City of Corcoran

Municipal Separate Storm Sewer System (MS4) Permit and Stormwater Pollution Prevention Plan (SWPPP)

For the Permit Term August 1, 2013 – July 31, 2018

Public Notice Period: March 11 – April 10, 2014

Permit Effective Date: April 17, 2014

*** RETAIN THIS DOCUMENT and ALL ASSOCIATED INFORMATION THROUGH APRIL 17, 2021***

Contents

I. MS4 SWPPP Application for Reauthorization

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

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 Corcoran *County: Hennepin
(city, county, municipality, government agency or other entity)

*Mailing address: 8200 County Road 116

*City: Corcoran *State: MN *Zip code: 55340

*Phone (including area code): 763-420-2288 *E-mail: bmartens@ci.corcoran.mn.us

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

*Last name: Martens *First name: Brad
(department head, MS4 coordinator, consultant, etc.)

*Title: City Administrator

*Mailing address: City of Corcoran, 8200 County Road 116

*City: Corcoran *State: MN *Zip code: 55340

*Phone (including area code): 763-400-7030 *E-mail: bmartens@ci.corcoran.mn.us

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

Last name: Nelson First name: Susan
(department head, MS4 coordinator, consultant, etc.)

Title: Consulting MS4 Coordinator

Mailing address: Wenck Associates, Inc. 1800 Pioneer Creek Center

City: Maple Plain State: MN Zip code: 55359

Phone (including area code): 763-479-5131 E-mail: snelson@wenck.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.). ☒ 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. ☒ 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: Brad Martens
(This document has been electronically signed)

Title: City Administrator Date (mm/dd/yyyy):

Mailing address: 8200 County Road 116

City: Corcoran State: MN Zip code: 55340

Phone (including area code): 763-420-7030 E-mail: bmartens@ci.corcoran.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

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.*

Although the city has no formal partnerships with other regulated small MS4s, it offers educational materials available from the Elm Creek Watershed Management Commission and county, state, and federal agencies.

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:

   Title V, Chapter 50 of the City of Corcoran Municipal Code. The municipal code book is available online at www.ci.corcoran.mn.us under Departments, Code Enforcement, Codes and Ordinances.

   Direct link:

   http://www.ci.corcoran.mn.us/vertical/sites/%7BA13DB5FF-43A9-4A27-A5A0-44E78D9C28BC%7D/uploads/2011-12-19_City_Code_Update.pdf

   ☐ 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:

Regulations regarding erosion, sediment, and waste control are incorporated in various ordinances:

i. Corcoran's Subdivision Ordinance, Title IX of the municipal code: Section 945.020, Subd. 10 addresses debris and waste and Section 950 addresses erosion control. Section 950, part J, states that erosion control practices shall comply with the MPCA's Best Management Practices and all applicable NPDES Phase II construction site permit requirements. (Chapter 6 of MPCA's Stormwater Best Management Practices Manual addresses erosion prevention and sediment control, including hazardous waste disposal for contractors, section 6.65.)

ii. Corcoran's Nuisance Ordinance Title VIII, Chapter 82, paragraph 82.03(i) also addresses hazardous waste.

iii. Corcoran's Engineering Design Standards, incorporated by reference into the Subdivision Ordinance (945.010 Subd. 5) cover site plan requirements. See also the city's Zoning Ordinance, Title X, 1070.050 - Site Plan. (The storm sewer section of the standards will be updated within 12 months of the permit effective date.)

iv. Corcoran's Zoning Ordinance, section 1060.090 (General Performance Standards), subd. 1 (Grading and Drainage) requires consistency with the grading and erosion control plan provisions in Section 950 of the Subdivision Ordinance. Section 1030.060 (Mining and Soils Processing), subd. 3 states that permits are required for grading.

Direct link:

http://www.ci.corcoran.mn.us/vertical/sites/%7BA13DB5FF-43A9-4A27-A5A0-44E78D9C28BC%7D/uploads/2011-12-19_City_Code_Update.pdf.

☐ 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:

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:

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:

   Sections of Corcoran's Subdivision and Zoning ordinances address post-construction stormwater management:

   i. Subdivision Ordinance, Title IX, Section 950, Erosion Control: 950-020 Subd.1(A)(1).

   ii. Zoning ordinance Title X, 1070.050 - Site Plan

   Direct link:

   http://www.ci.corcoran.mn.us/vertical/sites/%7BA13DB5FF-43A9-4A27-A5A0-44E78D9C28BC%7D/uploads/2011-12-19_City_Code_Update.pdf

   ☐ 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 mechanism(s) shall ensure that a reasonable attempt be made to obtain right-of-way during the project planning process. ☐ Yes ☒ No

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 ☐ Yes ☒ No

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.

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:

Within 12 months of the permit effective date, the City will revise its ordinance(s) to meet all of the requirements of Permit part III.D.5.a. This includes the provisions listed in B.2 through B.5 above.

Regarding B.5, long-term maintenance of BMPs: Using easements and developer agreements, Corcoran assumes responsibility for long-term maintenance of all structural stormwater BMPs. It is the City's understanding that no further legal mechanisms would be required to meet the intent of the permit requirement to ensure long-term maintenance of BMPs.

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:

B. Describe your ERPs:

Corcoran's Enforcement Response Procedures include routine inspection of all construction sites, procedures to document and respond to all complaints, and requirements for escrow and site modifications.

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

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

The City's Public Works staff maintains maps and a list of the outfalls, devices, stormwater ponds, and sediment basins used for annual inspections. Each item in the inventory has a unique ID number. An average of 20% of the system is inspected each year using forms to report location, condition, required maintenance, quality of discharge (including illicit discharge) and other information.

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:

Within 12 months of the permit effective date, Corcoran will a) review its maps and inventory and update them as needed to include all pipes 12 inches or greater in diameter, including flow direction, and b) record geographic coordinates of all outfalls.

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:

Within 12 months of the permit effective date, the City will update its inventory to include geographic coordinates of all required features and will complete and submit the Pond Inventory Form to the MPCA.

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

1. 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**:

   Corcoran's stormwater education and outreach program offers several opportunities to learn about stormwater pollution prevention:

   1. The City sends all residents and businesses periodic (3x/yr) newsletters that often include articles about stormwater pollution prevention. Topics have included illicit discharge recognition and reporting, septic system maintenance, lawn care practices, recycling and clean-up, and general information about stormwater pollution prevention.

   2. Corcoran has offered annual meetings inviting the public to learn about and comment on the city's SWPPP. Notices of the meetings are published in the official newspaper (with 30 days' notice) and posted at City Hall.

   3. The City uses its website to post a variety of environmental information, including information about its annual cleanup day, recycling, yard waste, septic systems, raingardens, and links to several stormwater-related brochures, including Ten Things You Can Do to Improve Minnesota's Lakes, Rivers, and Streams.(Look under the Environmental section at www.ci.corcoran.mn.us.)

   4. The City has several brochures about stormwater quality available at City Hall. The City continually seeks new information from the watershed district, the MPCA, the EPA, the University of Minnesota Extension Service, and other sources.

   5. To anyone who homesteads, the City offers a packet including stormwater brochures and information about lawn care practices and other stormwater-related issues. The contents of the packet are evaluated periodically and updated as new publications become available from the watershed district, MPCA, U of M extension service, or other organizations.

2. 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
Periodic newsletters (see A.1. #1 above)	Met goal to publish biannually by 2011. City publishes three newsletters per year.
Annual meeting with 30-day public notice (A.1. #2)	Met goal to implement annual meeting and continue annually from 2006-2011. Annual meetings were held in 2012 and 2013 and are planned to continue annually through the new permit cycle.

Stormwater information on city website (A.1. #3)	Met goal to continually update with latest information from 2007-2011. Website continues to be updated.
Stormwater brochures at City Hall (A.1.#4)	Met goal to continually evaluate and update materials from 2006-2011. Brochures continue to be updated and made available at City Hall.
New resident packet (A.1. #5)	Continue to meet goal to offer each new homesteader a packet that includes stormwater-related information.
BMP categories to be implemented	**Measurable goals and timeframes**
Revision of above BMPs to focus on recognizing and reporting illicit discharges	Find or develop at least one article, flyer, or brochure to make continually available at City Hall or on its website by March 31, 2014. Publish at least one article in the city newsletter annually throughout the permit term. Include in each new-resident packet.
Revision of above BMPs to focus on other high-priority stormwater-related issues	Choose topics by January 31, 2014. Find or develop at least one article or brochure addressing these topics by March 31, 2014. Make continually available at City Hall or on its website by March 31, 2014. Publish at least one article per topic in city newsletter annually throughout the permit term. Include in each new-resident packet.
Evaluation of educational program	By March 31, 2014, the City will develop a plan to annually evaluate the effectiveness of its public education program.

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

   Brad Martens, City Administrator/Treasurer

B. MCM2: Public participation and involvement

1. 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:

   Corcoran has implemented several practices to encourage public participation and involvement:

   1. The Parks and Trails Commission invites citizens to serve on the Commission or attend its meetings to discuss and implement natural resources projects set within the City's Comprehensive Plan.

   2. Annual Cleanup Day in early spring provides citizens an opportunity to bring non-hazardous waste to the City for proper disposal. Brochures are available during Cleanup Day to educate citizens about lawn care, recycling, and other stormwater-related issues.

   3. Several phone numbers (city, county) are provided in the City newsletter and website for residents to report illicit discharges, comment on the City's SWPPP, or report concerns about runoff from construction sites. The City also documents any complaint calls received and the follow-up actions taken.

   4. The City has held annual meetings regarding its SWPPP.Thirty-day notice is provided in the official newspaper and at City Hall. Revisions to the SWPPP are considered if any written or oral comments are received.

   5. The City's Planning Commission provides Commission members and the public opportunities to review and comment on development plans and city growth. Post-construction input also is received by the Planning Commission.

   6. Public hearings, public information meetings, and public participation committees are organized as needed to invite questions, comments, or input on ordinance reviews, comprehensive planning, and public education and outreach, and other City matters.

   7. Open forum at the start of each City council meeting (twice monthly) provides an opportunity for citizens to discuss any issues, including the City's SWPPP.

2. 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**
Parks and Trails Commission (B.1. #1 above)	Continue commission involvement in City decision-making.
Annual Cleanup Day (B.2. #2)	Continue to hold Cleanup Day annually. Record number of participants and tonnage of waste collected with goal to increase

	both annually.
Citizen Complaint Number (B.2. #3)	Continue to document all complaints or comments received and follow-up actions.
Annual SWPPP Public Meeting (B.1. #4)	Continue to hold meeting annually, record number of attendees, document comments on SWPPP, document any SWPPP revisions implemented as a result.
Planning Commission (B.1. #5)	Continue to hold meetings of Planning Commission as scheduled; document number of plans reviewed.
Public hearings and informational meetings and participation committees, as needed (B.1. #6)	Continue to hold public hearings or establish informational/participation meetings as needed. Document hearings or meetings held or committees established.
Open forum (B.1.#7)	Continue to offer open forum at each council meeting; document questions, comments, or complaints received.
BMP categories to be implemented	**Measurable goals and timeframes**

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:

   Brad Martens, City Administrator/Treasurer

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:

   Corcoran has established the following Best Management Practices with respect to illicit discharge detection and elimination:

   1. Storm sewer map: The City has developed a map of all ponds, lakes, ditches and pollution control devices, and all pipes greater than or equal to 24" in diameter.

   2. Education regarding septic system maintenance: Hennepin County has jurisdiction for septic system permitting and inspection, but Corcoran provides information on its website, at City Hall, and in new-resident packets about septic system maintenance.

   3. Nuisance ordinance: Corcoran's ordinance prohibits illegal dumping or littering on public and private property, including the pollution of public water bodies. The ordinance includes enforcement measures and penalties for noncompliance.

   4. Recycling program: Corcoran contracts with a waste collector for curb-side, single-sort recycling.

   5. Illicit discharge detection and elimination ordinance: Corcoran's ordinance prohibits illicit discharges into its storm drainage system and establishes enforcement measures and penalties.

   6. Illicit discharge inspection program: Corcoran inspects an average of at least 20% of its ponds, outfalls, and sediment basins yearly during dry-weather conditions for non-stormwater discharges and illicit connections.

   7. Road stabilization program: The City annualy applies magnesium/calcium chloride to gravel roads to control dust and reduce sedimentation of water bodies.

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 ☐ Yes ☒ No

identified in the past, and areas with storage of large quantities of significant materials that could result in an illicit discharge.

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:

Within 12 months of the permit effective date, the City will update its program as needed to identify priority areas likely to have illicit discharges. As explained in the section for Storm Sewer System Map and Inventory, the City will also review its maps and inventory to ensure it includes all pipes 12" or greater,record geographic coordinates of all features of its MS4, and submit the Pond Inventory Form.

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**
Storm sewer map (C.1. #1 above)	The map was completed in 2011. Geographic coordinates and stormwater flow direction will be added to the inventory.
Septic system maintenance (C.1. #2)	The city continues to review the information it has available regarding septic system maintenance and offers new information as it becomes available.
Nuisance ordinance (C. 1. #3)	The ordinance is in place.
Recycling program (C. 1. #4)	The recycling program is in place.
Illicit Discharge Detection and Elimination (IDDE) ordinance and enforcement (C. 1. #5)	Corcoran passed an IDDE ordinance in 2011.
Illicit discharge inspection program (C. 1. #6)	Corcoran inspects an average of at least 20% of ponds, outfalls, and pollution control devices annually for dry weather flow and to identify any illicit connections or discharges.
Road dust control program (C. 1. #7)	Corcoran documents applications of magnesium chloride to control road dust and minimize sedimentation of water bodies.
BMP categories to be implemented	**Measurable goals and timeframes**
Identification of priority areas for illicit discharge	Within 12 months of the permit effective date, the city will update its IDDE program as needed to identify high-priority areas for illicit discharge.

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:

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

   Pat Meister, Public Works Superintendent

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:

Corcoran has established the following BMPs regarding construction site stormwater runoff control:

1. Construction site runoff control ordinance/regulatory mechanism: The City's ordinance controls runoff from developments or redevelopments during construction. The City also has developed standard specifications and developer agreements that outline responsibilities for proper runoff control.

2. Erosion and sediment control plan review and approval: Corcoran's process includes language that requires plan submittals, timelines and requirements for erosion and sedimentation control.

3. Performance bond/letter of credit: Developers are required to post a performance bond or letter of credit before construction to ensure proper operation and maintenance of temporary and permanent BMPs for erosion and sediment control.

4. Inspection program:The City's ordinance regarding construction site runoff control establishes inspection procedures, enforcement, and documentation for erosion and sediment control.

5. Stabilization requirements: The City requires sod placement, seeding, or mulching for property stabilization at construction sites, as outlined in MPCA's General Permit for Construction Activity within the general specifications for construction projects.

6. Escrow for grading permits (single lot development): Corcoran requires an escrow for all grading permits on single lot developments to ensure proper stabillization and drainage. The escrow is used to correct any problems associated with grading during construction.

7. Minimum construction site BMP requirements: Corcoran has developed a list of minimum construction site BMP requirements for perimeter silt fencing, rock construction entrances, temporary sediment basins, inlet protection, etc. The list is given to contractors and is reviewed periodically for new requirements or industry standards.

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.

   Within 12 months of the permit effective date, the City will revise its site inspection procedures to include procedures for identifying priority sites for inspection.

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
Construction site runoff control ordinance (D. 1. #1)	The ordinance is established and is evaluated and updated as needed.
Erosion and sediment control plan review (D. 1. #2)	A process for plan review is established.
Performance bond/letter of credit (D. 1. #3)	This requirement has been established.
Inspection program (D. 1. #4)	Inspection requirements are established and construction sites are inspected as required by the program.
Stabilization requirements (D. 1. #5)	Stabilization requirements are established in keeping with the MPCA's General Permit for Construction Activity.
Escrow for grading permits (D. 1. #6)	The requirement is established.
Minimum construction site BMP requirements (D. 1. #7)	The requirements are established and are updated as needed.
BMP categories to be implemented	**Measurable goals and timeframes**
Identification of priority sites for inspection	Within 12 months of the permit effective date, the City will revise its site inspection procedures to include procedures for identifying priority sites for inspection.

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

   Pat Meister, Public Works Superintendent

   Mike Pritchard, Code Compliance Official

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:

   Corcoran has established the following BMPs regarding post-construction stormwater management:

   1. Stormwater detention/retention basins: Corcoran has installed stormwater ponds to store stormwater and control outflow. The ponds are intended to reduce peak outflow rate, settle particles and associated pollutants, and allow for pollutant uptake by microbes, algae, and plants.

   2. Zoning and subdivision ordinances: Corcoran uses these ordinances to guide development according to the Comprehensive Plan and the City's natural resources. The ordinances establish minimum setbacks from natural resources, requirements regarding impervious surfaces, and other building requirements that address post-construction stormwater management.

   3. Floodplain zoning ordinance:This ordinance is consistent with state, county, and watershed regulations and includes setback requirements, building requirements, and other practices to ensure floodplain protection.

   4. Plan review process: Corcoran's Subdivision Ordinance identifies plan review procedures, design standards, and timelines that can be used to regulate post-construction stormwater runoff for disturbances of 1 acre or greater, or as part of a larger common plan of development.

   5. Pipe flow energy dissipators: Corcoran installs pipe flow energy dissipators to control the force of water flow and reduce erosion at outfalls of its storm drainage system.

   6. Long-term maintenance of BMPs: Corcoran retains easements around stormwater ponds and other permanent storm water BMPs to allow access for inspections and necessary maintenance.

   7. The City's Local Surface Water Management Plan (February 2009) includes goals and policies to prevent flooding and other adverse impacts on water resources from land development, redevelopment, and city projects (section 7). The plan works in cooperation with the standards of the Elm Creek Watershed Management Commission.

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.

Although no questions are answered "no," the City would like to clarify that through easements and developer agreements, it assumes responsibility for long-term maintenance of all structural stormwater BMPs. It is the City's understanding that no additional legal mechanisms are needed to meet permit requirements.

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**
Stormwater detention/retention ponds (E. 1. #1)	Ponds are constructed as needed.
Zoning and Subdivision ordinances (E. 1. #2)	The ordinances are enforced continuously and updated as needed.
Floodplain zoning ordinance (E. 1. #3)	The ordinance is evaluated and amended as needed to comply with government and watershed regulations.
Plan review process (E. 1. #4)	Plan review procedures are in place and are evaluated and updated as needed.
Pipe flow energy dissipators (E. 1. #5)	Dissipators are installed as needed.
Long-term maintenance of BMPs (E.1. #6)	An average of at least 20% of BMPs are inspected annually.
Local Surface Water Management Plan (E. 1. #7)	The SWMP is reviewed and updated as needed.
BMP categories to be implemented	**Measurable goals and timeframes**

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

   Pat Meister, Public Works Superintendent

   Mike Pritchard, Code Compliance Official

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:

   Corcoran has established the following BMPs regarding pollution prevention/good housekeeping for municipal operations:

   1. Park and open space maintenance program: Corcoran maintains parks, landscaped medians, and other municipal landscaped areas to protect water quality. The City trains employees on proper application of fertilizers, pesticides, and herbicides and proper mowing practices to prevent water pollution.

   2. Fleet and building maintenance program: Corcoran regularly inspects and maintains its buildings and equipment for potential spills and leaks.

   3. Municipal street sweeping program: Corcoran sweeps municipal streets annually to collect debris and litter and prevent it from entering the storm drainage system.

   4. Outfall and pond inspection program: Corcoran inspects an average of at least 20% of its ponds, outfalls, and sediment basins annually and maintains or repairs them as needed to optimize performance.The City keeps records of results, date, antecedent weather conditions, sediment storage and capacity remaining, and any maintenance performed or recommended. If two years of inspections show no change, frequency will be adjusted to once every two years. If a pattern of maintenance becomes apparent, inspections will occur at least twice annually.

   5. Storm drainage system maintenance program: Corcoran cleans ditches occasionally using the Sentencing to Service program. The City also removes debris and inspects for illicit discharges or iillegal dumping in any storm drainage infrastructure.

   6. Storage and material handling program: Corcoran has procedures to identify and manage all exposed stockpiles to

ensure perimeter controls are in place and will prevent offsite migration of material.

7. New construction and land disturbance operation and maintenance: Corcoran developed procedures for operations and maintenance of new construction and land disturbance for work done by municipal employees. Construction practices required of developers and contractors in the City will also be required of municipal employees for any work done "in house."

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:

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**
Park and open space maintenance (F. 1. #1)	Public Works staff are trained continually, with the goal of 100% of staff trained each year.
Fleet and building maintenance program (F. 1. #2)	All buildings and vehicles are inspected and maintained to prevent spills and leaks.
Street sweeping program (F.1. #3)	All streets are swept annually. Program is reviewed and revised as needed.
Outfall and pond inspection program (F.1. #4)	An average of at least 20% of outfalls, ponds, and sediment basins are inspected annually.
Storm drainage system maintenance (F.1. #5)	Ditches are cleaned annually and staff are trained annually to detect illicit discharges and illegal dumping.
Storage and material handling program (F. 1. #6)	All stockpiles are inspected at least annually.
New construction and land disturbance O & M (F. 1. #7)	Training occurs annually and any new construction or land disturbance done "in house" follows same requirements expected of contractors or developers.
BMP categories to be implemented	**Measurable goals and timeframes**
Quarterly inspection of stockpiles/storage and material handling areas	Within 12 months of the permit effective date, the City will develop a schedule for quarterly inspections of stockpiles/storage and material handling areas.

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 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.)? ☐ Yes ☒ No

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:

By March 31, 2014, the City will develop a schedule of quarterly inspections of stockpiles, storage, and material handling areas to begin immediately upon permit approval.

Within 12 months of the permit effective date, the City will 1) develop procedures and a schedule for determining the TSS and TP effectiveness of City-owned or -operated ponds constructed and used for the collection and treatment of stormwater.

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

Pat Meister, Public Works Superintendent

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

II. General Permit MNR040000: Authorization to Discharge Stormwater Associated with Small Municipal Separate Storm Sewer Systems

Minnesota Pollution Control Agency

GENERAL PERMIT
AUTHORIZATION TO DISCHARGE STORMWATER
ASSOCIATED WITH SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS
UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) PERMIT PROGRAM

EFFECTIVE DATE: August 1, 2013 **EXPIRATION DATE: July 31, 2018**

In compliance with the provisions of the federal Clean Water Act (CWA), as amended, (33 U.S.C. 1251 et seq); 40 CFR Parts 122, 123, and 124, as amended; Minnesota Statutes Chapters 115 and 116, as amended; and Minnesota Rules Chapter 7001 and 7090.

This permit establishes conditions for discharging **stormwater** and specific other related discharges to **waters of the state.** This permit is required for discharges that are from **small Municipal Separate Storm Sewer Systems (small MS4),** as defined in this permit.

Applicants who submit a complete application in accordance with the requirements of Part II of this permit, and that receive written notification of permit coverage from the **Commissioner**, are authorized to discharge **stormwater** from **small MS4**s under the terms and conditions of this permit.

This permit shall become effective on the date identified above, and supersedes the previous **general permit** MNR040000, with an expiration date of May 31, 2011.

Signature: _____ Date May 22, 2013

John Linc Stine
Commissioner
Minnesota Pollution Control Agency

If you have questions on this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact the appropriate Minnesota Pollution Control **Agency** offices.

Municipal Stormwater Program
Municipal Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194
Telephone: 651-296-6300 or toll free in Minnesota: 800-657-3864

Table of Contents

PART I. AUTHORIZATION UNDER THIS PERMIT

A. Eligibility

To be eligible for authorization to discharge **stormwater** under this permit, the applicant must be an **owner** and/or **operator** (**owner/operator**) of a **small MS4** and meet one or more of the criteria requiring permit issuance as specified in Minn. R. 7090.1010.

1. Authorized **Stormwater** Discharges

   This permit authorizes **stormwater** discharges from **small MS4s** as defined in 40 CFR § 122.26(b)(16).

2. Authorized **Non-Stormwater Discharges**

   The following categories of **non-stormwater discharges** or flows are authorized under this permit to enter the **permittee**'s **small MS4** only if the **permittee** does not identify them as significant contributors of pollutants (i.e., **illicit discharges**), in which case the discharges or flows shall be addressed in the **permittee**'s **SWPPP**: water line flushing, landscape irrigation, diverted stream flows, rising groundwaters, uncontaminated groundwater infiltration (as defined at 40 CFR § 35.2005(b)(20)), uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and **wetlands**, dechlorinated swimming pool discharges, street wash water, and discharges or flows from firefighting activities.

B. Limitations on Authorization

The following discharges or activities are not authorized by this permit:

1. **Non-stormwater discharges**, except those authorized in Part I.A.2.

2. Discharges of **stormwater** to the **small MS4** from activities requiring a separate NPDES/SDS permit. This permit does not replace or satisfy any other permitting requirements.

3. Discharges of **stormwater** to the **small MS4** from any other entity located in the drainage area or outside the drainage area. Only the **permittee**'s **small MS4** and the portions of the storm sewer system that are under the **permittee**'s operational control are authorized by this permit.

4. This permit does not replace or satisfy any environmental review requirements, including those under the Minnesota Environmental Policy Act (Minn. Stat. § 116D), or the National Environmental Policy Act (42 U.S.C. §§ 4321 - 4370 f).

5. This permit does not replace or satisfy any review requirements for endangered or threatened species, from new or expanded discharges that adversely impact or contribute to adverse impacts on a listed endangered or threatened species, or adversely modify a designated critical habitat.

6. This permit does not replace or satisfy any review requirements for historic places or archeological sites, from new or expanded discharges which adversely affect properties listed or eligible for listing in the National Register of Historic Places or affecting known or discovered archeological sites.

7. Prohibited discharges pursuant to Minn. R. 7050.0180, subp. 3, 4, and 5.

C. Permit Authorization

In order for an applicant to be authorized to discharge **stormwater** from a **small MS4** under this permit:

1. The applicant shall submit a complete application to discharge **stormwater** under this permit in accordance with Part II.

2. The **Commissioner** shall review the permit application for completeness and compliance with this permit.

   a. If an application is determined to be incomplete, the **Commissioner** will notify the applicant in writing, indicate why the application is incomplete, and request that the applicant resubmit the application.
   b. If an application is determined to be complete, the **Commissioner** shall make a preliminary determination as to whether the permit should be issued or denied in accordance with Minn. R. 7001.

3. The **Commissioner** shall provide public notice with the opportunity for a hearing on the preliminary determination.

4. Upon receipt of written notification of final approval of the application from the **Commissioner**, the applicant is authorized to discharge **stormwater** from the **small MS4** under the terms and conditions of this permit.

D. Transfer of Ownership or Control

Where the ownership or significant operational control of the **small MS4** changes after the submittal of an application under Part II, the new **owner/operator** must submit a new application in accordance with Part II.

E. Issuance of Individual Permits

1. The permit applicant may request an individual permit in accordance with Minn. R. 7001.0210, subp.6, for authorization to discharge **stormwater** associated with a **small MS4.**

2. The **Commissioner** may require an individual permit for the permit applicant or **permittee** covered by a **general permit**, in accordance with Minn. R. 7001.0210, subp. 6.

F. Rights and Responsibilities

1. The **Commissioner** may modify this permit or issue other permits, in accordance with Minn. R. 7001, to include more stringent effluent limitations or permit requirements that modify

or are in addition to the MCMs in Part III.D of this permit, or both. These modifications may be based on the **Commissioner**'s determination that such modifications are needed to protect water quality.

2. The **Commissioner** may designate additional **small MS4s** for coverage under this permit in accordance with Minn. R. 7090. The **owner/operator** of a **small MS4** that is designated for coverage must comply with the permit requirements by the dates specified in the **Commissioner**'s determination.

PART II. APPLICATION REQUIREMENTS

A. Application for Reauthorization

If a permit has been issued by the **Agency** and the **permittee** holding the permit desires to continue the permitted activity beyond the expiration date of the permit, the **permittee** shall submit a written application for permit reissuance at least 180 days before the expiration date of the existing permit. (Minn. R. 7001.0040, subp.3).

B. **New Permittee** Applicants

To become a **new permittee** authorized to discharge **stormwater** under this permit, the **owner/operator** of a **small MS4** shall submit an application, on a form provided by the **Commissioner**, in accordance with the schedule in Appendix A, Table 3, and the following requirements:

1. Submit Part 1 of the permit application (includes the permit application fee).

2. Submit Part 2 of the permit application, with the **Stormwater Pollution Prevention Program** (**SWPPP**) document completed in accordance with Part II.D.

C. **Existing Permittee** Applicants

All **existing permittee**s seeking to continue discharging **stormwater** associated with a **small MS4** after the **effective date** of this permit shall submit Part 2 of the permit application, on a form provided by the **Commissioner**, in accordance with the schedule in Appendix A, Table 1, with the **SWPPP** document completed in accordance with Part II.D. NOTE: **Existing permittee**s were required to submit Part 1 of the permit application prior to the expiration date (May 31, 2011) of the **Agency**'s ***small MS4 general permit*** *No.MNR040000,* effective June 1, 2006, (see Part II.A above).

D. **Stormwater Pollution Prevention Program** (**SWPPP**) Document

All applicants shall submit a **SWPPP** document with Part 2 of the application form when seeking coverage under this permit. The **SWPPP** document shall become an enforceable part of this permit upon approval by the **Commissioner**. Modifications to the **SWPPP** document that are required or allowed by this permit (see Part III.G) shall also become enforceable provisions. The **SWPPP** document shall be submitted on a form provided by the **Commissioner** and shall include the following:

1. A description of partnerships with another regulated **small MS4**(s), into which the applicant has entered, in order to satisfy one or more requirements of this permit.

2. A description of all Regulatory Mechanism(s) (e.g., contract language, an ordinance, permits, standards, etc.) the applicant has developed, implemented, and enforced that satisfies the requirements of each program specified under Part III.D.3, 4, and 5. The description shall include the type(s) of Regulatory Mechanism(s) the applicant has in place at the time of application that will be used to satisfy the requirements. If the Regulatory Mechanism(s) have not been developed at the time of application (e.g., **new permittee** applicants), or revised to meet new requirements of this permit (e.g., **existing permittee** applicants); the

applicant shall describe tasks and corresponding schedules necessary to satisfy the permit requirements in accordance with the schedule in Appendix A, Table 2 (**existing permittee** applicants), or Table 3 (**new permittee** applicants).

3. A description of existing Enforcement Response Procedures (ERPs) the applicant has developed and implemented that satisfy the requirements of Part III.B.1. If the applicant has not yet developed ERPs (e.g., **new permittee** applicants), or existing ERPs must be updated to satisfy new requirements, the description must include tasks and corresponding schedules necessary to satisfy the permit requirements in accordance with the schedule in Appendix A, Table 2 (**existing permittee** applicants), or Table 3 (**new permittee** applicants).

4. A description of the status of the applicant's storm sewer system map and inventory as required by Part III.C. The description must indicate whether each requirement of Part III.C.1, is satisfied, and for Part III.C.2, is complete, at the time of application. For each requirement of Part III.C that is not satisfied at the time of application, the applicant shall include tasks and corresponding schedules necessary to satisfy the mapping and inventory requirements in accordance with the schedule in Appendix A, Table 2 (**existing permittee** applicants), or Table 3 (**new permittee** applicants).

5. For each Minimum Control Measure (MCM) outlined in Part III.D:

    a. The **Best Management Practices** (**BMP**s) the applicant will implement, or has implemented, for each MCM.
    b. The measurable goals for each of the **BMP**s identified in Part II.D.5.a, including as appropriate, the months and years in which the applicant will undertake required actions, including interim milestones and the frequency of the action, in narrative or numeric form, as appropriate.
    c. Name(s) of individual(s) or position titles responsible for implementing and/or coordinating each component of the MCM.

6. For each **applicable Waste Load Allocation (WLA)** approved prior to the **effective date** of this permit, the applicant shall submit the following information as part of the **SWPPP** document:

    a. **TMDL** project name(s)
    b. Numeric **WLA**(s), including units
    c. Type of **WLA** (i.e., categorical or individual)
    d. **Pollutant**(s) **of concern**
    e. Applicable flow data specific to each **applicable WLA**
    f. For each **applicable WLA** not met at the time of application, a compliance schedule is required. Compliance schedules can be developed to include multiple **WLA**s associated with a **TMDL** project and shall include:

        (1) Interim milestones, expressed as **BMP**s or progress toward implementation of **BMP**s to be achieved during the term of this permit
        (2) Dates for implementation of interim milestones
        (3) Strategies for continued **BMP** implementation beyond the term of this permit
        (4) Target dates the **applicable WLA**(s) will be achieved

g. For each **applicable WLA** the **permittee** is reasonably confident is being met at the time of application, the **permittee** must provide the following documentation:

   (1) Implemented **BMPs** used to meet each **applicable WLA**
   (2) A narrative describing the **permittee's** strategy for long-term continuation of meeting each **applicable WLA**.

7. For the requirements of Part III.F, **Alum or Ferric Chloride Phosphorus Treatment Systems**, if applicable, the applicant shall submit the following:

   a. **Geographic coordinates** of the system
   b. Name(s) of individual(s) or position titles responsible for the operation of the system
   c. Information listed in Part III.F.3.a(1)-(6), if the system is constructed at the time the application is submitted to the **Agency**
   d. Indicate if the system complies with the requirements of Part III.F
   e. If applicable, for each Part III.F requirement that the applicant's system does not comply with at the time of application, describe tasks and corresponding schedules necessary to bring the system into compliance in accordance with the schedule in Appendix A, Table 2 (**existing permittee** applicants), or Table 3 (**new permittee** applicants).

PART III. **STORMWATER POLLUTION PREVENTION PROGRAM (SWPPP)**

The **permittee** shall develop, implement, and enforce a **SWPPP** designed to **reduce** the discharge of pollutants from the **small MS4** to the **Maximum Extent Practicable** (**MEP**), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act.

If the **permittee** enters into a partnership for purposes of meeting **SWPPP** requirements, the **permittee** maintains legal responsibility for compliance with this permit.

Existing permittees shall revise their **SWPPP** developed under the **Agency**'s ***small MS4 general permit*** *No.MNR040000* that was effective June, 1, 2006, to meet the requirements of this permit in accordance with the schedule in Appendix A, Table 2. **New permittee**s shall develop, implement, and enforce their **SWPPP** in accordance with the schedule in Appendix A, Table 3. The **permittee**'s **SWPPP** shall consist of the following:

A. Regulatory Mechanism(s)

To the extent allowable under state, tribal or local law, the **permittee** shall develop, implement, and enforce a Regulatory Mechanism(s) to meet the terms and conditions of Part III.D.3, 4, and 5. A Regulatory Mechanism(s) for the purposes of this permit may consist of contract language, an ordinance, permits, standards, or any other mechanism, that will be enforced by the **permittee**.

B. Enforcement Response Procedures (ERPs)

1. The **permittee** shall develop and implement written ERPs to enforce and compel compliance with the Regulatory Mechanism(s) developed and implemented by the **permittee** in accordance with Part III.A.

2. Enforcement conducted by the **permittee** pursuant to the ERPs shall be documented. Documentation shall include, at a minimum, the following:

   a. Name of the **person** responsible for violating the terms and conditions of the **permittee**'s Regulatory Mechanism(s)
   b. Date(s) and location(s) of the observed violation(s)
   c. Description of the violation(s), including reference(s) to relevant Regulatory Mechanism(s)
   d. Corrective action(s) (including completion schedule) issued by the **permittee**
   e. Date(s) and type(s) of enforcement used to compel compliance (e.g., written notice, citation, stop work order, withholding of local authorizations, etc.)
   f. Referrals to other regulatory organizations (if any)
   g. Date(s) violation(s) resolved

C. Mapping and Inventory

1. Mapping

New permittees shall develop, and **existing permittee**s shall update, a storm sewer system map that depicts the following:

a. 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**
b. **Outfalls**, including a unique identification (ID) number assigned by the **permittee**, and an associated **geographic coordinate**
c. **Structural stormwater BMPs** that are part of the **permittee's small MS4**
d. All **receiving waters**

2. Inventory (2009 Minnesota Session Law, Ch. 172. Sec. 28).

a. The **permittee** shall complete an inventory of:

(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. **Stormwater** ponds do not include areas of temporary ponding, such as ponds that exist only during a construction project or short-term accumulations of water in road ditches.
(2) All **wetlands** and lakes, within the **permittee's** jurisdiction, that collect **stormwater** via constructed conveyances.

b. **The permittee** shall complete and submit the inventory to the **Agency** on a form provided by the **Commissioner**. Each feature inventoried shall include the following information:

(1) A unique identification (ID) number assigned by the **permittee**
(2) A **geographic coordinate**
(3) Type of feature (e.g., pond, **wetland**, or lake). This may be determined by using best professional judgment.

D. Minimum Control Measures (MCMs)

The **permittee** shall incorporate the following six MCMs into the **SWPPP**. The **permittee** shall document as part of the **SWPPP**, a description of **BMPs** used for each MCM, the responsible **person**(s) and department(s) in charge, an implementation schedule, and measureable goals that will be used to determine the success of each **BMP**.

1. Public Education and Outreach

New permittees shall develop and implement, and **existing permittees** shall revise their current program, as necessary, and continue to implement, a public education program to distribute educational materials or equivalent outreach that informs the public of the impact **stormwater** discharges have on water bodies and that includes actions citizens, businesses, and other local organizations can take to **reduce** the discharge of pollutants to **stormwater**. The program shall also include:

a. Distribution of educational materials or equivalent outreach focused on:

(1) Specifically selected **stormwater**-related issue(s) of high priority to the **permittee** to be emphasized during this permit term (e.g., specific **TMDL** reduction targets, changing local business practices, promoting adoption of residential **BMPs**, lake

improvements through lake associations, responsible management of pet waste, household chemicals, yard waste, deicing materials, etc.)

(2) **Illicit discharge** recognition and reporting **illicit discharges** to the **permittee**

b. An implementation plan that consists of the following:

(1) Target audience(s), including measurable goals for each audience
(2) Responsible **Person**(s) in charge of overall plan implementation
(3) Specific activities and schedules to reach measurable goals for each target audience
(4) A description of any coordination with and/or use of other **stormwater** education and outreach programs being conducted by other entities, if applicable
(5) Annual evaluation to measure the extent to which measurable goals for each target audience are attained

c. Documentation of the following information:

(1) A description of any specific **stormwater**-related issues identified by the **permittee** under Part III.D.1.a(1)
(2) All information required under Part III.D.1.b
(3) Any modifications made to the program as a result of the annual evaluation under Part III.D.1.b(5)
(4) Activities held, including dates, to reach measurable goals
(5) Quantities and descriptions of educational materials distributed, including dates distributed

2. Public Participation/Involvement

a. **New permittees** shall develop and implement, and **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**. The **permittee** shall:

(1) Provide a minimum of one (1) opportunity annually for the public to provide input on the adequacy of the **SWPPP**. Public meetings can be conducted to satisfy this requirement provided appropriate local public notice requirements are followed and opportunity to review and comment on the **SWPPP** is provided.
(2) Provide access to the **SWPPP** document, Annual Reports, and other documentation that supports or describes the **SWPPP** (e.g., Regulatory Mechanism(s), etc.) for public review, upon request. All public data requests are subject to the Minnesota Government Data Practices Act, Minn. Stat. § 13.
(3) Consider public input, oral and written, submitted by the public to the **permittee**, regarding the **SWPPP**.

b. Document the following information:

(1) All relevant written input submitted by **persons** regarding the **SWPPP**
(2) All responses from the **permittee** to written input received regarding the **SWPPP**, including any modifications made to the **SWPPP** as a result of the written input received

(3) Date(s) and location(s) of events held for purposes of compliance with this requirement
(4) Notices provided to the public of any events scheduled to meet this requirement, including any electronic correspondence (e.g., website, e-mail distribution lists, notices, etc.)

3. **Illicit Discharge** Detection and Elimination (IDDE)

New permittees shall develop, implement, and enforce, and **existing permittees** shall revise their current program as necessary, and continue to implement and enforce, a program to detect and eliminate **illicit discharges** into the **small MS4**. The IDDE program shall consist of the following:

a. Map of the **small MS4** as required by Part III.C.1.
b. Regulatory Mechanism(s) that effectively prohibits **non-stormwater discharges** into the **small MS4**, except those **non-stormwater discharges** authorized under Part I.B.1.
c. Incorporation of **illicit discharge** detection into all inspection and maintenance activities conducted under Part III.D.6.e and f. Where feasible, **illicit discharge** inspections shall be conducted during dry-weather conditions (e.g., periods of 72 or more hours of no precipitation).
d. Detecting and tracking the source of **illicit discharges** using visual inspections. The **permittee** may also include the use of mobile cameras, collecting and analyzing water samples, and/or other detailed inspection procedures that may be effective investigative tools.
e. Training of all field staff, in accordance with the requirements of Part III.D.6.g(2), in **illicit discharge** recognition (including conditions which could cause **illicit discharges**), and reporting **illicit discharges** for further investigation.
f. 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**.
g. For timely response to known, suspected, and reported **illicit discharges**:

(1) Procedures for investigating, locating, and eliminating the source of **illicit discharges**.
(2) 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 at 1-800-422-0798 (toll free) or 651-649-5451 (Metro area), if the source of the **illicit discharge** is a spill or leak as defined in Minn. Stat. § 115.061.
(3) When the source of the **illicit discharge** is found, ERPs required by Part III.B (if necessary) to eliminate the **illicit discharge** and require any needed corrective action(s).

h. Documentation of the following information:

(1) Date(s) and location(s) of IDDE inspections conducted in accordance with Part III.D.3.c and f
(2) Reports of alleged **illicit discharge**s received, including date(s) of the report(s), and any follow-up action(s) taken by the **permittee**
(3) Date(s) of discovery of all **illicit discharge**s
(4) Identification of **outfall**s, or other areas, where **illicit discharges** have been discovered
(5) Sources (including a description and the responsible party) of **illicit discharges** (if known)
(6) Action(s) taken by the **permittee**, including date(s), to address discovered **illicit discharges**

4. Construction Site **Stormwater** Runoff Control

New permittees shall develop, implement, and enforce, and **existing permittee**s shall revise their current program, as necessary, and continue to implement and enforce, a Construction Site **Stormwater** Runoff Control program that **reduce**s pollutants in **stormwater** runoff to the **small MS4** from **construction activity** with a land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger **common plan of development or sale**, that occurs within the **permittee**'s jurisdiction. The program shall incorporate the following components:

a. Regulatory Mechanism(s)

A Regulatory Mechanism(s) that establishes requirements for erosion and sediment controls and waste controls that is at least as stringent as the **Agency's *general permit*** *to Discharge Stormwater Associated with Construction Activity No.MN R100001* (as of the **effective date** of this permit). The **permittee**'s Regulatory Mechanism(s) shall require that owners and operators of **construction activity** develop site plans that must be submitted to the **permittee** for review and approval, prior to the start of **construction activity**. Site plans must be kept up-to-date by the owners and operators of **construction activity** with regard to **stormwater** runoff controls. The Regulatory Mechanism(s) must require that site plans incorporate the following erosion and sediment controls and waste controls as described in the above referenced permit:

(1) **BMP**s to minimize erosion
(2) **BMP**s to minimize the discharge of sediment and other pollutants
(3) **BMP**s for dewatering activities
(4) Site inspections and records of rainfall events
(5) **BMP** maintenance
(6) Management of solid and hazardous wastes on each project site
(7) Final stabilization upon the completion of **construction activity**, including the use of perennial vegetative cover on all exposed soils or other equivalent means
(8) Criteria for the use of temporary sediment basins

b. Site plan review

The program shall include written procedures for site plan reviews conducted by the **permittee** prior to the start of **construction activity**, to ensure compliance with requirements of the Regulatory Mechanism(s). The site plan review procedure shall include notification to owners and operators proposing **construction activity** of the need to apply for and obtain coverage under the **Agency**'s ***general permit*** *to Discharge Stormwater Associated with Construction Activity No.MN R100001.*

c. Public input

The program shall 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.**

d. Site inspections

The program shall include written procedures for conducting site inspections, to determine compliance with the **permittee**'s Regulatory Mechanism(s). The written procedures shall:

(1) Include procedures for identifying priority sites for inspection. Prioritization can be based on such parameters as topography, soil characteristics, type of **receiving water**(s), stage of construction, compliance history, weather conditions, or other local characteristics and issues.
(2) Identify frequency at which site inspections will be conducted
(3) Identify name(s) of individual(s) or position titles responsible for conducting site inspections
(4) Include a checklist or other written means to document site inspections when determining compliance.

e. ERPs required by Part III.B of this permit

f. Documentation of the following information:

(1) For each site plan review – The project name, location, total acreage to be disturbed, owner and operator of the proposed **construction activity**, and any **stormwater** related comments and supporting documentation used by the **permittee** to determine project approval or denial.
(2) For each site inspection - Inspection checklists or other written means used to document site inspections

5. Post-Construction **Stormwater** Management

New permittees shall develop, implement, and enforce, and **existing permittees** shall revise their current program, as necessary, and continue to implement and enforce, a Post-Construction **Stormwater** Management program that prevents or **reduces water pollution** after **construction activity** is completed, related to **new development** and **redevelopment** projects with land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger **common plan of development or sale**, within the **permittee**'s jurisdiction and that discharge to the **permittee**'s **small MS4**. The program shall consist, at a minimum, of the following:

a. A Regulatory Mechanism(s) that incorporates:

(1) A requirement 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**

(2) Conditions for Post-Construction **Stormwater** Management:

The **permittee** shall develop and implement a Post-Construction **Stormwater** Management program that 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 **MEP**:

(a) For **new development** projects – no net increase from pre-project conditions (on an annual average basis) of:

1) **Stormwater** discharge Volume, unless precluded by the **stormwater** management limitations in 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:

1) **Stormwater** discharge Volume, unless precluded by the **stormwater** management limitations in 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) The **permittee**'s Regulatory Mechanism(s) shall prohibit the use of infiltration techniques to achieve the conditions for post-construction **stormwater** management in Part III.D.5.a(2) when the infiltration **structural stormwater BMP** will receive discharges from, or be constructed in areas:

a) Where industrial facilities are not authorized to infiltrate industrial **stormwater** under an **NPDES/SDS** Industrial **Stormwater** Permit issued by the **Agency**
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) The **permittee**'s Regulatory Mechanism(s) shall restrict the use of infiltration techniques to achieve the conditions for post-construction **stormwater** management, 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:

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 Part.III.D.5.a(2), the **permittee**'s Regulatory Mechanism(s) may allow exceptions as described in Part III.D.5.a(3)(b). The **permittee**'s Regulatory Mechanism(s) shall ensure that a reasonable attempt be made to obtain right-of-way during the project planning process.

(b) Exceptions for **stormwater** discharge volume

The **permittee**'s Regulatory Mechanism(s) may allow for lesser volume control on the site of the original **construction activity** than that in Part III.D.5.a(2) only under the following circumstances:

1) The owner and/or operator of a **construction activity** is precluded from infiltrating **stormwater** through a designed system due to any of the infiltration related limitations described above, and
2) The owner and/or operator of the **construction activity** implements, to the **MEP**, volume reduction techniques, other than infiltration, (e.g., evapotranspiration, reuse/harvesting, conservation design, green roofs, etc.) on the site of the original **construction activity** that **reduces** **stormwater** discharge volume, but may not meet the conditions for post-construction **stormwater** management in Part III.D.5.a(2).

(4) Mitigation provisions

There may be circumstances where the **permittee** or other owners and operators of a **construction activity** cannot cost effectively meet the conditions for post-construction **stormwater** management for TSS and/or TP in Part III.D.5.a(2) on the site of the original **construction activity**. For this purpose, the **permittee** shall identify, or may require owners or operators of a **construction activity** to identify, locations where mitigation projects can be completed. 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:
    1) Locations that yield benefits to the same **receiving water** that receives runoff from the original **construction activity**
    2) Locations within the same 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**.
(c) Routine maintenance of **structural stormwater BMPs** already required by this permit cannot be used to meet mitigation requirements of this Part.
(d) Mitigation projects shall be completed within 24 months after the start of the original **construction activity**.
(e) The **permittee** shall determine, and document, who is responsible for long-term maintenance on all mitigation projects of this Part.
(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).

(5) Long-term maintenance of **structural stormwater BMPs**

The **permittee**'s Regulatory Mechanism(s) shall provide for the establishment of legal mechanism(s) 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 Part III.D.5.a(2). This only includes **structural stormwater BMPs** constructed after the **effective date** of this permit, 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.

(b) Include conditions that are designed to preserve the **permittee**'s right to ensure maintenance responsibility, for **structural stormwater BMP**s not owned or operated by the **permittee**, when those responsibilities are legally transferred to another party.

(c) Include conditions that are designed to protect/preserve **structural stormwater BMP**s and site features that are implemented to comply with Part III.D.5.a(2). If site configurations or **structural stormwater BMP**s change, causing decreased **structural stormwater BMP** effectiveness, new or improved **structural stormwater BMP**s must be implemented to ensure the conditions for post-construction **stormwater** management in Part III.D.5.a(2) continue to be met.

b. Site plan review

The program shall include written procedures for site plan reviews conducted by the **permittee** prior to the start of **construction activity**, to ensure compliance with requirements of the Regulatory Mechanism(s).

c. Documentation of the following information:

(1) Any supporting documentation used by the **permittee** to determine compliance with 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

(2) All supporting documentation associated with mitigation projects authorized by the **permittee**

(3) Payments received and used in accordance with Part III.D.5.a(4)(f)

(4) All legal mechanisms drafted in accordance with Part III.D.5.a(5), including date(s) of the agreement(s) and name(s) of all responsible parties involved

6. Pollution Prevention/Good Housekeeping For Municipal Operations

New permittees shall develop and implement, and **existing permittee**s shall revise their current program, as necessary, and continue to implement, an operations and maintenance program that prevents or **reduce**s the discharge of pollutants from **permittee** owned/operated facilities and operations to the **small MS4**. The operations and maintenance program shall include, at a minimum, the following:

a. Facilities Inventory

The **permittee** shall develop and maintain an inventory of **permittee** owned/operated facilities that contribute pollutants to **stormwater** discharges. Facilities to be inventoried may include, but is not limited to: composting, equipment storage and maintenance, hazardous waste disposal, hazardous waste handling and transfer; landfills, solid waste handling and transfer, parks, pesticide storage, public parking lots, public golf courses; public swimming pools, public works yards, recycling, salt storage, vehicle storage and maintenance (e.g., fueling and washing) yards, and materials storage yards.

b. Development and Implementation of **BMPs** for inventoried facilities and municipal operations

Considering the source of pollutants and sensitivity of **receiving waters** (e.g., Outstanding Resource Value Waters (ORVWs), **impaired waters**, trout streams, etc.), the **permittee** shall develop and implement **BMPs** that prevent or **reduce** pollutants in **stormwater** discharges from the **small MS4** and from:

(1) All inventoried facilities that discharge to the **MS4**, and
(2) The following municipal operations that may contribute pollutants to **stormwater** discharges, where applicable:

(a) Waste disposal and storage, including dumpsters
(b) Management of temporary and permanent stockpiles of materials such as street sweepings, snow, deicing materials (e.g., salt), sand and sediment removal piles
(c) Vehicle fueling, washing and maintenance
(d) Routine street and parking lot sweeping
(e) Emergency response, including spill prevention plans
(f) Cleaning of maintenance equipment, building exteriors, dumpsters, and the disposal of associated waste and wastewater
(g) Use, storage, and disposal of **significant materials**
(h) Landscaping, park, and lawn maintenance
(i) Road maintenance, including pothole repair, road shoulder maintenance, pavement marking, sealing, and repaving
(j) Right-of-way maintenance, including mowing
(k) Application of herbicides, pesticides, and fertilizers
(l) Cold-weather operations, including plowing or other snow removal practices, sand use, and application of deicing compounds

c. Development and implementation of **BMPs** for **MS4** discharges that may affect Source Water Protection Areas (Minn. R. 4720.5100-4720.5590)

The **permittee** shall incorporate **BMPs** into the **SWPPP** to protect any of the following drinking water sources that the **MS4** discharge may affect, and the **permittee** shall include the map of these sources with the **SWPPP** if they have been mapped:

(1) Wells and source waters for DWSMAs identified as vulnerable under Minn. R. 4720.5205, 4720.5210, and 4720.5330
(2) Source water protection areas for surface intakes identified in the source water assessments conducted by or for the Minnesota Department of Health (MDH) under the federal Safe Drinking Water Act, U.S.C. §§ 300j – 13

d. Pond Assessment Procedures and Schedule

The **permittee** shall develop procedures and a schedule for the purpose of determining the TSS and TP treatment effectiveness of all **permittee** owned/operated ponds constructed and used for the collection and treatment of **stormwater**. The schedule (which may exceed this permit term) shall be based on measureable goals and priorities established by the **permittee**.

e. Inspections

(1) Unless inspection frequency is adjusted as described below, the **permittee** shall conduct annual inspections of **structural stormwater BMPs** (excluding **stormwater** ponds which are under a separate schedule below) to determine structural integrity, proper function and maintenance needs.

Inspections of **structural stormwater BMPs** shall be conducted annually unless the **permittee** determines if either of the following conditions apply: 1) Complaints received or patterns of maintenance indicate a greater frequency is necessary, or 2) Maintenance or sediment removal is not required after completion of the first two annual inspections; in which case the **permittee** may reduce the frequency of inspections to once every two (2) years. However, **existing permittees** are authorized under this permit to continue using inspection frequency adjustments, previously determined under the *general **stormwater** permit for **small MS4**s No.MNR040000*, effective June 1, 2006, provided that documentation requirements in Part III.D.6.h(2) are satisfied.

(2) Prior to the expiration date of this permit, the **permittee** shall conduct at least one inspection of all ponds and **outfalls** (excluding underground **outfalls**) in order to determine structural integrity, proper function, and maintenance needs.

(3) The **permittee** shall conduct quarterly inspections of stockpiles, and storage and material handling areas as inventoried in Part III.D.6.a, to determine maintenance needs and proper function of **BMPs**.

f. Maintenance

Based on inspection findings, the **permittee** shall determine if repair, replacement, or maintenance measures are necessary in order to ensure the structural integrity, proper function, and treatment effectiveness of **structural stormwater BMPs**. Necessary maintenance shall be completed as soon as possible to prevent or **reduce** the discharge of pollutants to **stormwater**.

g. Employee Training

The **permittee** shall develop and implement a **stormwater** management training program commensurate with employee's job-duties as they relate to the **permittee**'s **SWPPP**, including reporting and assessment activities. The **permittee** may use training materials from the United States Environmental Protection Agency (USEPA), state and regional agencies, or other organizations as appropriate to meet this requirement. The employee training program shall:

(1) Address the importance of protecting water quality
(2) Cover the requirements of the permit relevant to the job duties of the employee
(3) Include 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

h. Documentation of the following information:

(1) Date(s) and description of findings of all inspections conducted in accordance with Part III.D.6.e
(2) Any adjustments to inspection frequency as authorized under Part III.D.6.e(1)
(3) A description of maintenance conducted, including dates, as a result of inspection findings
(4) Pond sediment excavation and removal activities, including:
  (a) The unique ID number (consistent with that required in Part III.C.2.a) of each **stormwater** pond from which sediment is removed
  (b) The volume (e.g., cubic yards) of sediment removed from each **stormwater** pond
  (c) Results from any testing of sediment from each removal activity
  (d) Location(s) of final disposal of sediment from each **stormwater** pond
(5) Employee **stormwater** management training events, including a list of topics covered, names of employees in attendance, and date of each event

E. Discharges to **Impaired Waters** with a USEPA-Approved **TMDL** that Includes an **Applicable WLA**

For each **applicable WLA** approved prior to the **effective date** of this permit, the **BMPs** included in the compliance schedule at application constitute a discharge requirement for the **permittee**. The **permittee** shall demonstrate continuing progress toward meeting each discharge requirement, on a form provided by the **Commissioner**, by submitting the following:

1. An assessment of progress toward meeting each discharge requirement, including a list of all **BMPs** being applied to achieve each **applicable WLA**. For each **structural stormwater BMP**, the **permittee** shall provide a unique identification (ID) number and **geographic coordinate**. If the listed **structural stormwater BMP** is also inventoried as required by Part III.C.2, the same ID number shall be used.

2. A list of all **BMPs** the **permittee** submitted at the time of application in the **SWPPP** document compliance schedule(s) and the stage of implementation for each **BMP**, including any **BMPs** specifically identified for the **small MS4** in the **TMDL** report that the **permittee** plans to implement

3. An up-dated estimate of the cumulative reductions in loading achieved for each **pollutant of concern** associated with each **applicable WLA**

4. An up-dated narrative describing any adaptive management strategies used (including projected dates) for making progress toward achieving each **applicable WLA**

F. **Alum or Ferric Chloride Phosphorus Treatment Systems**

If the **permittee** uses an **alum or ferric chloride phosphorus treatment system**, the **permittee** shall comply with the following:

1. Minimum Requirements of an **Alum or Ferric Chloride Phosphorus Treatment System**

   a. Limitations

      (1) The **permittee** shall use the treatment system for the treatment of phosphorus in **stormwater. Non-stormwater discharges** shall not be treated by this system.
      (2) The treatment system must be contained within the conveyances and **structural stormwater BMPs** of a **small MS4**. The utilized conveyances and **structural stormwater BMPs** shall not include any **receiving waters**.
      (3) Phosphorus treatment systems utilizing chemicals other than alum or ferric chloride must receive written approval from the **Agency**.
      (4) In-lake phosphorus treatment activities are not authorized under this permit.

   b. Treatment System Design

      (1) The treatment system shall be constructed in a manner that diverts the **stormwater** flow to be treated from the main conveyance system.
      (2) A **High Flow Bypass** shall be part of the inlet design.
      (3) A flocculent storage/settling area shall be incorporated into the design, and adequate maintenance access must be provided (minimum of 8 feet wide) for the removal of accumulated sediment.

2. Monitoring During Operation

   a. A designated **person** shall perform visual monitoring of the treatment system for proper performance at least once every seven (7) days, and within 24 hours after a rainfall event greater than 2.5 inches in 24 hours. Following visual monitoring which occurs within 24 hours after a rainfall event, the next visual monitoring must be conducted within seven (7) days after that rainfall event.
   b. Three benchmark monitoring stations shall be established. Table B-1 shall be used for the parameters, units of measure, and frequency of measurement for each station.
   c. Samples shall be collected as grab samples or flow-weighted 24-hour composite samples.
   d. Each sample, excluding pH samples, must be analyzed by a laboratory certified by the MDH and/or the MPCA, and:

      (1) Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and Minn. R. 7041.3200.
      (2) Detection limits for dissolved phosphorus, dissolved aluminum, and dissolved iron shall be a minimum of 6 micrograms per liter (µg/L), 10 µg/L, and 20 µg/L, respectively.
      (3) pH must be measured within 15 minutes of sample collection using calibrated and maintained equipment.

Table B-1:
Monitoring Parameters During Operation

Station	Alum Parameters	Ferric Parameters	Units	Frequency
Upstream-Background	Total Phosphorus	Total Phosphorus	mg/L	1 x week
	Dissolved Phosphorus	Dissolved Phosphorus	mg/L	1 x week
	Total Aluminum	Total Iron	mg/L	1 x month
	Dissolved Aluminum	Dissolved Iron	mg/L	1 x week
	pH	pH	SU	1 x week
	Flow	Flow	Mgd	Daily
Alum or Ferric Chloride Feed	Alum	Ferric	Gallons	Daily Total Dosed In Gallons
Discharge From Treatment	Total Phosphorus	Total Phosphorus	mg/L	1 x week
	Dissolved Phosphorus	Dissolved Phosphorus	mg/L	1 x week
	Total Aluminum	Total Iron	mg/L	1 x month
	Dissolved Aluminum	Dissolved Iron	mg/L	1 x week
	pH	pH	SU	1 x week
	Flow	Flow	Mgd	Daily

e. In the following situations, the **permittee** shall perform corrective action(s) and immediately notify the Minnesota Department of Public Safety Duty Officer at 1-800-422-0798 (toll free) or 651-649-5451 (Metro area):

(1) The pH of the discharged water is not within the range of 6.0 and 9.0
(2) Any indications of toxicity or measurements exceeding **water quality standards**
(3) A spill, as defined in Minn. Stat. § 115.01, subd. 13, of alum or ferric chloride

3. Reporting and Recordkeeping

a. Annual Reporting

The **permittee** shall submit the following information with the Annual Report in Part IV.B. The Annual Report must include a month-by-month summary of:

(1) Date(s) of operation
(2) Chemical(s) used for treatment
(3) Gallons of water treated
(4) Gallons of alum or ferric chloride treatment used
(5) Calculated pounds of phosphorus removed
(6) Any performance issues and the corrective action(s), including the date(s) when corrective action(s) were taken

b. On-Site Recordkeeping

A record of the following design parameters shall be kept on-site:

(1) Site-specific jar testing conducted using typical and representative water samples in accordance with ASTM D2035-08 (2003)
(2) Baseline concentrations of the following parameters in the influent and **receiving waters**:

(a) Aluminum or Iron
(b) Phosphorus

(3) The following system parameters and how each was determined:

(a) Flocculent settling velocity
(b) Minimum required retention time
(c) Rate of diversion of **stormwater** into the system
(d) The flow rate from the discharge of the outlet structure
(e) Range of expected dosing rates

4. Treatment System Management

The following site-specific procedures shall be developed and a copy kept on-site:

a. Procedures for the installation, operation and maintenance of all pumps, generators, control systems, and other equipment
b. Specific parameters for determining when the solids must be removed from the system and how the solids will be handled and disposed of
c. Procedures for cleaning up and/or containing a spill of each chemical stored on-site

G. **Stormwater Pollution Prevention Program (SWPPP)** Modification

1. The **Commissioner** may require the **permittee** to modify the **SWPPP** as needed, in accordance with the procedures of Minn. R. 7001, and may consider the following factors:

a. Discharges from the **small MS4** are impacting the quality of **receiving waters.**
b. More stringent requirements are necessary to comply with state or federal regulations.
c. Additional conditions are deemed necessary to comply with the goals and applicable requirements of the Clean Water Act and protect water quality.

2. Modifications that the **permittee** chooses to make to the **SWPPP** document developed under Part II.D, other than modifications authorized in Part III.G.3 below, must be approved by the **Commissioner** in accordance with the procedures of Minn. R. 7001. All requests must be in writing, setting forth schedules for compliance. The request must discuss alternative program modifications, assure compliance with requirements of the permit, and meet other applicable laws.

3. The **SWPPP** document may only be modified by the **permittee** without prior approval of the **Commissioner** provided it is in accordance with a. or b. below, and the **Commissioner** is notified of the modification in the Annual Report for the year the modification is made.

a. A **BMP** is added, and none subtracted, from the **SWPPP** document.
b. A less effective **BMP** identified in the **SWPPP** document is replaced with a more effective **BMP**. The alternate **BMP** shall address the same, or similar, concerns as the ineffective or failed **BMP**.

PART IV. ANNUAL **SWPPP** ASSESSMENT, ANNUAL REPORTING, AND RECORD KEEPING

A. Annual **SWPPP** Assessment

The **permittee** shall conduct an Annual Assessment of their **SWPPP** to determine program compliance, the appropriateness of **BMPs**, and progress towards achieving the measurable goals identified in their **SWPPP** document. The Annual **SWPPP** Assessment shall be performed prior to completion of each Annual Report.

B. Annual Reporting

The **permittee** shall submit an Annual Report to the **Agency** by June 30th of each calendar year. The Annual Report shall cover the portion of the previous calendar year during which the **permittee** was authorized to discharge **stormwater** under this permit. The Annual Report shall be submitted to the **Agency**, on a form provided by the **Commissioner**, that will at a minimum, consist of the following:

1. The status of compliance with permit terms and conditions, including an assessment of the appropriateness of **BMPs** identified by the **permittee** and progress towards achieving the identified measurable goals for each of the MCMs in Part III.D.1-6. The assessment must be based on results of information collected and analyzed, including monitoring (if any), inspection findings, and public input received during the reporting period.

2. The **stormwater** activities the **permittee** plans to undertake during the next reporting cycle

3. A change in any identified **BMPs** or measurable goals for any of the MCMs in Part III.D.1-6

4. Information required in Part III.E, to demonstrate progress in meeting **applicable WLAs**

5. Information required to be recorded or documented in Part III

6. A statement that the **permittee** is relying on a partnership(s) with another regulated **Small MS4**(s) to satisfy one or more permit requirements (if applicable), and what agreements the **permittee** has entered into in support of this effort

C. Record Keeping

1. The **permittee** shall keep records required by the **NPDES** permit for at least three (3) years beyond the term of this permit. The **permittee** shall submit records to the **Commissioner** only if specifically asked to do so.

2. The **permittee** shall make records, including components of the **SWPPP**, available to the public at reasonable times during regular business hours (see 40 CFR § 122.7 for confidentiality provision).

3. The **permittee** shall retain copies of the permit application, all documentation necessary to comply with **SWPPP** requirements, all data and information used by the **permittee** to complete the application process, and any information developed as a requirement of this permit or as requested by the **Commissioner**, for a period of at least three (3) years beyond the date of permit expiration. This period is automatically extended during the course of an

unresolved enforcement action regarding the **small MS4** or as requested by the **Commissioner**.

D. Where to Submit

The **permittee** shall use an electronic submittal process, when provided by the **Agency**, when submitting information required by this permit. When submitting information electronically is not possible, the **permittee** may use the following mailing address:

Minnesota Pollution Control Agency (MPCA)
Attn: WQ Submittals Center
520 Lafayette Road North
St. Paul, MN 55155-4194

PART V. GENERAL CONDITIONS

A. The **Agency**'s issuance of a permit does not release the **permittee** from any liability, penalty, or duty imposed by Minnesota or federal statutes or rules or local ordinances, except the obligation to obtain the permit. (Minn. R. 7001.0150, subp.3, item A)

B. The **Agency**'s issuance of a permit does not prevent the future adoption by the **Agency** of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or orders against the **permittee**. (Minn. R. 7001.0150, subp.3, item B)

C. The permit does not convey a property right or an exclusive privilege. (Minn. R. 7001.0150, subp. 3, item C)

D. The **Agency**'s issuance of a permit does not obligate the **Agency** to enforce local laws, rules, or plans beyond that authorized by Minnesota statutes. (Minn. R. 7001.0150, subp.3, item D)

E. The **permittee** shall perform the actions or conduct the activity authorized by the permit in accordance with the plans and specifications approved by the **Agency** and in compliance with the conditions of the permit. (Minn. R. 7001.0150, subp. 3, item E)

F. The **permittee** shall at all times properly operate and maintain the facilities and systems of treatment and control and the appurtenances related to them which are installed or used by the **permittee** to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The **permittee** shall install and maintain appropriate backup or auxiliary facilities if they are necessary to achieve compliance with the conditions of the permit and, for all permits other than hazardous waste facility permits, if these backup or auxiliary facilities are technically and economically feasible. (Minn. R. 7001.0150. subp. 3, item F.)

G. The **permittee** may not knowingly make a false or misleading statement, representation, or certification in a record, report, plan, or other document required to be submitted to the **Agency** or to the **Commissioner** by the permit. The **permittee** shall immediately upon discovery report to the **Commissioner** an error or omission in these records, reports, plans, or other documents. (Minn. Stat. § 609.671; Minn.R. 7001.0150, subp.3, item G.; and Minn. R. 7001.1090, subp. 1, items G and H)

H. The **permittee** shall, when requested by the **Commissioner**, submit within a reasonable time the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the facility covered by the permit or regarding the conduct of the activity covered by the permit. (Minn. R. 7001.0150, subp. 3, item H)

I. When authorized by Minn. Stat. §§ 115.04; 115B.17, subd. 4; and 116.091, and upon presentation of proper credentials, the **Agency**, or an authorized employee or agent of the **Agency**, shall be allowed by the **permittee** to enter at reasonable times upon the property of the **permittee** to examine and copy books, papers, records, or memoranda pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit; and to conduct surveys and investigations, including sampling or monitoring, pertaining to the construction, modification, or operation of the facility covered by

the permit or pertaining to the activity covered by the permit. (Minn. R. 7001.0150, subp.3, item I)

J. If the **permittee** discovers, through any means, including notification by the **Agency**, that noncompliance with a condition of the permit has occurred, the **permittee** shall take all reasonable steps to minimize the adverse impacts on human health, public drinking water supplies, or the environment resulting from the noncompliance. (Minn. R. 7001.0150, subp.3, item J)

K. If the **permittee** discovers that noncompliance with a condition of the permit has occurred which could endanger human health, public drinking water supplies, or the environment, the **permittee** shall, within 24 hours of the discovery of the noncompliance, orally notify the **Commissioner**. Within five days of the discovery of the noncompliance, the **permittee** shall submit to the **Commissioner** a written description of the noncompliance; the cause of the noncompliance, the exact dates of the period of the noncompliance, if the noncompliance has not been corrected; the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (Minn. R. 7001.0150, subp.3, item K)

L. The **permittee** shall report noncompliance with the permit not reported under item K as a part of the next report, which the **permittee** is required to submit under this permit. If no reports are required within 30 days of the discovery of the noncompliance, the **permittee** shall submit the information listed in item K within 30 days of the discovery of the noncompliance. (Minn. R. 7001.0150, subp.3, item L)

M. The **permittee** shall give advance notice to the **Commissioner** as soon as possible of planned physical alterations or additions to the permitted facility (**MS4**) or activity that may result in noncompliance with a Minnesota or federal pollution control statute or rule or a condition of the permit. (Minn. R. 7001.0150, subp. 3, item M)

N. The permit is not transferable to any **person** without the express written approval of the **Agency** after compliance with the requirements of Minn. R. 7001.0190. A **person** to whom the permit has been transferred shall comply with the conditions of the permit. (Minn. R. 7001.0150, subp.3, item N)

O. The permit authorizes the **permittee** to perform the activities described in the permit under the conditions of the permit. In issuing the permit, the state and **Agency** assume no responsibility for damage to **persons**, property, or the environment caused by the activities of the **permittee** in the conduct of its actions, including those activities authorized, directed, or undertaken under the permit. To the extent the state and **Agency** may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act, Minn. Stat. § 3.736. (Minn. R. 7001.0150, subp. 3, item O)

P. This permit incorporates by reference the applicable portions of 40 CFR §§ 122.41 and 122.42 parts (c) and (d), and Minn. R. 7001.1090, which are enforceable parts of this permit.

APPENDIX A

SCHEDULES

Table 1
Application Submittal Schedule for **Existing permittees**

Group 1 Within 90 days after permit **effective date**		
Alexandria, City	Glencoe, City	Oak Grove, City
Andover, City	Grand Rapids, City	Orono, City
Anoka Technical College	Greenwood, City	Ramsey, City
Arden Hills, City	Hibbing, City	Sartell, City
Birchwood Village, City	Hilltop, City	South St Paul, City
Cambridge, City	Inver Hills Community College	St Bonifacius, City
Centerville, City	Little Falls, City	St Cloud Technical College
Chaska, City	Long Lake, City	St Louis County
Dakota County Technical College	Maple Plain, City	St Paul Park, City
Detroit Lakes, City	Minnetonka Beach, City	Waite Park, City
Excelsior, City	Monticello, City	Woodland, City
	Northland Comm & Technical College	
Group 2 **Within 120 days after permit effective date**		
Anoka, City	Hutchinson, City	Nowthen, City
Anoka-Ramsey Community College	La Crescent, City	Proctor, City
Baxter, City	Lake Superior College - Duluth	Red Wing, City
Brainerd, City	Landfall, City	Shakopee, City
Buffalo, City	Lauderdale, City	South Washington WD
Champlin, City	Litchfield, City	Spring Park, City
Clay County	Mendota, City	St Joseph, City
Coon Creek WD	Midway Township	St Michael, City
Dayton, City	MN State Comm and Tech College-Moorhead	Stearns County
Dilworth, City	Moorhead, City	Tonka Bay, City
East Grand Forks, City	Mounds View, City	West St Paul, City
Elk River, City	North Oaks, City	Willernie, City
Elko New Market, City		Winona, City
Fridley, City		
Group 3 **Within 150 days after permit effective date**		
Albert Lea, City	Hennepin Technical College Eden Prairie	Owatonna, City
Anoka County	Hermantown, City	Pine Springs, City
Apple Valley, City	Hopkins, City	Plymouth, City
Austin, City	Houston County	Prior Lake, City
Bemidji, City	Hugo, City	Prior Lake-Spring Lake WSD
Benton County	Independence, City	Ramsey County Public Works
Big Lake, City	Inver Grove Heights, City	Ramsey-Washington Metro WD
Big Lake Township	Jackson Township	Redwood Falls, City
Blaine, City	La Crescent Township	Rice Creek WD
Bloomington, City	Laketown Township	Rice Lake Township
Brockway Township	Lakeville, City	Richfield, City

Brooklyn Center, City	Lake Elmo, City	Robbinsdale, City
Brooklyn Park, City	Le Sauk Township	Rochester, City
Burnsville, City	Lexington, City	Rochester Community & Tech College
Capitol Region WD	Lilydale, City	Rochester Township
Carver, City	Lino Lakes, City	Rosemount, City
Carver County	Little Canada, City	Roseville, City
Cascade Township	Loretto, City	Sauk Rapids, City
Century College	Louisville Township	Sauk Rapids Township
Chanhassen, City	Mahtomedi, City	Savage, City
Circle Pines, City	Mankato, City	Osseo, City
Cloquet, City	Maplewood, City	Otsego, City
Columbia Heights, City	Maple Grove, City	Scott County
Coon Rapids, City	Marion Township	Sherburne County
Corcoran, City	Marshall, City	Shoreview, City
Cottage Grove, City	Medicine Lake, City	Shorewood, City
Credit River Township	Medina, City	Spring Lake Park, City
Crystal, City	Mendota Heights, City	Spring Lake, Township
Dakota County	Metropolitan State University	Saint Paul College
Deephaven, City	Minden Township	St Anthony Village, City
Dellwood, City	Minnehaha Creek WD	St Cloud, City
Duluth, City	Minnesota Correctional-Lino Lakes	St Cloud State University
Duluth Township	Minnesota Correctional-St Cloud	St Joseph Township
Eagan, City	Minnetonka, City	St Louis Park, City
East Bethel, City	Minnetrista, City	St Peter, City
Eden Prairie, City	MNDOT Metro District	Stillwater, City
Edina, City	MNDOT Outstate District	Sunfish Lake, City
Empire Township	MN State University-Moorhead	U of M-Duluth
Fairmont, City	Montevideo, City	U of M-Twin Cities Campus
Falcon Heights, City	Mound, City	Vadnais Heights, City
Faribault, City	Mpls Community/Technical College	Valley Branch WD
Farmington, City	New Brighton, City	Victoria, City
Federal Medical Center	New Hope, City	Waconia, City
Fergus Falls, City	New Ulm, City	Waseca, City
Forest Lake, City	Newport City	Washington County
Gem Lake, City	Normandale Community College	Watab Township
Golden Valley, City	North Branch, City	Wayzata, City
Grant, City	North Hennepin Community College	West Lakeland Township
Ham Lake, City	North Mankato, City	White Bear Lake, City
Hastings, City	North St Paul, City	White Bear Township
Haven Township	Northfield, City	Willmar, City
Haverhill Township	Oakdale, City	Woodbury, City
Hennepin County	Olmsted County	Worthington, City
Hennepin Technical College Brooklyn Pk		

Table 2

Existing Permittees – Schedule of Permit Requirements

Permit Requirement	*Schedule*
PART II. APPLICATION REQUIREMENTS • *Submit Part 2 of the permit application with the **SWPPP** document completed in accordance with Part II.D.*	• See Table 1 above.
PART III. **STORMWATER POLLUTION PREVENTION PROGRAM (SWPPP)** • *Complete revisions to incorporate requirements of Part III.A-F into current **SWPPP**.* Part III.C Mapping and Inventory Part III.C.2 Inventory • *Complete and submit inventory in accordance with Part III.C.2.* Part III.D.6 Pollution Prevention/Good Housekeeping For Municipal Operations Part III.D.6.e Inspections • *Conduct inspections.* Part III.E **Impaired Waters** and **TMDLs** (if applicable) • Submit all information required by Part III.E. Part III.F. **Alum or Ferric Chloride Phosphorus Treatment Systems** (if applicable) • *Meet requirements for treatment systems under Part III.F.*	• Within 12 months of the date permit coverage is extended, unless other timelines have been specifically established in this permit and identified below. • Within 12 months of the date permit coverage is extended. • Annually (Part III.D.6.e(1) and (2)), Quarterly (Part III.D.6.e(3)). • With each Annual Report required in Part IV.B. • Within 12 months of the date permit coverage is extended.
PART IV. ANNUAL **SWPPP** ASSESSMENT, ANNUAL REPORTING AND RECORD KEEPING Part IV.A Annual **SWPPP** Assessment • *Conduct assessment of the **SWPPP**.* Part IV.B Annual Reporting • *Submit an Annual Report*	• Annually and prior to completion of each Annual Report. • By June 30th of each calendar year.

Table 3

New Permittees – Schedule of Permit Requirements

Permit Requirement	*Schedule*
PART II. APPLICATION REQUIREMENTS • *Submit Part 1, and Part 2 of the permit application with the proposed **SWPPP** document as required by Part II.D.*	• Within 18 months of written notification from the **Commissioner** that the **MS4** meets the criteria in Minn. R. 7090.1010, Subpart 1.A. or B. and permit coverage is required.
PART III. **STORMWATER POLLUTION PREVENTION PROGRAM (SWPPP)** • *Complete all requirements of Part III.A-F.* Part III.A Regulatory Mechanism(s) **Illicit Discharge** Detection and Elimination (see Part III.D.3)	• Within 36 months of the date permit coverage is extended, unless other timelines have been specifically established in this permit and identified below; or • Within timelines established by the **Commissioner** under Part I.F.2.

• *Develop, implement, and enforce Regulatory Mechanism.*	• Within 12 months of the date permit coverage is extended.
Construction Site **Stormwater** Runoff Control (see Part III.D.4)	
• *Develop, implement, and enforce Regulatory Mechanism.*	• Within six (6) months of the date permit coverage is extended.
Post-Construction **Stormwater** Management (see Part III.D.5)	
• *Develop, implement, and enforce Regulatory Mechanism.*	• Within 24 months of the date permit coverage is extended.
Part III.B Enforcement Response Procedures (ERPs)	
• *Develop and implement written ERPs for the Regulatory Mechanism(s) required under Part III.A.*	• Within 24 months of the date permit coverage is extended.
Part III.C Mapping and Inventory Part III.C.1 Mapping	
• *Develop a storm sewer system map.*	• Within 24 months of the date permit coverage is extended.
Part III.C.2 Inventory	
• *Complete and submit inventory in accordance with Part III.C.2.*	• Within 24 months of the date permit coverage is extended.
Part III.D Minimum Control Measures Part III.D.4 Construction Site **Stormwater** Runoff Control	
• *Develop, implement, and enforce a Construction Site **Stormwater** Runoff Control program.*	• Within six (6) months of the date permit coverage is extended. See Part III.A Regulatory Mechanism(s).
Part III.D.5 Post-Construction **Stormwater** Management	
• *Develop, implement, and enforce a Post-Construction **Stormwater** Management program.*	• Within 24 months of the date permit coverage is extended. See Part III.A Regulatory Mechanism(s).
Part III.D.6 Pollution Prevention/Good Housekeeping for Municipal Operations Part III.D.6.e Inspections	
• *Conduct inspections.*	• Annually (Part III.D.6.e(1) and (2)), Quarterly (Part III.D.6.e(3)).
Part III.E **Impaired Waters** and **TMDLs** (if applicable)	
• *Submit all information required by Part III.E.*	• With each Annual Report required in Part IV.B.
Part III.F. **Alum or Ferric Chloride Phosphorus Treatment Systems** (if applicable)	
• *Meet requirements for treatment systems under Part III.F.*	• Within 12 months of the date permit coverage is extended.
PART IV. ANNUAL **SWPPP** ASSESSMENT, ANNUAL REPORTING AND RECORD KEEPING Part IV.A Annual **SWPPP** Assessment	
• *Conduct assessment of the **SWPPP**.*	• Annually and prior to completion of each Annual Report.
Part IV.B Annual Reporting	
• *Submit an Annual Report.*	• By June 30th of each calendar year.

APPENDIX B

DEFINITIONS AND ABBREVIATIONS

The definitions in this Part are for purposes of this permit only.

1. "**Active Karst**" means geographic areas underlain by carbonate bedrock (or other forms of bedrock that can erode or dissolve) with less than 50 feet of sediment cover.

2. **"Agency"** means the Minnesota Pollution Control **Agency** or MPCA. (Minn. Stat. § 116.36, subd. 2.)

3. "**Alum or Ferric Chloride Phosphorus Treatment System**" means the diversion of flowing **stormwater** from a **MS4**, removal of phosphorus through the use a continuous feed of alum or ferric chloride additive, flocculation, and the return of the treated **stormwater** back into a **MS4** or **receiving water**.

4. "**Applicable WLA**" – means a **Waste Load Allocation** assigned to the **permittee** and approved by the USEPA.

5. "**Best Management Practices**" or **"BMPs"** means practices to prevent or **reduce** the pollution of the **waters of the state**, including schedules of activities, prohibitions of practices, and other management practices, and also includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge, or waste disposal or drainage from raw material storage. (Minn. R. 7001.1020, subp.5.)

6. **"Commissioner"** means the **Commissioner** of the Minnesota Pollution Control **Agency** or the **Commissioner**'s designee. (Minn. Stat. § 116.36, subd. 3.)

7. "**Common Plan of Development or Sale**" means a contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. One plan is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land-disturbing activities may occur.

8. "**Construction Activity**" includes **construction activity** as defined in 40 CFR § 122.26(b)(14)(x) and **small construction activity** as defined in 40 CFR § 122.26(b)(15). This includes a disturbance to the land that results in a change in the topography, existing soil cover (both vegetative and non-vegetative), or the existing soil topography that may result in accelerated **stormwater** runoff, leading to soil erosion and movement of sediment into **surface waters** or drainage systems. Examples of **construction activity** may include clearing, grading, filling, and excavating. **Construction activity** includes the disturbance of less than one acre of total land area that is a part of a larger **common plan of development or sale** if the larger common plan will ultimately disturb one (1) acre or more.

9. **"DNR Catchment Area"** means the Hydrologic Unit 08 areas delineated and digitized by the Minnesota DNR. The catchment areas are available for download at the Minnesota DNR Data Deli website. **DNR catchment areas** may be locally corrected, in which case the local corrections may be used.

10. **"Effective Date"** means the date, located on the front cover of this permit, on which this permit shall become effective.

11. **"Existing Permittee"** means an **Owner/Operator** of a **small MS4** that has been authorized to discharge **stormwater** under a previously issued **general permit** for **small MS4**s in the state of Minnesota.

12. **"General permit"** means a permit issued under Minn. R. 7001.0210 to a category of **permittees** whose operations, emissions, activities, discharges, or facilities are the same or substantially similar. (Minn. R. 7001.0010, subp.4.)

13. **"Geographic Coordinate"** means the point location of a **stormwater** feature expressed by X, Y coordinates of a standard Cartesian coordinate system (i.e. latitude/longitude) that can be readily converted to Universal Transverse Mercator (UTM), Zone 15N in the NAD83 datum. For polygon features, the **geographic coordinate** will typically define the approximate center of a **stormwater** feature.

14. **"Green Infrastructure"** means a wide array of practices at multiple scales that manage wet weather and that maintains or restores natural hydrology by infiltrating, evapotranspiring, or harvesting and using stormwater. On a regional scale, green infrastructure is the preservation or restoration of natural landscape features, such as forests, floodplains and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed. On the local scale, green infrastructure consists of site and neighborhood-specific practices, such as bioretention, trees, green roofs, permeable pavements and cisterns.

15. **"High Flow Bypass"** means a function of an inlet device that allows a certain flow of water through, but diverts any higher flows away. **High flow bypasse**s are generally used for **BMPs** that can only treat a designed amount of flow and that would be negatively affected by higher flows.

16. **"Illicit Discharge"** means any discharge to a **municipal separate storm sewer** that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the **NPDES** permit for discharges from the **municipal separate storm sewer**) and discharges resulting from firefighting activities. (40 CFR § 122.26(b)(2))

17. **"Impaired Water"** means waters identified as impaired by the **Agency**, and approved by the USEPA, pursuant to section 303(d) of the Clean Water Act (33 U.S.C. § 303(d)).

18. **"Maximum Extent Practicable"** or **"MEP"** means the statutory standard (33 U.S.C. § 1342(p)(3)(B)(iii)) that establishes the level of pollutant reductions that an **Owner** or **Operator** of **Regulated MS4s** must achieve. The USEPA has intentionally not provided a precise definition of **MEP** to allow maximum flexibility in **MS4** permitting. The pollutant reductions that represent **MEP** may be different for each **small MS4**, given the unique local hydrologic and geologic concerns that may exist and the differing possible pollutant control strategies. Therefore, each **permittee** will determine appropriate **BMPs** to satisfy each of the six Minimum Control Measures (MCMs) through an evaluative process. The USEPA envisions application of the **MEP** standard as an iterative process.

19. **"Municipal separate storm sewer system"** or **"MS4"** means a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains:

    a. owned or operated by a state, city, town, county, district, association, or other public body, created by or pursuant to state law, having jurisdiction over disposal of sewage, industrial

wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district, or drainage district or similar entity, or an Indian tribe or an authorized Indian tribe organization, or a designated and approved management **Agency** under section 208 of the federal Clean Water Act, United States Code, title 33, section 1288, that discharges into **waters of the state**

b. designed or used for collecting or conveying stormwater

c. that is not a combined sewer; and

d. that is not part of a publicly owned treatment works as defined in 40 CFR § 122.2

Municipal separate storm sewer systems do not include separate storm sewers in very discrete areas, such as individual buildings. (Minn. R. 7090.0080, subp. 8).

20. **"New development"** means all **construction activity** that is not defined as **redevelopment.**

21. **"New Permittee"** means an **Owner/Operator** of a **small MS4** that has not been authorized to discharge **stormwater** under a previously issued General **Stormwater** Permit for **small MS4**s in the state of Minnesota and that applies for, and obtains coverage under this permit.

22. **"Non-Stormwater Discharge"** means any discharge not composed entirely of **stormwater**.

23. **"Operator"** means the **person** with primary operational control and legal responsibility for the **municipal separate storm sewer system.** (Minn. R. 7090.0080, subp.10.)

24. **"Outfall"** means the point source where a **municipal separate storm sewer system** discharges to a **receiving water,** or the **stormwater** discharge permanently leaves the **permittee**'s **MS4**. It does not include diffuse runoff or conveyances that connect segments of the same stream or water systems (e.g., when a conveyance temporarily leaves an **MS4** at a road crossing).

25. **"Owner"** means the **person** that owns the **municipal separate storm sewer system**. (Minn. R. 7090.0080, subp.11.)

26. **"Permittee"** means a **person** or **persons**, that signs the permit application submitted to the **Agency** and is responsible for compliance with the terms and conditions of this permit.

27. **"Person"** means the state or any Agency or institution thereof, any municipality, governmental subdivision, public or private corporation, individual, partnership, or other entity, including, but not limited to, association, commission or any interstate body, and includes any officer or governing or managing body of any municipality, governmental subdivision, or public or private corporation, or other entity.(Minn. Stat. § 115.01, subd. 10.)

28. **"Pipe"** means a closed manmade conveyance device used to transport **stormwater** from location to location. The definition of **pipe** does not include foundation drain **pipe**s, irrigation **pipe**s, land drain tile **pipe**s, culverts, and road sub-grade drain **pipe**s.

29. **"Pollutant of Concern"** means a pollutant specifically identified in a USEPA-approved **TMDL** report as causing a water quality impairment.

30. **"Receiving Water"** means any lake, river, stream or **wetland** that receives **stormwater** discharges from an **MS4.**

31. **"Redevelopment"** means any **construction activity** where, prior to the start of construction, the areas to be disturbed have 15 percent or more of impervious surface(s).

32. **"Reduce"** means **reduce** to the **Maximum Extent Practicable** (**MEP**) unless otherwise defined in the context in which it is used.

33. **"Saturated Soil"** means the highest seasonal elevation in the soil that is in a reduced chemical state because of soil voids being filled with water. **Saturated soil** is evidenced by the presence of redoximorphic features or other information.

34. **"Significant Materials"** includes, but is not limited to: raw materials, fuels, materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any chemical the facility is required to report pursuant to Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA); fertilizers, pesticides, and waste products such as ashes, slag, and sludge that have the potential to be released with **stormwater** discharges. When determining whether a material is significant, the physical and chemical characteristics of the material should be considered (e.g. the material's solubility, transportability, and toxicity characteristics) to determine the material's pollution potential. (40 CFR § 122.26(b)(12).

35. **"Small Municipal Separate Storm Sewer System"** or **"small MS4",** means all separate storm sewers that are:

    1. Owned or operated by the United States, a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, **stormwater**, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management Agency under section 208 of the CWA that discharges to waters of the United States.

    2. Not defined as "large" or "medium" **Municipal Separate Storm Sewer Systems** pursuant to 40 CFR § 122.26 paragraphs (b)(4) and (b)(7) or designated under paragraph (a)(1)(v).

    3. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

36. **"Stormwater"** means **stormwater** runoff, snow melt runoff, and surface runoff and drainage. (Minn. R. 7090.0080, subp.12.)

37. **"Stormwater flow direction"** means the direction of predominant flow within a **pipe**. Flow direction can be discerned if **pipe** elevations can be displayed on the storm sewer system map.

38. **"Stormwater Pollution Prevention Program"** or **"SWPPP"** means a comprehensive program developed by the **permittee** to manage and **reduce** the discharge of pollutants in **stormwater** to and from the **small MS4**.

39. **"Structural Stormwater BMP"** means a stationary and permanent **BMP** that is designed, constructed and operated to prevent or **reduce** the discharge of pollutants in **stormwater.**

40. **"Total Maximum Daily Load"** or **"TMDL"** means the sum of the individual **Waste Load Allocations** for point sources and load allocations for nonpoint sources and natural background, as more fully defined in 40 CFR § 130.2, paragraph (i). A **TMDL** sets and allocates the maximum amount of a pollutant that may be introduced into a **water of the state** and still assure attainment and maintenance of **water quality standards**. (Minn. R. 7052.0010 subp. 42)

41. **"Waste Load Allocation"** or **"WLA"** means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution, as more fully defined in Code of Federal Regulations, title 40, section 130.2, paragraph (h). In the absence of a **TMDL** approved by USEPA under 40 CFR § 130.7, or an assessment and remediation plan developed and approved according to Minn. R. 7052.0200, subp. 1.C, a **WLA** is the allocation for an individual point source that ensures that the level of water quality to be achieved by the point source is derived from and complies with all applicable **water quality standards** and criteria. (Minn. R. 7052.0010 subp. 45)

42. **"Water pollution"** means (a) the discharge of any pollutant into any waters of the state or the contamination of any waters of the state so as to create a nuisance or render such waters unclean, or noxious, or impure so as to be actually or potentially harmful or detrimental or injurious to public health, safety or welfare, to domestic, agricultural, commercial, industrial, recreational or other legitimate uses, or to livestock, animals, birds, fish or other aquatic life; or (b) the alteration made or induced by human activity of the chemical, physical, biological, or radiological integrity of waters of the state. (Minn. Stat. § 115.01, subd. 13)

43. **"Water Quality Standards"** means those provisions contained in Minn. R. 7050 and 7052.

44. **"Waters of the State"** means 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. (Minn. Stat. § 115.01, subd. 22.)

45. **"Wetlands"** are those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. **Wetlands** generally include swamps, marshes, bogs, and similar areas. Constructed **wetlands** designed for wastewater treatment are not **waters of the state**. **Wetlands** must have the following attributes:

    1. A predominance of hydric soils

    2. Inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in a saturated soil condition and

3. Under normal circumstances support a prevalence of such vegetation. (Minn. R. 7050.0186, subp. 1a.B.)

ABBREVIATIONS AND ACRONYMS

- BMP - Best Management Practice
- CFR – Code of Federal Regulations
- CWA – Clean Water Act or the Federal Water Pollution Control Act, 33 U.S.C. §1251 *et seq)*
- DNR – Department of Natural Resources
- DWSMA – Drinking Water Supply Management Area
- ERPs– Enforcement Response Procedures
- IDDE - Illicit Discharge Detection and Elimination
- MCM – Minimum Control Measure
- MDH – Minnesota Department of Health
- MEP – Maximum Extent Practicable
- MS4 - Municipal Separate Storm Sewer System
- NPDES - National Pollutant Discharge Elimination System
- ORVW - Outstanding Resource Value Water
- SDS – State Disposal System
- TMDL - Total Maximum Daily Load
- TP – Total Phosphorus
- TSS - Total Suspended Solids
- USEPA - United States Environmental Protection Agency
- WLA – Waste Load Allocation

III. MPCA Communications

Minnesota Pollution Control Agency
520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300
800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

February 10, 2014

Brad Martens
City of Corcoran MS4
8200 County Rd 116
Corcoran, MN 55340

RE: Incomplete Stormwater Pollution Prevention Program Document:
City of Corcoran MS4

Dear Mr. Martens:

Thank you for submitting a Stormwater Pollution Prevention Program (SWPPP) Document to the Minnesota Pollution Control Agency (MPCA) as part of your application for the 2013 National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Small Municipal Separate Storm Sewer System (MS4) General Permit.

Pursuant to the requirements of a Minnesota Court of Appeals ruling, the MPCA is required to provide public notice and opportunity for hearing on each MS4's proposed SWPPP Document. Based on the technical review, the MPCA has determined that your SWPPP Document does not meet the minimum permit requirements; therefore, it is not ready for public notice. Accordingly, the MPCA requires that you address the following sections where staff deemed that responses were inadequate or require further clarification:

- **V.F.7. (page 16):** Per Table 2 on page 31 of the Permit, quarterly inspections of stockpiles, storage, and material handling areas must begin immediately with coverage under the new Permit, so the creation of a schedule by 12 months after that date does not meet the requirement. The application must reflect that quarterly inspections will begin occurring immediately.
- **VI.A. Compliance Schedule for an Approved Total Maximum Daily Load (TMDL) with an Applicable Waste Load Allocation (WLA) (page 16):** The City has indicated that it does not currently have any WLAs. However, the City is part of the Lake Sarah Nutrient TMDL. Please see page 11 of the MS4 TMDL WLA Master List Spreadsheet, and follow the instructions included in the document TMDL WLA Spreadsheet and TMDL Compliance Schedule.

The MPCA asks that you address these issues within seven days. If you do not believe you can resolve the issues in this timeframe, you will need to develop a reasonable schedule. The MPCA is willing to provide technical assistance to help you revise and complete your SWPPP Document. Please contact me at 651-757-2881 or e-mail claudia.hochstein@state.mn.us if you have any questions. When you have made your changes, return the revised SWPPP Document to me via email at claudia.hochstein@state.mn.us.

Sincerely,

Claudia Hochstein

This document has been electronically signed.

Claudia Hochstein
Pollution Control Specialist
Stormwater Section
Municipal Division

cc: Susan Nelson, Wenck Associates, Inc.
City of Corcoran MS4 File

Minnesota Pollution Control Agency
520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300
800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

3/6/2014

Brad Martens
City of Corcoran MS4
8200 County Rd 116
Corcoran, MN 55340

RE: Public Notice of Municipal Separate Storm Sewer System General Permit SWPPP Document: City of Corcoran MS4

Dear Mr. Martens:

The staff of the Municipal Division of the Minnesota Pollution Control Agency (MPCA) has finished its technical review of your Municipal Separate Storm Sewer System (MS4) Permit Application (Application) and Stormwater Pollution Prevention Program (SWPPP) Document for coverage under the National Pollutant Discharge Elimination System/State Disposal System General Permit MNR040000 for MS4s (Permit). MPCA staff has determined that your application is complete and ready to move into the next stage of the re-application process.

Pursuant to the requirements of a Minnesota Court of Appeals ruling, the MPCA is required to provide public notice and opportunity for hearing on each MS4's proposed SWPPP Document. Based on the technical review, the MPCA has determined that your SWPPP Document meets or exceeds the minimum permit requirements; therefore, it is ready for public notice. Accordingly, the MPCA plans to place the Application and SWPPP Document for City of Corcoran MS4 on a 30-day public notice comment period from March 11, 2014 to April 10, 2014**.**

As a reminder, you are required to have your Application and SWPPP Document available locally for public review. The MPCA recommends that a hard copy be made available at more than one location, including your office, public library, or other supervised public facility. The MPCA will also post a copy of the SWPPP Document on the MPCA's Stormwater Wiki. A link to this website will be included in the notice placed on the MPCA's public notice webpage.

The MPCA will receive all comments and forward them to you immediately. Following the public notice period, you will be required to provide resolution, including justification of why or why you are not modifying your SWPPP Document, for all comments submitted. These responses will be sent to the MPCA, which will review the responses and any SWPPP Document modifications before forwarding responses to commenters and issuing Permit coverage. The MPCA requests that responses be returned to the MPCA within one week of the public notice period end date. For any complex or difficult comments, the MPCA requests that at least a schedule for resolution is submitted within one week of the public notice period end date.

More information on the public notice process for MS4 SWPPP Documents is available on the MPCA website at: http://www.pca.state.mn.us/bkzqa7d.

Please contact Claudia Hochstein at 651-757-2881 if you have any questions.

Sincerely,

Duane Duncanson

This document has been electronically signed.

Duane Duncanson
Supervisor, Municipal Compliance Unit I
St. Paul Office
Municipal Division

cc: Susan Nelson, Wenck Associates
City of Corcoran MS4 File

Minnesota Pollution Control Agency
520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300
800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

April 17, 2014

Brad Martens
City of Corcoran
8200 County Rd 116
Corcoran, MN 55340

RE: Issuance of Coverage under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Permit MNR040000 for Municipal Separate Storm Sewer Systems for City of Corcoran MS4

Dear Mr. Martens:

In accordance with Minn. R. 7001.0140, the Commissioner of the Minnesota Pollution Control Agency (MPCA) has made a final determination to issue coverage under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Permit MNR040000 for Municipal Separate Storm Sewer Systems (MS4 General Permit) to the City of Corcoran, effective April 17, 2014. Please find enclosed a copy of the above referenced MS4 General Permit.

The MPCA's final decision to issue permit coverage is based on the following:

- MPCA staff has reviewed your MS4 General Permit application and Stormwater Pollution Prevention Program (SWPPP) Document.
- Public notice and opportunity for comment on your MS4 General Permit application and SWPPP Document has been provided, and no comments were received.

As you know, it is the responsibility of the MS4 owner and/or operator to comply with the requirements of the MS4 General Permit and your SWPPP Document. This issuance of coverage does not preclude the MPCA from following up with an inspection or audit to verify compliance with the MS4 General Permit and SWPPP Document. Also, be aware that as a condition of recordkeeping, Part IV.C.3. of the MS4 General Permit requires that the permittee retain their SWPPP Document and all records pertinent to it for at least three (3) years beyond the term of the MS4 General Permit.

In addition, for an MS4 that was covered under the previous MS4 General Permit (issuance date June 1, 2006), coverage under that permit is terminated on the coverage date as specified above. An MS4 covered under the new MS4 General Permit is required to report on activities that were required or committed to under the previous permit.

Finally, the MPCA thanks you for your cooperation in the permitting process. Please retain this letter as documentation of your MS4 General Permit coverage under the NPDES/SDS Permit MNR040000.

Please contact MS4 team member Claudia Hochstein at 651-757-2881 with any questions.

Sincerely,

Duane Duncanson

This document has been electronically signed.

Duane Duncanson
Supervisor, Municipal Compliance Unit I
St. Paul Office
Municipal Division

cc: Susan Nelson, Wenck Associates
City of Corcoran MS4 File

IV. Partnerships

The City of Corcoran has no formal partnerships with other regulated small MS4s to help satisfy the requirements of this permit. However, the City may use educational materials offered by area watershed districts and county, state, and federal agencies.

V. Regulatory Mechanisms

The City's regulatory mechanisms for illicit discharges, construction site stormwater runoff control, and post-construction stormwater management are presented on the following pages.

Within 12 months of the permit effective date, the City will revise its ordinance(s) to meet all of the requirements of Permit part III.D.5.a. This includes the following:

- *Conditions for post -construction stormwater management*
- *Stormwater management limitations and exceptions*
- *Mitigation provisions*
- *Long-term maintenance of structural stormwater BMPs*

Regarding long-term maintenance of BMPs: Using easements and developer agreements, Corcoran assumes responsibility for long-term maintenance of all structural stormwater BMPs. It is the City's understanding that no further legal mechanisms would be required to meet the intent of the permit requirement to ensure long-term maintenance of BMPs.

April 2015 Update:

City ordinances provide the regulatory mechanisms for illicit discharges, construction site stormwater runoff control, and post-construction stormwater management . The illicit discharge ordinance is Title V, Chapter 50 of the municipal code. Corcoran's Subdivision Ordinance, Title IX, Section 950, part J, addresses all of the current requirements for erosion control by requiring practices to comply with "the MPCA's Best Management Practices and all applicable NPDES Phase II construction site permit requirements."

VI. Enforcement Response Procedures

The City's enforcement response procedures are presented on the following pages.

Storm Water Pollution Prevention Program

Enforcement Response Procedure (ERP)

Enforcement actions may be necessary if any of the following requirements are violated:

City Ordinances; including but not limited to:

- Title IV: Construction Regulations
- Title V: Chapter 50: Storm Water Illicit Discharge
- Title IX: Subdivision Ordinance: Most notably Sections: 945, 950, 960, etc.
- Title X: Zoning Ordinance: Most notably Sections: 1030, 1050, 1060, 1070, etc.

Project specific Permit, Site or Grading Plan, or Erosion Control Plan approvals
Development Contracts
Engineering/Design Standards
Any other referenced BMPs or Standards.
All local, county, state and federal regulations

All complaints must be forwarded to and documented by the Code Compliance Official. This information shall be filed and tracked under *Code Enforcement - Master Complaint Log*.
If there is a threat to life or property, call 911 immediately.

Required for documentation:

a. Responsible party (violator) and/or Property owner
b. Location of observed violation(s)
c. Date of observation
d. Description of violation (please reference relevant code section, permit or site plan approval conditions, standards, or development agreement)
e. Site photos
f. Corrective actions required
g. Date of notification and type (e.g. written notice, citation, stop work order, etc.)
h. Referrals to other regulatory authorities (e.g. ECWMC/County, MPCA/State, etc.)
i. Follow-up inspection dates and findings
j. Date violation(s) resolved

Procedures:

1. Take complaint/concern; Set-up complaint file; Complete required documentation
2. Conduct a site inspection and investigation; include all necessary staff members
3. Complete report; include photos and description of violation(s)
4. Refer to other regulatory authorities as needed (see ***h.*** above). If referred to another authority, continue to work with authority through completion. Request copies of all correspondence. Document as required. *(The other authority may complete steps 5 and 6)*
5. Determine necessary corrective actions required
6. Send or give notice (see ***g.*** above)
7. Continue to document any inspections and changes
8. Document date of final inspection/resolution

EXAMPLE MASTER COMPLAINT LOG

Complaint #	Date Received	Home Owner Name	House #	Address	Type of Complaint	Site Inspected/ Date	1st Notice	2nd Notice	Referrals	Summary

VII. Storm Sewer System Maps, Inventory, and Inspection Form

With assistance from the City's engineering consultant, Corcoran's Public Works staff maintains an inventory and maps of the City's storm drainage system. Each feature in the inventory has a unique ID number and geographic coordinates. The system is inspected at the frequency required by the permit:

- Structural pollution control devices: annually
- Ponds and outfalls: at least once every five years.
- Stockpiles and material storage and handling areas: quarterly

An average of 20% of the system is inspected each year using forms to report location, condition, required maintenance, quality of discharge (including illicit discharge) and other information.

The most current inventory is presented on the following pages.

VIII. Minimum Control Measures

Minimum Control Measure 1
Public Education and Outreach

Program Description

Corcoran's stormwater education and outreach program offers several opportunities to learn about stormwater pollution prevention:

1. The City sends all residents and businesses periodic (3x/yr) newsletters that often include articles about stormwater pollution prevention. Topics have included illicit discharge recognition and reporting, septic system maintenance, lawn care practices, recycling and clean-up, and general information about stormwater pollution prevention.

2. Corcoran has offered annual meetings inviting the public to learn about and comment on the city's SWPPP. Notices of the meetings are published in the official newspaper (with 30 days' notice) and posted at City Hall.

3. The City uses its website to post a variety of environmental information, including information about its annual cleanup day, recycling, yard waste, septic systems, rain gardens, and links to several stormwater-related brochures, including Ten Things You Can Do to Improve Minnesota's Lakes, Rivers, and Streams.(Look under the Environmental section at www.ci.corcoran.mn.us.)

4. The City has several brochures about stormwater quality available at City Hall. The City continually seeks new information from the watershed district, the MPCA, the EPA, the University of Minnesota Extension Service, and other sources.

5. To anyone who homesteads, the City offers a packet including stormwater brochures and information about lawn care practices and other stormwater-related issues. The contents of the packet are evaluated periodically and updated as new publications become available from the watershed district, MPCA, U of M extension service, or other organizations.

High-priority topics for educational materials or equivalent outreach

Information about the following high-priority topics will be posted on the City's website, published at least once a year in the City's newsletter, and included in each new-resident packet.

1. Illicit discharge detection and elimination
2. Septic systems
3. Lawn care practices that minimize water pollution

Implementation Plan

1. Target audience: City of Corcoran residents, business owners, business employees
2. Responsible person: Brad Martens, City Administrator/Treasurer
3. Activities and schedules to meet measurable goals
    a. Measurable goals:
        i. Publish newsletter at least twice per year
        ii. Hold annual meeting regarding the city's SWPPP
        iii. Continue to update website with stormwater-related information as it becomes available. *Record number of hits?*
        iv. Continue to update selection of educational materials at City Hall. Record quantities and descriptions of educational materials distributed, including dates, if applicable.
        v. Publish information about high priority topics on City's website
        vi. At least once per year, publish information about high-priority topics in City newsletter.
        vii. Include information about high-priority topics in new-resident packets.
    b. Schedule of activities:
        i. January 31, 2014: Choose high-priority stormwater-related topic(s) in addition to illicit discharge detection and elimination.
        ii. March 31, 2014:
            1. Develop or select at least one article, flyer, brochure, or other educational piece focused on high-priority topics
            2. Develop a plan to annually evaluate the effectiveness of its public education program.
4. Coordination with other stormwater education and outreach programs
   The City of Corcoran website includes links to various sources of information about stormwater pollution prevention:
    a. Clean Water Minnesota
    b. BlueThumb.org
    c. Various brochures from BlueThumb and other sources
5. Annual evaluation
    a. The city will develop a stormwater page on its website that includes a variety of educational materials and an opportunity for feedback. The city's goal is to increase the number of hits and the amount of positive feedback annually. Annual evaluation will occur in October each year.

Educational Materials Distributed		
Date	**Description**	**Quantity**
Ongoing	Design a Native or Rain Garden in Your Backyard http://www.ci.corcoran.mn.us/index.asp?SEC=EDE48178-C496-4484-8E67-232FBA840F72&DE=F8746D74-6AD9-44B5-8250-B0528693D8C5&Type=B_BASIC	City web site
Ongoing	After the Storm: A Citizen's Guide to Understanding Stormwater http://www.epa.gov/owow/weatherchannel/after_the_storm-read2.pdf	Link on City web site
Ongoing	Lawn Fertilizer Law http://www.ci.corcoran.mn.us/vertical/sites/%7BA13DB5FF-43A9-4A27-A5A0-44E78D9C28BC%7D/uploads/%7BB7033B8E-C7EA-4ABF-94E1-EBC423E6C797%7D.PDF	City web site
Ongoing	Native Plants for Gardens, Raingardens & Shoreline Stabilization http://www.ci.corcoran.mn.us/vertical/sites/%7BA13DB5FF-43A9-4A27-A5A0-44E78D9C28BC%7D/uploads/%7B1BA6574E-8BB0-4866-AAE9-CFD11CBA37E2%7D.PDF	City web site
Ongoing	What is a Watershed? http://www.ci.corcoran.mn.us/vertical/sites/%7BA13DB5FF-43A9-4A27-A5A0-44E78D9C28BC%7D/uploads/%7B75121EC8-25CE-49D9-90FD-51B3FADC19E2%7D.PDF	City web site
Ongoing	Ten Things You Can Do To Improve Minnesota's Lakes, Rivers, and Streams http://www.ci.corcoran.mn.us/vertical/sites/%7BA13DB5FF-43A9-4A27-A5A0-44E78D9C28BC%7D/uploads/%7B18441494-4E7B-417A-A090-984BA1EDD40A%7D.PDF	City web site
Ongoing	Ten Things You Can Do To Improve Minnesota's Lakes, Rivers, and Streams	250 delivered to City Hall on 4/28/14
Ongoing	Guide to Creating a Healthy Yard – A Traditional Yard and its Problems http://www.ci.corcoran.mn.us/vertical/sites/%7BA13DB5FF-43A9-4A27-A5A0-44E78D9C28BC%7D/uploads/yard_problems.jpg	City web site

Annual Evaluation of Stormwater Education Program

Date: 10/21/15

Goal	Comments
Evaluate high-priority topics (illicit discharge, septic systems, lawn care practices).	Lawn care practices becoming more important with development.
At least once per year, publish information about high-priority topics in City newsletter.	Add extra newsletter in 2016 ~~from~~ (4 per year)
Continue to update selection of educational materials at City Hall. Record quantities and descriptions of educational materials distributed, including dates, if applicable.	13 packets of info given away at Country Daze. Some commented that they would rather look at website. ~~Need kid-oriented materials~~.
Include information about high-priority topics in new-resident packets.	Need to review info. included in packets.
Develop a stormwater page on the City website that includes a variety of educational materials and an opportunity for feedback. The city's goal is to increase the number of hits and the amount of positive feedback annually.	Need to revisit.

Changes to SWPPP or other actions taken as a result of the evaluation:

- Review materials in new-resident packets.
- Develop kid-oriented mat'ls for Country Daze
- Draft article re: manure mgmt for newsletter
- Revisit website tracking.

Minimum Control Measure 2
Public Participation and Involvement

Responsible Person
Brad Martens, City Administrator/Treasurer

Program Description

Corcoran has implemented several practices to encourage public participation and involvement:

1. The Parks and Trails Commission invites citizens to serve on the Commission or attend its meetings to discuss and implement natural resources projects set within the City's Comprehensive Plan.
2. Annual Cleanup Day in early spring provides citizens an opportunity to bring non-hazardous waste to the City for proper disposal. Brochures are available during Cleanup Day to educate citizens about lawn care, recycling, and other stormwater-related issues.
3. Several phone numbers (city, county) are provided in the City newsletter and website for residents to report illicit discharges, comment on the City's SWPPP, or report concerns about runoff from construction sites. The City also documents any complaint calls received and the follow-up actions taken.
4. The City has held annual meetings regarding its SWPPP.Thirty-day notice is provided in the official newspaper and at City Hall. Revisions to the SWPPP are considered if any written or oral comments are received.
5. The City's Planning Commission provides Commission members and the public opportunities to review and comment on development plans and city growth. Post-construction input also is received by the Planning Commission.
6. Public hearings, public information meetings, and public participation committees are organized as needed to invite questions, comments, or input on ordinance reviews, comprehensive planning, and public education and outreach, and other City matters.
7. Open forum at the start of each City council meeting (twice monthly) provides an opportunity for citizens to discuss any issues, including the City's SWPPP.

<u>Annual public meeting dates:</u>

2014: June 26, 2014

2015: A PowerPoint presentation about stormwater pollution prevention is posted on the City’s web site and will be advertised in the City newsletter. The public will also have an opportunity to participate at the annual Corcoran Country Daze in August, when the City will provide handouts, flyers, or other materials that teach stormwater pollution prevention.

2016:

2017:

2018:

Minimum Control Measure 3
Illicit Discharge Detection and Elimination

Responsible Person

Pat Meister, Public Works Superintendent

Program Description

Corcoran has established the following Best Management Practices with respect to illicit discharge detection and elimination:

1. Storm sewer map: The City has developed a map of all ponds, lakes, ditches and pollution control devices, and all pipes greater than or equal to 24" in diameter.
2. Education regarding septic system maintenance: Hennepin County has jurisdiction for septic system permitting and inspection, but Corcoran provides information on its website, at City Hall, and in new-resident packets about septic system maintenance.
3. Nuisance ordinance: Corcoran's ordinance prohibits illegal dumping or littering on public and private property, including the pollution of public water bodies. The ordinance includes enforcement measures and penalties for noncompliance.
4. Recycling program: Corcoran contracts with a waste collector for curb-side, single-sort recycling.
5. Illicit discharge detection and elimination ordinance: Corcoran's ordinance prohibits illicit discharges into its storm drainage system and establishes enforcement measures and penalties.
6. Illicit discharge inspection program: Corcoran inspects an average of at least 20% of its ponds, outfalls, and sediment basins yearly during dry-weather conditions for non-stormwater discharges and illicit connections.
7. Road stabilization program: The City annualy applies magnesium/calcium chloride to gravel roads to control dust and reduce sedimentation of water bodies

Tasks and schedule:

Within 12 months of the permit effective date, the City will update its program as needed to identify priority areas likely to have illicit discharges. As explained in the section for Storm Sewer System Map and Inventory, the City will also review its maps and inventory to ensure it includes all pipes 12" or greater,record geographic coordinates of all features of its MS4, and submit the Pond Inventory Form.

April 2015 Update:
High-priority areas in Corcoran are commercial and industrial areas and active construction sites, especially after rainfall of 0.5 inches or more.

MINNESOTA DUTY OFFICER

BCA Operations Center

651-649-5451 **1-800-422-0798**

TDD: 1-800-627-3529 **Satellite Phone: 1-254-543-6490**

About the Duty Officer

The Minnesota Duty Officer Program provides a single answering point for local and state agencies to request state-level assistance for emergencies, serious accidents or incidents, or for reporting hazardous materials and petroleum spills. The duty officer is available 24 hours per day, seven days per week.

If there is an immediate threat to life or property, call 911 first.

When to Call the Duty Officer

Examples of incidents the duty officer can assist with include (but are not limited to):

- Natural disasters (tornado, fire, flood etc)
- Requests for National Guard
- Hazardous materials incidents
- Search and rescue assistance
- AMBER Alerts
- Requests for Civil Air Patrol
- Radiological incidents
- Aircraft accidents/incidents
- Pipeline leaks or breaks
- Substances released into the air

Agency Resources Available

State Agencies

- Department of Agriculture
- Department of Commerce
- Department of Education
- Department of Health
- Department of Human Services
- Department of Military Affairs
- Department of Natural Resources
- Department of Transportation
- Minnesota Office of Enterprise Technology
- Minnesota Pollution Control Agency
- Department of Public Safety
  - Bureau of Criminal Apprehension
  - Homeland Security and Emergency Management
  - Minnesota Joint Analysis Center
  - Minnesota State Patrol
  - Office of Pipeline Safety
  - State Fire Marshal
- Other state agencies not listed

Other Resources

- Minnesota Arson Hotline
- Local bomb squads
- Chemical assessment teams
- Emergency response teams
- Fire and rescue mutual aid
- Amateur radio (ARES/RACES)
- Minnesota voluntary organizations
- Fire chiefs assistance teams
- Search-and-rescue dogs
- Interagency Fire Center
- U.S. Air Force Search and Rescue Center

MINNESOTA DUTY OFFICER

BCA Operations Center

1-800-422-0798 **FAX: (651) 296-2300** **(651) 649-5451**

Satellite Phone: 1-254-543-6490

Emergency Notification

If there is a spill of a hazardous material or a petroleum product in Minnesota, you must call:

Local Authorities	**Call 9-1-1 FIRST,** *when there is a threat to life or property*
Minnesota Duty Officer	*If there is a public safety or environmental threat and/or if state agency notification for reportable spills is required*
The National Response Center 1-800-424-8802	*When a federal notification is required*

The following information (if available) will be requested by the Minnesota Duty Officer:

- Name of caller
- Date, time and location of the incident
- Telephone number for call-backs at the scene or facility
- Whether local officials (fire, police, sheriff) have been notified of incident

Additional information will be requested in the following special circumstances:

Making Notification of Spills/Incidents

- Materials and quantity involved in incident
- Incident location (physical address, intersection, etc.)
- Responsible party of incident (property/business owner)
- Telephone number of responsible party
- Any surface waters or sewers impacted
- What has happened and present situation

Requesting State Assistance for Incidents

- Type of assistance requested (informational, specialized team **a**ssets, etc).
- Name of requesting agency/facility
- Materials, quantity and personnel involved in the incident
- Whether all local, county, mutual aid resources been utilized

Table of Contents

Introduction to Illicit Discharge Detection & Elimination (IDDE)

An illicit discharge is "Any discharge to a municipal separate storm sewer that is not composed entirely of storm water, except discharges pursuant to a National Pollutant Discharge Elimination System (NPDES) permit and discharges resulting from fire-fighting activities." (NOTE: there are several types of NPDES permits and their intent is to authorize discharges provided permit requirements, such as effluent limits, are being met.)

These are two categories of illicit discharges, as follows:

- TRANSIENT – Short in duration, lasting only a short time and then disappearing.
    - Examples of *Direct* transient illicit discharges include:
        - A straight pipe from an unpermitted industrial facility that discharges washwater or process water; and
        - A floor drain that is connected to the storm sewer.
    - Examples of *Indirect* transient illicit discharges include:
        - Materials that have been dumped into a storm drain inlet or catch basin (Figure 1),
        - An old or damaged sanitary sewer line that is leaking fluids into groundwater that then seeps into a storm sewer line or drainage way, and
        - A failing septic system that is leaking into a cracked storm sewer line.
- CONTINUOUS – Continuing without changing, stopping, or being interrupted. Examples include:
    - Sanitary wastewater piping that is cross-connected from a building or sanitary sewer line to the storm sewer,
    - A broken sanitary line (Figure 2), and
    - An industrial operational discharge that doesn't meet permit requirements.

Illicit discharges are considered "illicit" because storm sewer systems, unlike sanitary sewer systems, are not designed to accept, treat, or discharge non-storm water wastes.

Figure 1. Indirect, transient discharge: concrete slurry discharges from storm drain outfall to stream.

Figure 2. Direct, continuous discharge: broken sanitary line.

Federal requirements

Established in 1972 and amended in 1977 and 1987, the Clean Water Act (CWA) is the primary federal law governing water pollution. The Act requires states to set clean water standards to protect uses such as swimming, fishing, and drinking, and for the regulation of pollution discharges. The CWA initially focused on addressing water quality issues caused by point sources of pollution (e.g., wastewater treatment plants and industry) by making it unlawful to discharge any pollutant into navigable waters, unless a permit was obtained under its provisions. These permits, known as National Pollutant Discharge Elimination System (NPDES) permits, prevent the degradation of water quality by limiting pollution discharges to what can be safely assimilated by the environment. In 1987, the CWA was expanded to include non-point sources of urban pollution by requiring municipalities with separate storm sewer systems (referred to as "MS4s") to be permitted. Phase I of these permits, issued in 1990, requires medium and large cities or certain counties with populations of 100,000 or more to obtain NPDES permit coverage for their stormwater discharges. Phase II, issued in 1999, requires regulated small MS4s in urbanized areas, as well as small MS4s outside the urbanized areas that are designated by the permitting authority, to obtain NPDES permit coverage for their stormwater discharges. Generally, Phase I MS4s are covered by individual permits and Phase II MS4s are covered by a general permit. Each regulated MS4 is required to develop and implement a stormwater management program to reduce the contamination of stormwater runoff and prohibit illicit discharges.

What is required?

Recognizing the adverse effects illicit discharges can have on receiving waters, the Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement and enforce an illicit discharge detection and elimination (IDDE) program, which is one of six minimum measures required under the Phase II stormwater program. The IDDE program must include the following:

- A storm sewer system map, showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls;
- Through an ordinance, or other regulatory mechanism, a prohibition (to the extent allowable under State, Tribal, or local law) on illicit discharges into the MS4, and appropriate enforcement procedures and actions;
- A plan to detect and address illicit discharges, including illegal dumping, into the MS4;
- The education of public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste; and
- The determination of appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

This document provides guidance on procedures for detecting and tracking illicit discharges through a desktop assessment of illicit discharge potential, field screening of outfalls to detect illicit discharges and drainage area investigations to locate and remove the source of the discharge.

For more information…

- EPA's Best Management Practices (BMPs) and Resources for IDDE: http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=3
- Brown, E., Caraco, D., and Pitt, R. 2004. *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessment*. Center for Watershed Protection and University of Alabama. EPA X-82907801-0.U.S. EPA Office of Wastewater Management, Washington, D.C. Available at: http://cfpub.epa.gov/npdes/docs.cfm?program_id=6&view=allprog&sort=name#iddemanual

Illicit Discharge Detection and Tracking Procedures

Overview

This document outlines a common framework through which communities can develop a comprehensive plan to identify and eliminate dry weather illicit discharges to their separate storm sewer systems. The primary steps to identify illicit discharges and track their sources include: 1) conduct a desktop assessment of illicit discharge potential to identify priority locations for screening, 2) conduct field screening of outfalls in priority subwatersheds, and 3) conduct drainage area and storm drain investigations to identify the source(s) of all confirmed illicit discharges. Protocols for each step are described below. Further detail is provided in Brown et al. (2004).

Desktop assessment of illicit discharge potential

A desktop assessment of illicit discharge potential (IDP) uses mapping and other available data to determine the potential severity of illicit discharges within a community, and identifies which subwatersheds or generating land uses merit priority investigation. This assessment, recommended by Brown et al. (2004) provides insight on how to narrow your illicit discharge search, and is helpful when designing a discharge tracking system to best suit your needs. The desktop assessment draws on existing background data and anecdotal information to initially characterize IDP at the subwatershed level. Subwatersheds are then screened based on their composite score, and are designated as having a low, medium or high risk:

- Low – no known illicit discharge problems in the subwatershed.
- Medium– problems are confined to a few stream reaches, outfalls or specific generating sites in the subwatershed.
- High – Problems are suspected to be severe throughout the subwatershed.

The recommended scale for desktop assessments is the subwatershed or sewershed, which typically range from two to 10 square miles in area. Next, mapping, monitoring and other data are analyzed to identify subwatersheds with the greatest potential to contribute illicit discharges. The analysis can encompass up to 10 different screening factors. The desktop assessment consists of five basic steps:

Step 1: Delineate subwatersheds – This step may already be completed. If not, hydrologic, infrastructure and topographic map layers are needed to delineate the boundaries. Guidance on the techniques for accurately delineating subwatershed boundaries can be found in United States Geological Survey 2009 Federal Guidelines, Requirements, and Procedures for the National Watershed Boundary Dataset: ftp://ftp-fc.sc.egov.usda.gov/NCGC/products/watershed/hu-standards.pdf. The use of digital elevation models (DEMs) and GIS can also make subwatershed delineation an easier and faster, automated process.

Step 2: Compile mapping layers and subwatershed data – This step is best accomplished with the use of Geographic Information System (GIS). If GIS is not available, consider the use of Google Maps or other free mapping software. A list of suggested data can be found in Table 1 (from Brown et al. 2004).

Table 1: Useful Data for the Desktop Assessment of Illicit Discharge Potential

	Data	Likely Format
Recommended	Aerial photos or orthophotos	Digital map
	Subwatershed or catchment boundaries	Digital or hardcopy map
	Hydrology including piped streams	Digital or hardcopy map
	Land use or zoning	Digital or hardcopy map
	NPDES storm water permittees	Digital data or map
	Outfalls	Digital or hardcopy map
	Sewer system, 1" = 200' scale or better	Digital or hardcopy map
	Standard Industrial Classification codes for all industries	Digital or hardcopy data
	Storm drain system, 1" = 200' scale or better	Digital or hardcopy map
	Street map or equivalent GIS layers	Digital or hardcopy map
	Topography (5 foot contours or better)	Digital or hardcopy map
Optional	Age of development	Narrative data
	As-builts or construction drawings	Hardcopy map
	Condition of infrastructure	Narrative data
	Field inspection records	Hardcopy or digital data
	Depth to water table and groundwater quality	Digital data or maps
	Historical industrial uses or landfills	Narrative data or hardcopy map
	Known locations of illicit discharges (current and past)	Narrative data or digital map
	Outfall and stream monitoring data	Digital data
	Parcel boundaries	Digital or hardcopy map
	Pollution complaints	Narrative data
	Pre-development hydrology	Narrative data or hardcopy map
	Sanitary sewer Infiltration and Inflow (I/I) surveys	Hardcopy or digital data
	Septic tank locations or area served by septic systems	Hardcopy or digital map
	Sewer system evaluation surveys	Hardcopy or digital data
	Thermal imaging data	Digital data

Step 3: Compute discharge screening factors – Potential discharge screening factors are illustrated in Table 2.

Step 4: Screen for illicit discharge potential at the subwatershed and community level - Select the group of screening factors that apply most to your community, and assign them a relative weight. Next, points are assigned for each subwatershed based on defined scoring criteria for each screening factor. The total subwatershed score for all of the screening factors is then used to designate whether it has a low, medium or high risk to produce illicit discharges (Figure 3).

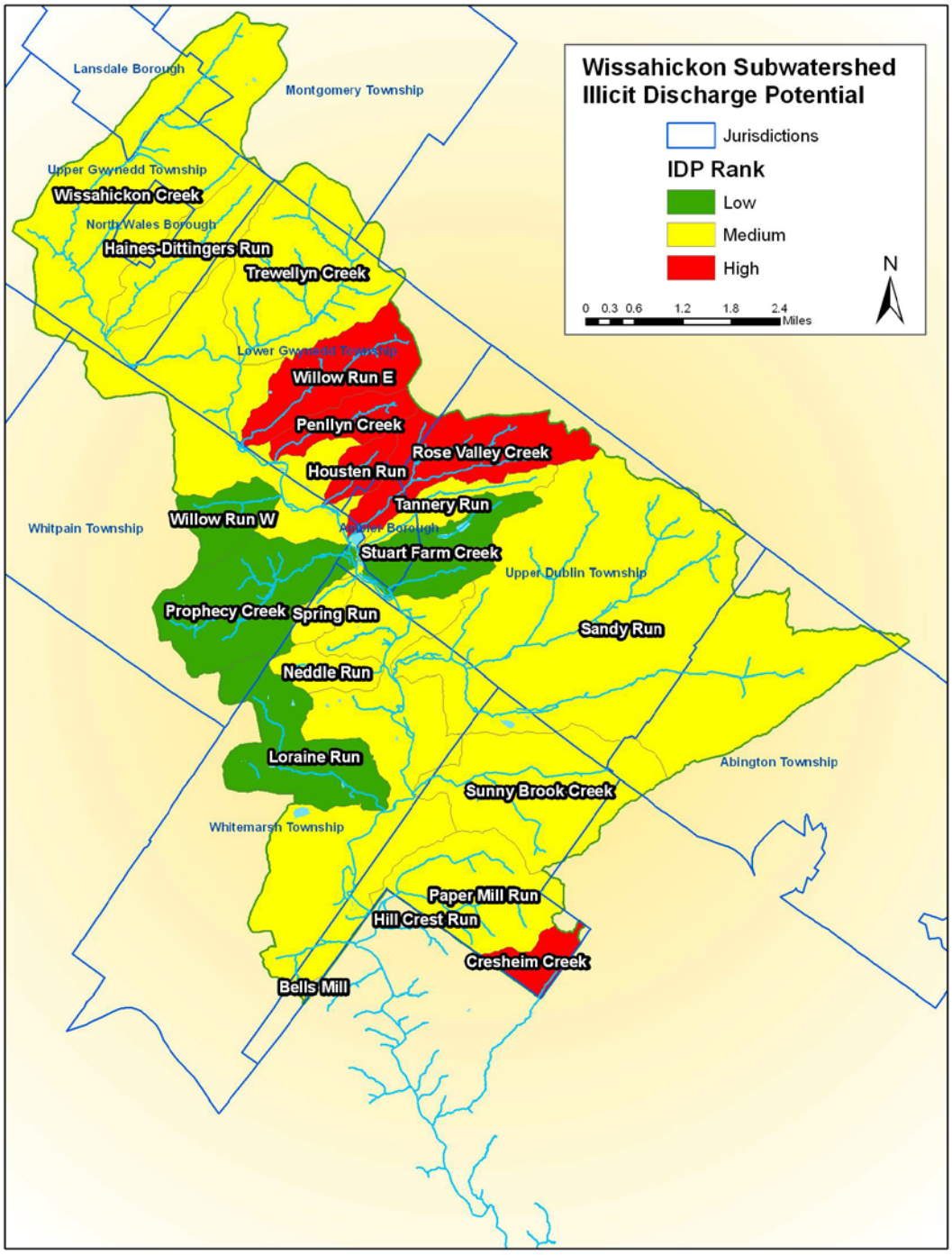


Figure 3. Illicit discharge potential analysis of the Wissahickon watershed in southeastern Pennsylvania.

Table 2: Defining Discharge Screening Factors in a Community	
Discharge Screening Factors	**Defining and Deriving the Factor**
1. Past Discharge Complaints and Reports	Frequency of past discharge complaints, hotline reports, and spill responses per subwatershed. Any subwatershed with a history of discharge complaints should automatically be designated as having high IDP.
2. Poor Dry Weather Water Quality	Frequency that *individual* samples of dry weather water quality exceed benchmark values for bacteria, nutrients, conductivity or other predetermined indicators. High risk if two or more exceedances are found in any given year.
3. Density of Generating Sites or Industrial NPDES Storm Water Permits	Density of more than 10 generating sites or five industrial NPDES storm water sites per square mile indicates high IDP. Density determined by screening business or permit databases.
4. Storm Water Outfall Density	Density of mapped storm water outfalls in the subwatershed, expressed as the average number per stream or channel mile. A density of more than 20 outfalls per stream mile indicates high IDP.
5. Age of Subwatershed Development	Defined as the average age of the majority of development in a subwatershed. High IDP is often indicated for developments older than 50 years. Determined from tax maps and parcel data, or from other known information about neighborhoods.
6. Sewer Conversion	Subwatersheds that had septic systems but have been connected to the sanitary sewer system in the last 30 years have high IDP.
7. Historic Combined Sewer Systems	Subwatersheds that were once served by combined sewer system but were subsequently separated have a high IDP.
8. Presence of Older Industrial Operations	Subwatersheds with more than 5% of its area in industrial sites that are more than 40 years old are considered to have high IDP. Determined from historic zoning, tax maps, and “old-timers.”
9. Aging or Failing Sewer Infrastructure	Defined as the age and condition of the subwatershed sewer network. High IDP is indicated when the sewer age exceeds design life of its construction materials (e.g., 50 years) or when clusters of pipe breaks, spills, overflows or I/I are reported by sewer authorities.
10. Density of Aging Septic Systems	Subwatersheds with a density of more than 100 older drain fields per square mile are considered to have high IDP. Determined from analysis of lot size outside of sewer service boundaries.

Table 2: Defining Discharge Screening Factors in a Community	
Discharge Screening Factors	**Defining and Deriving the Factor**
11. Thermal Anomalies	Thermal imaging data records images of heat radiating from the Earth's surface by aircraft equipped with an infrared video camera, which is similar to the technology used in night vision aids. Ground and stream surfaces tend to have fairly constant temperatures, so lighter (warmer) areas are readily identified as "thermal anomalies. Some of these anomalies may represent problems with the sewer system or sources of water pollution, but others may be caused by natural conditions, such as groundwater discharge. Subwatersheds with thermal anomalies can be considered to have higher IDP than those without them.

Step 5: Generate maps to support field investigations - Create relatively simple maps that show streams, channels, streets, landmarks, property boundaries and known outfall locations. Provide enough information so crews can find their way in the field without getting lost, but otherwise keep them uncluttered. Low altitude aerial photos are also a handy resource when available.

Consult Brown et al. (2004) for more detail on the desktop assessment.

Field screening of outfalls

Illicit discharges can be detected in several ways: citizen complaints, during regular outfall screening and during other routine activities conducted by staff. This section describes a protocol to be used during regular outfall screening, although sampling procedures to be followed at the outfall do not differ greatly based on the type of detection. Adapted from Brown et al. (2004), the protocol relies primarily on visual observations and the use of field test kits and portable instrumentation during dry weather to complete a thorough inspection of the communities' storm sewers in a prioritized manner. The protocol is applicable to most typical storm sewer systems; however, modifications to materials and methods may be required to address situations such as open channels, piped stream networks, systems impacted by sanitary sewer overflows, or situations where groundwater, backwater or tidal conditions preclude or confound adequate inspection. The primary focus of the protocol is sanitary waste, however, toxic and nuisance discharges may also be identified. Implementation of the protocol would satisfy the relevant conditions under Minimum Control Measure No. 3, illicit discharge detection & elimination (IDDE), of a community's NPDES MS4 Permit.

Rapid field screening of stormwater outfalls in priority subwatersheds is conducted during dry weather to identify potential illicit discharges (i.e., flowing outfalls) and is followed by indicator monitoring to characterize flow types to aid in finding sources. Table 3 lists the common indicator parameters used to detect illicit discharges. The field screening can also be used to develop a systematic outfall inventory and map of the MS4. Regular inspections of outfalls are a primary part of an effective IDDE program and

a regular schedule of long-term inspections for outfalls should be maintained. At a minimum, all outfalls should be inspected during the first NPDES permit cycle by walking entire stream reaches. Further inspections should be conducted during subsequent permit cycles.

Table 3. Recommended Indicator Parameters Used to Detect Illicit Discharges

Parameter	Discharge Types it can Detect				Laboratory/Analytical Challenges
	Sewage	Washwater	Tap Water	Industrial or Commercial Liquid Wastes	
Ammonia	●	◉	○	◉	Can change into other nitrogen forms as flow travels to the outfall
Detergents – Surfactants	●	●	○	◉	Reagent is a hazardous waste
E. coli, Enterococci, or Total Coliform	◉	○	○	○	24-hour wait for results
Fluoride*	○	○	●	◉	Exception for communities that do not fluoridate their tap water
Potassium	◉	○	○	●	

● Can almost always (>80% of samples) distinguish this discharge from clean flow types (e.g., tap water or natural water). For tap water, can distinguish from natural water.

◉ Can sometimes (>50% of samples) distinguish this discharge from clean flow types depending on regional characteristics, or can be helpful in combination with another parameter

○ Poor indicator. Cannot reliably detect illicit discharges, or cannot detect tap water

Data sources: Brown et al. (2004)

*Fluoride is a poor indicator when used as a single parameter, but when combined with additional parameters (such as detergents, ammonia and potassium), it can almost always distinguish between sewage and washwater.

Field Preparation

While a complete overview of field preparation for outfall screening can be found in Brown et al. (2004), some basic checklists for field preparation are provided below for convenience.

When to conduct an outfall survey?

- During the dry season (in regions with a clearly defined dry season)
- Late Fall/Early Spring- outfalls are easiest to spot during leaf-off conditions (especially in the southeast where excessive vegetation can limit access to outfalls); however, if part of the IDDE work is investigating swimming pool discharges it may require field work outside of the leaf-off time frame.
- After a dry period of **at least 48 hours** (trace rainfall activity may be acceptable depending on the size of the watershed).
- Early Morning/Late Afternoon- though not always possible, checking outfalls when people are home may increase the chances of catching an illicit connection.
- Avoid conditions during snow melt and/or if salt has been applied to the road system draining to the outfalls. Also note that some field tests (e.g. ammonia, chlorine) are affected by cold temperatures or confounded by the presence of salt (detergents).
- If outfall monitoring is occurring along a tidal body of water, data collection dates and times should be selected to take advantage of the lowest possible tide, this will allow for the easiest, safest and most accurate and complete assessment of outfalls.

The first step to successful field work is to have a map with the necessary information. Some data can be considered extremely helpful, but optional, while other data is required (Table 4). Maps should be provided in the field binders on 8.5 X 11 paper at a scale ranging from 1:1000 to 1:10000 (Figure 4).

Table 4: Map Preparation

Desired Data Layers	*Optional Data Layers*
Roads	Aerial Photography
Streams	Sewer infrastructure
Watershed Boundaries	Critical/ Resource Protection Areas
Outfall locations	Land Cover
Manhole Locations	Topography
Stormwater infrastructure	Current / former combined sewer pipes/outfalls
Jurisdictional Boundaries	

Figure 4. Example field map at 1:6,000 scale.

A field and lab supply list is provided in Table 5.

Table 5: Suggested Supply List	
Field	***Lab***
Field Binder with maps	Detergent test kits
Camera	Fluoride meter + reagents
GPS Unit	Potassium meter + standards
Measuring tape	Bacteria plates
Outfall marker	Incubator
Field Tape (50' min)	Sterile 1-ml pipettes
Stopwatch	Alconox or other cleaning solution
Ping-pong ball	Deionized water
Flashlight	Stopwatch
Graduated milk jug (marked at 1 L)	Gloves
Gloves	Filter

Table 5: Suggested Supply List	
Field	***Lab***
Dipper and/or telescoping rod	Filter paper
Pencils/Pens	Material Data Safety Sheets
Sharpies	
First Aid Kit	
Deionized Water	
Sterile sample bottles*	
Cooler and ice packs	
Nalgene bottles*	
Ammonia meter + reagents	
Chemwipes	
Ziploc Bags	
Waders	
*1 bottle each/site plus extra for duplicates	

A checklist of items to include in the Field Binders is provided below:

- ☐ Contact Numbers for Field Crews (i.e. cell phone number)
- ☐ Meeting Location/Address
- ☐ Safety Procedures and Emergency Numbers
- ☐ Location of Nearest Hospital
- ☐ Field Maps
- ☐ Chain-of Custody Form
- ☐ Outfall Reconnaissance Inventory Forms (see Appendix A)

Preparation of supplies should include the following:

☐ Ensure batteries in cameras, GPS units, meters, etc. are charged.

☐ Ensure all sample bottles are cleaned with Alcanox or similar cleaning product.

☐ Remove old labels from sample bottles and replace with new labels, if necessary.

☐ Ensure you have one bottle for each anticipated outfall as well as extra bottles for randomly selected replicates, if needed.

☐ Freeze all ice packs.

☐ Set temperature of incubator to that specified by manufacturer for bacterium of interest.

Outfall screening procedures

The primary field screening tool is the Outfall Reconnaissance Inventory (ORI) form, which is provided in Appendix A and described fully in Brown et al. (2004). The basic procedure at each outfall is to take a picture of the outfall and, if the outfall is not already in the jurisdiction's mapping system, collect GPS coordinates and label the outfall with spray paint or waterproof marking stick in a prominent location such as the outfall headwall (see Appendix B for more information on mapping a stormwater drainage system). Next, an ORI form is completed, which includes recording a description of the outfall (e.g., pipe material, diameter), a description of physical indicators of potential illicit discharges for both flowing and non-flowing outfalls and the results of flow and water quality measurements taken at flowing outfalls. A description of the flow measurement and sampling procedures is provided below.

If the outfall has dry weather flow, three samples should be collected: one for on-site analysis of ammonia; one for bacteria, fluoride, potassium and detergents; and one for total nitrogen and total phosphorus. The procedure for collecting a water sample is as follows:

1. Put on gloves;
2. When possible, sample the flow directly in a clean, glass bottle or sterilized plastic bottle or bag;
3. Be sure to rinse the bottle once with flow from the sample water for conditioning;
4. If a dipper, bailer, bucket or other device is used to collect a sample, be sure that they are conditioned with the flow prior to final collection as well;
5. Sample bottles are to be labeled with the appropriate outfall ID, date of collection, and sample collector initials using a water-proof marker;
6. Collect replicates as specified for local program, if needed; and
7. Put samples for lab in cooler with ice.

Next, conduct the ammonia test following the instructions provided by the manufacturer of the test kit. Record the results on the ORI from. Be sure to rinse probes/cuvets with distilled water after sample analysis.

Lastly, measure the flow rate at all flowing outfalls. Flow measurements can be difficult to accurately collect in certain situations, for example, when the flow is too large or too little to collect with the chosen container. As such, three methods are presented and are listed in priority preference:

***Method 1*:** Utilizing a graduated milk jug marked at 1 Liter and a stopwatch record the amount of time required to fill the jug to 1 Liter. Ensure you are capturing the entire flow. When the flow is only a trickle, use a smaller volume container and follow the same method. The following equation is used to calculate flow: **Discharge = Volume filled (cu. ft.) x Time (sec).** For pipes that are discharging larger volumes where it is not be possible to capture the volume in a graduated container, see Method 2.

Method 2: This method should only be used with a free-flowing outfall (i.e. water drops out of the pipe and falls to the stream channel) and when the depth of flow is relatively uniform. Utilizing a tape measure, record the flow depth in the pipe at the deepest point (thalweg) and the total flow width. Then use the following equation: **Discharge= 3.1 x wetted width (ft) x flow depth (ft) ^1.5**

Method 3: Using a tape measure record the width of the flow. Next measure and record the depth of the flow. Using a measuring tape, ping pong ball, and stop watch, record the length of time it takes to travel a known distance and. Repeat velocity measurement 3-5 times and average the results. Then use the following equations to calculate the flow rate and record the results on the ORI form:

Area= Wetted width (ft) x flow depth (ft)

Velocity= Length of ping pong ball run (ft) / Time (sec)

Discharge= Area x Velocity

All samples collected for external lab analysis should be preserved as specified by the lab for the parameter of interest. See Standard Methods for the Examination of Water and Wastewater for more information about sample collection and sample preservation: http://www.standardmethods.org/. Bacteria samples are to be processed within 6 hours of collection and incubated at the appropriate temperature and for the necessary length of time as indicated by the bacteria plate manufacturer. Results of additional field and/or lab analysis can be recorded on the Outfall Reconnaissance Inventory/ Sample Collection Lab Sheet (Appendix C).

Follow up

All outfalls with a confirmed illicit discharge will require a drainage area investigation as described in the next section. If the outfall is determined to have a potential illicit discharge based on physical indicators, but samples do not exceed established water quality thresholds, the outfall should be re-visited two additional times during the permit cycle to determine if an intermittent discharge may be present. Ideally, one re-visit will occur on a different day of the week than the original visit and/or at a different time of day.

Nitrogen, phosphorus and bacteria pollutant loads can be estimated for each outfall screened through an illicit discharge program. By doing so, the quantitative benefit of removing the illicit discharge can be tracked internally and reported to regulating authorities and the public. Pollutant reductions can be accounted for in MS4 program reports as well as for Total Maximum Daily Load (TMDL) implementation and tracking. By conducting routine outfall screening on a watershed scale in concert with instream monitoring for the same parameters, inferences can be made regarding the illicit discharge pollution load proportional to baseflow conditions.

A pollutant load accounting spreadsheet is provided at www.cwp.org for use in estimating loads from illicit discharges. Total nitrogen and total phosphorus concentrations are required inputs, along with an accurate flow measurement. Standard conversions are used to report results in pounds of nutrients per year and gallons per year. Similar calculations can be computed for bacteria, although these are not included in the spreadsheet.

New outfalls and unmapped stormwater infrastructure should be updated in the jurisdiction's master GIS system as soon as possible at the office after identification. Stormwater pipe mapping should note the direction of flow in addition to pipe location. Any illegal dumping or needed infrastructure repairs found in the field should be reported immediately to the appropriate agency.

Non-routine inspections

If an employee observes evidence of an illicit discharge during an informal or non-routine inspection, he/she should collect as much information about the potential illicit discharge as possible then contact his/her supervisor or dispatch office so that appropriate action can be taken. A tracking sheet or spreadsheet (Table 6) can be used to collect the information observed. While it may not be reasonable to expect all public works employees to have copies of the form at all times, there are other ways to collect the information:

- The person observing the discharge can provide the information verbally to dispatch or the supervisor, who can then complete the Illicit Discharge Tracking Sheet;
- The person can log as much information as they can recall onto the form upon returning to the office; or
- A third party (such as a code enforcement officer) dedicated to inspecting and tracing illicit discharges can be sent to the location as soon as possible where the potential illicit discharge was observed to collect the necessary information directly on the form.

It is important to collect as much information as possible at the time of initial observation because of the likelihood that a discharge may be transitory or intermittent. Initial identification of the likely or potential sources of the discharge is also very important.

Table 6. Illicit Discharge Tracking Sheet						
Date Reported:	**Report Initiated by:** Phone, drop-in, contact information, etc.	**Location of Discharge:** If known – lat/long, stream address or outfall #, nearby landmark, etc.	**Description of Discharge:** E.g. – dumping, wash water suds, oil, etc.	**Actions to be Taken:** Who What, When and How…(what should be done)	**Description of Resolution:** Outcome of Actions taken and any necessary follow-up (what was done)	**Date Resolved:**

Drainage Area and Storm Drain Investigations

An illicit discharge source investigation should be conducted for all outfalls where any of the following apply:

- The overall outfall characterization as determined by the ORI is determined to be "suspect" or "obvious" as indicated in Section 6 of the ORI.
- On-site or lab analysis results in values that exceed established thresholds indicated in Table 2. Thresholds can be adjusted as needed to reflect local conditions.
- A "weight-of-evidence" approach is recommended, that is, using more than one indicator to determine the presence of an illicit discharge.

Table 2. Threshold levels for screening parameters used in illicit discharge surveys		
Parameter	**Threshold**	**Source**
Ammonia	>0.1 mg/L	Brown et al (2004)
E. coli	>235 CFU/100 ml (grab sample)	EPA (1986)
Total coliform	>10,000 CFU/100 ml (grab sample)	California state standard (Dorfman and Rosselot, 2011)
Fluoride	>0.25 mg/L	Brown et al (2004)
Detergents	>0.25 mg/L	Brown et al (2004)
Potassium	>6 ppm	Guidance extrapolated from Lilly and Sturm (2010)

Table 2. Threshold levels for screening parameters used in illicit discharge surveys		
Parameter	**Threshold**	**Source**
Ammonia : potassium ratio	Determine locally	>0.3 based on CWP field studies in the Mid-Atlantic but the ratio varies regionally. Guidance extrapolated from Lilly and Sturm (2010)

An illicit discharge source investigation is conducted to isolate the source of the pollution. There are two types of source investigations: Drainage Area Investigations and Storm Drain Investigations. An illicit discharge that is determined to be likely transient in frequency, entering the storm drain system directly through dumping or spills from the landscape will follow the procedure for a *Drainage Area Investigation*. A continuous or intermittent discharge that likely occurs from direct or indirect entry into the storm drain system from the interaction of pipes underground will follow the procedure for a *Storm Drain Investigation*. Either investigation should be conducted during dry weather.

Public notification may be required in either type of investigation. If right of entry onto private property is required, the jurisdiction will provide a letter/mailer to residents and building owners located within subject drainage basin and/or sewershed notifying them of the scope and schedule of investigative work, and the potential need to gain access to their property to inspect plumbing fixtures. Assessor's records will provide property owner identification.

Drainage Area Investigation

A rapid windshield survey of the drainage area may be used to find the potential discharger or generating sites if the discharge observed at an outfall has distinct or unique characteristics that allow crews to quickly ascertain the probable operation or business that is generating it (Brown et al. 2004). Discharges with a unique color, smell, or off-the-chart indicator sample reading may point to a specific industrial or commercial source.

A rapid drive-by survey works well in small drainage areas, particularly if field crews are already familiar with its business operations. Field crews can match the characteristics of the discharge to the most likely type of generating site, and then inspect all of the sites of the same type within the drainage area until the culprit is found. For example, if fuel is observed at an outfall, crews might quickly check every business operation in the catchment that stores or dispenses fuel.

In larger or more complex drainage areas, GIS data can be analyzed to pinpoint the source of a discharge. If only general land use data exist, maps can at least highlight suspected industrial areas. If more detailed Standard Industrial Classification (SIC) code data are available digitally, GIS can be used to pull up specific hotspot operations or generating sites that could be potential dischargers.

Storm Drain Investigation

In a Storm Drain Investigation, field crews strategically inspect manholes within the storm drain network system to measure chemical or physical indicators that can isolate discharges to a specific segment of the network. Once the pipe segment has been identified, on-site investigations are used to find the specific discharge or improper connection. This method involves progressive sampling at manholes in the storm drain network to narrow the discharge to an isolated pipe segment between two manholes. Field crews need to make two key decisions when conducting a storm drain network investigation—where to start sampling in the network and what indicators will be used to determine whether a manhole is considered clean or dirty.

The field crew can sample the pipe network in one of three ways:

- Crews can work progressively up the trunk from the outfall and test manholes along the way.
- Crews can split the trunk into equal segments and test manholes at strategic junctions in the storm drain system.
- Crews can work progressively down from the upper parts of the storm drain network toward the problem outfall.

During a manhole inspection, manholes are opened and inspected for visual evidence of contamination. Where **flow is observed**, and determined to be contaminated through visual indicators or field monitoring, the upstream tributary storm sewer system is isolated for investigation (e.g. further flow inspection, dye testing, CCTV). No additional downstream manhole inspections are performed unless the observed flow is determined to be uncontaminated or until all upstream illicit connections are identified and removed. Where **flow is not observed but an intermittent discharge is suspected** in a junction manhole, all inlets to the structure are partially dammed for the next 48 hours when no precipitation is forecasted. Inlets are damned by blocking a minimal percentage of the pipe diameter at the invert using sandbags, caulking, weirs/plates, or other temporary barriers. The manholes are thereafter re-inspected (prior to any precipitation or snow melt) for the capture of periodic or intermittent flows behind any of the inlet dams. The same visual observations and field testing is completed on any captured flow, and where contamination is identified, abatement is completed prior to inspecting downstream manholes. In addition to documenting investigative efforts in written and photographic form, it is recommended that information and observations regarding the construction, condition, and operation of the structures also be compiled.

Where flow is observed and does not demonstrate obvious indicators of contamination, samples are collected and analyzed and then compared with established benchmark values to determine the likely prominent source of the flow. This information facilitates the investigation of the upstream storm sewer system. Benchmark values may be refined over the course of investigations when compared with the actual incidences of observed flow sources. In those manholes where periodic or intermittent flow is captured through damming inlets, additional laboratory testing (e.g. toxicity, metals, etc.) should be considered where an industrial discharge is suspected.

Adequate storm and sanitary sewer mapping is a prerequisite to properly execute a storm drain investigation. As necessary and to the extent possible, infrastructure mapping should be verified in the field and corrected prior to investigations. This effort affords an opportunity to collect additional

information such as latitude and longitude coordinates using a global position system (GPS) unit if so desired. To facilitate subsequent investigations, tributary area delineations should be confirmed and junction manholes should be identified during this process.

To facilitate investigations, storm drain infrastructure should be evaluated for the need to be cleaned to remove debris or blockages that could compromise investigations. Such material should be removed to the extent possible prior to investigations, however, some cleaning may occur concurrently as problems manifest themselves.

Where field monitoring has identified storm sewer systems to be influenced by sanitary flows or washwaters, the tributary area is isolated for implementation of more detailed investigations. Additional manholes along the tributary are inspected to refine the longitudinal location of potential contamination sources (e.g. individual or blocks of homes). Targeted internal plumbing inspections, dye testing, smoke testing or CCTV inspections are then employed to more efficiently confirm discrete flow sources. More information on these techniques can be found in Brown et al (2004).

Post-Removal Confirmation

As the sources of illicit discharges are confirmed, measures to correct them must be taken, working with the property owner or other responsible party. The exact type of repair needed will depend on the type of discharge and mode of transmission. Additional guidance on eliminating illicit discharges is provided in Brown et al. (2004).

After completing the removal of illicit discharges from a subdrainage area, the subdrainage area is re-inspected to verify corrections. Depending on the extent and timing of corrections, verification monitoring can be done at the initial junction manhole or the closest downstream manhole to each correction. Verification is accomplished by using the same visual inspection, field monitoring, and damming techniques as described above.

In addition to verifying removal of individual illicit discharges, the progress of the IDDE program should be evaluated by tracking metrics such as:

- Number or % of manholes/structures inspected
- Number or % of outfalls screened
- Number or % of illicit discharges identified through:
    - visual inspections
    - field testing results
    - temporary damming
- Number or % of homes inspected/dye tested
- Footage or % of pipe inspected by CCTV

- Number or % of illicit discharges removed
- Estimated flow/volume of illicit discharges removed
- Footage and location of infrastructure jetting/cleaning required
- Infrastructure defects identified and repaired
- Water main breaks identified and repaired
- Cost of illicit discharge removals (total, average unit costs)

Safety Procedures

The field activities described in this guide involve sampling of potentially contaminated water and, as such, have some associated risk. As with any field procedures, appropriate precautions should be taken to ensure the safety of field crews. General and specific suggested safety procedures are provided below.

General suggestions

- While performing field work activities, use appropriate caution, make an effort to recognize potentially dangerous situations while performing field work, and take the proper steps to avoid or minimize them.
- Field work activities should not be performed alone.
- A list of team member and emergency contact numbers should be kept with each field team.
- Long pants and close-toed shoes are strongly recommended.
- Carry adequate water, sunscreen, and bug repellent if needed.
- Employees should use their judgment to ensure their safety while working during inclement weather. It may be necessary to suspend and/or reschedule field work if the weather will not permit safe and effective completion of the activities. Recommended precautions include:
    - Severe heat or cold: Dress appropriately, take breaks as needed to warm up or cool down, and stay hydrated.
    - Thunderstorms: Stop working, get out of the water, if applicable, and take shelter if there is a threat of lightning strikes.
    - Snowstorms, flooding, tornadoes, and other dangerous weather: Field work should be stopped or canceled if dangerous weather arises or is predicted.

- Each field work team should have a functioning mobile phone and a fully-stocked first aid kit.

Public roadways

- Whenever work will be performed in or near a public roadway, wear a high-visibility safety vest.

Manholes and similar structures

If a manhole cover or similar structure must be removed (in order to determine sewer line configuration, for example):

- Safety-toe footwear (steel-toed shoes) should be worn.
- Lifting manhole covers should be done with the proper tools and technique so as to avoid injury.
- The open cover should only remain open as long as necessary to gather the required information, and should never be left unattended.
- Due to the potential dangers of confined spaces, do not enter a manhole or put your head below the rim of the opening.

Stream walks and illicit discharges

- Properly fitting waders with high-traction soles should be worn when walking in a stream.
- Rubber gloves should be worn if contact with polluted water is expected.
- Skin contact with suspected illicit discharges should be avoided.
- Hand sanitizer and/or careful hand washing should be employed after potential contact with polluted water.
- High-visibility orange or yellow vests should be worn during hunting season.
- Wear safety goggles when performing any chemical tests.
- Reagents and other chemicals should be used and disposed of properly by following the guidance on the MSDS safety sheets.

References Cited

Boston Water & Sewer Commission. 2004. *A systematic Methodology for the Identification and Remediation of Illegal Connections.* 2003 Stormwater Management Report, chap. 2.1.

Brown, E., D. Caraco and R. Pitt. 2004. *Illicit Discharge Detection and Elimination: a guidance manual for program development and technical assessments*. Center for Watershed Protection and University of Alabama. EPA X-82907801-0.U.S. EPA Office of Wastewater Management, Washington, D.C.

Dorfman, Mark & Kirsten Sinclair Rosselot. 2011. Testing the Waters: A Guide to Water Quality at Vacation Beaches. Natural Resources Defense Council. http://www.nrdc.org/water/oceans/ttw/titinx.asp

Environmental Protection Agency. 1986. Ambient Water Quality Criteria for Bacteria. EPA440/5-84-002.

Lilly, Lori and Paul Sturm. 2010. *Technical Memorandum: Illicit Discharge Monitoring in Baltimore Watersheds*. Center for Watershed Protection. Ellicott City, MD.

APPENDIX A. OUTFALL RECONAISSANCE INVENTORY (ORI) FORM

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours:	Last 48 hours:	
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	

Land Use in Drainage Area (Check all that apply):

☐ Industrial ☐ Ultra-Urban Residential ☐ Commercial ☐ Open Space ☐ Suburban Residential ☐ Institutional

Other: _____ Known Industries: _____

Notes (e.g., origin of outfall, if known):

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☐ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter, circular: _____ Box: h - _____ w - _____ Elliptical: h - _____ w - _____	In Water: ☐ No ☐ Partially* ☐ Fully* With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Manhole				
☐ Open drainage	☐ Concrete ☐ rip-rap ☐ Earthen ☐ Other: _____	☐ Trapezoid ☐ Other:_____ ☐ Parabolic	Depth: _____ Top Width: _____	Bottom Width: _____
☐ In-Stream	Complete Stream Discharge form			
Flow Present?	☐ Yes ☐ No *If No, Skip to Section 5*	Flow Description ☐ Trickle	☐ Moderate	☐ Substantial
*Tidal?	☐ Yes ☐ No	If yes, *stage* ☐ Flood ☐ Ebb Time:		

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	Stopwatch
☐Flow #2 (only for free-flowing outfalls)	Flow depth		In	Tape measure
	Wetted width		ft	Tape measure
☐Flow #3	Flow width	_____' _____"	Ft, In	Tape measure
	Flow depth		In	Tape measure
	Time of travel (avg)	1._____2._____3._____	Sec	Stop watch
	Measured length	_____' _____"	Ft, In	Tape measure
Ammonia			mg/L	Specific ion probe Type:

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1.	Sample for external lab?	☐ Yes	☐ No	2.	Sample for CWP?	☐ Yes	☐ No	3.	Sterile sample for bacteria analysis?	☐ Yes ☐ No
4.	Sample(s) collected from:	☐ Flow	☐ Pool							
5.	Duplicate collected?	☐ Yes	☐ No	*If yes, check appropriate:*		☐ External lab	☐ CWP	☐ Sterile		

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs) or other Notes?

Center f

APPENDIX B. MAPPING THE SYSTEM

This section was modified from the New Hampshire Estuaries Project, November, 2006 "*Guidelines and Standard Operating Procedures: Illicit Discharge Detection & Elimination and Pollution Prevention / Good Housekeeping."* Pp. 17-18.

Completing a map of the storm drain system is best accomplished through the use of geographic information systems (GIS).

A sample strategy for mapping an MS4 community is as follows:

1. Review/Office Preparation:

   a. Check existing available mapping data in high priority areas first, then in medium priority areas, then low priority areas (planning board submittals or as-builts are a good resource for locations).

   b. Decide on and document a numbering or naming system for outfalls and other structures. Establishment of a simple unique numbering system (SWO-0001, SWO-0002, etc.) will facilitate future inspections and documentation of maintenance.

   c. Select a method to mark outfalls in the field (using spray paint, paint pen, or signs or markers), and place an order for necessary materials. (Marking the outfalls ensures they can be consistently identified in the field, but is not required.)

   d. Obtain equipment for mapping (see Equipment List).

   e. Develop a schedule for completing (use town or city parcel grid or watershed areas).

   f. Conduct preliminary reconnaissance to evaluate if watercraft are necessary to view the banks of the waterbody.

2. Field check:

   a. Using existing paper maps as a basis for locations, field personnel should start a mapping program by walking all named waterbodies within a given area of the community and collecting outfall location and design information using global positioning system (GPS) equipment capable of sub-meter (approximately 3-foot) accuracy. Use of a data logger and data collection software, such as Pathfinder®, will allow the generation of GIS files that will be useful for many years. Utilize the Outfall Reconnaissance Inventory (ORI) form for outfall characterization.

Equipment List for mapping:

1. Existing paper maps
2. Field sheets
3. Camera
4. GPS unit
5. Spray paint
6. Cell phone or handheld radio
7. Clip boards and pencils
8. First aid kit
9. Flashlight
10. Protective gloves
11. Tape measure
12. Waders
13. Temperature probe
14. Sop watch
15. Sample bottles
16. Dry erase board (for photos)
17. Hand sanitizer
18. Sampling pole
19. Mirror (for light)
20. Safety vests

b. Collect dry weather inspection information whenever possible. Dry weather discharge information can either be collected on the paper forms for manual entry into a separate database at a later time, or can be directly entered into a database on a laptop or the data logger on-site.

c. Mark the outfall with its identifier for future location and easy reference using spray paint, paint markers, or pre-manufactured signs.

3. Develop Initial GIS Maps: If the storm drain system is being mapped as part of a larger GIS database for the municipality, the data collected can be displayed with any of the existing data sets. If the storm drain system is not part of a larger data set, the Program Manager must determine what background the maps should be displayed on, such as an aerial photograph, United States Geological Survey (USGS) quadrangles, or a set of roads, political boundaries, waterbodies, and watershed information.

4. Review and field check other structures (catch basins, culverts, pipes, ditches, drain manholes, etc.):

a. Scan and digitize any paper maps of the system into GIS-compatible files or use aerial photographs to identify point structures. An efficient way to do this is to send field staff along with catch basin cleaning crews to confirm catch basin locations, to observe the interior of structures, to determine which pipes enter and leave the structure, and to obtain design information on the pipes and structures. A GPS unit with a data logger can be used to record the location and design information related to the structures.

b. Field check digitized data.

c. Assign unique identifiers to remaining structures (CB-00X for catch basins, DMH-00X for drain manholes, etc.), and a set of attributes and allowable fields to describe the structure.

5. Incorporate field data into GIS and revise as necessary: Once the GPS data files have been converted into GIS layers, and revised maps have been produced, these maps should be proofed to assess their accuracy and completeness. The reviewer should document any additional data requirements, and correct any errors in the information collected. A relational database can help illustrate connections between pipes, outfalls, and other structures.

It should be noted that there are many possible mapping strategies for a given municipality depending on the amount and format of available storm drain system data and the resources that are available. The strategy described above is presented as one way to complete mapping. For a small to medium size community (6,000 to 10,000 people), this process could take approximately two years to complete, depending upon availability of resources and land use.

APPENDIX C. Outfall Reconnaissance Inventory/ Sample Collection Lab Sheet

Subwatershed:	Outfall ID:
Today's date:	Duplicate? (yes/no):
Analysis Technician:	Form completed by:

LAB DATA FOR FLOWING OUTFALLS

PARAMETER	RESULT		UNIT	EQUIPMENT
Ammonia QC check (10% of samples)			mg/L	Colorimeter
Fluoride			mg/L	Specific ion probe
Potassium			ppm	Compact Ion Meter
Conductivity			µs	Conductivity Meter
Bacteria	***Count***	***Dilution (1:1 or 1:100)***		
Red w/ gas			CFUs	Petrifilm plate
Blue w/ gas			CFUs	Petrifilm plate

Page ____ of _____

City of Corcoran Illicit Discharge Report Form

Date:		**Time:**		**Reported by (name, phone):**	
Location of alleged discharge:					
Description of alleged discharge:					
Outfall, pond, or catchbasin ID# or location:					
Source of discharge:					
Responsible party (name, phone):					

Actions Taken, Including Follow-up	
Date	**Description**

Minimum Control Measure 4
Construction Site Stormwater Runoff Control

Responsible Persons
Pat Meister, Public Works Superintendent
Mike Pritchard, Code Compliance Official

Program Description

Corcoran has established the following BMPs regarding construction site stormwater runoff control:

1. Construction site runoff control ordinance/regulatory mechanism: The City's ordinance controls runoff from developments or redevelopments during construction. The City also has developed standard specifications and developer agreements that outline responsibilities for proper runoff control.
2. Erosion and sediment control plan review and approval: Corcoran's process includes language that requires plan submittals, timelines and requirements for erosion and sedimentation control.
3. Performance bond/letter of credit: Developers are required to post a performance bond or letter of credit before construction to ensure proper operation and maintenance of temporary and permanent BMPs for erosion and sediment control.
4. Inspection program:The City's ordinance regarding construction site runoff control establishes inspection procedures, enforcement, and documentation for erosion and sediment control.
5. Stabilization requirements: The City requires sod placement, seeding, or mulching for property stabilization at construction sites, as outlined in MPCA's General Permit for Construction Activity within the general specifications for construction projects.
6. Escrow for grading permits (single lot development): Corcoran requires an escrow for all grading permits on single lot developments to ensure proper stabillization and drainage. The escrow is used to correct any problems associated with grading during construction.
7. Minimum construction site BMP requirements: Corcoran has developed a list of minimum construction site BMP requirements for perimeter silt fencing, rock construction entrances, temporary sediment basins, inlet protection, etc. The list is given to contractors and is reviewed periodically for new requirements or industry standards.

Tasks and schedule

Within 12 months of the permit effective date, the City will revise its site inspection procedures to include procedures for identifying priority sites for inspection.

April 2015 Update:

I. Construction Site Plan Review Procedures

City Code Section 1070.050 sets forth site plan review procedures. See attached.

II. Construction Site Inspection Procedures

General Permit No. MNR040000 (the City's stormwater permit) requires that Corcoran have written procedures for construction site inspections to determine compliance with its regulatory mechanism. The procedures must explain how priority sites are identified and must indicate the site inspection frequency and the names or titles of personnel responsible for conducting the inspections. The procedures must also include a checklist or other written means to document site inspections.

A. Priority Sites

1. Sites with erosion-prone topography.
2. Sites in early stages of construction.
3. Sites with a history of noncompliance with stormwater permit requirements.
4. Sites that have received 0.5 inches or more in the last 24 hours.

B. Inspection Frequency

1. If a complaint is received, the site will be inspected within 24 hours of receipt. (See part III.)
2. Otherwise, sites will be inspected once every seven (7) days or within 24 hours after receiving rainfall of 0.5 inches or greater.
3. If sites are inspected after rainfall of 0.5 inches or greater, the next inspection will be scheduled for seven (7) days after the rainfall.

C. Documentation

Inspections will be documented using a form similar to the one attached. (See also www.pca.state.mn.us/index.php/view-document.html?gid=20687.*)* At a minimum, the inspection will record the following (from Construction General Permit Part IV.E.2.):

1. Date and time of inspection.
2. Name(s) of person(s) conducting the inspection.

3. Findings of the inspections, including specific locations where corrective action is needed.

4. Corrective actions taken, including date, time, and party completing maintenance activities.

5. Date and amount of rainfall events greater than 0.5 inches in 24 hours. Rainfall amounts must be obtained by a properly maintained rain gauge installed on site, a weather station that is within 1 mile of the site, or a weather reporting system that provides site-specific rainfall data from radar summaries.

6. If any discharge is observed during inspection, a record of all points of the property from which there is a discharge must be made, and the discharge should be described (i.e., color, odor, floating, settled, suspended solids, foam, oil sheen, and other obvious indicators of pollutants) and photographed.

D. Training

The City acknowledges that construction site erosion control inspectors must be trained. The City also understands that it may choose the type of training, as long as it complies with the requirements of Part III.D.6.g of the stormwater permit (p. 20). The City may also retain a trained consultant to conduct inspections.

Training options:

1. Certification through the University of Minnesota (www.erosion.umn.edu).

2. Online training to become a Qualified Compliance Inspector for Stormwater (QCIS) (http://stormwaterone.com/program/minnesota/CI232).

3. Minnesota Utility Contractors Association Erosion Control Training (www.muca.org).

4. Minnesota Laborers Training Center Stormwater Pollution Prevention training (www.ltcmn.org).

5. Training from another trained individual through job shadowing, presentations, or other means.

6. Inspection guides

    a. MPCA Stormwater Construction Inspection Guide (http://www.pca.state.mn.us/index.php/view-document.html?gid=7416)

b. Stormwater Construction Inspector's Field Guide (http://www.pca.state.mn.us/index.php/view-document.html?gid=7417)

c. Construction Stormwater Inspection Checklist (others may be used) (www.pca.state.mn.us/index.php/view-document.html?gid=20687*)*

E. Names or position titles of individuals responsible for inspections.

April 2015: Inspections are completed by trained consultants. See the City Administrator for more information.

III. Procedures to respond to reports or complaints of noncompliance regarding construtions site stormwater runoff control.

The City's Code Compliance Official documents all complaints, including those regarding construction sites, on a complaint form and spreadsheet. Minor complaints are investigated by the Code Compliance Official. If needed, the City Engineer is contacted for assistance. All findings are documented using a narrative and site photos. See the Code Compliance Official for document locations.

1070.050 – Site Plan

Subd. 1. Purpose. The purpose of this Section is to establish a formal site plan review procedure and provide regulations pertaining to the enforcement of site design standards consistent with the requirements of this Chapter.

Subd. 2. Site Plan Approval. Site plan approval is required for all development, except the following:

A. Agricultural uses and tree farms in the A and RR districts.

B. Single family detached dwellings.

C. Two family attached dwellings.

Subd. 3. Sketch Plan.

A. Prior to filing a formal application, applicants may present a sketch plan to the Zoning Administrator. The plan shall be conceptual in nature but shall be drawn to scale and shall contain at a minimum the following:

1. Location map showing the location within the City and more detailed locations on half-section plat maps showing all perimeter property lines.

2. Aerial photograph of the area.

3. General location of all identified natural resources and wetland inventories on and abutting the premise.

4. General location of existing and proposed structures.

5. Tentative access, circulation and street arrangements, both public and private.

6. Amenities to be provided such as recreational areas, open space, walkways, parking, landscaping, etc.

7. A representative example of the style of structures to be constructed.

8. Proposed public sanitary sewer, water and storm drainage.

9. A general statement of concept, identifying the intent of the project and compatibility with the surrounding area.

10. Extent of and any proposed modifications to land within the Overlay Districts as described and regulated in Section 1050.

11. Any other items as may be deemed necessary by City staff.

B. The Zoning Administrator shall refer the sketch plan to the City Council for discussion, review, and informal comment. Any opinions or comments provided to the applicant by the Zoning Administrator and/or City Council shall be considered advisory only and shall not constitute a binding decision on the request.

C. Request for sketch plan review and comment shall be filed with the Zoning Administrator on an official application form.

(Ord. 286, passed 9-25-14)

Subd. 4. Application Process. An application for site plan approval shall be approved or denied pursuant to Minnesota Statutes 15.99. Additional City requirements are as follows:

A. Request for site plan approval. As provided within this Chapter, request for approval be filed with the Zoning Administrator on an official application form. A non-refundable fee as provided for in the City Code shall accompany such application. Detailed written and graphic materials, the number and size as prescribed by the Zoning Administrator, fully explaining the proposed change, development, or use, shall also accompany such application. The request shall be considered as being officially submitted and complete when the applicant has complied with all the specified information requirements.

B. Proof of Ownership or Authorization. The applicant shall supply proof of ownership of the property for which the site plan approval is requested or supply written authorization from the owner(s) of the property in question to proceed with the requested site plan approval.

C. Procedures.

1. The Zoning Administrator shall instruct the appropriate staff persons to prepare technical reports where appropriate, and provide general assistance in preparing a recommendation on the action to the Planning Commission and the City Council.

2. The Planning Commission and City staff shall have the authority to request additional information from the applicant concerning operational factors or to retain expert testimony with the consent and

at the expense of the applicant concerning operational factors. Said information is to be declared necessary to evaluate the request and/or to establish performance conditions in relation to all pertinent sections of this Chapter. Failure on the part of the applicant to supply all necessary supportive information may be grounds for denial of the request.

3. The applicant or their representative may appear before the Planning Commission in order to present information and answer questions concerning the proposed request.

4. The Planning Commission shall recommend such actions or conditions relating to the request as they deem necessary to carry out the intent and purpose of this Chapter.

5. The City Council shall not consider a site plan application until they have received a report and recommendation from the Planning Commission and City staff.

6. Upon receiving the report and recommendation of the Planning Commission, the City Administrator shall schedule the application for consideration by the City Council. Such reports and recommendations shall be entered in and made part of the permanent written record of the City Council meeting.

7. The applicant or their representative may appear before the City Council in order to present information and answer questions concerning the proposed request.

8. Approval of a request shall require passage by a majority vote of the entire City Council.

Subd. 5. Evaluation Criteria. The Planning Commission and City Council shall evaluate the effects of the proposed site plans. This review shall be based upon, but not be limited to, compliance with the City Comprehensive Plan and provisions of the Zoning Ordinance.

Subd. 6. Information Requirement. Every application must contain the following written and graphic materials in the number and size as required by the Zoning Administrator:

A. The applicant shall submit electronic files in a manner specified by the City. The applicant may appeal directly to the City Council for a waiver of this requirement for applications for a single family home. No waiver shall be granted under this subsection unless the Council finds that the

applicant and his surveyor do not have ready, economical access to the technology required to comply with the filing requirement.

B. Location, address (if assigned), legal description, and Hennepin County property identification number (P.I.N.) of the parcel.

C. Site Plan

1. Name and address of developer/owner.

2. Name, address and Minnesota registration number of architect/designer/engineer.

3. Date of plan preparation.

4. Dates and description of all revisions.

5. Name of project or development.

6. Scale of plan (engineering scale only, at one inch equals 50 feet or less). All plan sheets shall be prepared using the same scale.

7. North point indication.

8. Site data computations including lot dimension, area, and building coverage percentage.

9. Required and proposed setbacks.

10. Location, setback and dimension of all buildings on the lot including both existing and proposed structures.

11. Total number of proposed dwelling units, if any.

12. Location of all adjacent buildings, improvements and natural resources located within 100 feet of the exterior boundaries of the property in question.

13. Adjacent roadway widths.

14. Location, number, and dimensions of existing and proposed parking spaces.

15. Location, number, and dimensions of existing and proposed loading spaces.

16. Curb cuts, driveways.

17. Vehicular circulation.

18. Sidewalks, walkways.

19. Site lighting plan.

20. Sign Plan.

21. Location of recreational and service areas.

22. Location of rooftop equipment and proposed screening.

23. Provisions for storage and disposal of waste, garbage, and recyclables.

24. Existing and proposed utility easements and fire hydrants.

25. Location, sizing, and type of water and sewer system mains and proposed service connections.

D. Grading/Storm Water Drainage Plan

1. Existing contours at 2-foot intervals.

2. Proposed grade elevations, 2-foot maximum intervals.

3. Drainage plan including configuration of drainage areas and calculations.

4. Impervious surface area calculation.

5. Storm sewer, catch basins, invert elevations, type of castings, and type of materials.

6. Spot elevations.

7. Proposed driveway grades.

8. Surface water ponding and treatment areas.

9. Erosion control measures.

10. Location of proposed street lights, as well as utilities, including electricity, gas, telephone, and CATV.

E. Landscape Plan

1. Planting Schedule (table) containing:

    a. Symbols.

    b. Quantities.

    c. Common names.

    d. Botanical names.

    e. Sizes of plant material.

    f. Root specification (bare root, balled and burlapped, potted, etc.).

    g. Special planting instructions.

2. Location, type and size of all existing significant trees to be removed or preserved.

3. Planting detail (show all species to scale at normal mature crown diameter or spread for local hardiness zone).

4. Typical sections in details of fences, tie walls, planter boxes, tot lots, picnic areas, berms and the like.

5. Typical sections of landscape islands and planter beds with identification of materials used.

6. Details of planting beds and foundation plantings.

7. Note indicating how disturbed soil areas will be restored through the use of sodding, seeding, or other techniques.

8. Delineation of both sodded and seeded areas with respective areas in square feet.

9. Coverage plan for underground irrigation system, if any.

10. Where landscape or man-made materials are used to provide screening from adjacent and neighboring properties, a cross-through section shall be provided showing the perspective of the site from the neighboring property at the property line elevation.

11. Other existing or proposed conditions which could be expected to affect landscaping.

F. Other Plans and Information

1. Proof of ownership of the land for which site plan approval has been requested.

2. Current Survey (within one year of application date).

3. Architectural elevations of all principal and accessory buildings (type, color, and materials used in all external surfaces).

4. "Typical" floor plan and "typical" room plan.

5. Fire Protection Plan.

6. Extent of and any proposed modifications to land within the Wetland, Shoreland or Floodplain District as described and regulated in Sections 1050.010, 1050.020, and 1050.030.

7. Type, location and size (area and height) of all signs to be erected upon the property in question.

8. Certification that all property taxes, special assessments, interest, or City utility fees due upon the parcel of land to which the application relates have been paid.

9. Sound source control plan.

Subd. 7. Plan Modifications.

A. Minor Changes.

1. Qualifications:

a. Structural additions involving 10 percent or less of the total existing floor area.

b. Site expansions or modifications involving 10 percent or less of the total existing site area.

2. Proposed minor changes which meet all Ordinance requirements may be approved by the Zoning Administrator prior to a building permit being issued and shall not require Planning Commission or City Council review, subject to the following:

a. This Section shall apply to developments on file that have City Council approved site plans.

b. Compliance with all Ordinance requirements, which shall be construed to include all adopted policies and codes.

c. Any variances from Ordinance and policy requirements shall require the plan to be subject to the established review and hearing procedures for plan and variance approval.

d. Plans submitted for minor changes under the terms of this Section shall be the same as those required for site plan approval by the Zoning Administrator.

e. Minor changes approved by the City shall be placed on file with the City Council approved plans.

B. Major Changes.

1. Plans not qualifying as minor shall be classified as major.

2. An amended site plan involving major changes shall be applied for and administered in a manner similar to that required for a new site plan.

Subd. 8. Expiration.

A. Unless otherwise specified by the Zoning Administrator or City Council at time of approval, permit approval shall expire within one year of the date of approval unless the property owner or applicant has substantially started the construction of any building, structure, addition or alteration, or use requested as part of the approved plan. Prior to the expiration, the applicant may apply for a time extension of up to one year.

B. The request for extension shall submitted to the Zoning Administrator not less than 30 days before the expiration of said approval and shall include the renewal fee as set forth in the City Code and state facts showing a good faith attempt to complete or utilize the use permitted in the conditional use permit. A request for an extension not exceeding one year shall be subject to the review and approval of the Zoning Administrator. Should a second extension of time or any extension of time longer than one year be requested by the applicant, it shall be presented to the Planning Commission for a recommendation and to the City Council for a decision.

C. In making its determination on whether an applicant has made a good faith attempt to utilize the site plan approval, the Zoning Administrator or the City Council, as applicable, shall consider such factors as the type, design, and size of the proposed construction, restrictions on financing, or special and/or unique circumstances beyond the control of the applicant which have caused the delay.

Subd. 9. Performance Agreement and Financial Guarantee. Following the approval of a site plan and before issuance of a building permit, the applicant, shall guarantee to the City the completion of all private exterior amenities as shown on the approved site plan and as required by the site plan approval. This guarantee shall be made by means of a performance agreement as provided below:

A. Performance Agreement.

1. The applicant shall execute the site improvement performance agreement on forms provided by the City. The agreement shall be approved as to form and content by the City Attorney and shall define the required work and reflect the terms of this Section as to the required guarantee for the performance of the work by the applicant.

2. The required work includes, but is not limited to, private exterior amenities such as landscaping, private driveways, parking areas, recreational fields, structures or buildings, signage, lighting, drainage systems, water quality ponds, wetland mitigation, wetland buffers, erosion control, curbing, fences and screening, and other similar facilities.

B. Financial Guarantee.

1. Financial guarantees acceptable to the City include cash, cash escrow; an Irrevocable Letter of Credit; performance bond; or other financial instruments which provide equivalent assurance to the City and which are approved by the Zoning Administrator.

2. The financial guarantee shall be for 125 percent of the estimated costs of improvements, as approved by the City Engineer.

3. The term of the financial guarantee shall be for the life of the site improvement performance agreement. It shall be the responsibility of the applicant to insure that a submitted financial guarantee shall continue in full force and effect until the Zoning Administrator shall have approved and accepted all of the work undertaken to be done and shall thereby have released the guarantee or reduced the amount of the guarantee as provided in this Section.

4. The applicant may submit a separate financial guarantee for that portion of the required work consisting solely of landscaping improvements with another financial guarantee for all other exterior amenities and improvements which comprise the work.

C. The time allowed for completion of the required improvements shall be set out in the site improvement performance agreement. The agreement and the financial guarantee shall provide a means to the City to cure a default or reimburse the City the cost of enforcement measures. As various portions of such required work are completed by the applicant and approved by the City, the Zoning Administrator may release such portion of the financial guarantee as is attributable to such completed work. Landscaping improvements shall not be deemed complete until the City has verified survivability of all required plantings through one winter season which is defined for the purpose of this Section as the period of October 31 through April 30.

D. The applicant shall notify the City in writing when all or a portion of the required improvements have been completed in accordance with the approved plan and may be inspected. Upon receipt of such notice, the Zoning Administrator shall be responsible for the inspection of the improvements to determine that the useful life of all work performed meets the average standards for the particular industry, profession, or material used in the performance of the work. Any required work failing to meet such standards shall not be deemed to be complete and the applicant shall be notified in writing as to required corrections. Upon determination that the work has been completed, including the winter season survivability of all landscape improvements, a notice of the date of actual completion shall be given to the applicant and appropriate action, to release or to reduce the amount of the financial guarantee shall be taken by the Zoning Administrator.

Subd. 10. Minnesota State Building Code. The review and approval of site improvements pursuant to the requirements of City adopted building and fire codes shall be in addition to the site plan review process established under this Section. The site plan approval process does not imply compliance with the requirements of these building and fire codes.

Subd. 11. Plan Agreements. All site and construction plans officially submitted to the City shall be treated as a formal agreement between the building contractor and the City. Once approved, no changes, modifications or alterations shall be made to any plan detail, standard, or specifications without prior submission of a plan modification request to the Zoning Administrator for review and approval.

Subd. 12. Enforcement. The Zoning Administrator shall have the authority to order the stopping of any and all site improvement activities, when and where a violation of the provisions of this Section has been officially documented.

Subd. 13. Certification of Taxes Paid. Prior to approval of an application for a site plan, the applicant shall provide certification to the City that there are no delinquent property taxes, special assessments, interest, or City utility fees due upon the parcel of land to which the site plan application relates.

1070.060 – Administrative Permits and Approvals

Subd. 1. Purpose. The purpose of this Section is to establish regulations and procedures for the processing and consideration of activities allowed by administrative permit, and of matters requiring the approval of the Zoning Administrator with the goal of protecting the health, safety, and welfare of the citizens of the City.

Subd. 2. Administrative Permits

A. Procedures

1. Application for an administrative permit shall be filed by the property owner or designated agent with the Zoning Administrator on an official application form.

2. A non-refundable fee as set forth by the City Code shall accompany the application.

3. The Zoning Administrator shall review the application and related materials and shall determine whether the proposal is in compliance with all applicable evaluation criteria, codes, ordinances, and applicable performance standards set forth in this Chapter.

4. The Zoning Administrator shall make a determination of approval or denial of the administrative permit pursuant to Minnesota Statutes 15.99.

5. A written permit shall be issued to the applicant when a determination of compliance has been made. Specific conditions to assure compliance with applicable evaluation criteria, codes, ordinances, and the standards of this Chapter may be attached to the permit.

City of Corcoran Construction Inspection Form

Location:				
Date:				
Time:				
Onsite Contact Name:				
Onsite Contact Phone:				
Recent Precipitation	No		Yes	
	Amount			
Perimeter Controls	Compliant		Non-Compliant	
	Comments			
Inlet Protection	Compliant		Non-Compliant	
	Comments			
Stabilized Construction Entrance	Compliant		Non-Compliant	
	Comments			
Sediment Tracking/ Accumulation	Compliant		Non-Compliant	
	Comments			
Soil Stabilization	Compliant		Non-Compliant	
	Comments			
Concrete and Other Washout Waste	Compliant		Non-Compliant	
	Comments			
Inspections and SWPPP Updates	Compliant		Non-Compliant	
	Comments			
Dewatering	Compliant		Non-Compliant	
	Comments			
Other	Compliant		Non-Compliant	
	Comments			

Minimum Control Measure 5
Post-construction Stormwater Management

Responsible Person

Pat Meister, Public Works Superintendent

Mike Pritchard, Code Compliance Official

Program Description

Corcoran has established the following BMPs regarding post-construction stormwater management:

1. Stormwater detention/retention basins: Corcoran has installed stormwater ponds to store stormwater and control outflow. The ponds are intended to reduce peak outflow rate, settle particles and associated pollutants, and allow for pollutant uptake by microbes, algae, and plants.
2. Zoning and subdivision ordinances: Corcoran uses these ordinances to guide development according to the Comprehensive Plan and the City's natural resources. The ordinances establish minimum setbacks from natural resources, requirements regarding impervious surfaces, and other building requirements that address post-construction stormwater management.
3. Floodplain zoning ordinance:This ordinance is consistent with state, county, and watershed regulations and includes setback requirements, building requirements, and other practices to ensure floodplain protection.
4. Plan review process: Corcoran's Subdivision Ordinance identifies plan review procedures, design standards, and timelines that can be used to regulate post-construction stormwater runoff for disturbances of 1 acre or greater, or as part of a larger common plan of development.
5. Pipe flow energy dissipators: Corcoran installs pipe flow energy dissipators to control the force of water flow and reduce erosion at outfalls of its storm drainage system.
6. Long-term maintenance of BMPs: Corcoran retains easements around stormwater ponds and other permanent storm water BMPs to allow access for inspections and necessary maintenance.
7. The City's Local Surface Water Management Plan (February 2009) includes goals and policies to prevent flooding and other adverse impacts on water resources from land development, redevelopment, and city projects (section 7). The plan works in cooperation with the standards of the Elm Creek Watershed Management Commission.

<u>Tasks and schedule:</u>

Although no questions in the permit application for this MCM are answered "no," the City would like to clarify that through easements and developer agreements, it assumes responsibility for long-term maintenance of all structural stormwater BMPs. It is the City's understanding that no additional legal mechanisms are needed to meet permit requirements.

Minimum Control Measure 6
Pollution Prevention/Good Housekeeping for Municipal Operations

Responsible Person
Pat Meister, Public Works Superintendent

Program Description
Corcoran has established the following BMPs regarding pollution prevention/good housekeeping for municipal operations:

1. Park and open space maintenance program: Corcoran maintains parks, landscaped medians, and other municipal landscaped areas to protect water quality. The City trains employees on proper application of fertilizers, pesticides, and herbicides and proper mowing practices to prevent water pollution.
2. Fleet and building maintenance program: Corcoran regularly inspects and maintains its buildings and equipment for potential spills and leaks.
3. Municipal street sweeping program: Corcoran sweeps municipal streets annually to collect debris and litter and prevent it from entering the storm drainage system.
4. Outfall and pond inspection program: Corcoran inspects an average of at least 20% of its ponds, outfalls, and sediment basins annually and maintains or repairs them as needed to optimize performance.The City keeps records of results, date, antecedent weather conditions, sediment storage and capacity remaining, and any maintenance performed or recommended. If two years of inspections show no change, frequency will be adjusted to once every two years. If a pattern of maintenance becomes apparent, inspections will occur at least twice annually.
5. Storm drainage system maintenance program: Corcoran cleans ditches occasionally using the Sentencing to Service program. The City also removes debris and inspects for illicit discharges or iillegal dumping in any storm drainage infrastructure.
6. Storage and material handling program: Corcoran has procedures to identify and manage all exposed stockpiles to ensure perimeter controls are in place and will prevent offsite migration of material.

7. New construction and land disturbance operation and maintenance: Corcoran developed procedures for operations and maintenance of new construction and land disturbance for work done by municipal employees. Construction practices required of developers and contractors in the City will also be required of municipal employees for any work done "in house."

Tasks and Schedule

By March 31, 2014, the City will develop a schedule of quarterly inspections of stockpiles, storage, and material handling areas to begin immediately upon permit approval.

Within 12 months of the permit effective date, the City will 1) develop procedures and a schedule for determining the TSS and TP effectiveness of City-owned or -operated ponds constructed and used for the collection and treatment of stormwater.

Update April 2015:

Quarterly stockpile inspections
Inspections of stockpiles and storage/material handling areas began in July 2014 and have continued every quarter since then. See the Public Works Superintendent for document location.

Procedures and schedule to determine TSS and TP effectiveness of stormwater ponds:

1. Stormwater ponds are inspected at least once every five years or more often if maintenance patterns indicate that more frequent attention is needed. The inspection checklist includes visually estimating the remaining pond capacity (percent). Because a pond's ability to remove total suspended solids (TSS) and total phosphorus (TP) decreases as sediment fills the pond and reduces pond volume, the estimate of remaining capacity will be used to indicate pond effectiveness.
2. If the remaining capacity of a pond cannot be estimated visually, or if measurements of sediment depth are needed to confirm the estimation, sediment depth will be measured using resistance or sonar methods. See attached instructions.
3. If enough sediment has accumulated to reduce pond volume to 50% or less of its original capacity, an excavation will be scheduled. See any of the resources below for more information, or contact a consultant for assistance.

Managing Stormwater Sediment – Best Management Practice Guidance for Municipalities; MPCA 2012.
http://www.pca.state.mn.us/index.php/view-document.html?gid=18075

Minnesota Stormwater Manual – Stormwater pond section
http://stormwater.pca.state.mn.us/index.php/Stormwater_ponds

Stormwater Pond & Wetland Maintenance Guidebook, Center for Watershed Protection, 2004
http://stormwatercenter.net/Manual_Builder/Maintenance_Manual/pondwetlandguidebookdraft.pdf

Stormwater Treatment: Assessment and Maintenance, University of Minnesota and MPCA, 2013. A supplement to Minnesota Stormwater Manual
Online and available for purchase from http://stormwaterbook.safl.umn.edu/
Case Study #11: Stormwater Retention Ponds: Maintenance vs. Efficiency
http://stormwaterbook.safl.umn.edu/content/case-study-11-stormwater-retention-ponds-maintenance-vs-efficiency

Center for Watershed Protection website, Stormwater Management web pages
http://www.cwp.org/2013-04-05-16-15-03/stormwater-management

(Scroll down to find Stormwater Management Resources.)

University of Minnesota Extension Service **Stormwater Education Program**
http://www.extension.umn.edu/environment/stormwater/
(Videos about stormwater pond management at http://www.extension.umn.edu/environment/stormwater/stormwater-pond-management-video.html.)

Implementing a Successful Stormwater Pond Rehabilitation Program: Exploring Short-Term Actions and Defining a Long-Term Plan
http://www.ci.maplewood.mn.us/DocumentCenter/Home/View/1409

Inspection Guide: Stormwater Ponds, Wet Ponds, Retention Ponds, NURP Ponds; Minnehaha Creek Watershed District
http://www.minnehahacreek.org/sites/minnehahacreek.org/files/pdfs/regulatory/WEB_Maintenance%20Guide%202012_ponds_0.pdf

EPA
Stormwater Wet Pond and Wetland Management Guidebook; EPA, 2009.

Inspection Procedures and Documentation

The City's MS4 inventory is maintained on an Excel spreadsheet (see Section VII). The inventory includes the required inspection frequency and columns for scheduling inspections.

Data from the Excel spreadsheet (ID number, geographic coordinates, location, etc.) can be merged onto an MS4 inspection form (a Word document). Inspections results can be recorded manually or electronically on that form.

Documentation of inspections is retained either in hard copy or PDF format. Hard copies are placed in designated city files. PDF documents are saved in a dedicated location on the City's server.

Training Program

Training on municipal stormwater management and illicit discharge detection and response is held each year, normally in winter or early spring.

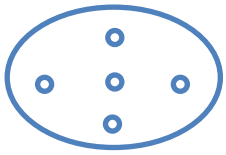
Municipal stormwater management training is provided by viewing the DVD "Storm Watch – Municipal Storm Water Pollution Prevention." The DVD also includes information about illicit discharge recognition. (The DVD can be borrowed from Washington Conservation District. Contact Angie Hong at 651-756-8552 or angie.hong@mnwcd.org. Additional training resources are listed in Section XII.)

Measuring Sediment Depth in Stormwater Ponds

1. **Record or measure original depth**. From the as-built plans, record the original depth of the stormwater pond, or obtain a copy of the plan showing bottom contours and depths. If the as-built plans are not available, estimate the original depth as follows, or contact a consultant for assistance.
   a. In winter (iced in)

      i. Auger holes in a pattern best suited to the size and shape of the pond. A larger pond or a pond with an irregular shape may require more holes. Draw the approximate shape of the pond and the locations of the holes on a report form (sample attached).

      ii. Insert a graduated rod or measuring stick through each hole and into the bottom sediment. Push it in until it meets firm resistance at the bottom of the pond. From the top of the bank, look across to the rod (or hold a laser pointer level with the bank top, aiming for the rod) and record the depth.



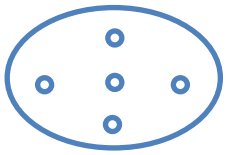
Example only – your pond may be a different size or shape.

      iii. In the future, use the same locations for measuring sediment depth.

   b. In summer (ice out)

      i. Put on a life vest and launch a canoe, kayak or jon boat into the water. To be safe and to avoid resuspending sediments, it's best not to walk in the pond.

      ii. Insert a graduated rod or measuring stick into the bottom sediment. Push it in until it meets firm resistance at the bottom of the pond. Read and record the depth on the measuring rod or stick. A suggested sampling pattern is below. The larger the pond and the more irregular its shape, the more sampling points needed. Draw the approximate shape of the pond and the locations of the sampling points on a report form (sample attached).



Example only – your pond may be a different size or shape.

      iii. In the future, use the same locations for measuring sediment depth.

2. **Measure sediment depth**

a. Resistance method

i. Mark sampling locations on a map or drawing of the pond. Plan to sample enough locations to be representative of conditions throughout the pond.

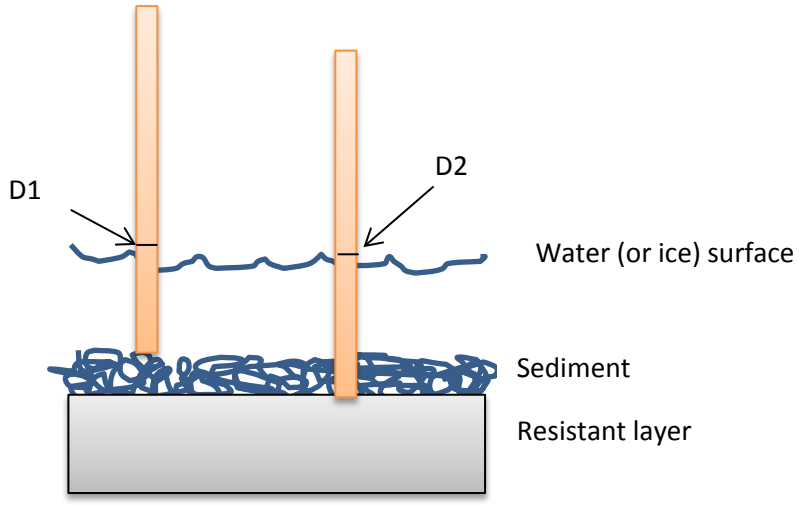
ii. Insert a graduated rod or measuring stick into the water until it reaches the top of the sediment (soft resistance). Record this as D1.

iii. Push the rod or stick into the sediment until it reaches firm resistance at the bottom of the pond. Record this as D2.

iv. The difference between D1 and D2 is the depth of the sediment.

v. Record this on the report form (sample attached).

vi. Calculate percent capacity remaining: [(Original depth – sediment depth)/Original depth] x 100 = percent capacity remaining at that point.)



b. Sonar method - ***DRAFT***

i. Obtain a hand-held depth finder and read the instructions for its use.

ii. In a pattern best suited to each pond, measure depth to bottom of pond in several locations representative of the pond's shape and size. Mark these locations on a map or drawing of the pond. (Sample attached.)

iii. If water level is below maximum pond capacity, estimate the number of inches below maximum capacity and add that number to the depth measurement.

iv. Calculate percent capacity remaining:
[(Depth measurement + inches below max capacity)/original depth] = percent remaining capacity.

3. **If the pond is at 50% or less of its capacity, schedule an excavation**. For more information, review any of these references or contact a consultant for assistance.

   a. **Managing Stormwater Sediment** – Best Management Practice Guidance for Municipalities; MPCA 2012.
   http://www.pca.state.mn.us/index.php/view-document.html?gid=18075

   b. **Minnesota Stormwater Manual** – Stormwater pond section
   http://stormwater.pca.state.mn.us/index.php/Stormwater_ponds

   c. **Stormwater Pond & Wetland Maintenance Guidebook**, Center for Watershed Protection, 2004
   http://stormwatercenter.net/Manual_Builder/Maintenance_Manual/pondwetlandguidebookdraft.pdf

   d. **Stormwater Treatment: Assessment and Maintenance**, University of Minnesota and MPCA, 2013. A supplement to Minnesota Stormwater Manual
   Online and available for purchase from http://stormwaterbook.safl.umn.edu/
      Case Study #11: Stormwater Retention Ponds: Maintenance vs. Efficiency
      http://stormwaterbook.safl.umn.edu/content/case-study-11-stormwater-retention-ponds-maintenance-vs-efficiency

   e. **Center for Watershed Protection** website, Stormwater Management web pages
   http://www.cwp.org/2013-04-05-16-15-03/stormwater-management
   (Scroll down to find Stormwater Management Resources.)

   f. University of Minnesota Extension Service **Stormwater Education Program**
   http://www.extension.umn.edu/environment/stormwater/
   (Videos about stormwater pond management
   at http://www.extension.umn.edu/environment/stormwater/stormwater-pond-management-video.html.)

   g. **Implementing a Successful Stormwater Pond Rehabilitation Program**: Exploring Short-Term Actions and Defining a Long-Term Plan
   http://www.ci.maplewood.mn.us/DocumentCenter/Home/View/1409

   h. **Inspection Guide**: Stormwater Ponds, Wet Ponds, Retention Ponds, NURP Ponds; Minnehaha Creek Watershed District
   http://www.minnehahacreek.org/sites/minnehahacreek.org/files/pdfs/regulatory/WEB_Maintenance%20Guide%202012_ponds_0.pdf

   i. Stormwater Wet Pond and Wetland Management Guidebook; EPA, 2009.

Stormwater Pond Sediment Depth Measurement
Report Form

Date: _____
Pond ID# _____ Pond location: _____

Sketch of pond and sampling locations (or mark on plan sheet showing bottom contours)

Original depth at each sampling location (see instructions, step 1).

Sampling location no.	Depth (feet or inches)	Sampling location no.	Depth (feet or inches)
1		18	
2		19	
3		20	
4		21	
5		22	
6		23	
7		24	
8		25	
9		26	
10		27	
11		28	
12		29	
13		30	
14		31	
15		32	
16		33	
17		34	

Percent Capacity Remaining – Resistance Method (copy page as needed)

Sampling Location No.	
a. Original depth	
b. D1	
c. D2	
d. Difference between D1 and D2	
e. Percent capacity remaining [(a-d)/a] x 100	

Sampling Location No.	
a. Original depth	
b. D1	
c. D2	
d. Difference between D1 and D2	
e. Percent capacity remaining [(a-d)/a] x 100	

Sampling Location No.	
a. Original depth	
b. D1	
c. D2	
d. Difference between D1 and D2	
e. Percent capacity remaining [(a-d)/a] x 100	

Sampling Location No.	
a. Original depth	
b. D1	
c. D2	
d. Difference between D1 and D2	
e. Percent capacity remaining [(a-d)/a] x 100	

Sampling Location No.	
a. Original depth	
b. D1	
c. D2	
d. Difference between D1 and D2	
e. Percent capacity remaining [(a-d)/a] x 100	

Sampling Location No.	
a. Original depth	
b. D1	
c. D2	
d. Difference between D1 and D2	
e. Percent capacity remaining [(a-d)/a] x 100	

Percent Capacity Remaining – Sonar Method (copy page as needed)

Sampling Location No.	
a. Original depth	
b. Sonar depth	
c. Estimated inches below pond maximum capacity	
d. Sum of b and c	
e. Percent capacity remaining [(d/a) x 100]	

Sampling Location No.	
a. Original depth	
b. Sonar depth	
c. Estimated inches below pond maximum capacity	
d. Sum of b and c	
e. Percent capacity remaining [(d/a) x 100]	

Sampling Location No.	
a. Original depth	
b. Sonar depth	
c. Estimated inches below pond maximum capacity	
d. Sum of b and c	
e. Percent capacity remaining [(d/a) x 100]	

Sampling Location No.	
a. Original depth	
b. Sonar depth	
c. Estimated inches below pond maximum capacity	
d. Sum of b and c	
e. Percent capacity remaining [(d/a) x 100]	

Sampling Location No.	
a. Original depth	
b. Sonar depth	
c. Estimated inches below pond maximum capacity	
d. Sum of b and c	
e. Percent capacity remaining [(d/a) x 100]	

Sampling Location No.	
a. Original depth	
b. Sonar depth	
c. Estimated inches below pond maximum capacity	
d. Sum of b and c	
e. Percent capacity remaining [(d/a) x 100]	

IX. Discharges to Impaired Waters

The City of Corcoran has a waste load allocation (WLA) under the Lake Sarah Nutrient Total Maximum Daily Load (TMDL) implementation plan. At the time of the permit application, Corcoran had not yet met its WLA. Corcoran has committed to implementing the following Best Management Practices (BMPs) by June 30, 2014. (This table excerpt is from the Compliance Schedule of the TMDL worksheet.)

Interim Milestone (Best Management Practice)	BMP ID	Implementation Date
Evaluation of Loretto Creek Phosphorus Removal Project: This joint project of the cities of Loretto and Medina includes construction of a water quality pond that will have regional benefits. Calculations show 37 pounds of phosphorus removal credited to Loretto and 160 pounds of phosphorus removal credited to Medina. The project also removes phosphorus from the part of the watershed that includes southwest Corcoran. If the evaluation of the project shows that it meets Corcoran's WLA, then long-term implementation will follow as described below. If the project cannot meet Corcoran's WLA, additional BMPs will be selected and implemented upon development, land use change, or agricultural landowner coooperation.	Lake Sarah 001	6/30/2014
BMP Selection: If Corcoran cannot meet its WLA through the benefits of the Loretto Creek project, it will evaluate the recommended BMPs in the implementation report and select one or more for implementation.	Lake Sarah 002	6/30/2014
BMP Task A: If needed, evaluate BMPs recommended in implementation report.	Lake Sarah 002A	6/30/2014
BMP Task B: If needed, select one or more BMPs for implementation and obtain Council approval based on funding.	Lake Sarah 002B	6/30/2015
BMP Task C: If needed, develop plans for implementation of one or more BMPs	Lake Sarah 002C	6/30/2016
BMP Task D: Fully implement one or more BMPs	Lake Sarah 002D	6/30/2018

.

X. Alum or Ferric Chloride Phosphorus Treatment Systems

At the time of the permit application, the City of Corcoran did not own and/or operate any alum or ferric chloride phosphorus treatment systems that are regulated by the permit (Part III.F).

XI. Annual MS4 Reports

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

MS4 Annual Report for 2013

Municipal Separate Storm Sewer Systems (MS4s)

Reporting period January 1, 2013 to December 31, 2013
Due June 30, 2014

Doc Type: Permitting Annual Report

Instructions: By completing this mandatory MS4 Annual Report form, you are providing the Minnesota Pollution Control Agency (MPCA) with a summary of your status of compliance with permit conditions, including an assessment of the appropriateness of your identified best management practices (BMPs) and progress towards achieving your identified measurable goals for each of the minimum control measures as required by the MS4 Permit (permit). If a permittee determines that program status or compliance with the permit can not be adequately reflected within the structure of this form additional explanation and/or information may be referenced in an attachment. This form has limitations and provides only a snap shot of your compliance with the conditions in the permit. After reviewing the information, MPCA staff may need to contact the permittee to clarify or seek additional information.

Submittal: This MS4 Annual Report must be submitted electronically to the MPCA using the submit button at the end of the form, from the person that is duly authorized to certify this form. All questions with an asterisk (*) are required fields (these fields also have a red border), and must be completed before the form will send. A manual confirmation e-mail will be sent in response to electronic submissions. If you do not receive an e-mail confirmation within two business days, please contact the program staff below. (If the submit button does work for you, you can save a copy of the form to a location on your computer where you will easily be able to retrieve it. You will then have to attach the form separately to an e-mail once you are within your Internet mail.)

If you have further questions, please contact one of these MPCA staff members (toll-free 800-657-3864):

- Scott Fox 651-757-2368 scott.fox@state.mn.us
- Claudia Hochstein 651-757-2881 claudia.hochstein@state.mn.us
- Cole Landgraf 651-757-2880 cole.landgraf@state.mn.us
- Dan Miller 651-757-2246 daniel.miller@state.mn.us
- Rachel Stangl 651-757-2879 rachel.stangl@state.mn.us

General Contact Information (*Required fields)

*Name of MS4: City of Corcoran *Contact name: Brad Martens

*Mailing address: 8200 County Road 116

*City: Corcoran *State: MN *Zip code: 55340

*Phone (including area code): 763-400-7030 *E-mail: bmartens@ci.corcoran.mn.us

Minimum Control Measure 1: Public Education and Outreach [V.G.1] (*Required fields)

A. The permit requires each permittee to implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and steps that the public can take to reduce pollutants in stormwater runoff. [Part V.G.1.a]

Note: Indicate which of the following distribution methods you used. Indicate the number distributed in the spaces provided (enter "0" if the method was not used or "NA" if the data does not exist):

Media type	Number of media	Number of times published	Circulation/ Audience
Example: Brochures:	*3 different brochures*	*published 5 times*	*about 10,000*
Brochures:	7 brochures or flyers	NA - available at City Hall	Unknown
Newsletter:	1 City newsletter	Published 3 times/year	Approx. 1,900
Posters:			
Newspaper articles:	1 public notice (annual mtg.)	Published once	Approx. 4,300
Utility bill inserts:			
Radio ads:			
Television ads:			
Cable Access Channel:			
Other: City web site	One Environmental page	NA - continuous	Unknown
Other:			
Other:			

B. *Do you use a website as a tool to distribute stormwater educational materials? ☒ Yes ☐ No

What is the URL: http://www.ci.corcoran.mn.us/ (under Services, choose Environmental)

C. If you answered yes in question B. above, do you track hits to the site? ☒ Yes ☐ No

How many hits were to the stormwater page?: Est. 30

D. *Did you hold stormwater related events, presentations to schools or other such activities? ☐ Yes ☒ No

If yes, describe:

E. *Have specific messages been developed and distributed during this reporting year for Minimum Control Measure (MCM):

MCM 1: ☒ Yes ☐ No MCM 4: ☒ Yes ☐ No

MCM 2: ☒ Yes ☐ No MCM 5: ☒ Yes ☐ No

MCM 3: ☒ Yes ☐ No MCM 6: ☒ Yes ☐ No

F. *Have you developed partnerships with other MS4s, watershed districts, local or state governments, educational institutions, etc., to assist you in fulfilling the requirements for MCM 1? ☐ Yes ☒ No

G. List those entities with which you have partnered to meet the requirements of this MCM and describe the nature of the agreement(s). Attach a separate sheet if necessary:

The City has no formal agreements with other entities, but its website includes links to information from several organizations, such as Clean Water Minnesota, Blue Thumb Gardening, and the EPA.

H. *Have you developed methods to assess the effectiveness of your public education/outreach program? ☒ Yes ☐ No

If yes, describe:

Under the 2013-2018 permit, the City will develop and maintain a stormwater page on its website, advertise it in the city newsletter, and try to increase the number of hits to that page. Increasing interest is used as a measure of the effectiveness of the City's education and outreach program.

Minimum Control Measure 2: Public Participation/Involvement [V.G.2] (*Required fields)

A. The permit requires you to hold at least one public meeting per year addressing the Stormwater Pollution Prevention Program. You must hold the public meeting prior to submittal to the Commissioner of the annual report. [Part V.G.1.e.]

B. *Did you hold a public meeting to present accomplishments and to discuss your Stormwater Pollution Prevention Program (SWPPP)? ☒ Yes ☐ No

If no, explain:

C. *What was the date of the public meeting: 06/26/2014

D. *How many citizens attended specifically for stormwater (excluding board/council members and staff/hired consultants)? 2

E. *Was the public meeting a stand-alone meeting for stormwater or was it combined with some other function (City Council meeting, other public event, etc.)? ☐ Stand-alone ☒ Combined

F. *Each permittee must solicit and consider input from the public prior to submittal of the annual report. Did you receive written and/or oral input on your SWPPP? [Part V.G.2.b.1-3] ☒ Yes ☐ No

G. *Have you revised your SWPPP in response to written or oral comments received from the public since the last annual reporting cycle? [Part V.G.2.c] ☐ Yes ☒ No

If *yes*, describe. Attach a separate sheet if necessary:

(Questions were asked regarding property-specific flooding and the role of the City. As far as the SWPPP is concerned, there was brief discussion of initial site plan reviews but there were no changes to the plan.)

Minimum Control Measure 3: Illicit Discharge Detection and Elimination [V.G.3] (*Required fields)

The permit requires permittees to develop, implement, and enforce a program to detect and eliminate illicit discharges as defined in 40 CFR 122.26(b)(2). You must also select and implement a program of appropriate BMPs and measurable goals for this minimum control measure.

A. *Did you update your storm sewer system map? ☐ Yes ☒ No

If yes, please explain which components (ponds, pipes, outfalls, waterbodies, etc.) were updated/added:

Note: *The storm sewer system map was to be completed by June 30, 2008. [Part V.G.3.a]*

B. *Have you modified the format in which the map is available? ☐ Yes ☒ No

C. If yes, indicate the new format: ☐ Hardcopy only ☐ GIS system ☐ CAD

☐ Other system: _____

D. *Did you inspect for illicit discharges during the reporting year? ☒ Yes ☐ No

E. If you answered yes in question D. above, did you identify any illicit discharges? ☐ Yes ☒ No

F. If you answered yes in question E. above, how many illicit discharges were detected during the reporting period? _____

G. If you answered yes in question E. above, did the illicit discharge result in an enforcement action? ☐ Yes ☐ No

If yes, what type of enforcement action(s) was taken (check all that apply):

☐ Verbal warning ☐ Notice of violation ☐ Fines ☐ Criminal action ☐ Civil penalties

☐ Other (describe): _____

Minimum Control Measure 4: Construction Site Stormwater Runoff [V.G.4] (*Required fields)

The permit requires that each permittee develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to your small MS4 from construction activities within your jurisdiction that result in a land disturbance of equal to or greater than one acre, including the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb one or more acres. [Part V.G.4.]

A. The permit requires an erosion and sediment control ordinance or regulatory mechanism that must include sanctions to ensure compliance and contains enforcement mechanisms [Part V.G.4.a]. Indicate which of the following enforcement mechanisms are contained in your ordinance or regulatory mechanism and the number of actions taken for each mechanism used during the reporting period (enter "0" if the method was not used or "NA" if the data does not exist). **Check all that apply.**

Enforcement mechanism	Number of actions
☒ Verbal warnings	# 0
☒ Notice of violation	# 0
☒ Administrative orders	# 0
☒ Stop-work orders	# 0
☒ Fines	# 0
☒ Forfeit of security of bond money	# 0
☒ Withholding of certificate of occupancy	# 0
☒ Criminal actions	# 0
☒ Civil penalties	# 0
☐ Other:	#

B. *Have you developed written procedures for site inspections? ☒ Yes ☐ No

C. *Have you developed written procedures for site enforcement? ☒ Yes ☐ No

D. *Identify the number of active construction sites greater than an acre in your jurisdiction during the 2013 calendar year: 1

E. *On average, how frequently are construction sites inspected (e.g., weekly, monthly, etc.)? Weekly

F. *How many inspectors, at any time, did you have available to verify erosion and sediment control compliance at construction sites during the reporting period? 1

Minimum Control Measure 5: Post-construction Stormwater Management in New Development and Redevelopment [V.G.5] (*Required fields)

The permit requires each permittee to develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects within your jurisdiction that disturb an area greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale that discharge into your small MS4. Your program must ensure that controls are in place that would prevent or reduce water quality impacts. You must also select and implement a program of appropriate BMPs and measurable goals for this minimum control measure.

Note: The MS4 permit requirements associated with this minimum control measure were required to be fully developed and implemented by June 30, 2008.

A. *Have you established design standards for stormwater treatment BMPs installed as a result of post-construction requirements? ☒ Yes ☐ No

B. *Have you developed procedures for site plan review which incorporate consideration of water quality impacts? ☒ Yes ☐ No

C. *How many projects have you reviewed during the reporting period to ensure adequate long-term operation and maintenance of permanent stormwater treatment BMPs installed as a result of post-construction requirements? [Part V.G.5.b.and Part V.G.5.c]. 1

D. *Do plan reviewers use a checklist when reviewing plans? ☒ Yes ☐ No

E. *How are you funding the long-term operation and maintenance of your stormwater management system? (Check all that apply)

☐ Grants ☐ Stormwater utility fee ☒ Taxes

☐ Other: _____

Minimum Control Measure 6: Pollution Prevention/Good Housekeeping for Municipal Operations [V.G.6] (*Required fields)

The permit requires each permittee to develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Your program must include employee training 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 stormwater system maintenance.

A. *The permit requires each permittee to inspect annually all structural pollution control devices, such as trap manholes, grit chambers, sumps, floatable skimmers and traps, separators, and other small settling or filtering devices [Part V.G.6.b.2)]

B. *Did you inspect all structural pollution control devices during the reporting period? ☐ Yes ☒ No

C. *Have you developed an alternate inspection frequency for any structural pollution control devices? [V.G.6.b.7)] ☐ Yes ☒ No

**Indicate the total number of structural pollution control devices for which you have developed and alternative inspection frequency:*

D. *Indicate the total number of structural pollution control devices (for example-grit chambers, sumps, floatable skimmers, etc.) within your MS4, the total number that were inspected during the reporting period, and calculate the percent inspected. Enter "0" if your MS4 does not contain structural pollution control devices or none were inspected. Enter "NA" if the data does not exist:

	*Total number	*Number inspected	*Percentage
*Structural pollution control devices:	14	0	0

E. *Did you repair, replace, or maintain any structural pollution control devices? ☐ Yes ☒ No

F. *For each BMP below, indicate the total number within your MS4, how many of each BMP type were inspected and the percent inspected during the reporting period. Enter "0" if your MS4 does not contain BMPs or none were inspected. Enter "NA" if the data does not exist:

Structure/Facility type	*Total number	*Number inspected	*Percentage
*Outfalls to receiving waters:	27	0	0
*Sediment basins/ponds:	31	0	0
***Total**	58	0	0

G. Of the BMPs inspected in F.. above, did you include any privately owned BMPs in that number? ☐ Yes ■ No

H. If yes in G.. above, how many: _____

Section 7: Impaired Waters Review (*Required fields)

The permit requires any permittee whose MS4 discharges to a Water of the State, which appears on the current U. S. Environmental Protection Agency (EPA) approved list of impaired waters under Section 303(d) of the Clean Water Act, review whether changes to the SWPPP may be warranted to reduce the impact of your discharge [Part IV.D].

A. *Does your MS4 discharge to any waters listed as impaired on the state 303 (d) list? ☒ Yes ☐ No

B. *Have you modified your SWPPP in response to an approved Total Maximum Daily Load (TMDL)? ☐ Yes ☒ No

If yes, indicate for which TMDL: Elm Creek Watershed-wide TMDL not yet implemented.

Section 8: Additional SWPPP Issues (*Required fields)

A. *Did you make a change to any BMPs or measurable goals in your SWPPP since your last report? [Part VI.D.3.] ☐ Yes ☒ No

B. If *yes*, briefly list the BMPs or any measurable goals using their unique SWPPP identification numbers that were modified in your SWPPP, and why they were modified: *(Attach a separate sheet if necessary)*

C. *Did you rely on any other entities (MS4 permittees, consultants, or contractors) to implement any portion of your SWPPP? [Part VI.D.4.] ☒ Yes ☐ No

If *yes,* please identify them and list activities they assisted with:

Wenck Associates, Inc. assists in providing educational information for city staff and public, reviews site plans, and assists in preparing the annual report. Wenck will also lead stormwater training in 2014.

Owner or Operator Certification (*Required fields)

The person with overall administrative responsibility for SWPPP implementation and permit compliance must certify this MS4 Annual Report. This person must be duly authorized and should be either a principal executive (i.e., Director of Public Works, City Administrator) or ranking elected official (i.e., Mayor, Township Supervisor).

☐ *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. 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 (Minn. R. 7001.0070). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment (Minn. R. 7001.0540).*

*Name of certifying official: Brad Martens

*Title: City Administrator/Treasurer *Date: _____ *(mm/dd/yyyy)*

Submit

Minnesota Pollution Control Agency

You are currently logged in as:

Corcoran City MS4

If this is correct, click the 'Next' button. If this information is incorrect, contact Cole Landgraf (651-757-2880, cole.landgraf@state.mn.us) or Rachel Stangl (651-757-2879, rachel.stangl@state.mn.us).

Before you begin...

The MS4 Annual Report for 2014 will automatically save your answers when you hit the 'Next' button at the bottom of each page.

If you wish to leave the MS4 Annual Report for 2014 and complete the document at another time, you may do so by hitting 'Next' at the bottom of your current page to save your progress before exiting the document. Return to the survey by following the previously used web link, and again login using your email and assigned password credentials. Once you successfully log in, your previous answers will appear.

You may print a copy of the MS4 Annual Report for 2014 for your records at any time by pressing the 'Print' button at the bottom of the page.

Additionally, it is possible to save a PDF copy of the MS4 Annual Report for 2014 if you are working on a computer with OneNote (a program often included in Microsoft Office packages). Detailed saving instructions are available at stormwater.pca.state.mn.us/index.php/Guidance_for_saving_MS4_annual_reports.

MS4 Annual Report for 2014

Reporting period: January 1, 2014 to December 31, 2014

Due: June 30, 2015

Instructions: Complete this annual report to provide a summary of your activities under the 2013 MS4 Permit (Permit) between January 1, 2014 and December 31, 2014. You may provide additional explanation and/or information in an email with

the subject *YourMS4NameHere_2014AR* to ms4permitprogram.pca@state.mn.us. MPCA staff may also contact you for additional information.

Questions: Contact Cole Landgraf at 651-757-2880 or cole.landgraf@state.mn.us or Rachel Stangl at 651-757-2879 or rachel.stangl@state.mn.us.

MS4 General Contact Information

Last name	Martens
First name	Brad
Title	City Administrator
Mailing address	8200 County Road 116
City	Corcoran
State	MN
Zip code	55340
Phone	763-400-7030
Email	bmartens@ci.corcoran.mn.us

MCM 1: Public Education and Outreach

The following questions refer to Part III.D.1. of the Permit.

Q2 Did you select a stormwater-related issue of high priority to be emphasized during this Permit term? [Part III.D.1.a.(1)]

- (●) Yes
- ( ) No

Q3 What is your stormwater-related issue(s)? Check all that apply.

- [ ] TMDL(s)
- [ ] Local businesses
- [ ] Residential BMPs
- [ ] Pet waste
- [ ] Yard waste
- [ ] Deicing materials
- [ ] Household chemicals
- [ ] Construction activities
- [ ] Post-construction activities
- [x] Other

Describe:

Illicit discharges, septic system maintenance, lawn care (especially fertilizer use).

Q4 Did you begin to educate the public on illicit discharge recognition and reporting? [Part III.D.1.a.(2)]

- (●) Yes
- ( ) No

Q5

How did you distribute educational materials or equivalent outreach? Check all that apply and provide circulation/audience associated with each item. [Part III.D.1.a.]

- [x] Brochure
- [x] Newsletter
- [ ] Utility bill insert
- [ ] Newspaper ad
- [ ] Radio ad
- [ ] Television ad
- [ ] Cable access channel
- [ ] Stormwater-related event
- [ ] School presentation or project
- [x] Website
- [x] Other (1)
- [ ] Other (2)
- [ ] Other (3)

Other (1), describe: Information in new-resident packets.

Q6 Intended audience? Check all that apply.

	Residents	Local Businesses	Developers	Students	Employees	Other
Brochure	☑	☑	☑	☑	☑	☐
Newsletter	☑	☑	☐	☐	☑	☐
Website	☑	☑	☑	☑	☑	☐
Other (1)	☑	☐	☐	☐	☐	☐

Q7 Enter the total circulation/audience (if unknown, use best estimate):

Brochure	25
Newsletter	2,700
Website	30
Other (1)	45

Provide a brief description of each activity related to public education and outreach (e.g. rain garden workshop, school presentation, public works open house) held and the date each activity was held from January 1, 2014 to December 31, 2014. [Part III.D.1.c.(4)]

Q8Date of activity	Q9Description of activity
Date (mm/dd/yyyy) 6/26/14	Annual SWPPP public meeting.
Date (mm/dd/yyyy) 8/16/14	Corcoran Country Daze (City table with giveaways, including information about stormwater pollution prevention.)
Date (mm/dd/yyyy)	
Date (mm/dd/yyyy)	

Date (mm/dd/yyyy)

Date (mm/dd/yyyy)

Date (mm/dd/yyyy)

Date (mm/dd/yyyy)

Q10 Between January 1, 2014 and December 31, 2014, did you modify your BMPs, measurable goals, or future plans for your public education and outreach program? [Part IV.B.]

- (•) Yes
- ( ) No

Describe those modifications:

In place of the public meeting, the City has chosen to post an educational presentation on its website, advertise the presentation and other educational resources in its newsletter, and invite people to learn more at a city celebration (Corcoran Country Daze) in August.

MCM 2: Public Participation/Involvement

The following questions refer to Part III.D.2.a. of the Permit.

Q11 You must provide a minimum of one opportunity each year for the public to provide input on the adequacy of your Stormwater Pollution Prevention Program (SWPPP). Did you provide this opportunity between January 1, 2014 and December 31, 2014? [Part III.D.2.a.(1)]

- (•) Yes
- ( ) No

Q12 What was the opportunity that you provided? Check all that apply.

- [x] Public meeting
- [ ] Public event
- [ ] Other

Q13 Did you hold a stand-alone meeting or combine it with another event?

- [ ] Stand-alone
- [x] Combined

Enter the date of the public meeting (mm/dd/yyyy): 6/26/14

Enter the number of citizens that attended and were informed: 2

about your
SWPPP:

Q16 Between January 1, 2014 and December 31, 2014, did you receive any input regarding your SWPPP?

- ○ Yes
- ◉ No

Q18 Between January 1, 2014 and December 31, 2014, did you modify your BMPs, measurable goals, or future plans for your public participation/involvement program? [Part IV.B.]

- ◉ Yes
- ○ No

Describe those modifications:

In place of the public meeting, the City has chosen to post an educational presentation on its website, advertise that presentation in its newsletter, and invite all who view it to learn more at a city celebration (Corcoran Country Daze) in August.

MCM 3: Illicit Discharge Detection and Elimination

The following questions refer to Part III.D.3. of the Permit.

Q19 Between January 1, 2014 and December 31, 2014, did you update your regulatory mechanism(s) which prohibits non-stormwater discharges to your MS4?

- ○ Yes
- ◉ No

Q20 Between January 1, 2014 and December 31, 2014, what was the status of this regulatory mechanism(s)?

Current regulatory mechanism sufficient

Optional, describe status:

Q21 Did you identify any illicit discharges between January 1, 2014 and December 31, 2014? [Part III.D.3.h.(4)]

- ◉ Yes
- ○ No

Q22 Enter the number of illicit discharges detected:

1

Q23 How did you discover these illicit discharges? Check all that apply and enter the number of illicit discharges discovered by each category.

- ☑ Public complaint
- ☐ Staff

Q24 Enter the number discovered by the public:

1

Q26 Did any of the discovered illicit discharges result in an enforcement action (this includes verbal warnings)?

- (●) Yes
- ( ) No

Q27 What type of enforcement action(s) was taken and how many of each action were issued between January 1, 2014 and December 31, 2014? Check all that apply.

- [x] Verbal warning
- [ ] Notice of violation
- [ ] Fines
- [ ] Criminal action
- [ ] Civil penalties
- [ ] Other

Enter the number of verbal warnings issued: 0

Q28 Did the enforcement action(s) taken sufficiently address the illicit discharge(s)?

- (●) Yes
- ( ) No

Q30 Do you have written Enforcement Response Procedures (ERPs) to compel compliance with your illicit discharge regulatory mechanism(s)? [Part III.B.]

- (●) Yes
- ( ) No

Q32 Did you train all field staff in illicit discharge recognition (including conditions which could cause illicit discharges) and reporting illicit discharges for further investigations? [Part III.D.3.e.]

- (●) Yes
- ( ) No

Q33 How did you train your field staff? Check all that apply.

- [ ] Email
- [ ] PowerPoint
- [x] Presentation
- [ ] Video
- [ ] Field Training
- [ ] Other

The following questions refer to Part III.C.1. of the Permit.

Q34 Did you update your storm sewer system map between January 1, 2014 and December 31, 2014? [Part III.C.1.]

- ( ) Yes
- (●) No

Q35 Does your storm sewer map include all pipes 12 inches or greater in diameter and the direction of stormwater flow in those pipes? [Part III.C.1.a.]

- (●) Yes
- ( ) No

Q36 Does your storm sewer map include outfalls, including a unique identification (ID) number and an associated geographic coordinate? [Part III.C.1.b.]

- (●) Yes
- ( ) No

Q37 Does your storm sewer map include all structural stormwater BMPs that are part of your MS4? [Part III.C.1.c.]

- (●) Yes
- ( ) No

Q38 Does your storm sewer map include all receiving waters? [Part III.C.1.d.]

- (●) Yes
- ( ) No

Q39 In what format is your storm sewer map available?

- (●) Hardcopy only
- ( ) GIS
- ( ) CAD
- ( ) Other

Q40 Between January 1, 2014 and December 31, 2014, did you modify your BMPs, measurable goals, or future plans for your illicit discharge detection and elimination (IDDE) program? [Part IV.B.]

- ( ) Yes
- (●) No

MCM 4: Construction Site Stormwater Runoff Control

The following questions refer to Part III.D.4. of the Permit.

Q41 Between January 1, 2014 and December 31, 2014, did you update your regulatory mechanism to be at least as stringent as the Agency's general permit to Discharge Stormwater Associated with Construction Activity (CSW Permit) No. MN R100001 (http://www.pca.state.mn.us/index.php/view-document.html?gid=18984) for erosion and sediment controls and waste controls? [Part III.D.4.a.]

- ( ) Yes
- (●) No

Q42 Between January 1, 2014 and December 31, 2014, what was the status of this regulatory mechanism?

Current regulatory mechanism sufficient

Optional, describe status:

Q43 Have you developed written procedures for site plan reviews as required by the Permit? [Part III.D.4.b.]

- (•) Yes
- ( ) No

Q44 Have you documented each site plan review as required by the Permit? [Part III.D.4.f.]

- (•) Yes
- ( ) No

Q45 Enter the number of site plan reviews conducted for sites an acre or greater between January 1, 2014 and December 31, 2014:

1

Q46 What types of enforcement actions do you have available to compel compliance with your regulatory mechanism? Check all that apply and enter the number of each used from January 1, 2014 to December 31, 2014.

- [x] Verbal warnings
- [x] Notice of violation
- [x] Administrative orders
- [x] Stop-work orders
- [x] Fines
- [x] Forfeit of security of bond money
- [x] Withholding of certificate of occupancy
- [x] Criminal actions
- [x] Civil penalties
- [ ] Other

Enter the number of verbal warnings issued:	1
Enter the number of notice of violations issued:	0
Enter the number of administrative orders issued:	0
Enter the number of stop-work orders issued:	0
Enter the number of fines issued:	0
Enter the number of forfeitures of security bond money issued:	0
Enter the number of withholdings of certificate of occupancy issued:	0

Enter the number criminal actions issued: 0

Enter the number of civil penalties issued: 0

Q47 Do you have written Enforcement Response Procedures (ERPs) to compel compliance with your construction site stormwater runoff control regulatory mechanism(s)? [Part III.B.]

- (•) Yes
- ( ) No

Q49 Enter the number of active construction sites an acre or greater that were in your jurisdiction between January 1, 2014 and December 31, 2014:

1

Q50 Do you have written procedures for identifying priority sites? [Part III.D.4.d.(1)]

- (•) Yes
- ( ) No

Q51 How are sites prioritized? Check all that apply.

- [x] Site topography
- [ ] Soil characteristics
- [ ] Types of receiving water(s)
- [x] Stage of construction
- [x] Compliance history
- [x] Weather conditions
- [ ] Other

Q52 Do you have a checklist or other written means to document site inspections when determining compliance? [Part III.D.4.d.(4)]

- (•) Yes
- ( ) No

Q53 Enter the number of site inspections conducted for sites an acre or greater between January 1, 2014 and December 31, 2014:

52

Q54 Enter the frequency at which site inspections are conducted (e.g. daily, weekly, monthly): [Part III.D.4.d.(2)]

As needed depending on weather, stage of construction, compliance history, topography, or receipt of complaints.

Q55 Enter the number of trained inspectors that were available for construction site inspections between January 1, 2014 and December 31, 2014:

3

Q56 Provide the contact information for the inspector(s) and/or organization that conducts construction stormwater inspections for your MS4. List your primary construction stormwater contact first if you have multiple inspectors.

(1) Inspector name	Rowdy Schmidt
Organization	Wenck Associates, Inc.
Phone (Office)	763-479-4261
Phone (Work Cell)	612-282-9549
Email	rschmidt@wenck.com
Preferred contact method	email
(2) Inspector name	Kevin Mattson
Organization	Wenck Associates, Inc.
Phone (Office)	763-479-4209
Phone (Work Cell)	612-209-7919
Email	ktorve@wenck.com
Preferred contact method	email
(3) Inspector name	Mike Pritchard
Organization	City of Corcoran
Phone (Office)	763-400-7033
Phone (Work Cell)	
Email	mpritchard@ci.corcoran.mn.us
Preferred contact method	email

Q57 What training did inspectors receive? Check all that apply.

- [x] University of Minnesota Erosion and Stormwater Management Certification Program
- [ ] Qualified Compliance Inspector of Stormwater (QCIS)
- [ ] Minnesota Laborers Training Center Stormwater Pollution Prevention Plan Installer or Supervisor
- [ ] Minnesota Utility Contractors Association Erosion Control Training
- [ ] Certified Professional in Erosion and Sediment Control (CPESC)
- [ ] Certified Professional in Stormwater Quality (CPSWQ)
- [ ] Certified Erosion, Sediment and Storm Water Inspector (CESSWI)
- [x] Other

Other, describe:

Mike Pritchard is field-trained by those who are certified.

Q58 Between January 1, 2014 and December 31, 2014, did you modify your BMPs, measurable goals, or future plans for your construction site stormwater runoff control program? [Part IV.B.]

- ○ Yes
- ◉ No

MCM 5: Post-Construction Stormwater Management

The following questions refer to Part III.D.5. of the Permit.

Q59

Between January 1, 2014 and December 31, 2014, did you update your regulatory mechanism(s) to incorporate all requirements as specified in Part III.D.5.a. of the Permit?

- ○ Yes
- ◉ No

Q60 Between January 1, 2014 and December 31, 2014, what was the status of this regulatory mechanism?

Current regulatory mechanism sufficient

Optional, describe status:

Q61 What approach are you using, or planning to use, to meet the performance standard for Volume, Total Suspended Solids (TSS), and Total Phosphorus (TP) as required by the Permit? [Part III.D.5.a.(2)]
Check all that apply.

Refer to the link http://www.pca.state.mn.us/index.php/view-document.html?gid=17815 for guidance on stormwater management approaches.

- ☐ Retain a runoff volume equal to one inch times the area of the proposed increase of impervious surfaces on-site
- ☐ Retain the post-construction runoff volume on site for the 95th percentile storm
- ☐ Match the pre-development runoff conditions
- ☐ Adopt the Minimal Impact Design Standards (MIDS)
- ☐ An approach has not been selected
- ☑ Other method (Must be technically defensible--e.g. based on modeling, research and acceptable engineering practices)

Other, describe:

Estimate of remaining pond capacity. (Effectiveness decreases as the pond fills with sediment.)

Q62 Do you have written Enforcement Response Procedures (ERPs) to compel compliance with your post-construction stormwater management regulatory mechanism(s)? [Part III.B.]

- ◉ Yes
- ○ No

Q64 Between January 1, 2014 and December 31, 2014, did you modify your BMPs, measurable goals, or future plans for your post-construction stormwater management program? [Part IV.B.]

- ○ Yes
- ◉ No

MCM 6: Pollution Prevention/Good Housekeeping for Municipal Operations

The following questions refer to Part III.D.6. of the Permit.

Q65 Enter the total number of structural stormwater BMPs, outfalls (excluding underground outfalls), and ponds within your MS4 (exclude privately owned).

Structural stormwater BMPs	14
Outfalls	27
Ponds	30

Q66 Enter the number of structural stormwater BMPs, outfalls (excluding underground outfalls), and ponds that were inspected from January 1, 2014 to December 31, 2014 within your MS4 (exclude privately owned). [Part III.D.6.e.]

Structural stormwater BMPs	14
Outfalls	27
Ponds	30

Q67 Have you developed an alternative inspection frequency for any structural stormwater BMPs, as allowed in Part III.D.6.e.(1) of the Permit?

- ○ Yes
- ◉ No

Q68 Based on inspection findings, did you conduct any maintenance on any structural stormwater BMPs? [Part III.D.6.e.(1)]

- ◉ Yes
- ○ No

Q69 Briefly describe the maintenance that was conducted:

Removed a muskrat house from the top of a structure.

Q70 Do you own or operate any stockpiles, and/or storage and material handling areas? [Part III.D.6.e.(3)]

- ◉ Yes
- ○ No

Q71 Did you inspect all stockpiles and storage and material handling areas quarterly? [Part III.D.6.e.(3)]

- ◉ Yes
- ○ No

Q72 Based on inspection findings, did you conduct maintenance at any of the stockpiles and/or storage and material handling areas?

- ○ Yes
- ◉ No

Q74 Between January 1, 2014 and December 31, 2014, did you modify your BMPs, measurable goals, or future plans for your pollution prevention/good housekeeping for municipal operations program? [Part IV.B.]

- ○ Yes

◉ No

Discharges to Impaired Waters with a USEPA-Approved TMDL that Includes an Applicable WLA

You must complete the **TMDL Annual Report Form**, available at: http://stormwater.pca.state.mn.us/index.php/Upload_page_with_TMDL_forms. Attach your completed TMDL Annual report form to this Annual Report as instructed below. [Part III.E.]

Q76 Click the "up arrow" icon below to upload your TMDL Annual report form. When it has uploaded successfully, a unique ID will appear in the box. Only files 6 MB or less will upload.

ref:0000000170:Q76

Partnerships

Q83 Did you rely on any other regulated MS4s to satisfy one or more Permit requirements?

○ Yes
◉ No

Additional Information

If you would like to provide any additional files to accompany your annual report, use the space below to upload those files. For each space, you may attach one file.

Q85 Click the "up arrow" icon below to upload a file. When it has uploaded successfully, a unique ID will appear in the box. Only files 6 MB or less will upload.

Q86 Click the "up arrow" icon below to upload a file. When it has uploaded successfully, a unique ID will appear in the box. Only files 6 MB or less will upload.

Q87 Click the "up arrow" icon below to upload a file. When it has uploaded successfully, a unique ID will appear in the box. Only files 6 MB or less will upload.

Q88 Optional, describe the file(s) uploaded:

Owner or Operator Certification

The person with overall administrative responsibility for SWPPP implementation and Permit compliance must certify this MS4 Annual Report. This person must be duly authorized and should be either a principal executive (i.e., Director of Public Works, City Administrator) or ranking elected official (i.e., Mayor, Township Supervisor).

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. 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 (Minn. R. 7001.0070). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment (Minn. R. 7001.0540).

☐ Yes

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 information can be used for the purpose of processing my MS4 Annual Report.

Name:

Title:

Date: (mm/dd/yyyy)

Before you submit...

Print or save a copy of your completed MS4 Annual Report for 2014 for your records. The MPCA will not be able to provide you with a copy.

You may print a copy of the MS4 Annual Report for 2014 for your records by pressing the 'Print' button at the bottom of the page.

Additionally, it is possible to save a PDF copy of the MS4 Annual Report for 2014 if you are working on a computer with OneNote (a program often included in Microsoft Office packages). Detailed saving instructions are available at stormwater.pca.state.mn.us/index.php/Guidance_for_saving_MS4_annual_reports.

If you have any questions, contact MPCA staff Cole Landgraf (cole.landgraf@state.mn.us, 651-757-2880) or Rachel Stangl (rachel.stangl@state.mn.us, 651-757-2879).

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

TMDL Annual Report Form

Municipal Separate Storm Sewer Systems (MS4) Program

Doc Type: Annual Report

Form Information

This form is to be completed annually by MS4s in order to track the completed BMP activities and to calculate the cumulative loading reduction for specific pollutants of concern associated with each applicable WLA. Navigate through this form using the tabs at the bottom of the page. All information is collected in accordance with Part III.E of the MS4 Permit.

Green Tabs (REQUIRED): user-input worksheet
Blue Tabs (hidden*): optional user-input worksheet
Yellow Tabs (hidden*): reference worksheet

*Reveal hidden spreadsheet tabs by navigating to Home->Cells->Format->Hide & Unhide->Unhide Sheet

Please refer to the Guidance for Completing the TMDL Reporting Form in the Minnesota Stormwater Manual for additional assistance and instructions. Sections of the guidance are hyperlinked throughout this spreadsheet.

User Information

Date Updated: 4/13/2015

Permittee: Corcoran City

Permit ID: MS400081

Contact Name: Brad Martens, City Administrator

Contact Phone: 763-400-7030

Contact email: bmartens@ci.corcoran.mn.us

Mailing address: 8200 County Road 116, Corcoran, MN 55340

Reporting Year	Data Entry Date	Entered by	Notes
2014	4/13/2015	Susan Nelson	Susan is with Wenck Associates, Inc. Phone: 763-479-5131. Email: snelson@wer

BMP - Activities Completed Spreadsheet

For MPCA use only			Required		Optional	Required							Optional		Required: Place an "X" in a cell if the BMP applies to the TMDL shown in the column
Entry ID	Permittee	MS4 ID	Reporting year	BMP/Activity	BMP Description	Location and ID Information Needed?	BMP ID	y-coord	x-coord	Coordinate system (e.g. lat-long, UTM)	Who owns this BMP/activity?	If applicable, name other owner(s)	Year when BMP was implemented	Note(s)	Lake Sarah Nutrient TMDL
															Lake Sarah - Phosphorus
MS400000-1	Corcoran City	MS400081	2014	BMP_improvement_enhancement_retrofitting	Evaluation of Loretto Creek Phosphorus Removal Project	No ID information needed	Lake Sarah 001	NA	NA	NA	Other MS4 permittee	Loretto and Medina, MN, received credit for phosphorus removal.	2013	A review of the project shows that up to 54 pounds of phosphorus is expected to be removed by channel improvements and wetland restoration. This is a joint project between the cities of Medina and Loretto, which have wasteload reductions (WLRs) of 249 and 37 pounds per year, respectively. Loretto's WLR is met, with the remaining 17 pounds most likely credited to Medina. Although runoff from Corcoran also is treated by this project, the TMDL report does not calculate the benefit.	X
MS400000-2	Corcoran City	MS400081	2014	BMP_improvement_enhancement_retrofitting	BMP selection from TMDL Implementation Report	No ID information needed	Lake Sarah 002	NA	NA	NA	Permittee (you)	NA	2014	As stated in the TMDL worksheet submitted with the application for permit renewal, the first step in this activity was to evaluate the BMPs recommended in the Lake Sarah TMDL implementation plan. The recommendations were discusssed by City Administrator Brad Martens and the city's engineering consultants. Following that discussion, Claudia Hochstein and Mary Hammes of the MPCA were contacted to help clarify the options available to the City. Please see "Category 3 BMPs - Activities."	X

Cumulative Reductions Spreadsheet

Category 1: Summary of quantitative reductions (Annual Pollutant Load Reduction).											Optional	
Permittee	MS4 ID	TMDL project	Units	2014	2015	2016	2017	2018	2019	2020	Calculation method	Notes
Corcoran City	**MS400081**	Lake Sarah - Phosphorus		0								

Category 2: Summary of qualitative reductions (# of BMPs).										Optional
Permittee	MS4 ID	TMDL project	2014	2015	2016	2017	2018	2019	2020	Notes
Corcoran City	**MS400081**	Lake Sarah - Phosphorus	2							

Non-implemented activities (BMP Inventory)

Permittee	MS4 ID	BMP description	Status	Reporting year	Notes (Optional)	Place an "X" in a cell if the activity applies to the TMDL shown in the column: Lake Sarah - Phosphorus
Corcoran City	**MS400081**	Apply strict water quality standards when development occurs	Planned	2014	Rather than immediately implement the recommendations in the Lake Sarah TMDL implementation plan, Corcoran will first use an approach that has preliminary approval to meet reductions in the upcoming Elm Creek TMDL: Apply strict water quality standards to land development (agriculture to other use). These standards already are being applied to proposed developments, and the City will work with the Lake Sarah watershed and its engineering consultant to ensure these standards are applied when development occurs in the Lake Sarah watershed.	X
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					
Corcoran City	**MS400081**					

Provide an up-dated narrative describing any adaptive management strategies used (including projected dates) for making progress toward achieving each applicable WLA
The City of Corcoran will apply strict water quality standards (those recently adopted by the Elm Creek Watershed Management Commission) throughout Corcoran, including the parts that lie within the Lake Sarah Watershed, to reduce nutrient load. As described in the Lake Sarah TMDL implementation plan, continued monitoring and reporting of lake water quality by the Pioneer-Sarah Creek Watershed Commission and Three Rivers Park District will track progress toward meeting the TMDL. Communication of this progress will help Corcoran determine how, or whether, it must change its practices to reduce nutrient load to Lake Sarah.

XII. Annual Tasks, Training Rosters, Training Resources

This section includes:

- A schedule of annual MS4 tasks, organized by quarter.
- Rosters for annual stormwater management and illicit discharge training.
- A printed copy of PowerPoint presentation that can be used for illicit discharge training for public works, law enforcement, and the code compliance staff.
- A list of potential training resources.

Training descriptions:

2015: Borrowed Excal Visual's Storm Watch DVD from Washington Conservation District. Public works staff from Corcoran and Loretto viewed it at a combined safety training session on April 14, 2015. City Administrator Brad Martens emailed public works, law enforcement, and code compliance staff on April 10 requesting all to view the presentation and sign the roster.

Training Schedule

Training*	2014	2015	2016	2017	2018
Stormwater Management Training	X	April			
Illicit Discharge Recognition and Reporting	X	April			
*Training for seasonal and new employees will be scheduled upon hire, and recurring training for all employees will be scheduled as needed to address changes in procedures, practices, techniques, or requirements. Attendance at all training programs will be documented on training rosters (next pages).					

Education and Training Resources

I. Excal Visual
5721 Arapahoe Ave, Suite A2
Boulder, CO 80303-1363
303-413-0847
www.excalvisual.com

Contact: Ben Daniel
ben@excalvisual.com
303-817-6765

- Stormwater Pollution Prevention for MS4s "Rain Check" DVD kit ($500)
- Illicit Discharge and Elimination "IDDE – A Grate Concern" DVD training kit ($500)

"Rain Check" also can be borrowed by contacting Angie Hong at the Washington Conservation District. Her contact info is:

Angie Hong
C/O: Washington Conservation District
455 Hayward Ave.
Oakdale, MN 55128
angie.hong@mnwcd.org
Phone: (651) 275-1136 ex. 35
Fax: (651) 756-8552
www.mnwcd.org/emwrep

II. EHS Associates, Inc.
3301 Bentwillow Drive
Fuquay-Varina, NC 27526
919-557-3870
1-800-803-9521
http://www.ehsassociates.net/video

- Storm Water Training Video & DVD Kit ($169)

III. Illicit Discharges: What to Look For (PowerPoint by Rick Baird, City of Mankato)

Click on the tab for Guidance and BMPs at the link below. Scroll down to Illicit Discharge, Detection and Elimination and look for the presentation.

http://www.pca.state.mn.us/index.php/water/water-types-and-programs/stormwater/municipal-stormwater/municipal-separate-storm-sewer-systems-ms4.html

IV. Wenck Associates training

Wenck developed an 11-slide PowerPoint presentation for illicit discharge training for public works, law enforcement, and code compliance staff. A printed copy of the presentation is in this section. An electronic copy was provided on CD and by email to Brad Martens and Pat Meister.

For more information, contact Susan Nelson at 763-479-5131 or snelson@wenck.com.

Stormwater Management Training for Municipal Operations

Date: _____

Name (print)	Email
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	

Training for Illicit Discharge Recognition and Reporting

Date: _____

Name (print)	Email
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	

Training for Illicit Discharge Recognition and Reporting

Date: 04/15/15

Name (print)	Email
1. Matt Gottschalk	mgottschalk@ci.corcoran.mn.us
2. Tyan Burns	tburns@ci.corcoran.mn.us
3. BRIAN DAHLQUIST	BDAHLQUIST @ Ci.CORCORAN.MN.US
4. Joleen Pitts	Jpitts@ci.corcoran.MN.US
5. Kevin KRAGMAN	Kkragman a Ci.corcoran.mn.us
6. Paula Steelman	psteelman@ci corcoran.mn.us.
7. Darren Johnson	djohnson@ Ci.Corcoran.mn.us
8. BRIAN FRAGODT	bfragodt@ci.corcoran.mn.us
9. Josh Hunter	Jhunter@ci.corcoran.mn.us
10. Jesse Olson	jolson@ci.corcoran.MN.US
11. Perry Rowen	prowen@.Ci.corcoran.MN.US
12. Steve Warren	swarren@ci.corcoran.mn.us
13. DAN DNATES	DDnates @ CI.Corcoran.MN.US
14. Duane Hochstetler	dhochstetler@ Ci.corcoran.mn.us
15. DAN IRISH	dIrish @ Ci corcoran.MN.US

Training for Illicit Discharge Recognition and Reporting

Date: 4/30/15

Name (print)	Email
1. JOSEPH D. ZERWAS JR	JZERWAS@CI.CORCORAN.MN.US
2. Chad Dickie 5/4/15	Cdickie@ci.corcoran.mn.us
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	

City of Corcoran Annual MS4 Schedule

Task	QTR	Resources/Notes
Quarterly inspection of all stockpiles, material handling & storage areas	1	Use MS4 inspection form. Save in hard copy or PDF format. Enter date in Excel inventory.
Spring newsletter article(s) featuring priority topic(s)	1	High priority topics are illicit discharge, septic systems, phosphorus in fertilizers. Also call attention to stormwater presentation on web site (stormwater page).
Annual stormwater training	1	See MS4 notebook for training options.
Annual IDDE training for all field staff	1	See MS4 notebook for training options.
Quarterly inspection of all stockpiles, material handling & storage areas	2	Use MS4 inspection form. Save in hard copy or PDF format. Enter date in Excel inventory.
Semi-annual review of storm drainage system map & inventory	2	Meet with Kent?
Annual MS4 report	2	Due June 30
Annual TMDL report	2	Due June 30
Summer newsletter article(s) featuring priority topic(s)	2	Topics are illicit discharge, septic systems, phosphorus in lawn fertilizer. Also direct users to web site.
Provide information and opportunity for public participation at Corcoran Country Daze (August).	3	Track number of stormwater-related materials distributed. Record in writing any comments received about the City's SWPPP.
Quarterly inspection of all stockpiles, material handling & storage areas	3	Use MS4 inspection form. Save in hard copy or PDF format. Enter date in Excel inventory.
Fall newsletter articles(s) featuring priority topic(s)	3	High priority topics are illicit discharge, septic systems, phosphorus in fertilizers. Also call attention to stormwater presentation on web site (stormwater page).
Inspection of high-priority areas for illicit discharge	3	Use illicit discharge inspection form.
Evaluate education program at least annually, update plan as needed.	4	See MS4 notebook for education program description.
Quarterly inspection of all stockpiles, material handling & storage areas	4	Use MS4 inspection form. Save in hard copy or PDF format. Enter date in Excel inventory.
Semi-annual review of storm drainage system map & inventory	4	Meet with City Engineer.

1	Jan - March
2	April - June
3	July - Sept.
4	Oct. - Dec.