MINNESOTA POLLUTION CONTROL AGENCY

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MS4 self-audit checklist
Municipal Separate Storm Sewer System (MS4) Program

Purpose: The purpose of this checklist is to provide MS4 staff guidance on how to conduct a self-audit of a Stormwater Pollution Prevention Program (SWPPP). The MS4 General Permit can be found at https://stormwater.pca.state.mn.us/index.php?title=MS4_General_Permit. The permit is located on the Minnesota Pollution Control Agency (MPCA) Stormwater webpage at https://www.pca.state.mn.us/water/ms4-general-permit.

Overall program management

Activity description	Activity complete & available?
Staff and their stormwater responsibilities documented for those who implement components of the SWPPP.	Yes ☐ No ☐
A map of the MS4 system with the following: ▪ all pipes 12 inches or more in diameter including their flow direction and an identification (ID) number ▪ all outfalls including their ID number and geographic coordinates ▪ all structural stormwater best management practices (BMPs) that are part of the MS4 ▪ all receiving waters	Yes ☐ No ☐
Partnerships established to implement the SWPPP or aspects of the SWPPP, including any formal agreements.	Yes ☐ No ☐
Enforcement actions conducted are documented, including verbal warnings, with the following information: ▪ name of the party in noncompliance ▪ date, location, and description of the violation, including reference to relevant Regulatory Mechanism ▪ corrective actions required and completion schedule ▪ date and type of enforcement used ▪ referrals to other regulatory organizations (if any) ▪ date violation resolved	Yes ☐ No ☐
A Pond, Wetland, and Lake Inventory complete and submitted to the MPCA.	Yes ☐ No ☐
For MS4s that discharge to waters with a total maximum daily load (TMDL) that was approved by the U.S. Environmental Protection Agency before the issuance of the MS4 General Permit. For each TMDL, documentation of the following: ▪ TDML project name ▪ numeric waste load allocation (WLA) type (i.e., categorical or individual) and units ▪ pollutant of concern ▪ applicable flow data ▪ interim milestones (BMPs) and dates for implementation to make progress toward meeting the WLAs ▪ strategies for continued BMP implementation beyond the term of the MS4 General Permit ▪ and target dates the applicable WLA will be achieved	Yes ☐ No ☐
For MS4s with an Alum or Ferric Chloride Phosphorus Treatment System. Documentation of the following: ▪ geographic coordinates of the system ▪ the name or position titles of those responsible for the operation of the system ▪ annual reporting information	Yes ☐ No ☐

Tips for overall program management:

- Develop a process and key contacts for coordinating SWPPP activities across departments.
- Remember to perform an annual evaluation of your SWPPP and SWPPP document.
- Perform an annual evaluation of all written procedures to ensure they reflect current processes and staff.

Questions and concepts to consider:

- Which staff are involved in the implementation of your SWPPP and how are activities coordinated across departments?
- If outside groups are involved in your SWPPP, what are their roles or authorities, and how do you coordinate with them?
- How is your stormwater program funded and what aspects of the SWPPP does the funding cover

MCM 1 – Public education and outreach

Activity description	Activity complete & available?
The SWPPP document describing BMPs to educate the public on the impact stormwater discharges have on water bodies and actions citizens, businesses, and other local organizations can take to reduce the discharge of pollutants to stormwater.	Yes ☐ No ☐
The SWPPP document with measurable goals for each BMP (e.g., number of materials distributed, number of website hits, or number/percentage of behaviors changed) and timeframes and staff responsible for implementation.	Yes ☐ No ☐
High priority stormwater-related issue(s) are identified (e.g., specific TMDL reduction targets; responsible management of pet waste, household chemicals, yard waste, or deicing materials).	Yes ☐ No ☐
Outreach and educational materials related to stormwater-related high priority issues are distributed and documented.	Yes ☐ No ☐
Outreach and educational materials related to illicit discharge recognition and reporting are documented.	Yes ☐ No ☐

Implementation plan developed that consists of the following:
 	
  ▪ target audience and measurable goals
  ▪ staff responsible for implementation
  ▪ specific activities and schedules to meet measurable goals; description of coordination with education partners, if applicable
  ▪ an annual evaluation of measurable goals
	Yes ☐ No ☐

An annual evaluation of the effectiveness of the implementation plan has been completed.	Yes ☐ No ☐
Modifications made to the program as a result of the annual evaluation are documented.	Yes ☐ No ☐
Public education activities held are documented, including dates of the activities.	Yes ☐ No ☐
Educational materials have been distributed and documented with quantities, descriptions, and dates.	Yes ☐ No ☐

Tips for a successful public education and outreach program:

- Partner with organizations that specialize in public education and outreach, like Soil and Water Conservations Districts or non-profits.

- Partner with neighboring communities to standardize the messaging related to your community's waterbodies.

- Develop culturally appropriate materials in languages applicable to the demographics of your community.

- Conduct baseline screenings (e.g., through surveys) to evaluate the impact of your public education program and extent to which your program is changing behaviors.

- Use a database or spreadsheet to track the number of outreach materials distributed and the date(s) of distribution.

Questions and concepts to consider:

- How were target audiences and high priority topics chosen?

- How do you evaluate the effectiveness of your public education and outreach program?

- Have you established behavior change goals and, if so, what have you done to cause behavior changes within your audiences?

- What methods are you using to reach your target audiences and how do you know if you are successful?

- Are you reevaluating your target audiences periodically?

Activity description	Activity complete & available?
The SWPPP document identifies public involvement BMPs to solicit public input on the SWPPP.	Yes ☐ No ☐
The SWPPP document identifies measurable goals for each BMP (e.g., numbers of public meetings held or number participants involved in specific activities), associated timeframes, and staff responsible for implementation.	Yes ☐ No ☐
Annual public opportunity for the public to provide input on the SWPPP is held and documented with dates and locations of events and notices to the public.	Yes ☐ No ☐
Access provided to the following: ▪ SWPPP document ▪ annual reports ▪ other documentation that supports the SWPPP	Yes ☐ No ☐
Events and notices to the public of events scheduled are documented with dates and locations.	Yes ☐ No ☐
Public input regarding the SWPPP is considered and documented with MS4 staff responses and subsequent modifications to the SWPPP.	Yes ☐ No ☐

Tips for a successful public involvement program:

- Use existing municipal events, like Public Works Open Houses, fairs, or household hazardous waste collection days to solicit input on your SWPPP. If using an existing, on-going event as your public opportunity for the public to provide input, be sure to follow your local public notice requirements.

- Provide access to the SWPPP in various forms to meet the needs of all residents (i.e., hardcopies in municipal facilities and electronically).

Questions and concepts to consider:

- How are you getting annual input on the SWPPP from the public?

- What is your process for receiving, considering, and responding to public input on the SWPPP?

- How are you involving all groups (e.g., residents, businesses, public officials) in your SWPPP?

- Are you, or have you considered, storm drain stenciling events to involve the public and raise awareness of stormwater impacts?

- What volunteer activities does your community sponsor or partner to host?

- What are your community's public notice requirements?

MCM 3 – Illicit discharge recognition and elimination

Activity description	Activity complete & available?
The SWPPP document identifies BMPs to detect and eliminate illicit discharges into the small MS4.	Yes ☐ No ☐
The SWPPP document identifies measurable goals for each BMP (e.g., number of staff trained, amount of pipe to be televised, or number of dry weather inspections completed) and timeframes and staff responsible for implementation.	Yes ☐ No ☐
Regulatory mechanism adopted to prohibit illicit discharges into your MS4.	Yes ☐ No ☐
Enforcement Response Procedures (ERPs) developed to compel compliance with the regulatory mechanism that prohibits illicit discharges into the MS4.	Yes ☐ No ☐
Illicit discharge detection is incorporated into all inspection and maintenance activities, including during dry weather.	Yes ☐ No ☐
Visual inspections are used to detect and track the source of illicit discharges.	Yes ☐ No ☐
Field staff are trained in illicit discharge recognition.	Yes ☐ No ☐
Priority areas likely to have illicit discharges and more frequent illicit discharge inspections are identified and the dates and locations of inspections documented.	Yes ☐ No ☐
Procedures for investigating, locating, and eliminating the source of illicit discharges has been developed and followed.	Yes ☐ No ☐
Procedures for responding to spills has been developed and followed.	Yes ☐ No ☐
Reports of alleged illicit discharges received are documented with dates of the reports and any follow-up actions taken.	Yes ☐ No ☐
Dates of discovery of all illicit discharges are documented with the following: • location and the responsible party of illicit discharges, if known • actions taken including dates to address discovered illicit discharges	Yes ☐ No ☐

Tips for a successful illicit discharge recognition and elimination program:

- Maintain a database or spreadsheet to collect all required information for illicit discharge discoveries and complaints.

- Coordinate with other municipal operations (fire, police, etc.) to create the procedures for investigating, locating, and eliminating the source of illicit discharges and spill responses to ensure the procedure includes all relevant staff and tools that can be used in various situations (e.g., booms, spill response kits).

- Train all staff on the MS4 General Permit requirements for illicit discharges, including police officers, fire fighters, and building officials.

Questions and concepts to consider:

- How are illicit discharge inspections prioritized and tracked?

- How do you know when to pursue and elevate enforcement actions related to observed illicit discharges?

- How do you use the storm sewer map when you receive a complaint regarding or discover an illicit discharge?

- What tools are available for staff to use while preventing or minimizing impacts of illicit discharges?

- Which staff respond to illicit discharge complaints and how do they evaluate the situation?

- Are the storm sewer or sanitary sewer systems evaluated to determine illicit or cross connections?

MCM 4 – Construction site runoff control

Activity description	Activity complete & available?
The SWPPP document identifies BMPs to develop and support the program that reduces pollutants in stormwater runoff to the small MS4 from construction activity.	Yes ☐ No ☐
The SWPPP document identifies measurable goals for each BMP (e.g., number of trained inspectors) and timeframes and staff responsible for implementation.	Yes ☐ No ☐
Regulatory mechanism has been adopted to address construction site stormwater runoff control.	Yes ☐ No ☐
Site plan review procedures have been developed and followed to ensure compliance with the construction site stormwater runoff control regulatory mechanism.	Yes ☐ No ☐
Site plan review procedures notify applicants of need to get coverage under the MPCA's Construction Stormwater General Permit (Permit number MN R100001) found at https://stormwater.pca.state.mn.us/index.php/Construction_stormwater_permit. This permit is located on the MPCA Construction Stormwater website at https://www.pca.state.mn.us/water/construction-stormwater.	Yes ☐ No ☐
Written procedures have been developed for consideration of reports submitted by the public related to noncompliance or other stormwater related information at construction sites.	Yes ☐ No ☐
Construction site inspection procedures have been developed and followed. Procedures must include the following: ▪ prioritization criteria for sites to be inspected ▪ a frequency for construction site inspections ▪ name/title of those conducting site inspections	Yes ☐ No ☐
Construction site inspections are documented by checklists or other written means.	Yes ☐ No ☐
ERPs to compel compliance with the construction site stormwater runoff control regulatory mechanism has been developed.	Yes ☐ No ☐
Site plan reviews of construction site stormwater runoff control are documented with stormwater related comments and supporting information.	Yes ☐ No ☐
Site plan reviewers and construction site inspectors are trained and the training is documented.	Yes ☐ No ☐

Tips for a successful construction stormwater program:

- Fill out a standard checklist during all construction site inspections.
- Ensure your regulatory mechanism requires all erosion, sediment, and waste controls as described in the Construction Stormwater General Permit.
- Fill out a standard checklist during all site plan reviews.
- Document all enforcement actions, including verbal warnings.
- Use a database or spreadsheet to track all required information related to enforcement actions.

Questions and concepts to consider:

- What are the difference between inspecting a private and publically owned/operated construction site?
- What is the process for conducting a construction site inspection and what does the inspector look for onsite?
- What is the process, from application to approval, for a proposed construction project?
- What is the site review process – who is involved, what is evaluated, and how are findings communicated with the applicant?
- How does the construction site inspector know when to pursue and elevate enforcement actions?

MCM 5 – Post-construction stormwater management

Activity description	Activity complete & available?
The SWPPP document identifies BMPs to develop and support the program that prevents or reduces water pollution after construction activity is completed.	Yes ☐ No ☐
The SWPPP document identifies measurable goals for each BMP (e.g., number of trained site plan reviewers) and timeframes and staff responsible for implementation.	Yes ☐ No ☐
Regulatory mechanism has been adopted to address post-construction storm water management.	Yes ☐ No ☐
Mitigation provisions have been developed for situations where total suspended solids (TSS) or total phosphorus (TP) standards for post-construction stormwater management cannot be met on site and documentation associated with mitigation projects is retained.	Yes ☐ No ☐
Legal mechanism for long-term operation and maintenance of structural stormwater BMPs has been developed.	Yes ☐ No ☐
Site plan review procedures to ensure compliance with the post-construction stormwater management regulatory mechanism have been developed and are followed.	Yes ☐ No ☐
Site plan reviews to determine compliance with the post-construction stormwater management regulatory mechanism are documented with the project name, location, owner and operator, and any checklists and calculations used to determine compliance.	Yes ☐ No ☐
ERP to compel compliance with the post-construction stormwater management regulatory mechanism has been developed.	Yes ☐ No ☐

Tips for a successful post-construction stormwater program:

- Fill out a standard checklist during all site plan reviews to ensure the reviewer is evaluating for appropriate post-construction water quality and design standards.

- Explicitly state the post-construction water quality and volume standards (e.g., retain one inch of runoff for all new impervious for new development; net reduction for redevelopment).

- Adopt Minimal Impact Design Standards for new and redevelopment post-construction water quality and volume standards.

- Track all privately-owned structural stormwater BMPs that have or will need a maintenance agreement.

Questions and concepts to consider:

- Is there an overall comprehensive plan that guides new and re-development standards and other stormwater management strategies?

- What does the site plan reviewer look for when reviewing projects for post-construction stormwater management?

- What is your tool to ensure long-term maintenance of private permanent stormwater BMPs?

- Do you provide technical assistance or guidance on, or require specific, post-constructions structural stormwater BMPs?

- Does your private structural stormwater BMP long-term maintenance tool require the owner/operator to report to you at an established frequency, such as annually, regarding the condition of the BMP?

MCM 6 – Pollution prevention/Good housekeeping for municipal operations

Activity description	Activity complete & available?
The SWPPP document identifies BMPs to develop and support the program that prevents or reduces the discharge of pollutants from permittee owned/operated facilities and operations to the small MS4.	Yes ☐ No ☐
The SWPPP document identifies measurable goals for each BMP (e.g., train all staff annually or inspect 20% of outfalls per year) and timeframes and staff responsible for implementation.	Yes ☐ No ☐
Facilities inventory of municipally owned/operated facilities that contribute pollutants to stormwater has been created.	Yes ☐ No ☐
BMPs to prevent or reduce pollutants in stormwater discharges for facilities in the Facility Inventory have been implemented.	Yes ☐ No ☐
BMPs for MS4 discharges that may affect Source Water Protection Areas have been implemented.	Yes ☐ No ☐
Procedures and schedule for determining TSS and TP treatment effectiveness of stormwater ponds has been developed.	Yes ☐ No ☐
Structural stormwater BMPs are inspected (including illicit discharge screening) annually and inspections are documented.	Yes ☐ No ☐
Stormwater ponds are inspected (including illicit discharge screening) at least once per term of the MS4 General Permit and inspections are documented.	Yes ☐ No ☐
Outfalls are inspected (including illicit discharge screening) at least one per term of the MS4 General Permit and inspections are documented.	Yes ☐ No ☐
Stockpiles and storage and material handling areas are inspected (including illicit discharge screening) quarterly and inspections are documented.	Yes ☐ No ☐
Maintenance is conducted and documented based on outfall, pond, structural stormwater BMP, stockpile, or storage and handling facility inspection findings.	Yes ☐ No ☐
Training program has been developed to train staff commensurate with their job duties. The training program must address the following: ▪ importance of protecting water quality ▪ permit requirements relevant to job duties ▪ a schedule to train new and seasonal employees.	Yes ☐ No ☐
Pond sediment excavation and removal activities documented with the following: ▪ unique ID number of each stormwater pond ▪ the volume of sediment removed ▪ results from any testing of sediment from each removal activity ▪ location(s) of final disposal of excavated sediment	Yes ☐ No ☐
Employee training is documented with a list of topics covered, names of employees in attendance, and the date of each event.	Yes ☐ No ☐

Tips for a successful pollution prevention program:

- Use a standard checklist to document all outfall, pond, and structural stormwater BMP inspections.

- If using a standard checklist for inspections and include a section dedicated to illicit discharge assessment.

- Include new and seasonal staff training with other required staff training events.

- Develop a stormwater runoff control plan for facilities on the facility inventory and assign a key contact for each facility.

Questions and concepts to consider:

- What BMPs are in place at each facility in the Facility Inventory?

- Do you subcontract any maintenance activities (e.g., lawn mowing, fertilizer application, snow plowing, etc.) and, if so, are the contractors aware and appropriately trained to protect water quality?

- What are your procedures for inspecting ponds, outfalls, and structural stormwater BMPs?

- What are your procedures for street sweeping and deicing application?

Guidance for MS4 self-audit checklist

MPCA staff conduct audits of SWPPPs to determine compliance with the MS4 General Permit and to provide technical assistance to staff in regulated MS4s. The MPCA's intent is to audit all SWPPPs for MS4s regulated under the MS4 General Permit every seven years. Between MPCA audits, you may want to conduct a self-audit to check your progress with meeting permit requirements. The MS4 General Permit can be found at https://stormwater.pca.state.mn.us/index.php?title=MS4_General_Permit. The permit is located on the Minnesota Pollution Control Agency (MPCA) stormwater webpage at https://www.pca.state.mn.us/water/ms4-general-permit.

This document details each of the six Minimum Control Measures (MCMs) described in the MS4 General Permit and the activities required to be implemented and/or documented under each MCM. During the self-audit, you should review each permit requirement and note whether or not the activity is complete. In addition, documentation of the activity should be easily accessible and available for review. If specific documentation is required, it is noted with the activity's description. Also review the MPCA's guidance on the documentation required to be retained under the MS4 General Permit at https://stormwater.pca.state.mn.us/index.php?title=Documentation_requirements_and_documents_to_retain_under_the_MS4_permit.

During the self-audit, review your SWPPP document that was submitted to the MPCA upon application for permit coverage. The SWPPP document has, for each MCM, your MS4-specific measureable goals, established BMPs, timeframes for new BMP implementation, and the name or position title of staff responsible for BMP implementation. The BMPs, measurable goals, and timeframes indicated in the SWPPP document may be changed if you feel your SWPPP would benefit from being updated after your self-audit or annual program evaluation.

Before conducting your self-audit, gather all files, documents, and materials related to your SWPPP, including annual reports, SWPPP document, public notices, maps, written procedures, enforcement action documentation, regulatory mechanism(s), etc. Once all documents are gathered, use the tables in this document to guide the self-audit of your program. To mark an activity complete, you must have all supporting documentation and the activity must meet all of the requirements.

In this document, we have included tips on enhancing your SWPPP for each MCM. These are not direct permit requirements, but methods MPCA staff have observed during audits that make local stormwater programs more effective.

We have also included general questions MPCA staff could ask during an audit. These questions are to prompt thought about your SWPPP in areas MPCA staff may focus during the audit. MPCA staff will ask general questions during the audit, but also questions specific to your SWPPP and stormwater activities. The questions noted in this document are not a final and complete list of questions that can or will be asked during an MPCA audit.

Please note that completing a self-audit, regardless of the results, does not preclude the MPCA from taking enforcement after an MPCA lead audit related to any of the activities required by the MS4 General Permit. If you have any questions relating to your SWPPP, please contact the appropriate MPCA staff, listed on the MS4 Permittee Staff Assignments webpage at https://stormwater.pca.state.mn.us/index.php?title=List_of_MS4_permittee_staff_assignments in the Minnesota Stormwater Manual. The Minnesota Stormwater Manual is located on the MPCA website at https://www.pca.state.mn.us/water/minnesotas-stormwater-manual.

For additional information, please refer to the Municipal Separate Storm Sewer System (MS4) Program Self-Audit Guidance on the YouTube website at https://www.youtube.com/watch?v=4XzbypwEALg&feature=youtu.be.