



**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](mailto: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](mailto:claudia.hochstein@state.mn.us), Dan Miller at 651-757-2246 or [daniel.miller@state.mn.us](mailto: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: Cascade Township \*County: Olmsted  
*(city, county, municipality, government agency or other entity)*  
\*Mailing address: 2025 75<sup>th</sup> St NE  
\*City: Rochester \*State: MN \*Zip code: 55906  
\*Phone (including area code): 507-261-8909 \*E-mail: townclerk.cascadetownship@gmail.com

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

\*Last name: Heathman \*First name: Robert  
*(department head, MS4 coordinator, consultant, etc.)*  
\*Title: Supervisor  
\*Mailing address: 2025 75<sup>th</sup> St. NE  
\*City: Rochester \*State: MN \*Zip code: 55906  
\*Phone (including area code): 507-280-7742 \*E-mail: raheathman@gmail.com

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

Last name: \_\_\_\_\_ First name: \_\_\_\_\_  
*(department head, MS4 coordinator, consultant, etc.)*  
Title: \_\_\_\_\_  
Mailing address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip code: \_\_\_\_\_  
Phone (including area code): \_\_\_\_\_ E-mail: \_\_\_\_\_

## Verification

- 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
- 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)

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- 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: Robert A. Heathman  
*(This document has been electronically signed)*

Title: Supervisor Date (mm/dd/yyyy): 12/30/2013

Mailing address: 2025 75<sup>th</sup> St. NE

City: Rochester State: MN Zip code: 55906

Phone (including area code): 507-280-7742 E-mail: raheathman@gmail.com

**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*.

*Cascade Township collaborates with the City of Rochester and Olmsted County regarding SWPPP programs and materials.*

## 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:

Direct link:

Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere\_IDDEreg*.

2. If **no**:

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

*Within twelve (12) months of the permit being granted Cascade Township will draft and record an Illicit Discharge Ordinance regulating non-stormwater discharges*

## 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:

Direct link:

*section 10.20 of <http://cascadetownship.files.wordpress.com/2012/12/cascade-township-zoning-ordinance-2012-update-as-recorded.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:

*Within twelve (12) months of the permit being granted Cascade Township will update the township planning and zoning ordinance to include by reference the requirements of the MPCA general permit to discharge stormwater associated with construction activity*

- 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.   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |
| 2. BMPs to minimize the discharge of sediment and other pollutants.  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |
| 3. BMPs for dewatering activities.   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |
| 4. Site inspections and records of rainfall events   | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |
| 5. BMP maintenance   | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |
| 6. Management of solid and hazardous wastes on each project site.  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> 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. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |
| 8. Criteria for the use of temporary sediment basins.  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> 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 twelve (12) months of the permit being granted Cascade Township will update the township planning and zoning ordinance to include by reference the requirements of the MPCA general permit to discharge stormwater associated with construction activity*

## 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:

Direct link:

sections 5.7 & 6.4 of <http://cascadetownship.files.wordpress.com/2010/07/cascadefinalsubdivision2ord-march-03.pdf> and section 10.20 and 10.21 of <http://cascadetownship.files.wordpress.com/2012/12/cascade-township-zoning-ordinance-2012-update-as-recorded.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  Yes  No

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

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

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

*Within twelve (12) months of the permit being granted Cascade Township will draft and record a township ordinance to satisfy the MS4 general permit requirements for post construction storm water management*

### 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:

*No later than 12/30/2014 an Illicit Discharge ordinance will be drafted and recorded which will include enforcement procedures compliant with Permit Part III.B. No later than 12/30/2014 the construction and post construction ordinances will be updated to include the relevant enforcement requirements of Part III.*

B. Describe your ERPs:

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

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

*Cascade Township's storm sewer system consists of road ditches and culverts. The storm sewer system is managed via annual road inspections, twice a year ditch mowings, and routine inspection by road maintenance staff for debris. The storm sewer map is the same as the town road map.*

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 twelve (12) months of the date permit coverage is extended, a map of the storm sewer system will be drafted with unique identifiers for outfall locations and receiving waters/structural stormwater BMPs if applicable.*

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:

*Cascade Township does not own any storm water ponds. By 12/30/2014 an inventory of all Private ponds in Cascade Township will be completed.*

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**:

*Cascade Township is primarily a suburban residential and agricultural township. There is very limited commercial activity. Our current educational program consists of access to related materials via the township website and a presentation at the annual meeting.*

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
Website	Provide links to state storm water resources. Record at least 20 website hits per quarter
Annual township newsletter	Provide annual distribution to all recorded township households
BMP categories to be implemented	Measurable goals and timeframes
Website link to Illicit discharge ordinance	Ordinance released to the website by 12/30/2014

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

*Town Board Supervisor*

### 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:

*Cascade Township currently accepts public input via monthly township meetings. Public input is solicited at the annual township meeting.*

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
Annual meeting	Conduct a public input session once per year at the annual meeting



BMP categories to be implemented	Measurable goals and timeframes
Planning Commission membership	Advertise on the township website the need for volunteers to serve on the township planning commission charged with drafting the storm water regulations. Complete by 12/30/2014

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:  
*Town Board Supervisor*

**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:

*Our current detection program relies upon township employees/supervisors to watch for illicit discharges during all road and township maintenance inspections.*

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

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

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

*Within twelve (12) months of the extension of permit coverage, Cascade Township will draft an IDDE program to satisfy the permit requirements.*

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
Annual meeting	Annually review with township residents illicit discharge
BMP categories to be implemented	Measurable goals and timeframes
Website	By 12/30/2014 update the township website to provide information on the definition, detection and prevention of illicit discharge.
Employee training	By 12/30/2015 update the training package for township employees for illicit discharge detection and inspection.

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

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

*A township policy and recording templates will be drafted consistent with the recording requirements of the permit. All township staff will be trained on how to follow and use the templates for recording violations.*

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

*Town Board Supervisor*

**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:

*Cascade Township currently uses a checklist for all construction that includes adherence to the requirements of the permit*

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 R10001*?  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.

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
TCPA construction policy	Provide to every permit applicant. The timeframe is continuous.

BMP categories to be implemented	Measurable goals and timeframes
Website	Within two years update the township website to include educational material related to construction storm water

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

Town Board Supervisor

**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:

*Current policies and checklists used in the approval process include provision for post construction storm water management including the construction of private ponds. Construction permits are not approved without provision for post construction management and financial guarantees*

- 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  Yes  No

the agreement(s) and names of all responsible parties involved?

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.

- 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
Checklists	All permits require the completion of a construction checklist that includes post construction management. Ongoing/Continuous
Final Inspection	All construction requires final inspection and documentation prior to acceptance by the township. Ongoing/Continuous
Developer's agreements	All platted construction requires a developer's agreement that specifies financial guarantees and legal redress for non-compliance. Ongoing/Continuous

BMP categories to be implemented	Measurable goals and timeframes
Pond maintenance agreement	Within two years draft and institute a post construction pond maintenance agreement for all new construction which requires storm water ponds.

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

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

- 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:

*Cascade Township has no permittee owned or operated facilities in the MS4 Operations are limited to winter sand/salt application, tree trimming and ditch cleaning*

- Do you have a facilities inventory as outlined in the Permit (Part III.D.6.a.)?  Yes  No
- 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:  
*We have no facilities to inventory*

- 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
Street sweeping	At the end of the winter season, excess salt/sand is swept from the roadways . Once per year
Ditch cleaning	Township staff monitor road ditches for debris and pollutants during their daily travels. Clean/remove as needed
BMP categories to be implemented	Measurable goals and timeframes
Chloride reduction	Institute use of a salt brine roadway treatment to reduce the need for salt/sand mix. Implement during 2013/2014 snow season

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:

6. Cascade Township does not own/operate any stormwater ponds.

7. Cascade Township does not have any facilities, storage, stockpiles, or material handling within the township. The town facility is in an adjacent township.

7-9 Within twelve (12) months of the permit coverage, Cascade Township will draft inspection, training and documentation procedures/policies consistent with the requirements of the permit.

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

Town Board Supervisor

## 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

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

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

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

Permittee name	Preferred ID	TMDL project name*	Waterbody ID	Type of WLA*	Numeric WLA*	Unit*	Percent reduction	Flow condition*	Waterbody name	Pollutant of concern*	Date approved
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-502	Categorical	7.30	10 <sup>12</sup> organisms/month		High	Zumbro River; Cold Creek to West Indian Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-502	Categorical	3.39	10 <sup>12</sup> organisms/month		Moist	Zumbro River; Cold Creek to West Indian Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-502	Categorical	2.34	10 <sup>12</sup> organisms/month		Mid-Range	Zumbro River; Cold Creek to West Indian Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-502	Categorical	1.37	10 <sup>12</sup> organisms/month		Dry	Zumbro River; Cold Creek to West Indian Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-502	Categorical	1.05	10 <sup>12</sup> organisms/month		Low	Zumbro River; Cold Creek to West Indian Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-507	Categorical	10.68	10 <sup>12</sup> organisms/month		High	South Fork Zumbro River; Cascade Creek to Lake Zumbro	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-507	Categorical	3.76	10 <sup>12</sup> organisms/month		Moist	South Fork Zumbro River; Cascade Creek to Lake Zumbro	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-507	Categorical	2.23	10 <sup>12</sup> organisms/month		Mid-Range	South Fork Zumbro River; Cascade Creek to Lake Zumbro	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-507	Categorical	0.67	10 <sup>12</sup> organisms/month		Dry	South Fork Zumbro River; Cascade Creek to Lake Zumbro	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-507	Categorical	0.00	10 <sup>12</sup> organisms/month		Low	South Fork Zumbro River; Cascade Creek to Lake Zumbro	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-501	Categorical	7.31	10 <sup>12</sup> organisms/month		High	Zumbro River; West Indian Creek to Mississippi River	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-501	Categorical	3.40	10 <sup>12</sup> organisms/month		Moist	Zumbro River; West Indian Creek to Mississippi River	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-501	Categorical	2.35	10 <sup>12</sup> organisms/month		Mid-Range	Zumbro River; West Indian Creek to Mississippi River	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-501	Categorical	1.38	10 <sup>12</sup> organisms/month		Dry	Zumbro River; West Indian Creek to Mississippi River	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-501	Categorical	1.05	10 <sup>12</sup> organisms/month		Low	Zumbro River; West Indian Creek to Mississippi River	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-533	Categorical	5.74	10 <sup>12</sup> organisms/month		High	South Fork Zumbro River; Silver Lake Dam to Cascade Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-533	Categorical	2.19	10 <sup>12</sup> organisms/month		Moist	South Fork Zumbro River; Silver Lake Dam to Cascade Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-533	Categorical	1.40	10 <sup>12</sup> organisms/month		Mid-Range	South Fork Zumbro River; Silver Lake Dam to Cascade Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-533	Categorical	0.60	10 <sup>12</sup> organisms/month		Dry	South Fork Zumbro River; Silver Lake Dam to Cascade Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-533	Categorical	0.20	10 <sup>12</sup> organisms/month		Low	South Fork Zumbro River; Silver Lake Dam to Cascade Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-535	Categorical	5.17	10 <sup>12</sup> organisms/month		High	South Fork Zumbro River; Bear Creek to Oakwood Dam	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-535	Categorical	1.97	10 <sup>12</sup> organisms/month		Moist	South Fork Zumbro River; Bear Creek to Oakwood Dam	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-535	Categorical	1.26	10 <sup>12</sup> organisms/month		Mid-Range	South Fork Zumbro River; Bear Creek to Oakwood Dam	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-535	Categorical	0.54	10 <sup>12</sup> organisms/month		Dry	South Fork Zumbro River; Bear Creek to Oakwood Dam	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-535	Categorical	0.18	10 <sup>12</sup> organisms/month		Low	South Fork Zumbro River; Bear Creek to Oakwood Dam	Fecal Coliform	4/5/2006

Permittee name	Preferred ID	TMDL project name*	Waterbody ID	Type of WLA*	Numeric WLA*	Unit*	Percent reduction	Flow condition*	Waterbody name	Pollutant of concern*	Date approved
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-536	Categorical	1.80	10 <sup>12</sup> organisms/month		High	South Fork Zumbro River; Salem Creek to Bear Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-536	Categorical	0.68	10 <sup>12</sup> organisms/month		Moist	South Fork Zumbro River; Salem Creek to Bear Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-536	Categorical	0.44	10 <sup>12</sup> organisms/month		Mid-Range	South Fork Zumbro River; Salem Creek to Bear Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-536	Categorical	0.19	10 <sup>12</sup> organisms/month		Dry	South Fork Zumbro River; Salem Creek to Bear Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL	07040004-536	Categorical	0.06	10 <sup>12</sup> organisms/month		Low	South Fork Zumbro River; Salem Creek to Bear Creek	Fecal Coliform	4/5/2006
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-501	Categorical	26.51	tons/day		High	Zumbro River; West Indian Cr to Mississippi River	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-501	Categorical	11.15	tons/day		Moist	Zumbro River; West Indian Cr to Mississippi River	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-501	Categorical	7.21	tons/day		Mid-Range	Zumbro River; West Indian Cr to Mississippi River	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-501	Categorical	5.13	tons/day		Dry	Zumbro River; West Indian Cr to Mississippi River	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-501	Categorical	4.33	tons/day		Low	Zumbro River; West Indian Cr to Mississippi River	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-507	Categorical	26.17	tons/day		High	Zumbro River, South Fork; Cascade Cr to Zumbro Lk	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-507	Categorical	10.34	tons/day		Moist	Zumbro River, South Fork; Cascade Cr to Zumbro Lk	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-507	Categorical	3.96	tons/day		Mid-Range	Zumbro River, South Fork; Cascade Cr to Zumbro Lk	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-507	Categorical	1.81	tons/day		Dry	Zumbro River, South Fork; Cascade Cr to Zumbro Lk	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-507	Categorical	0.95	tons/day		Low	Zumbro River, South Fork; Cascade Cr to Zumbro Lk	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-581	Categorical	3.29	tons/day		High	Cascade Creek; Unnamed Cr to S Fk Zumbro R.	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-581	Categorical	1.73	tons/day		Moist	Cascade Creek; Unnamed Cr to S Fk Zumbro R.	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-581	Categorical	0.81	tons/day		Mid-Range	Cascade Creek; Unnamed Cr to S Fk Zumbro R.	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-581	Categorical	0.33	tons/day		Dry	Cascade Creek; Unnamed Cr to S Fk Zumbro R.	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-581	Categorical	0.14	tons/day		Low	Cascade Creek; Unnamed Cr to S Fk Zumbro R.	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-601	Categorical	3.97	tons/day		High	Kings Run; Unnamed Cr to Unnamed Cr	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-601	Categorical	1.64	tons/day		Moist	Kings Run; Unnamed Cr to Unnamed Cr	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-601	Categorical	0.70	tons/day		Mid-Range	Kings Run; Unnamed Cr to Unnamed Cr	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-601	Categorical	0.39	tons/day		Dry	Kings Run; Unnamed Cr to Unnamed Cr	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-601	Categorical	0.26	tons/day		Low	Kings Run; Unnamed Cr to Unnamed Cr	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-639	Categorical	0.58	tons/day		High	Cascade Creek; Headwaters to Unnamed Cr	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-639	Categorical	0.30	tons/day		Moist	Cascade Creek; Headwaters to Unnamed Cr	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-639	Categorical	0.14	tons/day		Mid-Range	Cascade Creek; Headwaters to Unnamed Cr	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-639	Categorical	0.06	tons/day		Dry	Cascade Creek; Headwaters to Unnamed Cr	TSS	5/25/2012
Cascade Township	MS400071	Zumbro River Watershed TMDL for Turbidity Impairments	07040004-639	Categorical	0.02	tons/day		Low	Cascade Creek; Headwaters to Unnamed Cr	TSS	5/25/2012



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

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

**NO** (Complete Table 1, Strategies for continued BMP implementation beyond the term of this permit, and Table 2 below)

**YES** (Provide the following information below)

Go to:  
[Table 1](#)

Go to:  
[Strategies...](#)

Go to:  
[Table 2](#)

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

### Lower Mississippi River Basin Fecal Coliform Bacteria TMDL

No reduction (0% reduction) in loading from MS4s was called for in this TMDL. Therefore, we will continue to maintain the existing BMPs to ensure they remain sufficient to address any loading generated from our system.

### Zumbro River Watershed TMDL for Turbidity Impairments

No reduction (0% reduction) in loading from MS4s was called for in this TMDL. Therefore, we will continue to maintain the existing BMPs to ensure they remain sufficient to address any loading generated from our system.

**Table 1**

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

#### NOTE:

It is recommended to assign each Interim Milestone (BMP) a BMP ID. You will be required to report on the status of each Interim Milestone and include a BMP ID for all structural BMPs as part of the MS4 Annual Report (see Part III.E.), so including those ID numbers at the time of application may be useful in tracking implementation efforts. If a pond that will be included in the pond inventory (Part III.C.2.) is to be applied toward a WLA, use the same ID for both the pond inventory and TMDL tracking. Non-structural BMPs are not required to have an ID, but it may be useful to assign it an ID for internal MS4 recordkeeping.

MPCA recommends the Implementation Dates align with the submittal of MS4 Annual Reports. Dates selected may not reflect the actual date a BMP is implemented, but shall indicate a BMP will be implemented on that date or before for that reporting year.

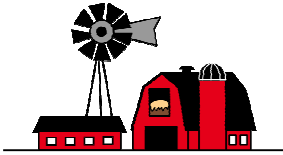
Interim Milestone (Best Management Practice)	BMP ID	Implementation Date	TMDL Project Name & Pollutant <sup>1</sup>

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

**Table 2**

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

TMDL Project	Target Date to Achieve WLA



**TOWNSHIP COOPERATIVE PLANNING ASSOCIATION**

4111 11th Avenue SW - Room 10 - Rochester, MN 55902  
PH: 507-529-0774 - FX: 507-281-6821  
roger@tcpamn.org - david@tcpamn.org

**Township  
Erosion and Sediment Control Policy**

The Township Building Inspector—CMS—will now inspect all new construction building sites to assure the Townships that MPCA standards are being met with respect to erosion control and site cleanliness. The following items will be inspected;

**Silt Fencing:**

- All downhill slopes must have silt fence installed
- All stockpiled soil must be surrounded with silt fencing
- All storm water inlets must be protected with silt fencing

**Garbage:**

- All construction debris and garbage must be contained. Builder to provide either a trailer, a dumpster or some other form of containment for all debris.

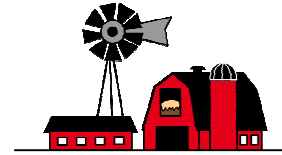
**Driveway:**

- There must be one stabilized vehicle entrance to the site and it must be used by all vehicles entering and exiting the site.
- The driveway must be surfaced with crushed rock, from the street/road to the house.
- Dirt, mud or debris tracked onto surrounding public streets/roads must be cleaned off within 24 hours.

**Sanitary Facilities**

- On-site toilet facilities must be provided.

**PLEASE KEEP YOUR BUILDING SITES CLEAN**



**TOWNSHIP COOPERATIVE PLANNING ASSOCIATION**

4111 11th Avenue SW - Room 10 - Rochester, MN 55902  
PH: 507-529-0774 - FX: 507-281-6821  
roger@tcpamn.org - david@tcpamn.org

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TOWNSHIP COOPERATIVE PLANNING ASSOCIATION -- GRADING PERMIT/EROSION CONTROL APPLICATION

4111 11<sup>th</sup> Avenue SW Room 10  
Rochester, MN 55902

-- TCPA --

(507) 529-0774  
Fax: (507) 281-6821

TOWNSHIP: \_\_\_\_\_

DATE: \_\_\_\_\_

Legal Property Description/Address: \_\_\_\_\_  
\_\_\_\_\_

Property Owner/Address: \_\_\_\_\_

Telephone #: \_\_\_\_\_

Engineer/Soils Scientist: \_\_\_\_\_ Telephone#: \_\_\_\_\_

Excavator: \_\_\_\_\_ Telephone#: \_\_\_\_\_

Type of Request:  Grading Permit  Erosion Control Review

Request Description: \_\_\_\_\_  
\_\_\_\_\_

Existing Use of Property: \_\_\_\_\_  
\_\_\_\_\_

Present Zoning Classification: \_\_\_\_\_

Signature of Applicant \_\_\_\_\_ Date \_\_\_\_\_

Filing Fee \$ 214.00, made payable to TCPA.

Surety in Place: Y N Surety Amount \_\_\_\_\_ Engineer's Estimate \$ \_\_\_\_\_

Reviewed by the Zoning Administrator on \_\_\_\_\_, to consider the above request.

\_\_\_\_\_ Approved \_\_\_\_\_ Approved with Attached Conditions:

Signature \_\_\_\_\_

# TCPA GRADING PLAN APPROVAL

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Project Name: \_\_\_\_\_

Township: \_\_\_\_\_

Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_

Firm: \_\_\_\_\_

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

Firm: \_\_\_\_\_

Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

Firm: \_\_\_\_\_

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**COMMENTS:**

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# TCPA Grading Plan Policy

If your grading project is disturbing more than 10,000 square feet, TCPA requires that you obtain a grading permit.

Additionally, if any of the below conditions exist, TCPA requires that a registered civil engineer prepare the grading plan and complete the grading plan checklist. **Any of the below also require you to reimburse the township for engineering fees associated with the review, approval, and construction inspection of the grading project:**

- Any grading within public property (except driveway culverts)
- Any grading activity which disturbs more than 1 acre of land
- Any grading activity involving more than 10,000 cubic yards.
- Any grading activity which alters the contours by more than 10 feet vertically

A grading plan must be deemed complete by TCPA staff before a preliminary plat application will be received.

Preliminary plat submittal deadlines are 3 weeks prior to the next scheduled planning and zoning meeting.

A performance bond in the amount of 125% of the engineer's estimate is required for any work performed within public property and any storm water pond work performed within a storm water easement.

TCPA's 2009 Schedule of engineering review fees

Professional Engineer \$150/ hour

Engineering Aide \$80/hour

Survey Crew \$191/hour

# TCPA GRADING PLAN CHECKLIST

-March 2009-

**KEY**

= Yes

= No

Blank = Not Applicable

Project Name: \_\_\_\_\_

Township: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Date: \_\_\_\_\_

Reviewed By: \_\_\_\_\_

Date: \_\_\_\_\_

**GENERAL**

- NPDES permit and SWPPP referred to on plan
  - Completed TCPA grading permit application
  - 5 copies of signed grading submitted (one copy directly to reviewing engineer)
  - Owner name and address shown on plan
  - Plan is 1"=50' or larger scale
  - North arrow shown on plan
  - Plan drawn in two-foot contours (solid lines)
  - Existing contours are labeled (dashed lines)
  - Directional arrows shown for proposed drainage
  - Details of terrain and drainage are provided for areas adjacent to proposed grading
  - Existing public and private utilities are shown
  - Boundaries of drainage areas shown (drainage report)
  - Soil types shown (drainage report)
  - Grading limits clearly shown on plan
  - All receiving waters, including wetlands, within 1/2 mile shown or identified on plan
  - Property limits are shown
  - Streets (existing and proposed) are labeled
  - Lot & Block or Section quadrant labeled on plan
  - Schedule of BMP installation shown
  - BMP details included on plan
  - County or MnDOT permit obtained for work in ROW
  - Any Township Board approval conditions are met
- SITE GRADING, SEDIMENT & EROSION CONTROL**
- Down-slope sediment control scheduled before grading
  - Adjacent property protected from drainage and sediment
  - Stabilized vehicle exits are provided
  - Silt fences are provided. "High flow, heavy duty" designated in concentrated areas
  - All storm inlets (existing & proposed) include temporary sediment control and remain in place until upstream stabilization
  - Maximum unbroken slope 3:1 or steeper of 75 feet horizontal. Min. break of 8 feet horizontal.

- Temporary stockpiles include additional silt fence or other sediment control
- Percent of slope shown for streets & drainage swales
- Proposed elevation of garage and lowest floor, ground at front and rear of buildings, along with structure type indicated on the plan.
- Top of foundation min. 6" from ground
- Grade 1' below top of foundation 10' from building
- Lowest opening of buildings at least 1' above any overflow elevation, 2' above low road crossing, 2' above pond 100-yr water level and 1' above 100-yr flood elevation (FEMA or other approved)
- Seeding schedule for areas within 200' of surface water within maximum time allowed shown on plan:
  - Steeper than 3:1 - 7 days
  - 10:1 to 3:1 - 14 days
  - Flatter than 10:1 - 21 days
- Temporary or permanent cover is indicated for all disturbed areas. Temp. seeding specifies seed mix, including disk anchored mulch on all slopes >200' or >5%. Permanent cover specifies 4" min. topsoil, seed mix and disk anchored mulch, or 4" min. topsoil and sod
- Slopes steeper than 4:1 and 4:1 slopes longer than 30' are seeded and protected with erosion control blankets or sodded and staked. Blanket category specified per MnDOT 3885.1. Plan shows required blanket locations.
- Statement that slopes steeper than 4:1 are stable from land-sliding and surface erosion. Geotechnical report for slopes > 3:1
- For sites where temporary or permanent cover will not be complete by November 15, plan indicates adequate measures to control spring erosion & sedimentation
- Minimum slope of drainage swales shall not be flatter than adjacent street profile, or 1% in all other locations without prior approval
- Typical sections for roadways and drainage ditches shown on the plan

### DRAINAGE SWALES & EASEMENT

- Drainage easements are shown and labeled on the plan
- Drainage easements are provided where concentrated flow is received from more than 1 adjacent lot. 100-yr max flow contained within easement.
- Minimum drainage easements for flows from 1 acre or less or 4 lots or less are a min. of 15' wide. 4:1 side slopes on ditches.
- Minimum drainage easements for flows from more than 1 acre or more than 4 lots are a min. of 20' wide. 4:1 side slopes on ditches.
- Control elevations for drainage ways are provided
- Velocity computations are provided for drainage easements where concentrated flow from more than 2 acres or 8 lots is directed. Where 10-yr velocities exceed 5 ft/sec, permanent turf reinforcement mats are installed. Blanket per MnDOT 3888.2A2 is specified. Plan depicts blanket locations and cross sections.
- Easement documents are signed and submitted to TCPA with recording fees, or included on plat
- Ditches stabilized within 24 hours of connection to surface water outlet

### OUTLETS & ENERGY DISSIPATION

- Discharge direction of flow generally 45 degrees or less to the flow direction of receiving ditch or stream
- Where discharge velocities are 10 fps or less, riprap and filter volumes are indicated in accordance with MnDOT Standard Plates.
- Where discharge velocities are greater than 10 fps, energy dissipater is provided along with riprap and filter.
- Pipe outlet energy dissipation complete within 24 hours of connection to surface water or outlet

### TEMPORARY SEDIMENT BASINS

- Temporary sediment basins provided
- Sized to store 2-yr, 24-hr storm from the drainage area below the outlet pipe (no smaller than 1800 cf/acre of drainage area), or
- Sized at 3,600 cf/ acre or drainage area
- Designed to minimize short-circuiting
- Discharge of Floating debris prevented
- Designed for full dewatering
- Principal and emergency spillway designed per BMP storm frequency standards
- Plan requires any temp. or permanent sediment ponds to be constructed at the beginning of construction
- For areas draining less than 10 acres, alternative sediment control provided:
  - Multiple lines of silt fence
  - Smaller basins
  - Vegetative strips

### INLETS & OVERFLOWS

- All apron elevations (inlets and outlets) are labeled. Area inlet elevations are labeled. Pipe sizes and materials are labeled.
- 400' max. manhole spacing for lines 15" dia or less
- 500' max. manhole spacing for lines 18" to 30" dia.
- Flow direction change no greater than 90 degrees
- Apron inlets include trash racks
- Trash racks on inlet structures in wooded areas designed assuming a minimum 50% plugging condition.
- Drainage does not cross intersections
- Overflow swales are provided which limit the depth of ponding in the roadways to 2' or less
- Minimum depth of road ditch = 3', with 4' bottom and 3:1 side slopes

### PERMANENT PONDS

- Entire drainage area shown (drainage report)
- Pond cross section included on plan
- Where possible, locate inlet and outlets at opposite ends of ponds and provide forebay at inlet
- 10:1 bench provided for first 1 foot below normal water elevation
- 4:1 max slope from normal water elevation to 100-yr water elevation
- 3:1 max slope below normal water elevation
- Pond depth is 3 to 10 feet based on normal water level
- Normal water elevation is labeled on the plan
- 100-y high water level is labeled on the plan
- Permanent pool volume of 1800 cf/acre drained
- Water quality volume equal to 1/2 inch runoff over total impervious surface area at ultimate development
- Outlet sized to discharge no more than 5.66 cfs/acre of pond surface
- Outlet designed to prevent short circuiting and discharge of floating debris
- Emergency overflow spillway is provided to accommodate 100-yr event. High point elevation and direction of flow are shown on the plans.
- Emergency overflow spillway is located to protect adjacent property and large fill sections
- 100-yr runoff which is designed to flow to the pond does not bypass the pond; unmodeled 100-yr flow does not enter the pond
- Minimum 10' width at top of dam ( if dam is <15' )
- 12' wide access and turn-around area for maintenance vehicles is shown on a slope <15%
- DNR Dam Safety Permit obtained if dam height is >6' and storage to top of dam is > 15 acre-ft.



**INFILTRATION/FILTRATION BASINS**

- Type(s) used:
  - Infiltration basins
  - Infiltration trenches
  - Rain gardens
  - Sand filters
  - Organic filters
  - Bioretention
  - Natural depressions (wetland not included)
  - Other \_\_\_\_\_
- Floating debris removed before infiltration system
- Site sensitivity analysis included
- Evaluation of hydrologic impact included
- Infiltration scheduled after full site development and stabilization
- Runoff routed away from infiltration system during construction
- Site controlled to minimize soil compaction
- Pretreatment sediment removal included
- Designed for 1/2 inch of runoff from total impervious surface areas for ultimate development within 48 hours
- System bypass for flows that cannot be filtered
- Minimum vertical separation of 3 feet between seasonal high ground water and bottom of infiltration system
- Minimum vertical separation of 3 feet between impermeable layer and bottom of infiltration system
- Soil test results, system capacity calculations, and computer modeling results provided (drainage report)
- Min. 10' width maintenance access provided
- Emergency overflow spillway provided and located to protect adjacent property and large fill sections

**DRAINAGE REPORT**

- Map of existing watersheds
- Map of proposed watersheds
- Soil type map
- Discussion of existing and proposed conditions
- Comparison of existing and proposed runoff. Proposed runoff shall not exceed existing runoff for the 2-yr, 10-yr and 100-yr storm events
- Modeling calculations and results included
- Discharge and storage calculations for all stormwater ponds and infiltration basins
- Velocity computations for all pipe outlets
- Velocity computations for all drainage swales
- Culvert sizing calculations
- Storm sewer design calculations
- Calculations for compliance with NPDES requirements

**ON-SITE SEWAGE TREATMENT SYSTEMS**

- ISTS investigation submitted to TCPA
- ISTS areas shown on plan
- Grading does not extend into ISTS areas
- ISTS areas are protected from soil compaction
- Storm drainage is not directed over ISTS areas

**COMMENTS:**

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