Information: _____

Sample(s) Collected: ___ Yes ___ No

Photo(s) Taken: ___ Yes ___ No

Observed Land Use

- Residential
- Commercial/Industrial Stormwater Permit ___ Yes ___ No ___ Unknown
- Public

Direct/Constructed Connections Found? ___ Yes ___ No

Source Description: _____

Source/Responsible Party: _____

III. Action and Closure

Referred To: _____ Date: _____

Action Taken: _____

Date Closed: _____

APPENDIX B

Enforcement Response Procedures (ERPs)

(See Section 5 for ERPs)

APPENDIX C

Dye Testing, Video Testing/Televising & Smoke Testing

Excerpts from The Center for Watershed Protection's:

Illicit Discharge Detection and Elimination: A Guidance Manual for Program
Development and Technical Assessments

Technique	Best Applications	Limitations
Dye Testing	<ul style="list-style-type: none"> Discharge limited to a very small drainage area (<10 properties is ideal) Discharge probably caused by a connection from an individual property Commercial or industrial land use 	<ul style="list-style-type: none"> May be difficult to gain access to some properties
Video Testing	<ul style="list-style-type: none"> Continuous discharges Discharge limited to a single pipe segment Communities who own equipment for other investigations 	<ul style="list-style-type: none"> Relatively expensive equipment Cannot capture non-flowing discharges Often cannot capture discharges from pipes submerged in the storm drain
Smoke Testing	<ul style="list-style-type: none"> Cross-connection with the sanitary sewer Identifying other underground sources (e.g., leaking storage techniques) caused by damage to the storm drain 	<ul style="list-style-type: none"> Poor notification to public can cause alarm Cannot detect all illicit discharges

TIP

The Wayne County Department of the Environment provides excellent training materials on on-site investigations, as well as other illicit discharge techniques. More information about this training can be accessed from their website: http://www.wcdoe.org/Watershed/Programs___Srvcs_/IDEP/idep.htm.



Figure 63: Dye Testing Plumbing (NEIWPCC, 2003)

Dye Testing

Dye testing is an excellent indicator of illicit connections and is conducted by introducing non-toxic dye into toilets, sinks, shop drains and other plumbing fixtures (see Figure 63). The discovery of dye in the storm drain, rather than the sanitary sewer, conclusively determines that the illicit connection exists.

Before commencing dye tests, crews should review storm drain and sewer maps to identify lateral sewer connections and how they can be accessed. In addition, property owners must be notified to obtain entry permission. For industrial or commercial properties, crews should carry a letter to document their legal authority to gain

access to the property. If time permits, the letter can be sent in advance of the dye testing. For residential properties, communication can be more challenging. Unlike commercial properties, crews are not guaranteed access to homes, and should call ahead to ensure that the owner will be home on the day of testing.

Communication with other local agencies is also important since any dye released to the storm drain could be mistaken for a spill or pollution episode. To avoid a costly and embarrassing response to a false alarm,

crews should contact key spill response agencies using a “quick fax” that describes when and where dye testing is occurring (Tuomari and Thomson, 2002). In addition, crews should carry a list of phone numbers to call spill response agencies in the event dye is released to a stream.

At least two staff are needed to conduct dye tests – one to flush dye down the plumbing fixtures and one to look for dye in the downstream manhole(s). In some cases,

three staff may be preferred, with two staff entering the private residence or building for both safety and liability purposes.

The basic equipment to conduct dye tests is listed in Table 57 and is not highly specialized. Often, the key choice is the type of dye to use for testing. Several options are profiled in Table 58. In most cases, liquid dye is used, although solid dye tablets can also be placed in a mesh bag and lowered into the manhole on a rope (Figure 64). If a

Table 57: Key Field Equipment for Dye Testing

(Source: Wayne County, MI, 2000)

Maps, Documents

- Sewer and storm drain maps (sufficient detail to locate manholes)
- Site plan and building diagram
- Letter describing the investigation
- Identification (e.g., badge or ID card)
- Educational materials (to supplement pollution prevention efforts)
- List of agencies to contact if the dye discharges to a stream.
- Name of contact at the facility

Equipment to Find and Lift the Manhole Safely (small manhole often in a lawn)

- Probe
- Metal detector
- Crow bar
- Safety equipment (hard hats, eye protection, gloves, safety vests, steel-toed boots, traffic control equipment, protective clothing, gas monitor)

Equipment for Actual Dye Testing and Communications

- 2-way radio
- Dye (liquid or “test strips”)
- High powered lamps or flashlights
- Water hoses
- Camera



Figure 64: Dye in a mesh bag is placed into an upstream manhole (left); Dye observed at a downstream manhole traces the path of the storm drain (right)

longer pipe network is being tested, and dye is not expected to appear for several hours, charcoal packets can be used to detect the dye (GCHD, 2002). Charcoal packets can be secured and left in place for a week or two, and then analyzed for the presence of dye. Instructions for using charcoal packets in dye testing can be accessed at the following website: <http://bayinfo.tamug.tamu.edu/gbeppubs/ms4.pdf>.

The basic drill for dye tests consists of three simple steps. First, flush or wash dye down the drain, fixture or manhole. Second, pop open downgradient sanitary sewer manholes and check to see if any dye appears. If none is detected in the sewer manhole after an hour or so, check downgradient storm drain manholes or outfalls for the presence of dye. Although dye testing is fairly straightforward, some tips to make testing go more smoothly are offered in Table 59.

Table 58: Dye Testing Options

Product	Applications
Dye Tablets	<ul style="list-style-type: none"> • Compressed powder, useful for releasing dye over time • Less messy than powder form • Easy to handle, no mess, quick dissolve • Flow mapping and tracing in storm and sewer drains • Plumbing system tracing • Septic system analysis • Leak detection
Liquid Concentrate	<ul style="list-style-type: none"> • Very concentrated, disperses quickly • Works well in all volumes of flow • Recommended when metering of input is required • Flow mapping and tracing in storm and sewer drains • Plumbing system tracing • Septic system analysis • Leak detection
Dye Strips	<ul style="list-style-type: none"> • Similar to liquid but less messy
Powder	<ul style="list-style-type: none"> • Can be very messy and must dissolve in liquid to reach full potential • Recommended for very small applications or for very large applications where liquid is undesirable • Leak detection
Dye Wax Cakes	<ul style="list-style-type: none"> • Recommended for moderate-sized bodies of water • Flow mapping and tracing in storm and sewer drains
Dye Wax Donuts	<ul style="list-style-type: none"> • Recommended for large sized bodies of water (lakes, rivers, ponds) • Flow mapping and tracing in storm and sewer drains • Leak detection

Table 59: Tips for Successful Dye Testing
(Adapted from Tuomari and Thompson, 2002)

Dye Selection

- Green and liquid dyes are the easiest to see.
- Dye test strips can be a good alternative for residential or some commercial applications. (Liquid can leave a permanent stain).
- Check the sanitary sewer before using dyes to get a "base color." In some cases, (e.g., a print shop with a permitted discharge to the sanitary sewer), the sewage may have an existing color that would mask a dye.
- Choose two dye colors, and alternate between them when testing multiple fixtures.

Selecting Fixtures to Test

- Check the plumbing plan for the site to isolate fixtures that are separately connected.
- For industrial facilities, check most floor drains (these are often misdirected).
- For plumbing fixtures, test a representative fixture (e.g., a bathroom sink).
- Test some locations separately (e.g., washing machines and floor drains), which may be misdirected.
- If conducting dye investigations on multiple floors, start from the basement and work your way up.
- At all fixtures, make sure to flush with plenty of water to ensure that the dye moves through the system.

Selecting a Sewer Manhole for Observations

- Pick the closest manhole possible to make observations (typically a sewer lateral).
- If this is not possible, choose the nearest downstream manhole.

Communications Between Crew Members

- The individual conducting the dye testing calls in to the field person to report the color dye used, and when it is dropped into the system.
- The field person then calls back when dye is observed in the manhole.
- If dye is not observed (e.g., after two separate flushes have occurred), dye testing is halted until the dye appears.

Locating Missing Dye

- The investigation is not complete until the dye is found. Some reasons for dye not appearing include:
- The building is actually hooked up to a septic system.
- The sewer line is clogged.
- There is a leak in the sewer line or lateral pipe.

Video Testing

Video testing works by guiding a mobile video camera through the storm drain pipe to locate the actual connection producing an illicit discharge. Video testing shows flows and leaks within the pipe that may indicate an illicit discharge, and can show cracks and other pipe damage that enable sewage or contaminated water to flow into the storm drain pipe.

Video testing is useful when access to properties is constrained, such as residential neighborhoods. Video testing can also be expensive, unless the community already owns and uses the equipment for sewer inspections. This technique will not detect all types of discharges, particularly when the illicit connection is not flowing at the time of the video survey.

Different types of video camera equipment are used, depending on the diameter and condition of the storm sewer being tested.

Field crews should review storm drain maps, and preferably visit the site before selecting the video equipment for the test. A field visit helps determine the camera size needed to fit into the pipe, and if the storm drain has standing water.

In addition to standard safety equipment required for all manhole inspections, video testing requires a Closed-Circuit Television (CCTV) and supporting items. Many commercially available camera systems are specifically adapted to televise storm sewers, ranging from large truck or van-mounted systems to much smaller portable cameras. Cameras can be self-propelled or towed. Some specifications to look for include:

- The camera should be capable of radial view for inspection of the top, bottom, and sides of the pipe and for looking up lateral connections.
- The camera should be color.
- Lighting should be supplied by a lamp on the camera that can light the entire periphery of the pipe.

When inspecting the storm sewer, the CCTV is oriented to keep the lens as close as possible to the center of the pipe. The camera can be self-propelled through the pipe using a tractor or crawler unit or it may be towed through on a skid unit (see Figures 65 and 66). If the storm drain



Figure 65: Camera being towed

has ponded water, the camera should be attached to a raft, which floats through the storm sewer from one manhole to the next. To see details of the sewer, the camera and lights should be able to swivel both horizontally and vertically. A video record of the inspection should be made for future reference and repairs (see Figure 67).

Smoke Testing

Smoke testing is another “bottom up” approach to isolate illicit discharges. It works by introducing smoke into the storm drain system and observing where the smoke surfaces. The use of smoke testing to detect illicit discharges is a relatively new application, although many communities have used it to check for infiltration and inflow into their sanitary sewer network. Smoke testing can find improper



Figure 66: Tractor-mounted camera



Figure 67: Review of an inspection video

connections, or damage to the storm drain system (Figure 68). This technique works best when the discharge is confined to the upper reaches of the storm drain network, where pipe diameters are too small for video testing and gaining access to multiple properties renders dye testing infeasible.

Notifying the public about the date and purpose of smoke testing before starting is critical. The smoke used is non-toxic, but can cause respiratory irritation, which can be a problem for some residents. Residents should be notified at least two weeks prior to testing, and should be provided the following information (Hurco Technologies, Inc., 2003):

- Date testing will occur
- Reason for smoke testing
- Precautions they can take to prevent smoke from entering their homes or businesses
- What they need to do if smoke enters their home or business, and any health concerns associated with the smoke
- A number residents can call to relay any particular health concerns (e.g., chronic respiratory problems)

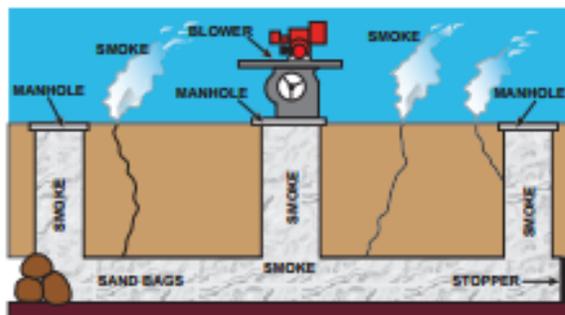


Figure 68: Smoke Testing System Schematic

Program managers should also notify local media to get the word out if extensive smoke testing is planned (e.g., television, newspaper, and radio). On the actual day of testing, local fire, police departments and 911 call centers should be notified to handle any calls from the public (Hurco Technologies, Inc., 2003).

The basic equipment needed for smoke testing includes manhole safety equipment, a smoke source, smoke blower, and sewer plugs. Two smoke sources can be used for smoke testing. The first is a smoke “bomb,” or “candle” that burns at a controlled rate and releases very white smoke visible at relatively low concentrations (Figure 69). Smoke bombs are suspended beneath a blower in a manhole. Candles are available in 30 second to three minute sizes. Once opened, smoke bombs should be kept in a dry location and should be used within one year.

The second smoke source is liquid smoke, which is a petroleum-based product that is injected into the hot exhaust of a blower where it is heated and vaporized (Figure 70). The length of smoke production can vary depending on the length of the pipe being

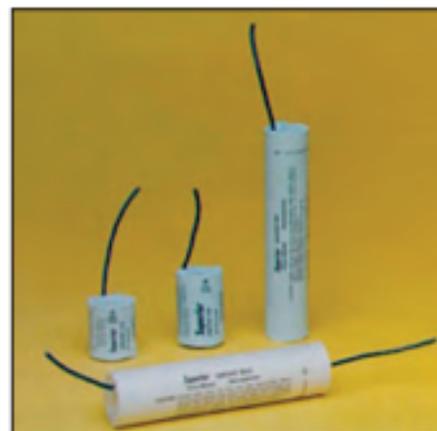


Figure 69: Smoke Candles



Figure 70: Smoke blower

tested. In general, liquid smoke is not as consistently visible and does not travel as far as smoke from bombs (USA Blue Book).

Smoke blowers provide a high volume of air that forces smoke through the storm drain pipe. Two types of blowers are commonly used: “squirrel cage” blowers and direct-drive propeller blowers. Squirrel cage blowers are large and may weigh more than 100 pounds, but allow the operator to generate more controlled smoke output. Direct-drive propeller blowers are considerably lighter and more compact, which allows for easier transport and positioning.

Three basic steps are involved in smoke testing. First, the storm drain is sealed off by plugging storm drain inlets. Next, the smoke is released and forced by the blower through the storm drain system. Lastly, the crew looks for any escape of smoke above-ground to find potential leaks.

One of three methods can be used to seal off the storm drain. Sandbags can be lowered into place with a rope from the street surface. Alternatively, beach balls that have a diameter slightly larger than the drain can be inserted into the pipe. The beach ball is then placed in a mesh bag with a

rope attached to it so it can be secured and retrieved. If the beach ball gets stuck in the pipe, it can simply be punctured, deflated and removed. Finally, expandable plugs are available, and may be inserted from the ground surface.

Blowers should be set up next to the open manhole after the smoke is started. Only one manhole is tested at a time. If smoke candles are used, crews simply light the candle, place it in a bucket, and lower it in the manhole. The crew then watches to see where smoke escapes from the pipe. The two most common situations that indicate an illicit discharge are when smoke is seen rising from internal plumbing fixtures (typically reported by residents) or from sewer vents. Sewer vents extend upward from the sewer lateral to release gas buildup, and are not supposed to be connected to the storm drain system.

13.4 Septic System Investigations

The techniques for tracing illicit discharges are different in rural or low-density residential watersheds. Often, these watersheds lack sanitary sewer service and storm water is conveyed through ditches or swales, rather than enclosed pipes. Consequently, many illicit discharges enter the stream as indirect discharges, through surface breakouts of septic fields or through straight pipe discharges from bypassed septic systems.

The two broad techniques used to find individual septic systems—on-site investigations and infrared imagery—are described in this section.

APPENDIX D

Illicit Discharge Ordinance

Print

Osseo, MN Code of Ordinances

§ 52.016 ILLICIT DISCHARGE DETECTION AND ELIMINATION.

(A) *Purpose and objectives.* The purpose of this section is to provide for the health, safety, and general welfare of the citizens of the city through the regulation of non-stormwater discharges to the storm sewer system to the maximum extent practicable as required by state and federal law. This section establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) MS4 permit process. The objectives of this section are:

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

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

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

(B) *Definitions.* For the purposes of this section, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

AUTHORIZED ENFORCEMENT AGENCY. Employees or designees of the city or the Minnesota Pollution Control Agency as designated to enforce this section.

BEST MANAGEMENT PRACTICES (BMPs). Techniques proven to be effective in controlling runoff, erosion and sedimentation including those documented in the Minnesota Construction Site Erosion and Sediment Control Planning Handbook (BWSR, 1988); Protecting Water Quality in Urban Areas (MPCA, 2000); the Minnesota Urban Small Sites BMP Manual (Metropolitan Council, 2001); the State of Minnesota Stormwater Manual (MPCA, 2005); and other sources as approved by the city, as may be amended.

CITY. The City of Osseo.

CONSTRUCTION ACTIVITY. Activities subject to NPDES construction permits. These include construction projects resulting in land disturbance of one acre or more and projects that disturb less than one acre if they are part of a larger common plan of development. These activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.

DISCHARGE. Adding, introducing, releasing, leaking, spilling, casting, throwing, or emitting any pollutant, or placing any pollutant where it is likely to pollute public waters.

GROUNDWATER. Water contained below the surface of the earth in the saturated zone, including, without limitation, all waters whether under confined, unconfined, or perched conditions, in near surface unconsolidated sediment or in rock formations deeper underground.

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

ILLEGAL DISCHARGE. Any direct or indirect non-stormwater discharge to the storm sewer system, except as exempted in this section.

ILLICIT CONNECTION. An illicit connection is defined as either of the following:

(a) Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm sewer system including, but not limited to, any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm sewer system and any connections to the storm sewer system from indoor drains and sinks, regardless of whether the drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency; or

(b) Any drain or conveyance connected from a commercial or industrial land use to the storm sewer system which has not been documented in plans, maps, or equivalent records and approved by the city.

INDUSTRIAL ACTIVITY. Activities subject to NPDES industrial permits as defined in 40 CFR § 122.26(b)(14).

MPCA. Minnesota Pollution Control Agency.

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4). The system of conveyances (including sidewalks, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains) owned or operated by the city and designed or used for collecting or conveying stormwater, and not used for collecting or conveying wastewater that discharges to waters of the United States.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER DISCHARGE PERMIT. A permit issued by EPA (or by the state under authority delegated pursuant to 33 USC § 1342(b)) that authorizes the discharge of pollutants to waters of the state, whether the permit is applicable on an individual, group, or general area-wide basis.

NON-STORMWATER DISCHARGE. Any discharge to the storm sewer system that is not composed entirely of storm water.

PERSON. Any individual, association, franchise, organization, partnership, firm, corporation or government entity.

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

PREMISES. Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and boulevards.

STORM SEWER SYSTEM. Publicly-owned facilities by which stormwater is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, infiltration, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

STORMWATER. Any means of precipitation runoff, storm water runoff, snow melt, and any other surface runoff and drainage.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP). A plan of BMPs and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges from leaving the site to the maximum extent practicable in accordance with the standards set forth by the MPCA and city ordinances.

WASTEWATER. Any water or other liquid, other than uncontaminated stormwater, discharged from a facility or property.

WATERS OF THE STATE. All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.

(C) *Applicability.* This section shall apply to all water entering the storm sewer system generated on any developed or undeveloped lands unless explicitly exempted by an authorized enforcement agency.

(D) *Responsibility for administration.* The city and its authorized representatives are authorized to administer, implement, and enforce the provisions of this section.

(E) *Illegal disposal and dumping.*

(1) No person shall throw, deposit, place, leave, maintain, or keep any substance upon any street, alley, sidewalk, storm drain inlet, catch basin conduit or drainage structure, business, or upon any public or private land, so that the same might be or become a pollutant, unless the substance is in containers, recycling bags, or any other lawfully established waste disposal device.

(2) No person shall intentionally dispose of grass, leaves, dirt, or landscape material into a water resource, buffer, street, road, alley, catch basin, culvert, curb, gutter, inlet, ditch, natural watercourse, flood control channel, canal, storm drain or any fabricated natural conveyance.

(F) *Discharge prohibitions.*

(1) *Illegal discharges.*

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

(b) *Discharge exemptions:*

(i) The following discharges are exempt from discharge prohibitions established by this section: water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising groundwater, groundwater infiltration to storm drains, uncontaminated pumped groundwater, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wetland flows, swimming pools (the water must be allowed to sit seven days without the addition of chlorine to allow for chlorine to evaporate before discharging to the storm sewer system), fire fighting activities, and any other water source not containing pollutants.

(ii) Discharges specified in writing by the MPCA as being necessary to protect public health and safety.

(iii) Dye testing is an allowable discharge, but requires a verbal notification to the City Engineer 48-hours prior to the start of the test.

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

(2) *Illicit connections.*

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

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

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

(G) *Suspension of MS4 access.*

(1) *Suspension due to illicit discharges in emergency situations.* The city may, without prior notice, suspend MS4 discharge access to a person when the suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or waters of the state. If the violator fails to comply with a suspension order issued in an emergency, the city may take such steps as deemed necessary to prevent or minimize damage to the MS4 or waters of the state, or to minimize danger to persons.

(2) *Suspension due to the detection of illicit discharge.* Any person discharging to the MS4 in violation of this section may have their MS4 access terminated if the termination would abate or reduce an illicit discharge. The city will notify a violator of the proposed termination of its MS4 access.

(3) A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this section, without the prior approval of the city.

(H) *Industrial or construction activity discharges.* Any person subject to an industrial or construction activity NPDES stormwater discharge permit shall comply with all provisions of the permit. Written proof of compliance may be required prior to discharge to the city's MS4.

(I) *Monitoring of discharges.*

(1) The city shall be permitted to enter and inspect buildings under this section as often as may be necessary to determine compliance with this section. If a discharger does not wish to allow the city to enter a building to conduct the required activity, they may retain a private inspector to conduct the activity. The private inspector must have credentials that are acceptable to the city. The private inspector shall provide the city with relevant samples, test results, reports, reports or any other information that is being requested.

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

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

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

(J) *Requirement to prevent, control, and reduce stormwater pollutants by the use of best management practices.* Compliance with all terms and conditions of a valid NPDES permit shall be deemed compliant with the provisions of this section. The city will adopt requirements identifying BMPs for any activity, operation, or facility which may cause or contribute to pollution or contamination of stormwater, the storm sewer system, or waters of the state. The owner or operator of the activity, operation or facility shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the storm sewer system or waters of the state through the use of these structural and non-structural BMPs. These BMPs shall be part of a stormwater pollution prevention plan (SWPPP) as necessary for compliance with requirements of the NPDES permit. Any person responsible for a property or premise, which is, or may be, the source of an illicit discharge, may be required to implement, at their expense, additional BMPs to prevent the further discharge of pollutants to the city's MS4.

(K) *Watercourse protection.* Every person owning property through which a watercourse passes, or the person's lessee, shall keep and maintain that part of the watercourse within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the

owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that the structures will not become a hazard to the use, function, or physical integrity of the watercourse.

(L) *Notification of spills.* Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into the storm sewer system, or waters of the state, this person shall take all necessary steps to ensure the discovery, containment, and cleanup of a release. In the event of a release of hazardous materials this person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, this person shall notify the city in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the city within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of the establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. The records shall be retained for at least three years.

(M) *Enforcement.*

(1) *Notice of violation.* Whenever the city finds that a person has violated a prohibition or failed to meet a requirement of this section, the city may order compliance by written notice of violation to the responsible person. The notice may require without limitation:

- (a) The performance of monitoring, analyses, and reporting;
- (b) The elimination of illicit connections or discharges;
- (c) The violating discharges, practices, or operations shall cease and desist;
- (d) The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;
- (e) Payment of a fine to cover administrative and remediation costs;
- (f) The implementation of source control or treatment BMPs; and
- (g) The deadline within which to remedy the violation.

(2) If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which the remediation or restoration must be completed. The notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by a designated governmental agency or a contractor and the expense thereof shall be charged to the violator.

(N) *Appeal of notice of violation.* Any person receiving a notice of violation may appeal the determination of the city. The notice of appeal must be received by the city within 15 days from the date of the notice of violation. The appeal shall be heard by the City Council within 30 days from the date of receipt of the notice of appeal. The decision of the City Council shall be final.

(O) *Enforcement measures after appeal.* If the violation has not been corrected pursuant to the requirements set forth in the notice of violation, or, in the event of an appeal, within the deadline extended by the decision of the City Council, then representatives of the city shall enter

upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent, or person in possession of any premises to refuse to allow the city or its designated contractor to enter upon the premises for the purposes set forth above.

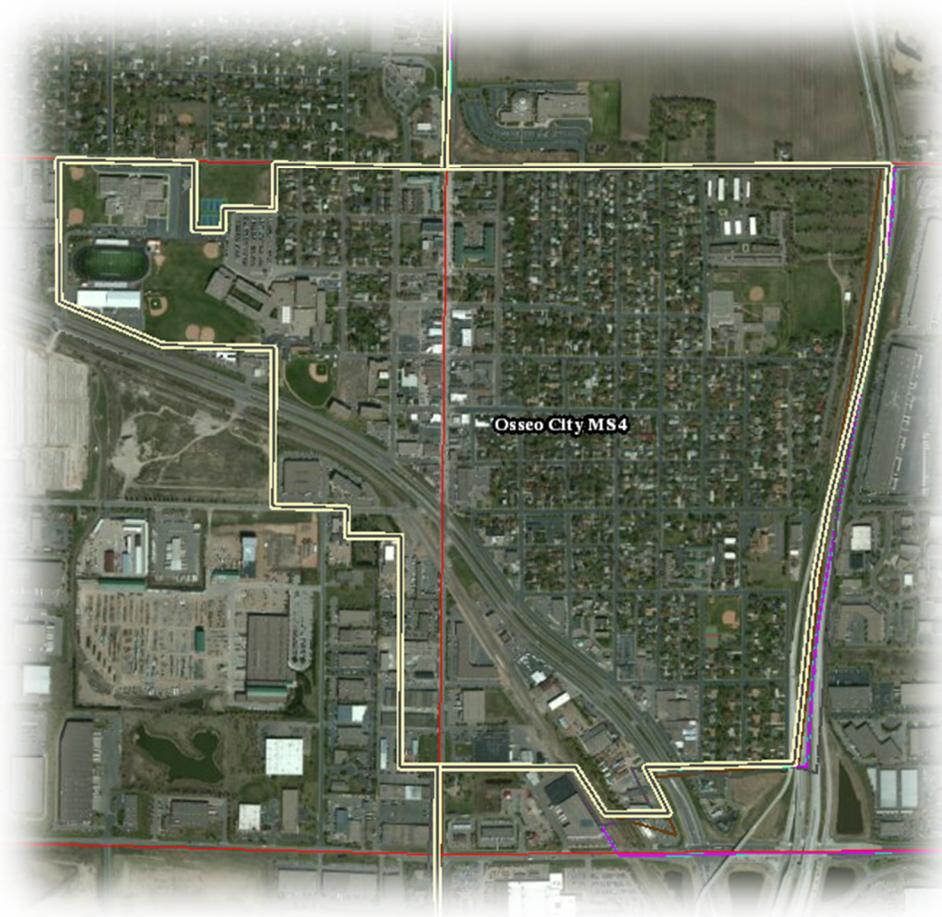
(P) *Criminal prosecution.* Any person that violates this section shall be deemed guilty of a misdemeanor and upon conviction thereof, may be subject to the maximum fine and imprisonment allowed by state law. Each such violation shall constitute a separate offense punishable to the maximum extent of the law. The authorized enforcement agency may recover all attorneys' fees, court costs and other expenses associated with enforcement of this section, including sampling and monitoring expenses.

(Ord. 2012-9, passed 5-29-2012)

Enforcement Response Procedures

for

MS4 Permit Violations



City of Osseo

2015

Under the terms of the General NPDES/SDS Permit MNR040000, the City of Osseo is required to develop and implement enforcement authority for construction activities that take place within the boundaries of the Municipal Separate Storm Sewer System (MS4). The purpose of this Enforcement Response Plan (ERP) is to communicate how enforcement tools can be used to achieve compliance. The Enforcement Response Plan also specifies criteria by which City personnel can determine the enforcement action most appropriate to instances of non-compliance. This plan outlines the City procedures that can be followed when construction stormwater, illicit discharge or post-construction violations are discovered. This plan is a guide; any of the enforcement responses may be used at the City's discretion. The City may also choose to pursue an enforcement case by skipping intermediate steps.

I. Description of Each Type of Enforcement Response

A. Verbal Warnings

1. Verbal warnings must specify the nature of the violation the required corrective actions and the time frame for correction.
2. Verbal warning may be given at the discretion of the inspector when it appears the condition can be corrected by the violator within a reasonable time.

B. Written Notices

1. Written Warning

- a) A written warning, either by email or letter, must specify the nature of the violation, the required corrective action time frame for correction and a follow-up inspection date.

2. Notice of Violation (NOV)

- a) The NOV must specify the nature of the violation, the required corrective action and a follow-up inspection date.
- b) The NOV should require the party committing the violation to submit a Response Plan for the satisfactory correction of the violation and prevention of future violations, including a timeline for specific required actions that will be taken.
- c) The NOV Response Plan must be submitted to the City's Stormwater Coordinator.
- d) Submitting the NOV Response Plan does not relieve the party committing the violation of any violations that occurred either before or after the receipt of the NOV. Monetary penalties (civil and administrative penalties) may be assessed for NOVs at the City's discretion.

C. Stop Work Orders

The City of Osseo Public Works Department may issue a stop work order or an order to cease and desist for any person who has violated or continues to violate City Code, or any permit or order issued hereunder.

1. The violator must comply with the order and must take appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation; except for

required measures to clean up the violation, including terminating the discharge and installing appropriate control measures.

2. Monetary penalties (civil and administrative penalties) will be assessed with the cease and desist order, if applicable.

D. Citations with Administrative Penalties

1. Consent Order – The purpose of a consent order is to allow for an expedited decision to be made without the time and expense that would be spent on an official administrative hearing to resolve the issue at hand.
 - a) The City will enter into consent orders, assurances of voluntary compliance or other similar documents establishing an agreement with the person responsible for the noncompliance, if needed.
 - b) A consent order will include specific corrective actions to be taken to correct the noncompliance along with a specified time period to finish the corrective actions.
 - c) A consent order has the same force and effect as administrative orders such as the compliance order and the cease and desist order.
2. Compliance Order – The purpose of a compliance order is to remedy a non-compliant behavior or action.
 - a) When the City finds that any person continues to violate the City’s ordinance(s), a permit issued under the ordinance or an order issued hereunder, a compliance order may be issued to the violator directing that, following a specific time period, adequate structures or devices be installed and/or procedures implemented and properly operated.
 - b) Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the construction of appropriate structures, installation of devices, self-monitoring and management practices.
 - c) Monetary penalties (civil and administrative penalties) will be assessed with the compliance order.

E. Suspension, Revocation or Modification of Permit

1. The City may suspend, revoke or modify the permit authorizing the land development project or any other project of the applicant or other responsible person within the City if the permit was issued in error or on the basis of incorrect information, or if the work is in violation of any provision of this Section or any Ordinance or Regulation.
2. A suspended, revoked or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the Notice of Violation or has otherwise cured the violation(s) described therein, provided such permit may be reinstated upon such conditions as the City may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violation(s).

F. Additional Measures

1. Civil Penalties

- a) The City may declare that any person violating the provisions of this chapter may be assessed a civil penalty by the City.
- b) The City would consider the following in assessing civil penalties for violations:
 - (1) The harm done to the public health or the environment;
 - (2) Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;
 - (3) The economic benefit gained by the violator;
 - (4) The amount of effort put forth by the violator to remedy this violation;
 - (5) Any unusual or extraordinary enforcement costs incurred by the municipality;
 - (6) The amount of penalty established by ordinance or resolution for specific categories of violations; and
 - (7) Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.

2. Recovery of Damages and Costs

In addition to civil penalties, the City may recover:

- a) All damages proximately caused by the violator to the City, which may include reasonable expenses incurred in investigating violations of, and enforcing compliance with, this chapter, or any other actual damages caused by the violation.
- b) The costs of the City's maintenance of stormwater facilities when the user of such facilities fails to maintain them as required by this chapter.

3. Financial Security

- a) The City may act against a financial security, if one has been obtained, to recover costs or take corrective actions as required to abate violations.

4. Legal Action/Other Remedies

- a) The City may bring legal action to enjoin the continuing violation of this chapter. Pursuant to the City's ordinance, the City may, through the City Attorney, petition the appropriate court(s) for issuance of preliminary or permanent injunctions to restrain or compel activities by an owner.

II. NPDES Permit Referrals

- A. For a project site involving a construction activity or an industrial stormwater discharge where the discharge should be covered by a state NPDES permit, and the site does not have a state NPDES permit, the City would notify the MPCA about this discharge. The following information should be supplied to the MPCA:

- 1. Construction project or industrial facility location;

2. Name of owner and/or operator;
 3. Estimated project size or type of industrial activity (including SIC code if known); and
 4. Records of communication with the owner or operator regarding filing requirements.
- B. Where the City has used progressive enforcement to achieve compliance with this chapter and in the judgment of the City has not been successful, the City may refer the violation to the MPCA. For the purposes of this provision, “progressive enforcement” shall mean two (2) follow-up inspections and two (2) warning letters. The following information must be supplied to the MPCA:
1. Construction project or industrial facility location;
 2. Name of owner or operator;
 3. Estimated project size or type of industrial activity (including SIC code if known); and
 4. Records of communication with the owner or operator regarding the violation, including responses from the owner and/or operator.

III. Recordkeeping & Tracking

- A. All non-compliance instances must be tracked either electronically or using paper files. This tracking must include all records and documents related to City ordinance violations at the site and should be stored in the project file.
- B. The minimum required documentation must include the following items:
1. Name of owner/operator;
 2. Location of construction project or industrial facility;
 3. Description of violation;
 4. Required schedule for returning to compliance;
 5. Description of enforcement responses used, including escalated responses if repeat violations occur or violations are not resolved in a timely manner;
 6. Accompanying documentation of enforcement response (e.g., notices of noncompliance, notices of violation, etc.);
 7. Any referrals to different departments or agencies; and
 8. Date violation was resolved.
- C. For best management practices (BMPs) on public property or within public rights-of-way, the City must document that appropriate maintenance and/or repairs have been completed (e.g., using photos, maintenance logs, contractor invoices).
- D. The City must keep any closed files related to enforcement for a minimum of three (3) years consistent with the MS4 General Permit conditions. However, file retention time may be longer if required by law.

IV. Enforcement Action Matrices (EAM)

A. The EAM for noncompliance with Construction Requirements are summarized in Table 1.

Table 1. Enforcement Action Matrix for Noncompliance with Construction Requirements.

		TYPE OF VIOLATION				
<p>Enforcement Measures For Use (Increasing in Severity Moving Down the Chart)</p> 	<p>Failure to Obtain Land Alteration Permit Prior to Starting Work</p>	<p>Minor Violations (Failure to Install, Maintain or Upgrade Measures on Erosion and Sediment Control Plan)</p>	<p>Minor Violations (Failure to Install, Maintain or Upgrade Measures on Erosion and Sediment Control Plan for a Priority Area)</p>	<p>Major Violation (Failure to Install, Maintain or Upgrade Measures on Erosion and Sediment Control Plan that Resulted in a Sediment Release from the Project Site)</p>	<p>Repeat Violation by a Party (Same Site)</p>	<p>Repeat Violation by a Party (Different Site than initial Noncompliance Site)</p>
	<p>Cease and Desist Order or Consent Order</p>	<p>Verbal and/or Written Warning</p>	<p>Verbal and/or Written Warning</p>	<p>Notice Of Violation and/or Verbal or Written Warning</p>	<p>Notice Of Violation and/or Verbal or Written Warning</p>	<p>Notice Of Violation and/or Verbal or Written Warning</p>
		<p>Notice Of Violation</p>	<p>Notice Of Violation</p>	<p>Compliance Order or Consent Order</p>	<p>Compliance Order or Consent Order</p>	<p>Compliance Order or Consent Order</p>
	<p>Legal Action</p>	<p>Cease and Desist Order or Consent Order</p>	<p>Cease and Desist Order or Consent Order</p>	<p>Suspension, Revocation or Modification of Permit</p>	<p>Suspension, Revocation or Modification of Permit</p>	<p>Suspension, Revocation or Modification of Permit</p>
		<p>Suspension, Revocation or Modification of Permit</p>	<p>Suspension, Revocation or Modification of Permit</p>	<p>Legal Action</p>	<p>Legal Action</p>	<p>Legal Action</p>
		<p>Legal Action</p>	<p>Legal Action</p>			

This plan is a guide; any of the enforcement responses may be used at the City’s discretion and the City may choose to escalate an enforcement case by skipping intermediate steps. Penalties (Civil, Recovery of Damages and Costs, Etc.) may be assessed as described in the stormwater ordinance and as allowed by law at the City’s discretion.

B. The EAM for Failure to Remove Illicit Discharges is summarized in Table 2.

Table 2. Enforcement Action Matrix for Failure to Remove Illicit Discharges.

	TYPE OF VIOLATION		
	First Failure to Remove Illicit Discharge	Repeat Violation by a Party (Same Site)	Repeat Violation by a Party (Different Site than initial Noncompliance Site)
<p>Enforcement Measures For Use (Increasing Severity Moving Down the Chart)</p> 	Verbal and/or Written Warning	Notice Of Violation and Verbal and/or Written Warning	Notice Of Violation and Verbal Warning and/or Written Warning
		Compliance Order or Consent Order	
	Notice Of Violation	Cease and Desist Order or Consent Order	Compliance Order or Consent Order
	Compliance Order or Consent Order	Legal Action	Cease and Desist Order or Consent Order
	Cease and Desist Order or Consent Order		Legal Action
	Legal Action		

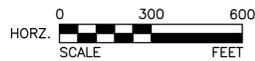
This plan is a guide; any of the enforcement responses may be used at the City’s discretion and the City may choose to escalate an enforcement case by skipping intermediate steps. Penalties (Civil, Recovery of Damages and Costs, Etc.) may be assessed as described in the stormwater ordinance and as allowed by law at the City’s discretion.

C. The EAM for Noncompliance with Post-Construction Requirements is summarized in Table 3.

Table 3. Enforcement Action Matrix for Noncompliance with Post-Construction Requirements

	TYPE OF VIOLATION		
	First Post-Construction Noncompliance Issue	Repeat Violation by a Party (Same Site)	Repeat Violation by a Party (Different Site than initial Noncompliance Site)
<p>Enforcement Measures For Use (Increasing Severity Moving Down the Chart)</p> 	Verbal and/or Written Warning	Notice Of Violation and Verbal and/or Written Warning	Notice Of Violation and Verbal Warning and/or Written Warning
		Compliance Order or Consent Order	
	Notice Of Violation	Cease and Desist Order or Consent Order	Compliance Order or Consent Order
	Compliance Order or Consent Order	Legal Action	Cease and Desist Order or Consent Order
	Cease and Desist Order or Consent Order		Legal Action
	Legal Action		

This plan is a guide; any of the enforcement responses may be used at the City's discretion and the City may choose to escalate an enforcement case by skipping intermediate steps. Penalties (Civil, Recovery of Damages and Costs, Etc.) may be assessed as described in the stormwater ordinance and as allowed by law at the City's discretion.



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ENGINEER NAME XXXXX DATE XX/XX/XXXX
LIC. NO. XXXXX

DESIGNED XXX
DRAWN XXX
CHECKED XXX



BOLTON & MENK, INC.
Consulting Engineers & Surveyors
MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN BURNSVILLE, MN WILLMAR, MN
CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN
AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

REV.	BY	DATE

CITY OF OSSEO, MN
JANUARY 2015
MUNICIPAL FACILITY INVENTORY MAP