



Storm Water Pollution Prevention Program

City of Maple Plain

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Certification

Storm Water Pollution Prevention Program

For

City of Maple Plain, MN

PROFESSIONAL ENGINEER

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Signature: *Robert E Bean, Jr*

Typed or Printed Name: Robert E Bean, Jr

Date: 8/6/2022 License Number: 40410

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I. MCM 1 & 2: EDUCATION, OUTREACH, AND PUBLIC INVOLVEMENT PLAN

A. Introduction

The City of Maple Plain's Storm Water Pollution Prevention Program (SWPPP) Minimum Control Measure (MCM) 1 addresses public education and outreach and MCM 2 addresses Public Participation/Involvement. The following plan determines the education focus for the current permit cycle and the programs and tools to be implemented in educating the public about their roles in the protection, preservation, and management of water resources.

1. Party responsible for Education and Outreach Plan implementation: **City Administrator**
2. Topic Areas/Issues of Concern for Public Education, Outreach, and Involvement
 - a) During the permit term, educational materials or equivalent outreach shall be distributed to Citizens focused on Yard and Lawn Management.
 - b) During the permit term, educational materials or equivalent outreach shall be distributed to Citizens focused on Residential Best Management Practices
 - c) At least once each year, educational materials or equivalent outreach shall be distributed to Citizens focused on illicit discharge recognition and reporting illicit discharges to the permittee.
 - d) At least once each year, educational materials or equivalent outreach shall be distributed to Citizens focused on the following:
 - impacts of deicing salt use on receiving waters,
 - methods to reduce deicing salt use, and
 - proper storage of salt or other deicing materials.
 - e) At least once each year, educational materials or equivalent outreach shall be distributed to Citizens focused on the following:
 - impacts of pet waste on receiving waters,
 - proper management of pet waste, and
 - any existing permittee regulatory mechanism(s) for pet waste.
 - f) The City's SWPPP shall be posted on the City's website to provide continuous opportunity for the public to provide input on the SWPPP's adequacy.
 - g) Each calendar year, a minimum of one (1) public involvement activity that includes a pollution prevention or water quality theme (e.g., rain barrel distribution event, rain garden workshop, cleanup event, storm drain stenciling, volunteer water quality monitoring, adopt a storm drain program, household hazardous waste collection day, etc.) shall be provided by the City.
3. Education for Staff
 - a) At least once each calendar year, training shall be provided to all field staff in illicit discharge recognition (including conditions which could cause illicit discharges) and reporting illicit discharges for further investigation.
 - b) Individuals responsible for any portion of the Illicit Discharge Detection and Elimination (IDDE) Program shall receive training commensurate with their

responsibilities as they relate to the program. Individuals include, but is not limited to, those responsible for investigating, locating, eliminating illicit discharges, and/or enforcement. Previously trained individuals shall receive refresher-training every three (3) calendar years following the initial training.

- c) Individuals responsible for any portion of the Construction Site Stormwater Runoff Control program shall receive training commensurate with their responsibilities as they relate to the program. Individuals includes, but is not limited to, individuals responsible for conducting site plan reviews, site inspections, and/or enforcement. Previously trained individuals shall receive refresher-training every three (3) calendar years following the initial training.
- d) Individuals responsible for any portion of the Post-Construction Stormwater Management program shall receive training commensurate with their responsibilities as they relate to the program. Individuals includes, but is not limited to, individuals responsible for conducting site plan reviews, site inspections, and/or enforcement. Previously trained individuals shall receive refresher-training every three (3) calendar years following the initial training.
- e) Individuals performing winter maintenance activities shall receive training each calendar year that includes the following:
 - the importance of protecting water quality;
 - BMPs to minimize the use of deicers (e.g., proper calibration of equipment and benefits of pretreatment, pre-wetting, and anti-icing); and
 - tools and resources to assist in winter maintenance (e.g., deicing application rate guidelines, calibration charts, Smart Salting Assessment Tool).
- f) Individuals responsible for any portion of the City's Storm Water Pollution Prevention Program shall receive training commensurate with their responsibilities as they relate to the program, including reporting and assessment activities. Training shall include the following:
 - address the importance of protecting water quality, and
 - address the requirements of the NPDES requirements as they relate to the program (i.e. Best practices for Municipal Operations, City's Pond Assessment Procedures, operation and maintenance of structural BMPs, outfalls and ponds, and management of TMDL waste load allocations).

4. Minimum elements for education and outreach (MCM 1), as set forth in MPCA Permit that provides Authorization to Discharge Stormwater Associated with Small Municipal Separate Storm Sewer Systems under the NPDES Program (Permit No. MNRO400000).
 - a) Target audience(s) (e.g., residents, businesses, commercial facilities, institutions, and local organizations).
 - b) Name or position title of responsible person(s) for overall plan implementation.
 - c) Specific activities and schedules to reach each target audience.
 - d) Description of any coordination with and/or use of stormwater education and outreach programs implemented by other entities, if applicable.

5. Minimum elements for public involvement (MCM 2).
 - a) Each calendar year, the permittee must provide a minimum of one (1) opportunity for the public to provide input on the adequacy of the SWPPP. The permittee may conduct a public meeting(s) to satisfy this requirement, provided appropriate local public notice requirements are followed and the public is given the opportunity to review and comment on the SWPPP.
 - b) The permittee must provide access to the SWPPP Document, annual reports, and other documentation that supports or describes the SWPPP (e.g., regulatory mechanism(s), etc.) for public review, upon request. All public data requests are subject to the Minnesota Government Data Practices Act.
 - c) The permittee must consider oral and written input regarding the SWPPP submitted by the public to the permittee.
 - d) Each calendar year, the permittee must provide a minimum of one (1) public involvement activity that includes a pollution prevention or water quality theme (e.g., rain barrel distribution event, rain garden workshop, cleanup event, storm drain stenciling, volunteer water quality monitoring, adopt a storm drain program, household hazardous waste collection day, etc.)

B. Target Audience

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

1. Citizens: residents, businesses, commercial facilities, institutions, and organizations
2. Staff, Consultants, and Contractors: planners, engineers, contractors, and City staff
3. City Officials: appointed/elected officials and decision makers (i.e. city councilpersons, planning commissioners, park board members, etc.)

C. Specific Activities and Schedule

1. Public Education, Outreach, and Involvement
 - a) Newsletters shall be distributed and posted on the City's website four (4) times per year, generally winter, spring, summer, and fall. Each newsletter shall include a section titled "Protect our Water" with a minimum of one topic outlined in Section IV.a – e. High priority topics shall be alternated each calendar year.
 - b) Information and articles regarding water quality and pollution prevention shall be available to the public on the City's website. The City shall maintain its website with information that provides the audience with general information regarding the effects of polluted stormwater, prevention techniques, and resources for additional information. Information shall include the City's Storm Water Pollution Prevention Program, volunteer opportunities, hazardous material disposal, recycling, and community events.
 - c) City shall maintain the SWPPP on the City's website to provide continuous opportunity for the public to provide input on the SWPPP's adequacy. Refer to Written Procedures for consideration of and response to public input on adequacy of SWPPP.

d) Annually, the City shall provide public involvement opportunities as follows:

- Park Cleanup - Volunteers can get involved through a Park Clean-Up event. Select a park and dedicate time to cleaning litter, pulling weeds, and participating in more outdoor-improvement activities.
- Tree Planting – join the City in planting trees that Maple Plain can appreciate for years to come! Your involvement will increase the beauty of Maple Plain's parks.
- Spring Cleanup - We can always use a little muscle the morning of the Spring Clean-up. Or donate your truck/trailer and aid those in need of assistance.

2. Education for Staff

a) Every spring, training shall be provided to all field staff in illicit discharge recognition (including conditions which could cause illicit discharges) and reporting illicit discharges for further investigation.

b) Annually, training shall be provided as necessary to individuals responsible for the following:

- Any portion of the Illicit Discharge Detection and Elimination (IDDE) Program. Individuals include, but are not limited to, those responsible for investigating, locating, eliminating illicit discharges, and/or enforcement.
- Any portion of the Construction Site Stormwater Runoff Control program. Individuals includes, but are not limited to, those responsible for conducting site plan reviews, site inspections, and/or enforcement.
- Any portion of the Post-Construction Stormwater Management Program. Individuals includes, but are not limited to, individuals responsible for conducting site plan reviews, site inspections, and/or enforcement.

Individuals shall receive training commensurate with their responsibilities as they relate to the program. After initial training, individuals shall receive refresher training every three (3) calendar years.

c) Annually, training shall be provided to individuals performing winter maintenance activities. Training shall include the following:

- The importance of protecting water quality,
- BMPs to minimize the use of deicers (e.g., proper calibration of equipment and benefits of pretreatment, pre-wetting, and anti-icing); and
- Tools and resources to assist in winter maintenance (e.g., deicing application rate guidelines, calibration charts, Smart Salting Assessment Tool).

d) Annually, training shall be provided to individuals responsible for any portion of the City's Storm Water Pollution Prevention Program. Training will include the following:

- The importance of protecting water quality, and
- address the requirements of the NPDES requirements as they relate to the program (i.e. Best practices for Municipal Operations, City's Pond Assessment Procedures, operation and maintenance of structural BMPs, outfalls and ponds, and management of TMDL waste load allocations).

D. Coordination With Other Entities

1. Pioneer-Sarah Creek Watershed Management Commission (PSCWMC)

The City is part of a Joint Powers Agreement (JPA) that establishes the Pioneer-Sarah Creek Watershed Management Commission. Member cities include Greenfield, Independence, Loretto, Medina, Minnetrista, as well as Maple Plain. As part of the JPA, the City agrees to notify PSCWMC of any public or private land use changes, promote education events put on by PSCWMC, and coordinate activities regarding regulation of surface water management and permitting.

2. Minnehaha Creek Watershed District (MCWD)

As part of the City's Local Water Management Plan approval, the City included a MCWD Coordination Plan. As part of the coordination plan, the City agrees to consult MCWD regarding planning efforts, notify MCWD of any public or private land use changes, promote education events put on by MCWD, and coordinate activities regarding regulation of surface water management and permitting.

E. Documentation

1. See the *Documentation and Assessment Plan* for items requiring documentation as part of the Illicit Discharge Detection and Elimination Plan.

F. Annual Assessment

1. See the *Documentation and Assessment Plan* for items requiring annual assessment as part of the Illicit Discharge Detection and Elimination Plan.

II. MCM 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION PLAN

A. Introduction

The City of Maple Plain's Storm Water Pollution Prevention Program (SWPPP) Minimum Control Measure (MCM) 3 addresses illicit discharge detection and elimination. The following plan outlines the tools and procedures to be implemented to detect and eliminate sources of pollution discharge from entering the municipality.

1. Party responsible for IDDE Plan implementation: **City Administrator**
2. Goals:
 - a) Improve water-quality in local waterways by reducing incidences of pollution.
 - b) Increase awareness among residents, municipal staff, businesses, and the public of the direct connection between the storm drain system and local waterways.
 - c) Educate residents, municipal staff, businesses, and the public about the hazards associated with illicit discharges and the best management practices (BMPs) available.
 - d) Facilitate consistency in response to incidences of illegal discharges to the storm drain system through a coordinated system of procedures and training of municipal staff.
3. Examples of illicit discharge:
 - a) Direct or indirect sanitary wastewater discharges that connect to the storm sewer or watercourse (i.e. shop floor drain connected to a storm drain, cross-connection between sanitary sewer and storm sewer systems, damaged sanitary sewer line leaking into a cracked storm sewer line, failing septic system leaking into a water course, etc.).
 - b) Materials disposed of illegally into the storm drain system (i.e. used moter oil, paint, grass clippings, etc.).
 - c) Activities resulting in illegal discharges routed to the storm drain system (i.e. washing paint brushes, concrete washout, draining swimming pool directly to an inlet, excess use of fertilizer, regular washing of vehicles, etc.).
4. Authorized Non-Stormwater Discharges:
 - a) Water line flushing, landscape irrigation, diverted stream flows, rising groundwaters, uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(b)(20)), uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street wash water, and discharges or flows from firefighting activities.
5. Minimum elements, as set forth in MPCA Permit that provides Authorization to Discharge Stormwater Associated with Small Municipal Separate Storm Sewer Systems under the NPDES Program (Permit No. MNRO400000).
 - a) Municipal Storm Sewer System Mapping (Part 18.3)

- b) Regulatory Mechanism (Part 18.4-6)
- c) Incorporating IDDE into Maintenance and Inspection Activities (Part 18.7)
- d) Staff Training (Part 18.8-9)
- e) High Priority Areas (Part 18.10)
- f) Procedures for Investigating, Locating, and Eliminating Illicit Discharge (Part 18.11-12)
- g) Response Procedures (Part 18.13-14)
- h) Documentation (Part 18.15-17)
- i) Annual Assessment (Part 18.18)

B. Municipal Storm Sewer System Mapping

1. A map of the City's storm sewer system shall be maintained that depicts the following:
2. All pipes 12 inches or greater in diameter, including stormwater flow direction in those pipes,
3. Outfalls, including unique identification (ID) number, and associated geographic coordinates,
4. Structural stormwater BMPs that are part of the City's storm drain system,
5. All receiving waters.

See attached maps (storm sewer map, storm drain system map – ponds, outfalls, receiving waters, watersheds, BMPs, public vs private)

C. Regulatory Mechanism

1. Section 50.20 – 40 of the City's municipal code provides the regulatory mechanism prohibiting non-stormwater discharges into the City's storm drain system. Connections to the stormwater system must contain only stormwater and groundwater, otherwise they are to be eliminated.

D. Incorporating IDDE into Maintenance and Inspection Activities

1. Illicit discharge detection shall be incorporated into all municipal inspection and maintenance activities. This includes active construction sites for compliance with erosion and sediment control, as well as, inspections of pond, outfalls, and structural BMPs to determine integrity and functionality.

E. Staff Training

1. Field staff - At least once each calendar year, training shall be provided to all field staff in illicit discharge recognition (including conditions which could cause illicit discharges) and reporting illicit discharges for further investigation. See *Education, Outreach, and Public Involvement Plan* for more information.
2. IDDE staff - Individuals responsible for any portion of the Illicit Discharge Detection and Elimination (IDDE) Program shall receive training commensurate with their responsibilities as they relate to the program. Individuals include, but is not limited to, those responsible for investigating, locating, eliminating illicit discharges, and/or enforcement. Previously trained individuals shall receive refresher-training every three (3) calendar years following the initial training. See *Education, Outreach, and Public Involvement Plan* for more information.

F. High Priority Areas

1. An inventory of priority areas having been identified as having a higher likelihood for illicit discharges shall be maintained as part of the City's Municipal Storm Sewer System mapping (see Appendix D). Priority areas shall be evaluated for potential inclusion based on the following:
 - a) Land uses associated with business/industrial activities.
 - b) Areas where illicit discharges have been identified in the past.
 - c) Areas with storage of significant materials that could result in an illicit discharge.
 - d) Areas with older infrastructure, where illegal connections and/or deteriorating sewer lines are more likely to exist.
2. High priority areas identified include the following locations:
 - a) Outfall #2 – Maple Plain Industrial Park
 - b) Outfall #6 – Industrial Street
 - c) Outfall #17 – Spike & Houles Feed & Garden Supply

G. Procedures for Investigating, Locating, and Eliminating Illicit Discharge

1. Illicit discharge identification and notification to the City
 - a) Field staff – illicit discharges identified by field staff performing their routine duties, including inspections of construction sites, ponds, outfalls, and BMPs, shall notify the IDDE Plan implementer within 24 hours of detection. Notification by field staff shall include: staff name, potential type of illicit discharge (i.e. sediment, oil, grease, grass clippings, soap, etc.), location, and any other information related to the observed discharge (i.e. maps, pictures, videos, notes, etc.).
 - b) Citizen – illicit discharges identified by Citizens shall be directed to the IDDE Plan implementer. Notification should include: identifier's name, potential type of discharge, location, and any other information related to the observed discharge.
 - c) High priority area – high priority locations shall be inspected by IDDE staff for illicit discharges once per year. If an illicit discharge is identified, elimination procedures shall be implemented as outlined by this plan.
2. Procedures for investigating and eliminating illicit discharges
 - a) Initiation – upon receipt of an illicit discharge notification, an Illicit Discharge Report and Response Form shall be initiated immediately by the IDDE Plan implementer (see Appendix F).
 - b) Investigation – an investigator shall be assigned by the IDDE Plan implementer as part of the initiation of the Illicit Discharge Report. The investigator will begin investigation of the report within 24 hours. The investigator shall document all labor, materials, and other costs associated with the investigation for invoicing the responsible party. When the source of the discharge is unknown, Drainage Area and Storm System Investigation methods shall be utilized by the investigator to trace the source of discharge.
 - c) Drainage Area Investigation - Drainage area investigations shall be used when the discharge observed at the outfall has a distinct or unique characteristic that can allow field crews to quickly determine the type of activity or non-point source that

is generating the discharge. The investigator shall identify likely sources near the reported discharge location by reviewing land use and drainage system maps. The investigator shall then conduct a visual survey of the drainage area to confirm the source of the discharge. The following table lists some potential causes of reported discharges.

Table 7-1 – Common Discharges and Potential Sources	
Observed Discharge	Potential Causes
Clogging Sediment	<ul style="list-style-type: none"> • Construction activity without proper erosion and sediment controls • Roadway sanding operations • Outdoor work areas or material storage areas
Thick Algae Growth	<ul style="list-style-type: none"> • Fertilizer leak or spill • Landscaping operations • Hydroseeding following construction • Failing or leaking septic system
Oil	<ul style="list-style-type: none"> • Refueling operations • Vehicle or machinery maintenance activities
Sudsy Discharge	<ul style="list-style-type: none"> • Power washing of buildings • Vehicle or equipment washing operations • Mobile cleaning crew dumping • Laundry or Cleaner • Household greywater discharge
Clogged Grease	<ul style="list-style-type: none"> • Restaurant sink drain connection to stormwater system
Sewage	<ul style="list-style-type: none"> • Failing or leaking septic systems

d) Storm System Investigation – Storm system investigations shall be used when the source of discharge observed at the outfall cannot be quickly attributed to a certain type of activity or non-point source generating the discharge. This method involves progressive investigation at manholes in the storm drain network to narrow down the location where the illegal discharge is entering the drainage system. Field crews shall work progressively upstream from the outfall and inspect manholes until indicators reveal the discharge is no longer present. For particularly large storm drain systems, major branches of the system shall be identified, and the downstream manhole of the branch shall be investigated to reduce area that must be investigated. Storm system investigation shall include the following steps:

- Consult the drainage system map and identify the major branches.
- Starting from the outfall, observe the next upstream manhole or junction to see if there is evidence of polluted discharge. Field crews are looking for the presence of flow during dry weather, foul odors, colors or stained deposits, oily sheen, floatable materials, and/or other unusual observations.
- Repeat observations at each upstream manhole or junction until a junction is found with no evidence of discharge.
- Work downstream from the “clean” manhole or junction to isolate the location where the polluted discharge is entering the storm drain

system.

- If discharge is evident from private property, procedures to enter private site shall be initiated.
 - Document all findings in field notes.
 - If visual inspection of the storm system network is not adequate to isolate the source of the illegal discharge, additional field testing shall be performed. This may include dye testing, smoke testing, or video televising (See Appendix G).
- e) Equipment - Prior to conducting field work, crews shall assemble all required equipment (see Table 7-2) and review the outfall inspection records or water quality incident reports from the area to become familiar with the background information and potential pollution sources.

Table 4-2 – Field Equipment for Source Investigations	
Minimum 2-person crew	Watch with second hand
Safety Gear – vest, work boots, cones	Flashlight or head lamp
Field Notebook/Pencils	Tool Box – hammer, tape measure, duct tape, zip ties
Map or Aerial Photo of Inspection Area	First Aid Kit
Digital camera w/ charged battery	Clear sample bottles
Cell phone w/ charged battery	Wide mouth container

- f) Follow-up Actions - Once the source of an illegal discharge has been identified, the investigator shall notify the property owner or operator of the problem and provide the appropriate educational materials and/or a Notice of Violation (see Response Procedures).

H. Response Procedures

1. Immediate Response Procedures

- a) Field crews shall be prepared to take immediate action in the event of encountering one of the following situations:
- An individual is actively introducing illegal substances or materials to the storm drain system.
 - A strong chemical odor is emanating from storm drain system.
 - Fumes are emanating from storm drain system.
 - A significant stream of a chemical or petroleum product is visible flowing in storm system or downstream waters.
 - A large chemical plume is evident in stream or river downstream of a City outfall.
 - An immediate threat to property, human health or safety, or aquatic life is present.
- b) Field crews shall initiate the following actions if immediate response is required:
- Ensure public safety. Instruct people to stay clear of the area.
 - Immediately contact 911 to report a major spill, active illegal

dumping, or a potential fire threat.

- If the source of the illegal discharge is a spill or leak as defined in Minnesota Statute 115.061, the following offices shall be notified immediately:

MN Dept. of Public Safety Duty Officer: 651-649-5451 or 1-800-422-0798

Non-Emergency Police Dispatch: 763-479-0500

Minnehaha Creek Watershed District: 952-471-0590

Pioneer Sarah Creek Watershed Management Commission: 763-553-1144

- Take detailed notes and photos/video for subsequent investigation by City or other agencies. At a minimum, the following shall be recorded:

Location

Spill material

Spill volume

Party responsible for spill

Impact to resources (infrastructure, surface waters)

- If possible, isolate or contain visible chemical pollution in the effected waterbody with any materials that are accessible. For small discharges earth dams, absorbent pads, and containers may be useful to contain part of the illicit discharge (see Appendix H for Spill Response Plan).

2. Corrective Actions / Enforcement

- a) The City will respond to identified illicit discharges, illicit connections, or illegal dumping activities using progressive enforcement actions. Corrective actions will focus first on education to promote voluntary compliance and escalate to increasingly severe enforcement actions if voluntary compliance is not obtained.
- b) Voluntary Compliance – for first time offenders, the City shall immediately notify the party responsible of the illegal connection or operation and may provide the responsible party with educational information about the illegal connection or operation, environmental consequences, and/or suggestions on remedial actions. After initial notification, the responsible party will be directed to initiate necessary remedial actions in a timely manner to be determined by the Investigator (time will vary based on nature of illegal connection or operations). Based on the time allotted by the Investigator, a follow-up inspection shall be performed to verify compliance.
- c) Notice of Violation - Whenever the City finds that a person has violated a prohibition or failed to meet a requirement of Ordinance subchapters 50.20-40, the City may order compliance by a written Notice of Violation to the responsible person. The notice may require without limitation:
 - The performance of monitoring, analysis, and reporting.

- The elimination of illicit connections, discharges, or pet waste.
- The installation of proper salt storage facilities and implementation of proper salt handling procedures.
- That violating discharges, practices, or operations shall cease and desist.
- The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property. If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which the remediation or restoration must be completed. The notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by the City or a City-designated contractor and the expense thereof shall be charged to the violator.
- The implementation of source control or treatment BMPs.

I. Documentation

1. Refer to the Documentation and Assessment Plan for items requiring documentation as part of the Illicit Discharge Detection and Elimination Plan.

J. Annual Assessment

1. Refer to the Documentation and Assessment Plan for items requiring annual assessment as part of the Illicit Discharge Detection and Elimination Plan.

III. MCM 4: CONSTRUCTION SITE RUNOFF CONTROL

A. Introduction

The City of Maple Plain's Storm Water Pollution Prevention Program (SWPPP) Minimum Control Measure (MCM) 4 addresses construction site runoff control. The following plan outlines the tools and procedures to be implemented for erosion, sediment, and waste control on construction sites.

1. Party responsible for construction site runoff control implementation: **City Administrator**
2. Minimum elements, as set forth in MPCA Permit that provides Authorization to Discharge Stormwater Associated with Small Municipal Separate Storm Sewer Systems under the NPDES Program (Permit No. MNRO400000).
 - a) Regulatory Mechanism (Part 19.3-5)
 - b) Site Plan Review (19.6)
 - c) Inspection (19.7-9)
 - d) Public report of non-compliance (19.10)
 - e) Training (19.11)
 - f) Response Procedures (19.12)
 - g) Documentation (19.13-15)
 - h) Annual Assessment (19.16)

B. Regulatory Mechanism

1. City Code: Section 50.20-40 of the City's current municipal code outlines the requirements of construction site runoff control and potential enforcement penalties.
2. JPA with PSCWMC: The City is part of a Joint Powers Agreement (JPA) that establishes the Pioneer-Sarah Creek Watershed Management Commission. As part of the JPA, the City agrees to coordinate activities regarding regulation of surface water management and permitting with PSCWMC.
3. MOU with MCWD: Memorandum of Understanding between the City and Minnehaha Creek establishing that MCWD will apply and enforce their rules within City boundaries.

C. Site Plan Review

1. Refer to Written Procedures for direction regarding site plan review for construction site runoff control.

D. Inspection

1. Refer to Written Procedures for direction regarding inspection for construction site runoff control.

E. Public Report of Non-compliance

1. Refer to Written Procedures for direction regarding public report of non-compliance of construction site runoff control.

F. Training

1. Refer to the *Education, Outreach, and Public Involvement Plan* for required staff training as it relates to construction site runoff control.
- G. Response Procedures
1. Refer to *Written Procedures* for direction regarding response procedures.
- H. Documentation
1. Refer to the *Documentation and Assessment Plan* for items requiring documentation as part of construction site runoff control.
- I. Annual Assessment
1. Refer to the *Documentation and Assessment Plan* for items requiring annual assessment as part of construction site runoff control.

IV. MCM 5: POST-CONSTRUCTION STORMWATER MANAGEMENT

A. Introduction

The City of Maple Plain's Storm Water Pollution Prevention Program (SWPPP) Minimum Control Measure (MCM) 5 addresses post-construction stormwater management. The following plan outlines the tools and procedures to be implemented for prevention or reduction of water pollution after construction activity is completed.

1. Party responsible for post-construction stormwater management implementation:
City Administrator
2. Minimum elements, as set forth in MPCA Permit that provides Authorization to Discharge Stormwater Associated with Small Municipal Separate Storm Sewer Systems under the NPDES Program (Permit No. MNRO400000).
 - a) Regulatory Mechanism (20.3-15)
 - b) Private BMP Inventory (20.16)
 - c) Site Plan Review (20.17)
 - d) Training (20.18)
 - e) Response Procedures (20.19)
 - f) Documentation (20.20-22)
 - g) Annual Assessment (20.23)

B. Regulatory Mechanism

1. City Code: Section 50.20-40 of the City's current municipal code outlines the requirements of surface water management and potential enforcement penalties.
2. JPA with PSCWMC: The City is part of a Joint Powers Agreement (JPA) that establishes the Pioneer-Sarah Creek Watershed Management Commission. As part of the JPA, the City agrees to coordinate activities regarding regulation of surface water management and permitting with PSCWMC.
3. MOU with MCWD: Memorandum of Understanding between the City and Minnehaha Creek establishing that MCWD will apply and enforce their rules within City boundaries.
4. Surface Water Management Plan: The City's Surface Water Management Plan serve as a comprehensive planning document to guide the City of Maple Plain in conserving, protecting, and managing its surface water resources.

C. Private BMP Inventory

1. Refer to Written Procedures for direction regarding private BMP inventory for post-construction stormwater management

D. Site Plan Review

1. Refer to Written Procedures for direction regarding site plan review for post-construction stormwater management.

E. Training

1. Refer to the Education, Outreach, and Public Involvement Plan for required staff training

as it relates to post-construction stormwater management.

F. Response Procedures

1. Refer to Written Procedures for direction regarding response procedures.

G. Documentation

1. Refer to the Documentation and Assessment Plan for items requiring documentation as part of post-construction stormwater management.

H. Annual Assessment

1. Refer to the Documentation and Assessment Plan for items requiring annual assessment as part of post-construction stormwater management.

V. MCM 6: MUNICIPAL OPERATIONS BEST MANAGEMENT PRACTICES

A. Waste Disposal and Storage

Improper storage and handling of waste materials can allow a number of pollutants including oils and greases, toxic and chemical compounds (including nutrients), bacteria, metals, and other wastes to enter waterways through stormwater run-off and non-stormwater discharges. Proper handling, along with recycling and waste reduction will reduce the potential for polluting waterways, groundwater, and recharge points.

1. Ensure that all waste areas and dumpsters are covered and are not leaking.
2. Place waste receptacles indoors or under a roof overhang whenever possible.
3. Keep all container lids closed at all times unless adding or removing material.
4. Liquid wastes should be kept out of the dumpster and the lid kept closed to keep storm water out.
5. Waste oil, antifreeze, spent solvents, and other liquids from vehicle maintenance activities should be recycled.
6. Spent batteries should be disposed of as hazardous waste or returned for reclamation and reuse.
7. Arrange for waste to be picked up regularly and disposed of at approved disposal facilities. If the amount of generated waste exceeds the capacity of waste containers, obtain more containers, or increase frequency of pickups.
8. Do not wash out waste containers or dumpsters outdoors. Return dumpsters to the owners for cleaning at the owner's facility. If municipally owned containers must be washed, do so at a sink or floor drain so that wastewater goes to the sanitary sewer.
9. Only wash concrete mixing and pouring equipment in designated concrete washout areas at each job site. Never wash into a storm drain inlet.

B. Management of Stockpiles

Stockpile Management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, paving materials such as portland cement concrete rubble, reclaimed asphalt pavement (RAP), hot mixed-cold laid bituminous mixes, limestone rock asphalt, pre-coated aggregates, and various patching mixes. Protection of stockpiles is a year-round requirement. To properly manage stockpiles:

1. Locates stockpiles away from concentrated flows of stormwater, drainage courses, and inlets.
2. Protects all stockpiles from stormwater run-on using temporary perimeter sediment barriers such as berms, dikes, fiber rolls, silt fences, sandbag, gravel bags, or straw bale barriers.
3. Manages stockpiles of contaminated soil as follows:
4. Cover stockpiles with plastic sheeting or tarps.
5. Install berms around stockpiles to prevent runoff from leaving the area.
6. Does not stockpile in or near storm drains or watercourses.
7. Place bagged materials on pallets and under cover.

8. While activities associated with the BMP are under way, inspect weekly during the rainy season and at two-week intervals in the non-rainy season to verify continued BMP implementation.
9. Repair and/or replace perimeter controls and covers as needed to keep them functioning properly.

C. Vehicle Fueling, Washing and Maintenance

Activities associated with fueling and cleaning of municipal vehicles and equipment can easily contribute pollutants to stormwater discharges or directly discharge to the municipal separate storm sewer (MS4). Spills and leaks that occur during vehicle and equipment fueling can contribute hydrocarbons, oils, grease, metals, and other toxic chemicals to stormwater run-off or discharge directly into storm sewers or receiving waters. Pollutants from washing and maintaining vehicles can vary from engine oil to chemicals within detergents such as phosphates. Properly designed and constructed fueling and wash areas will reduce the potential for contaminated discharges.

The ideal location for washing vehicles is at a commercial vehicle wash. Commercial vehicle washes can recycle their water on-site as well as contain the it so it will not enter the storm drain. If no commercial vehicle washes are available, then vehicles should be washed indoors (that will drain to sanitary sewers) or on grass/pervious surfaces.

1. General fueling practices:
 - a) Place drip pans or absorbent pads under direct fueling location if fueling will occur over a permeable surface.
 - b) Do not "top off" fuel tanks.
 - c) Do not place used spill response materials in adjacent trash receptacles. Dispose in a proper manner.
 - d) Do not leave active fueling operations unattended.
2. General washing practices:
 - a) Keep equipment clean; do not allow a buildup of oil/grease.
 - b) Place spill clean-up materials in readily available locations by the wash area (clearly mark location of spill clean-up materials).
 - c) Clean up spills or any wash water that may improperly discharge and contaminate.
 - d) Consider using phosphate-free detergents.
 - e) The optimal location for a wash area is indoors where connection to the sanitary sewer is more easily achieved and exposure to rain events is eliminated.
 - f) Do not store solvents or degreasers in the wash area.
3. General maintenance practices:
 - a) Keep all wash areas neat and orderly.
 - b) Perform monthly inspections and clean and maintain any sumps or oil/water separators installed at the wash area.
 - c) Inspect and maintain washing equipment, especially the hoses, wands, and nozzles. Make sure they deliver the proper rate of water and shut-off

automatically when not in use.

- d) For wash areas that are plumbed to a sanitary sewer, clean the sewer inlet at least weekly.
- e) Inspect all fueling equipment and fuel islands at least daily for leaks, drips, corrosion, wear, or damage. Repair or replace all faulty equipment promptly.

D. Routine Street and Parking Lot Sweeping

Regular street and parking lot sweeping (using sweeper trucks/equipment) removes debris, such as dust and pollutants, which typically end up in streams after being washed into catch basins. Sweeping should be performed at least twice a year on all roads and preferably more in areas of concern, including near streams, land use (industrial areas vs. residential) or heavily trafficked areas.

1. Operate all sweepers according to the manufacturer's recommended procedures.
2. Develop a street sweeping schedule including prioritized roads, secondary roads and frequency of sweeping.
3. Schedule sweeping as follows:
 - a) In areas where storm drain plugging or high pollutant loadings occur.
 - b) Immediately following special events like street fairs, art shows and parades.
 - c) Immediately after street repair projects that involve saw cutting, chip sealing or other operations that might have left wastes or debris on road surfaces.
 - d) After leaf collection in the fall.
 - e) After salt/sand application in the winter.
 - f) During new construction projects involving temporary storage of construction materials like dirt, sand and road base along the roadway.
 - g) Immediately following median grass cutting operations.
4. Make sure brushes and water spray hoses are functional before leaving the shop.
5. Clean out solid debris and store in an impervious area or in a temporary disposal area such as a truck or dumpster.
6. Scrape out left over debris from the hopper after the last dump of the day. Dispose of waste in trash or dumpster temporary storage area.
7. Always wash sweepers in a wash area or wash bay that drains to a sanitary sewer.
8. Avoid conducting sweeping operations during rainstorms.

E. Emergency Response

Spill prevention and response is one of the most important Good Housekeeping Practices for municipal operations. During daily activities, municipal employees handle, transport, load, and use products that can be harmful to our waterways if they enter storm drains. Refer to the Illicit Discharge Detection and Elimination Plan for the Spill Response Plan.

F. Cleaning of Maintenance Equipment, Building Exteriors and Dumpsters

Equipment and building washing can generate dry weather runoff contaminated with detergents, oils, grease, and heavy metals. Equipment and building washing BMPs can eliminate contaminated wash water discharges to the storm sewer system.

1. Proper equipment maintenance includes:
 - a) Maintain equipment regularly: Check for leaks or stains, and fix leaks immediately.
 - b) Capture leaks and rips during maintenance activities with a drip pan.
 - c) If equipment is stored outside, provide a tarp or roof to protect the equipment from precipitation.
2. Proper infrastructure cleaning includes:
 - a) Perform the activity during dry periods.
 - b) Use non-toxic chemicals for maintenance and minimize or eliminate the use of solvents.
3. Proper Building Repair, Remodeling, and Construction includes:
 - a) Do not dump any toxic substance or liquid waste on the pavement, the ground, or toward a storm drain.
 - b) Use ground or drop cloths underneath outdoor painting, scraping, and sandblasting work and properly dispose of collected material daily.
4. Proper dumpster cleaning includes:
 - a) Do not wash out dumpsters outdoors or in a parking lot.
 - b) Dumpsters should be washed in a wash bay or over a floor drain that goes to the sanitary sewer or return dumpsters to the waste disposal contractor for cleaning at the contractor's facility.
 - c) Route leaks and other wastewaters from dumpsters to the sanitary sewer system.
 - d) Keeping spill clean-up materials easy to access.

G. Use, Storage and Disposal of Significant Materials

The storage, use and disposal of hazardous materials and chemicals require consideration of a number of environmental health and safety factors. These include inventory control, as well as the proper use and disposal of containers and equipment.

1. Proper BMPs for chemicals and hazardous materials:
 - a) Keep lids on all containers and store under cover.
 - b) Properly close all containers when not in use.
 - c) Use secondary containment for hazardous materials and protect from rain. Store hazardous materials in an area where spills will not reach storm drains.
 - d) Label all hazardous materials according to hazardous waste regulations.
 - e) All hazardous materials should be properly labeled and remain labeled. The purchase date should be placed on the label.
 - f) In general, storage areas should not be hot or humid.
2. Proper BMPs for flammable materials:
 - a) Flammable materials should be stored in ventilated storage cabinets or approved safety cans. Lids of safety containers should be kept closed, as well as doors of storage cabinets.
 - b) Make sure an adequate spill kit with sufficient equipment and supplies is located

near storage areas where spills are possible. Clean up any spills, leaks, or discharges immediately.

- c) Flammable and combustible materials must be isolated from ignition sources.
- d) Proper fire suppression equipment should be installed or available in storage or use areas.

3. General BMPs for significant materials:

- a) Do not combine wastes when storing them - this increases safety, recycling and disposal options and reduces disposal costs.
- b) Never mix waste oil with fuel, antifreeze or chlorinated solvents.
- c) Use secondary containment on all bulk fluids stored in amounts more than 55 gallons and wastes to prevent accidental discharge. Secondary containment includes, but is not limited to, berming around storage areas and use of absorbents.
- d) Keep storage areas clean and dry. Conduct regular inspections of storage areas to detect leaks and spills.
- e) Store new or used batteries securely to avoid breakage and acid spills during earthquakes. When stored outdoors, batteries shall be covered with plastic tarp to protect them from rain.
- f) Recycle old batteries.
- g) Wood products treated with chromated copper arsenate, ammoniacal copper zinc arsenate, creosote, or pentachlorophenol should be covered with tarps.

H. Landscaping, Park, and Lawn Maintenance

Landscaping and lawn care practices have a significant impact on stormwater runoff. Conventional lawn care practices often include watering too frequently, over-fertilizing, and the use of pesticides and/or herbicides to rid lawns of unwanted pests and nuisance or invasive plants. Excess nutrients and pesticides wash away during rain events or when lawns are over-watered. The stormwater management approach to lawn care uses a variety of techniques to reduce pollution in stormwater runoff from lawns.

1. General practices include:

- a) Perform mowing at optimal times, which does not include prior to significant forecasted rain events.
- b) Protect lakes, ponds, wetlands, and/or lagoons adjacent to landscape maintenance activities.
- c) Mulch-mow grasses whenever possible.
- d) Dispose of organic wastes by composting whenever possible. When composting is not possible, dispose of organic wastes in an approved disposal facility. Do not wash down or dispose of lawn clippings, leaves, tree trimmings, or other landscape waste in or near a storm drain, drainage ditch, or open body of water.
- e) Use mulch or other erosion control methods to prevent erosion of exposed soils and flowerbeds.
- f) Do not leave grass clippings or trimming residue on impervious areas.

- g) Use mechanical methods for vegetation removal where possible.
- h) Avoid loosening soil when removing weeds or vegetation.
- i) Collect and dispose lawn trimmings, clippings, vegetation, etc.
- j) Reduce or prevent exposed soil areas.
- k) Only irrigate as much water as needed. Never water at rates that exceed the infiltration rate of the soil.

I. Road Maintenance (Appendix I)

Existing roads and bridges require periodic maintenance. These maintenance activities often generate stormwater pollutants such as heavy metals, sediments, solvents, oils, and fuels.

1. General practices for road and bridge maintenance:

- a) Always sweep or vacuum dry material wastes during saw cutting, road stripe removal, or other activities that create dust/sediment.
- b) Locate and block adjacent storm drain inlets during maintenance work such as concrete curb and gutter work, resurfacing, paving, striping/markings, or saw cutting.
- c) Use drip pans for paving machines and other equipment that may leak fluids.
- d) Do not apply road striping paint during windy, wet, or rainy conditions.
- e) If wet saws must be used, place drip pans under or watertight barriers around equipment when not in use. Turn off cooling water when saw is not in use.
- f) Wash out mixers, delivery trucks, or other equipment in a designated concrete washout area only.
- g) Protect storm drains during maintenance.

J. Right-of-Way Maintenance

1. Open and closed conveyance systems within City right-of-way will be maintained to function as designed and in a manner that will allow them to convey stormwater effectively. Periodic maintenance will include:

- a) Mowing
- b) Maintenance of vegetation
- c) Removal of debris
- d) Removal of excess sediment
- e) Repair/stabilization of erosion
- f) Removal of any obstruction that inhibits drainage

K. Application of Herbicides, Pesticides and Fertilizers

Fertilizers, herbicides, and pesticides possess a relatively high potential for contributing pollutants to stormwater runoff and non-stormwater discharges both through storage and application. Proper management of materials, effective training, and proper use of materials will reduce the potential of polluting receiving waterways.

1. BMPs that will be implemented to reduce pollutants from pesticides, herbicides, and fertilizers include the following:

- a) Personnel who participate in the application of pesticides, that contain a Restricted Use Pesticide (RUP), for the City will be trained and obtain non-commercial Certification as required by the Minnesota Department Agriculture.
- b) Fertilizers will be applied during the growing seasons- spring, summer, and fall.
- c) Employees will be trained to follow the material safety data sheet(s) (MSDS) of pesticides, including herbicides and insecticides, and fertilizers.
- d) All mixing and loading operations must occur on impervious surfaces.
- e) All state, federal, and local regulations are followed in the use of pesticides, herbicides, and fertilizers.
- f) Pesticides, herbicides, and fertilizers will not be applied during or directly prior to storm events.
- g) Employ application techniques that increase efficiency and allow the lowest effective application rates. Carefully calibrate application equipment and follow all label instructions.
- h) Only pesticides that are quickly absorbed into the soil or plants should be used.
- i) Whenever practicable, integrated pest management techniques will be implemented.
- j) Pesticides will not be sprayed when there is a high possibility of the spray drifting into non-target areas or onto non-target vegetation, insects, or animals.
- k) To prevent possible backflow and contamination of a water supply, never submerge a water supply hose in a chemical tank or container.
- l) Pesticide application for mosquito control may not be applied without following the notification requirements as required by Minnesota Statute 18B.07.

L. Cold Weather Operations (Appendix I)

Road salt or deicers should be stored in covered shelters with a door. Although road salt is spread liberally on roads for safety, it is important that we limit the amount of stored road salt that enters streams. Protecting stored road salt from the elements (wind or precipitation) saves money since very little is wasted and keeps unnecessary salt out of our streams.

1. General practices include:

- a) Road salt spreaders shall be emptied completely when not in use or at the end of the snow season, especially if stored outdoors. Excess salt in spreaders can get washed out in rains.
- b) Regulate the application of deicing salts to prevent oversalting the pavement.
- c) Use trucks equipped with salt spreading calibration devices.
- d) Use alternative deicing materials, such as sand or salt substitutes, where sensitive ecosystems should be protected.
- e) Consider temperature when determining volume of salt to apply.
- f) Contain wash water from trucks used for salting and sanding in a holding tank for disposal or discharge into sanitary sewers.
- g) Prevent dumping of accumulated snow into surface waters or onto frozen water bodies.

M. References

California Stormwater Quality Association BMP Handbook @ <http://www.caasqa.org/bmp-handbooks/municipal-bmp-handbook>

EPA Pollution Prevention/Good Housekeeping for Municipal Operators @
<http://water.epa.gov/polwaste/npdes/swbmp/Pollution-Prevention-Good-Housekeeping-for-Municipal-Operatators.cfm>

LIMC Good Housekeeping Guidance and BMP Manual @
http://www.lancasterintermunicipalcommittee.org/programs_stormwater.php

Partners For A Clean Environment @ <http://www.pacepartners.com/stormwater/municipal-operations/72-municipal-stormwater-program-tools#SOP>

VI. MCM 6: POND ASSESSMENT PLAN

A. Assessment Procedures

1. Determine Existing Conditions
 - a) Delineate watersheds for every pond maintained by City.
 - Review Storm Sewer Map
 - Review LiDAR topographic mapping
 - Perform visual inspections
 - b) Define watershed characteristics (impervious surface percentage, time-of-concentrations, areas, soil types, etc.).
 - Review aerial mapping
 - Review Land Use Plan
 - Review Storm Sewer Map
 - Review LiDAR topographic mapping
 - Perform visual inspections
 - c) Define pond characteristics (design permanent volume, existing permanent volume, outlet, normal water level, etc.).
 - Review Construction Plans and Record Plans
 - Perform visual inspections
 - Perform site surveys
 - Perform bathymetric surveys
 - Perform sediment testing for pollutants
2. Assess TSS and TP Treatment Effectiveness
 - a) Create water quality models for every pond maintained by City
 - Input information gathered into models
 - Calculate TSS and TP removal efficiencies
 - b) Define TSS and TP treatment effectiveness required for every pond
 - Establish permanent volumes required to meet NURP standards (60% TSS removal, 62% PP removal, 34% TP removal)
 - Determine additional reductions required to meet TMDLs, if any
 - Determine additional reductions required to provide increased water quality benefits
 - c) Rate pond effectiveness / need for maintenance
 - MN Stormwater Manual recommends sediment removal after 50% of permanent pool capacity has been lost
 - Compare existing removal efficiencies to required efficiencies

- Review proximity to surface waters
- Review proximity to Impaired waters
- Review TMDL requirements
- Determine Management Level of Sediment
- Rate pond based on following system:

Table 1 – Pond Rating System	
Rating	Description
1	<ul style="list-style-type: none"> • Pond completely ineffective • Pollutant removal efficiency reduced well below 50 % NURP / required standards (60% reduction or more) • Efficiency reduced below 50% NURP / required standards (50-60% reduction) and discharges directly to surface water or located in Impaired Water watershed • Maintenance required as soon as possible to prevent further pollutant discharge
2	<ul style="list-style-type: none"> • Pollutant removal efficiency reduced below 50% NURP / required standards (50-60% reduction) but does not discharge directly to surface water and is not located in Impaired Water watershed • Pollutant removal efficiency reduced to approximately 50% NURP / required standards and discharges directly to surface water or located in Impaired Water watershed • Maintenance should be provided as soon as funds are available
3	<ul style="list-style-type: none"> • Pollutant removal efficiency reduced to approximately 50% NURP / required standards • Does not discharge directly to surface water and not located in Impaired Water watershed • Maintenance should be planned for near future
4	<ul style="list-style-type: none"> • Pollutant removal efficiency reduction approaching 50% NURP / required standards (25-50% reduction) • Pond should be checked yearly to monitor permanent pool volume reduction and determine if change in rating is necessary
5	<ul style="list-style-type: none"> • Pond recently constructed or dredged, pollutant removal efficiency at maximum level (0-25% reduction) • Pond should be checked for permanent pool volume capacity starting 5 years after initial construction or dredging and every 5 years after until rating decrease is warranted

B. Schedule

1. Determine Existing Conditions
2. Assess TSS and TP Effectiveness

VII. WRITTEN PROCEDURES

A. MCM 2: Public Participation/Involvement

1. Procedures for consideration of and response to public input on adequacy of SWPPP.
 - a) Public input (written or oral) shall be directed to the City Administrator or designated representative.
 - b) City Administrator or designated representative shall review SWPPP regarding input received to determine if any modifications are necessary to address missing or inferior portions of the program.
 - c) If modifications are necessary, the City will begin process of amending SWPPP accordingly.
 - d) City shall provide response to person responsible for input within three (3) business days of receipt, providing information on City procedures and potential modifications to be evaluated. Once evaluation of input is complete, City shall provide additional response to person responsible for input regarding revisions to be implemented or reason why no action is to be taken.

B. MCM 3: Illicit Discharge Detection and Elimination (City Ordinance 50.20-40)

1. Procedures for investigating, locating, and eliminating the source of illicit discharges.
 - a) Refer to Illicit Discharge Detection and Elimination Plan.
2. Procedures for responding to spills, including emergency response procedures to prevent spills from entering the MS4.
 - a) Refer to Illicit Discharge Detection and Elimination Plan.

C. MCM 4: Construction Site Runoff Control (City Ordinance 50.100-999)

1. Procedures for site plan review prior to start of construction activity to ensure compliance with local, State, and Federal requirements.
 - a) Refer to MCM 5: Post Construction Stormwater Management procedures.
2. Procedures for conducting Construction Site Inspections. Inspections to confirm compliance with the NPDES Construction Stormwater Permit per MS4 requirements.
 - a) High priority sites – The following sites shall be classified as high priority sites.
 - Project located in a sensitive area (by determination of City Administrator).
 - Project has history of violations.
 - b) Inspection frequency
 - High priority sites – 1 time per week
 - Other active sites – every other week
 - Inactive sites – 1 time per month
 - c) Inspector – Inspector shall be designated by the City Administrator upon Final Plat/Construction Plan approval and be properly trained in Construction Site Runoff Control inspection procedures (see Education and Outreach Plan).

- d) Inspection – the Construction Site Inspection Checklist shall be utilized by the Inspector to document each site inspection to determine compliance with erosion, sediment, and waste control requirements (see Appendix K). Completed checklists shall be provided to the applicant within 24 hours of the inspection, indicating compliance or non-compliance.
- e) Warning Letter – If upon inspection the site is determined to be non-compliant (applicant fails to implement the erosion, sediment, and waste controls outlined in the Stormwater Pollution Prevention Plan or planned BMPs are inadequate), the Inspector shall issue a Warning Letter with the completed checklist to the applicant. The Warning Letter will outline issues of non-compliance and a timeline for completion of work to bring the site back into compliance. Refer to City Ordinance 50.110.
- f) Action against Financial Security – If appropriate actions by the applicant have not been completed within timeline set forth in the Warning Letter, the city may act against the financial security if any of the conditions listed below exist and at the discretion of the City Administrator. The city shall use funds from this security to finance any corrective or remedial work undertaken by the city or a contractor under contract to the city and to reimburse the city for all direct cost incurred in the process of remedial work including, but not limited to, staff time and attorney’s fees. Refer to City Ordinance 50.110.
- The applicant ceases land disturbing activities and/or filling and abandons the work site prior to completion of the city approved grading plan.
 - The applicant fails to conform to any city approved grading plan and/or the storm water pollution control plan as approved by the city, or related supplementary instructions.
 - The techniques utilized under the storm water pollution control plan fail within 1 year of installation.
 - The applicant fails to reimburse the city for corrective action taken under the plan review process.
 - Emergency action is necessary. If circumstances exist such that noncompliance with this subchapter poses an immediate danger to the public health, safety, and welfare, as determined by the City Engineer, the city may take emergency preventative action. The city shall also take every reasonable action possible to contact and direct the applicant to take any necessary action. Any cost to the city may be recovered from the applicant’s financial security.
- g) Penalty - Any person, firm or corporation violating any provision of City Ordinance 50.100-110 may be fined not less than \$5 nor more than \$500 for each offense and a separate offense shall be deemed committed on each day during or on which a violation occurs or continues. Pursuit of penalty will be at the discretion of the City Administrator.
3. Procedures for receipt and consideration of reports of noncompliance or other stormwater related information on construction activity submitted by the public.
- a) Public input (written or oral) shall be directed to the assigned Inspector for the

site in question.

- b) Inspector shall review inspection history to determine if report of noncompliance or other stormwater related information has been/is being addressed.
- c) If information is new to inspection history and requires action to restore compliance, Inspector shall initiate a site inspection within 24 hours of receipt.
- d) Inspector shall provide response to person responsible for input within 24 hours of receipt, providing information on City procedures, determination of compliance, and potential enforcement.

D. MCM 5: Post-Construction Stormwater Management

1. Procedures for site plan review prior to start of construction activity to ensure compliance with local, State, and Federal requirements.
 - a) Upon receipt of Building Permit, Excavation and Grading Permit, or Land Use Application, the City Administrator or designated representative will provide all required information included with the application to the designated Site Plan Reviewer. At the discretion of the City Administrator, information required may include the following:
 - Site Survey
 - Site Plan
 - Grading Plan
 - Erosion and Sediment Control Plan
 - Site Restoration Plan
 - Stormwater Pollution Prevention Plan
 - Stormwater Management Plan and Details
 - Hydrologic, Hydraulic, and Water Quality Computations
 - Wetland Report by Certified Wetland Specialist
 - Wetland Protection/Mitigation Plan
 - Soil Borings/Geotechnical Report
 - b) Site Plan Reviewer – Site Plan Reviewer shall be designated by the City Administrator upon receipt of applicable City application and be properly trained in Post-Construction Stormwater Management procedures (see Education and Outreach Plan).
 - c) Review – the SWPPP Review Checklist shall be utilized by the Reviewer to document each plan review to ensure compliance with local, State, and Federal requirements (see Appendix K). In addition, the Reviewer shall generate a Review Comments letter addressed to the City Administrator outlining revisions necessary to bring Construction Plans into compliance with all requirements.
 - d) Approval – the Reviewer shall coordinate with the City Administrator and applicant to address all issues identified during review/development of the checklist. Once all issues have been resolved, the Reviewer shall stamp Final Construction Plans with: Approved By, Reviewer' Name, and Date and coordinate with the City Administrator to issue the approved permit.

- e) Maintenance Agreement – a Maintenance Agreement shall be required for any projects requiring permanent stormwater management facilities due to local, State, or Federal requirements. The agreement shall be generated in favor of the City using the City’s template (see Appendix J). The agreement shall define maintenance responsibilities following completion of project, specify types and frequencies of inspection and maintenance activities, designate who will conduct inspection and maintenance activities, and outline reporting requirements. The Agreement shall be recorded with the County per the City’s approval process.
 - f) Other Permits – the Reviewer shall coordinate with the applicant to verify need for other permits. The Review Comment letter shall include a comment requiring copies of the following permits or documentation from the applicable agency that no permit is necessary.
 - MPCA NPDES Construction Stormwater Permit
 - Minnehaha Creek Watershed District Permit
 - Pioneer Sarah Creek Watershed Management Commission Permit
 - Wetland Conservation Act Permit
 - MN Department of Natural Resources Permit
 - US Army Corp of Engineers Permit
- E. MCM 6: Pollution Prevention/Good Housekeeping for Municipal Operations
- 1. Procedures for determining the TSS and TP treatment effectiveness of all City owned/operated ponds constructed and used for the collection and treatment of stormwater.
 - a) Refer to the Pond Assessment Plan.
- F. Documentation
- 1. Refer to the Documentation and Assessment Plan for items requiring documentation for each Minimum Control Measure.
- G. Annual Assessment
- 1. Refer to the Documentation and Assessment Plan for items requiring annual assessment for each Minimum Control Measure.

VIII. DOCUMENTATION AND ASSESSMENT PLAN

A. Documentation

The following information shall be documented:

1. MCM1: Education and Outreach
 - a) Quantities and descriptions of educational materials distributed, including dates distributed. This includes newsletters, brochures, and website hits.
 - b) Staff training for Illicit discharge recognition and reporting. This includes all field staff.
 - c) Staff training for illicit discharge detection and elimination. This includes those responsible for investigating, locating, eliminating illicit discharges, and/or enforcement.
 - d) Staff training for construction site runoff control. This includes those responsible for conducting site plan reviews, site inspections, and/or enforcement.
 - e) Staff training for post-construction stormwater management. This includes those responsible for conducting site plan reviews, site inspections, and/or enforcement.
 - f) Staff training for winter maintenance activities. This includes all staff performing any winter maintenance activity (i.e. calibration and maintenance of equipment, deicing operations, and snow plowing/management).
 - g) Staff training for SWPPP activities. This includes those responsible for municipal operations (i.e. waste storage and disposal, stockpile management, vehicle maintenance, street sweeping, park management, road maintenance, and application of herbicides, pesticides, and fertilizer), operation and maintenance of structural BMPs (i.e. sump manholes, stormwater treatment devices, separators, ponds, outfalls, etc.), pond and outfall assessments, and management of TMDL waste load allocations.
 - h) Staff training documentation shall include: 1) general subject matter covered, 2) names and departments of individuals in attendance, and 3) date of each training event.
2. MCM 2: Public Participation/Involvement
 - a) All relevant written input submitted by persons regarding the SWPPP.
 - b) All responses from the City to written input received regarding the SWPPP, including any modifications made to the SWPPP as a result of the written input received. Responses to written input shall be provided to the person originally submitting the comment within three (3) business days, providing information on City procedures and potential modifications to be evaluated. Additional response shall be provided once evaluation of input is complete.
 - c) Date(s), location(s), and estimated number of participants at events held for purposes of providing public opportunity to provide input on the adequacy of the SWPPP.
 - d) Notices provided to the public of any events scheduled for purposes of providing public opportunity to provide input on the adequacy of the SWPPP, including the

Presentation on SWPPP Progress and Implementation and any electronic correspondence (e.g., website, e-mail distribution lists, notices, etc.).

- e) Date(s), location(s), description of activities, and estimated number of participants at public involvement events that include a pollution prevention or water quality theme. This includes the Park Cleanup Event, Tree Planting Program, Spring Cleanup event, and any other educational or outreach event with a Pollution Prevention or Water Quality theme.

3. MCM 3: Illicit Discharge Detection and Elimination

- a) Date(s) and location(s) of IDDE inspections conducted, including any field notes, maps, pictures, videos, and/or test results.
- b) Reports of alleged illicit discharges received, including date(s) of the report(s), and any follow-up action(s) taken.
- c) Date(s) of discovery of all illicit discharges.
- d) Identification of outfalls, or other areas, where illicit discharges have been discovered.
- e) Sources (including a description and the responsible party) of illicit discharges (if known).
- f) Labor, materials, and other costs associated with the investigation for invoicing the responsible party.
- g) Action(s) taken by the City (i.e correspondence, Notice of Violation), including date(s), to address discovered illicit discharges.
- h) Enforcement actions, including the following:
 - Name of the person responsible for violating the terms and conditions of the City's ordinances.
 - Date(s) and location(s) of the observed violation(s).
 - Description of the violation(s).
 - Corrective action(s) (including completion schedule) issued by the City.
 - Referrals to other regulatory organizations (if any).
 - Date(s) and proof violation(s) resolved.

4. MCM 4: Construction Site Runoff Control

- a) Site Plan Reviews, including the following:
 - Project name.
 - Location.
 - Total acreage disturbed.
 - Owner and Operator of proposed construction activity.
 - Proof of notification to obtain coverage under the CSW Permit or proof of coverage under the CSW Permit.
 - Any stormwater related comments and supporting completed

checklist used by the Reviewer to determine project approval or denial.

- Approved Final Plat/Construction Plans.
- b) Construction site inspections, including the following:
- Completed Construction Site Inspection Checklist.
 - Any correspondence to the applicant regarding non-compliance with the approved Stormwater Pollution Prevention Plan, including Warning Letters, notice of action against the financial security, and/or notice of potential penalties.
- c) Enforcement actions, including the following:
- Name of the person responsible for violating the terms and conditions of the City's ordinances.
 - Date(s) and location(s) of the observed violation(s).
 - Description of the violation(s).
 - Corrective action(s) (including completion schedule) issued by the City.
 - Referrals to other regulatory organizations (if any).
 - Date(s) and proof violation(s) resolved.
5. MCM 5: Post-Construction Stormwater Management
- a) Site Plan Reviews, including the following:
- Supporting documentation used to determine compliance with local, State, and Federal requirements, including any calculations for the permanent stormwater treatment system.
 - The water quality volume that will be treated through volume reduction practices (e.g., infiltration or other) compared to the total water quality volume required to be treated.
 - Documentation associated with off-site treatment projects authorized by the City, including rationale to support the location of permanent stormwater treatment projects.
 - Payments received and used for public stormwater management projects to provide off-site treatment for other projects within the City.
 - Any stormwater related comments and supporting completed checklist used by the Reviewer to determine project approval or denial.
 - Approved Final Plat/Construction Plans.
 - Copies of permits required by other local, State, or Federal agencies.
 - Maintenance Agreements generated for privately owned and operated stormwater management facilities constructed to meet local, State, and Federal requirements.

- b) Inventory of private BMPs installed to meet governmental requirements, including the following:
 - Location.
 - Year constructed.
 - Type of BMP.
 - Design plans/reports.
 - Recorded Maintenance Agreement.
- c) Enforcement actions, including the following:
 - Name of party responsible for violating the terms and conditions of the Maintenance Agreement.
 - Date(s) and location(s) of the observed violation(s).
 - Description of the violation(s).
 - Corrective action(s) (including completion schedule) issued by the City.
 - Referrals to other regulatory organizations (if any).
 - Date(s) violation(s) resolved.

6. MCM 6: Pollution Prevention / Good Housekeeping for Municipal Operations

- a) Operation and maintenance:
 - Date(s) and description of findings, including whether or not an illicit discharge is detected, for all inspections conducted on structural stormwater BMPs, ponds, and outfalls.
 - Any adjustments to inspection frequency of structural stormwater BMPs.
 - Date(s) and a description of maintenance conducted as a result of inspection findings, including whether or not an illicit discharge is detected.
 - Schedule(s) for maintenance of structural stormwater BMPs, ponds, and outfalls.
- b) Pond sediment excavation
 - Unique ID number and geographic coordinates of each stormwater pond from which sediment is removed.
 - The volume (e.g., cubic yards) of sediment removed from each stormwater pond.
 - Results from any testing of sediment from each removal activity.
 - Location(s) of final disposal of sediment from each stormwater pond.

B. Annual Assessment

- 1. The City shall conduct an annual assessment of the entire Storm Water Pollution Prevention Program to evaluate program compliance, the status of achieving the

measurable requirements, and determine how the program might be improved. Measurable requirements are activities that must be documented or tracked as applicable to each MCM (e.g., inventory, trainings, site plan reviews, inspections, enforcement, etc.). The permittee must perform the annual assessment prior to completion of each annual report and document any modifications made to the program as a result of the annual assessment.

Appendix A: 2020 MS4 Part 2 Permit Application

MS4 Part 2 Permit Application

Authorization to discharge stormwater associated with small Municipal Separate Storm Sewer System (MS4)

Stormwater Pollution Prevention Program (SWPPP) Document

Doc Type: Permit Application

Instructions: Submitting this application confirms your intent to receive authorization to discharge stormwater under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) MS4 General Permit (MNR040000). This application is due within 150 days from the issuance date of the MS4 General Permit (MNR040000). Throughout this application there are text fields with a typical maximum limit of four lines. If you need to provide information in a text field that exceeds the maximum limit, please submit an attachment(s) with supplemental information that is labeled with the corresponding field number (e.g., 9.J.).

Submittal: This application form and any associated documents (i.e., total maximum daily load (TMDL) application, any supplemental information) must be submitted electronically. To submit this form electronically, open the form using Internet Explorer Web browser or Adobe Acrobat Reader in order for the submit button to work properly. (If you do not have Acrobat Reader, you can download a free version at <https://get.adobe.com/reader/>.) Send the form to the Minnesota Pollution Control Agency (MPCA) by clicking the submit button at the end of the form (a "send email" window should open with the form attached), you can click on "Send" and then close the form. If you do not see a "send email", save the form to your computer and attach the form to an email message, using "MS4 Part 2 Permit Application" as the subject line to ms4permitprogram.pca@state.mn.us.

Review/Public Notice process: The MPCA will review the application for completeness. Incomplete applications will be returned. If the MPCA determines the application is complete, the MPCA will make a preliminary determination to issue permit coverage and place the application on public notice for 30 days. Once the applicant addresses any applicable comments or hearing requests, the MPCA will make a final determination to issue permit coverage to the applicant.

Please note, this application is intended to provide information about an applicant's existing SWPPP. An applicant that receives permit coverage is responsible for complying with all new applicable requirements set forth in the MS4 General Permit (MNR040000) by deadlines specified in Appendix B of the reissued permit.

Questions: If you have any questions, need additional information, contact MPCA staff. To find the staff assigned to your MS4, refer to the https://stormwater.pca.state.mn.us/index.php?title=MS4_staff_contact_information_and_staff_assignments; or see the staff contact information on the MPCA's MS4 webpage at <https://www.pca.state.mn.us/water/municipal-stormwater-ms4>.

Note: All questions with an asterisk(*) are required fields, and the form will not submit without the fields completed.

General contact information

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

*MS4 permittee name: 1.A. *County: 1.B.
(City, county, municipality, government agency or other entity)

*Mailing address: 1.C.

*City: 1.D. *State: 1.E. *Zip code: 1.F.

2. **MS4 General contact** (with SWPPP implementation responsibility)

*Last name: 2.A. *First name: 2.B.
(Department head, MS4 coordinator, consultant, etc.)

*Title: 2.C.

*Mailing address: 2.D.

*City: 2.E. *State: 2.F. *Zip code: 2.G.

*Phone (including area code): 2.H. *Email: 2.I.

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

Last name: 3.A. First name: 3.B.
(Department head, MS4 coordinator, consultant, etc.)

Title: 3.C. Organization: 3.D.

Mailing address: 3.E.

City: 3.F. State: 3.G. Zip code: 3.H.

Phone (including area code): 3.I. Email: 3.J.

4. **Certification** (All fields are required)

*Yes - I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure 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.

I have read, understood, and accepted all terms and conditions of the NPDES/SDS MS4 General Permit.

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/signing my name below, 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.

*Signature: 4.A.
(This document has been electronically signed)

*Title: 4.B. *Date: 4.C.

*Mailing address: 4.D.

*City: 4.E. *State: 4.F. *Zip code: 4.G.

*Phone (including area code): 4.H. *Email: 4.I.

Note: The application will not be processed without certification.

*5. **Which type of MS4 do you represent?** (Check one)

- 5.A. City
- 5.B. County
- 5.C. Corrections
- 5.D. Education
- 5.E. Healthcare
- 5.F. Township
- 5.G. Transportation (i.e., Minnesota Department of Transportation [MnDOT])
- 5.H. Watershed District

*6. **Permit item 12.3:** Do you have any partnerships with another regulated small MS4(s) to satisfy one or more requirements of the General Permit?

- Yes
- No (skip to Q8)

7. **If yes in Q6, provide a description of the partnership(s):** (Maximum 10 lines of text)

MCM 1: Public education and outreach

- *8. **Permit item 16.3:** Do you distribute educational materials or equivalent outreach focused on at least two (2) specifically selected stormwater-related issues of high priority? (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)

- Yes
 No (skip to Q11)

9. **If yes in Q8, what are your high-priority topics?** (Check all that apply)

- 9.A. Specific TMDL reduction targets
9.B. Changing local business practices
9.C. Promoting adoption of residential best management practices (BMPs)
9.D. Lake improvements through lake associations
9.E. Household chemicals
9.F. Yard waste
9.G. Construction activities
9.H. Post-construction activities
9.I. Other (describe below):
9.J.

Additional information for checked items (optional):

9.K.

10. **If yes in Q8, how do you educate the public about stormwater-related issues?** (Check all that apply)

- 10.A. Brochure
10.B. Newsletter
10.C. Utility bill insert
10.D. Newspaper ad
10.E. Radio ad
10.F. Television ad
10.G. Cable access channel
10.H. Website
10.I. Stormwater-related event
10.J. Other (describe below):
10.K.

Additional information for checked items (optional):

10.L.

- *11. **Permit item 16.4:** At least once each calendar year, do you distribute educational outreach focused on illicit discharge recognition and reporting illicit discharges? (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)

- Yes
 No (skip to Q13)

12. **If yes in Q11, how do you educate the public about illicit discharge recognition and reporting?** (Check all that apply)

- 12.A. Brochure
12.B. Newsletter
12.C. Utility bill insert

- 12.D. Newspaper ad
- 12.E. Radio ad
- 12.F. Television ad
- 12.G. Cable access channel
- 12.H. Website
- 12.I. Stormwater-related event
- 12.J. Other (describe below):
- 12.K.

Additional information for checked items (optional):
12.L.

If you represent a city or township, please answer questions 13-16; if you do not represent a city or township, skip to question 17.

13. **Permit item 16.5:** At least once each calendar year, do you distribute educational materials or equivalent outreach to residents, businesses, commercial facilities, and institutions, focused on deicing salt use? **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- Yes
 - No (skip to Q15)

14. **If yes in Q13, what does your education or outreach cover?** (Check all that apply)
- 14.A. The impacts of salt use on receiving waters
 - 14.B. Methods to reduce salt use
 - 14.C. Proper storage of salt or other deicing materials
 - 14.D. Other (describe below):
 - 14.E.

Additional information for checked items (optional):
14.F.

15. **Permit item 16.6:** At least once each calendar year, do you distribute educational materials or equivalent outreach focused on pet waste? **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- Yes
 - No (skip to Q17)

16. **If yes in Q15, what do your educational materials or equivalent outreach on pet waste include?** (Check all that apply)
- 16.A. Impacts of pet waste on receiving waters
 - 16.B. Proper management of pet waste
 - 16.C. Any existing regulatory mechanism(s) for pet waste
 - 16.D. Other (describe below):
 - 16.E.

Additional information for checked items (optional):

16.F.

*17. **Permit item 16.7:** Do you have an education and outreach plan?

Yes

No (skip to Q19)

18. **If yes in Q17, which components does your education and outreach plan include?** (Check all that apply)

18.A. Target audience(s) (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**) If checked, specify your target audiences:

18.A.1. Residents

18.A.2. Businesses

18.A.3. Commercial facilities

18.A.4. Institutions

18.A.5. Local organizations

18.A.6. Low income residents

18.A.7. People of color

18.A.8. Non-native English speaking residents

18.A.9. Other (describe below):

18.A.10.

18.B. Name or position title of responsible person(s) for overall plan implementation.

18.B.1. If checked, specify the name(s) or position title(s):

18.C. Specific activities and schedules to reach each target audience.

18.C.1. If checked, provide any additional information (optional):

18.D. A description of any coordination with and/or use of stormwater education and outreach programs implemented by other entities, if applicable.

18.D.1. If checked, provide any additional information (optional):

*19. **Permit item 16.8:** Do you document information relating to MCM 1?

Yes

No (skip to Q21)

20. **If yes in Q19, what do you document?** (Check all that apply)

20.A. A description of all specific stormwater-related issues you identified in item 16.3

20.B. All information required under your education and outreach plan in item 16.7

20.C. Activities held, including dates, to reach each target audience

20.D. Quantities and descriptions of educational materials distributed, including dates distributed

20.E. Estimated audience (e.g., number of participants, viewers, readers, listeners, etc.) for each completed education and outreach activity (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)

- *21. **Permit item 12.4:** Who is responsible for implementation of this MCM? List name(s) or position title(s):
22. **Provide any additional information about your current education and outreach program that you would like to share (optional): (Maximum 10 lines of text)**

MCM 2: Public participation/involvement

- *23. **Permit item 17.3:** Do you provide a minimum of one (1) annual opportunity for the public to provide input on the adequacy of the SWPPP?
 Yes
 No (skip to Q25)
24. **If yes in Q23, describe the opportunity(ies):**
- *25. **Permit item 17.4:** Do you provide access to the SWPPP Document, annual reports, and other documentation that supports or describes the SWPPP (e.g., regulatory mechanism(s), etc.) for public review, upon request?
 Yes
 No (skip to Q27)
26. **If yes in Q25, how can the public access this information? (Check all that apply)**
26.A. Hardcopy upon request
26.B. Our website
26.C. Available at public event
26.D. Other (describe below):
26.E.
- *27. **Permit item 17.5:** Do you consider oral and written input regarding the SWPPP submitted by the public?
 Yes
 No
- *28. **Permit item 17.6:** Each calendar year, do you provide a minimum of one (1) public involvement activity that includes a pollution prevention or water quality theme? (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)
 Yes
 No (skip to Q30)
29. **If yes in Q28, what are the themes of your public involvement activity/activities? (Check all that apply)**
29.A. Rain barrel distribution event
29.B. Rain garden workshop
29.C. Cleanup event
29.D. Storm drain stenciling

- 29.E. Volunteer water quality monitoring
- 29.F. Adopt a storm drain program
- 29.G. Household hazardous waste collection day
- 29.H. Other (describe below):
- 29.I.

Additional information for checked items (optional):
29.J.

- *30. **Permit item 17.7:** Do you document information relating to MCM 2?
 - Yes
 - No (skip to Q32)
- 31. **If yes in Q30, what do you document?** (Check all that apply)
 - 31.A. All relevant written input submitted by persons regarding the SWPPP
 - 31.B. All of your responses to written input received regarding the SWPPP, including any modifications made to the SWPPP as a result of the written input received
 - 31.C. Date(s), location(s), and estimated number of participants at events held for purposes of compliance with permit item 17.3
 - 31.D. Notices provided to the public of any events scheduled to meet permit item 17.3, including any electronic correspondence (e.g., website, email distribution lists, notices, etc.)
 - 31.E. Date(s), location(s), description of activities, and estimated number of participants at events held for the purpose of compliance with permit item 17.6 (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)
- *32. **Permit item 12.4:** Who is responsible for implementation of this MCM? List name(s) or position title(s):

- 33. **Provide any additional information about your current public participation/involvement program that you would like to share (optional): (Maximum 10 lines of text)**

MCM 3: Illicit Discharge Detection and Elimination (IDDE)

- *34. **Permit item 18.3:** Do you maintain a storm sewer system map?
 - Yes
 - No (skip to Q36)
- 35. **If yes in Q34, which of the following does your storm sewer map include?** (Check all that apply)
 - 35.A. All pipes 12 inches or greater in diameter, including stormwater flow direction in those pipes
 - 35.B. Outfalls, including a unique identification (ID) number, and an associated geographic coordinate
 - 35.C. Structural stormwater BMPs that are part of your small MS4
 - 35.D. All receiving waters

*36. **Permit item 18.4:** Do you have a regulatory mechanism(s) that prohibits non-stormwater discharges into your MS4?

- Yes
- No (skip to Q39)

37. **If yes in Q36, what does your regulatory mechanism(s) consist of?** (Check all that apply)

- 37.A. Contract language
- 37.B. Ordinance
- 37.C. Permits
- 37.D. Standards
- 37.E. Written policies
- 37.F. Operational plans
- 37.G. Legal agreements
- 37.H. Other mechanism(s) (describe below):
- 37.I.

38. **If yes in Q36,** provide a website address to the regulatory mechanism(s). If the regulatory mechanism is not available online, briefly describe how a copy of the regulatory mechanism can be obtained:

If you represent a **city, township, or county** please answer question 39. **If you do not represent a city, township, or county skip to question 42.**

39. **Permit item 18.5:** Do you have a regulatory mechanism(s) that requires owners or custodians of pets to remove and properly dispose of feces from permittee owned land areas? (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)

- Yes
- No

If you represent a **city or township,** please answer questions 40-41. **If you do not represent a city or township, skip to question 42.**

40. **Permit item 18.6:** Do you have a regulatory mechanism(s) that requires proper salt storage at commercial, institutional, and non-NPDES permitted industrial facilities? (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)

- Yes
- No (Skip to Q42)

41. **If yes in Q40,** what does your regulatory mechanism(s) require? (Check all that apply)

- 41.A. Designated salt storage areas must be covered or indoors
- 41.B. Designated salt storage areas must be located on an impervious surface
- 41.C. Implementation of practices to reduce exposure when transferring material in designated salt storage areas (e.g., sweeping, diversions, and containment)
- 41.D. Other (describe below):
- 41.E.

*42. **Permit item 18.7:** Do you incorporate illicit discharge detection into all inspection and maintenance activities conducted in permit items 21.9, 21.10, and 21.11?

- Yes
- No (Skip to Q44)

43. **If yes in Q42:** where feasible, do you conduct illicit discharge inspections during dry-weather conditions (e.g., periods of 72 or more hours of no precipitation)?

- Yes
- No

- *44. **Permit item 18.8:** At least once each calendar year, do you train all field staff in illicit discharge recognition (including conditions which could cause illicit discharges), and reporting illicit discharges for further investigation? **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- Yes
 No (Skip to Q47)
45. **If yes in Q44, which field staff do you train?** (Check all that apply)
- 45.A. Police
45.B. Fire department
45.C. Public works
45.D. Parks staff
45.E. Other (describe below):
45.F.
46. **If yes in Q44, how do you train staff?** (Check all that apply)
- 46.A. Videos
46.B. In-person presentations
46.C. Webinars
46.D. Training documents
46.E. Emails
46.F. Other (describe below):
46.G.
- *47. **Permit item 18.9:** Do you ensure that individuals receive training commensurate with their responsibilities as they relate to your IDDE program? Individuals includes, but is not limited to, individuals responsible for investigating, locating, eliminating illicit discharges, and/or enforcement. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- Yes
 No (Skip to Q50)
48. **If yes in Q47, how are these individuals trained?** (Check all that apply)
- 48.A. Videos
48.B. In-person presentations
48.C. Webinars
48.D. Training documents
48.E. Emails
48.F. Other (describe below):
48.G.
49. **If yes in Q47, do previously trained individuals attend a refresher-training every three (3) calendar years following the initial training?**
- Yes
 No
- *50. **Permit item 18.10:** Do you maintain a written or mapped inventory of priority areas you identify as having a higher likelihood for illicit discharges? **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- Yes
 No

- *51. **Permit item 18.11:** To the extent allowable under state or local law, do you conduct additional illicit discharge inspections in priority areas?
- Yes
- No (Skip to Q53)
52. **If yes in Q51,** how often do you conduct illicit discharge inspections in priority areas:
- *53. **Permit item 18.12:** Do you have written procedures for investigating, locating, and eliminating the source of illicit discharges? *(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)*
- Yes
- No (Skip to Q55)
54. **If yes in Q53, what do your procedures include? Check all that apply:** *(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)*
- 54.A. A timeframe in which you will investigate a reported illicit discharge
- 54.A.1. If checked, describe:
- 54.B. Use of visual inspections to detect and track the source of an illicit discharge
- 54.C. Tools to investigate and locate an illicit discharge
- If checked, what tools do you use? (Check all that apply)
- 54.C.1. Mobile cameras
- 54.C.2. Collecting and analyzing water samples
- 54.C.3. Smoke testing
- 54.C.4. Dye testing
- 54.C.5. Other (describe below):
- 54.C.6
- 54.D. Cleanup methods to remove an illicit discharge or spill:
- 54.D.1. If checked, describe:
- 54.E. Name or position title of responsible person(s) for investigating, locating, and eliminating an illicit discharge
- 54.E.1. If checked, specify the name(s) or position title(s):
- *55. **Permit item 18.13:** Do you have written procedures for responding to spills, including emergency response procedures to prevent spills from entering the MS4?
- Yes
- No (Skip to Q57)
56. **If yes in Q55, do your written procedures include the immediate notification of the Minnesota Department of Public Safety Duty Officer at 1-800-422-0798 (toll free) or 651-649-5451 (Metro area), if the source of the illicit discharge is a spill or leak as defined in Minn. Stat. § 115.061?**
- Yes
- No

- *57. **Permit item 18.14:** Do you maintain written enforcement response procedures (ERPs) to compel compliance with your regulatory mechanism(s) in Section 18? *(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)*
- Yes
 No (Skip to Q60)
58. **If yes in Q57, which of the following enforcement tools are available to you?** (Check all that apply)
- 58.A. Verbal warning
58.B. Notice of violation
58.C. Fine
58.D. Criminal action
58.E. Civil penalty
58.F. Other (describe below):
58.G.
59. **If yes in Q57, do your ERPs include the following?** (Check all that apply)
- 59.A. Timeframes to complete corrective actions
59.B. Name or position title of responsible person(s) for conducting enforcement
- *60. **Permit item 18.15:** Do you document information relating to MCM 3?
- Yes
 No (Skip to Q62)
61. **If yes in Q60, what do you document?** (Check all that apply)
- 61.A. Date(s) and location(s) of IDDE inspections conducted in accordance with permit items 18.7 and 18.11
61.B. Reports of alleged illicit discharges received, including date(s) of the report(s), and any follow-up action(s) you take
61.C. Date(s) of discovery of all illicit discharges
61.D. Identification of outfalls, or other areas, where illicit discharges have been discovered
61.E. Sources (including a description and the responsible party) of illicit discharges (if known)
61.F. Action(s) you take, including date(s), to address discovered illicit discharges
- *62. **Permit item 18.16:** Do you document training relating to permit item 18.8 and 18.9?
- Yes
 No (Skip to Q64)
63. **If yes in Q62, what training information do you document?** (Check all that apply)
- 63.A. General subject matter covered
63.B. Names and departments of individuals in attendance
(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)
63.C. Date of each event
- *64. **Permit item 18.17:** Do you document enforcement conducted pursuant to the ERPs in item 18.14, including verbal warnings?
- Yes
 No (Skip to Q66)
65. **If yes in Q64, what do you document relating to ERPs for MCM 3?** (Check all that apply)
- 65.A. Name of the person responsible for violating the terms and conditions of your regulatory mechanism(s)
65.B. Date(s) and location(s) of the observed violation(s)
65.C. Description of the violation(s)
65.D. Corrective action(s) (including completion schedule) that you issued
65.E. Referrals to other regulatory organizations (if any)
65.F. Date(s) violation(s) resolved
- *66. **Permit item 12.4:** Who is responsible for implementation of this MCM? List name(s) or position title(s):

67. Provide any additional information about your current illicit discharge detection and elimination program that you would like to share (optional): **(Maximum 10 lines of text)**

MCM 4: Construction site stormwater runoff control

- *68. **Permit item 19.3:** Do you have a regulatory mechanism(s) that establishes requirements for erosion, sediment, and waste controls?
- Yes
 No (skip to Q73)
69. **If yes in Q68, what does your regulatory mechanism(s) consist of?** (Check all that apply)
- 69.A. Contract language
69.B. Ordinance
69.C. Permits
69.D. Standards
69.E. Written policies
69.F. Operational plans
69.G. Legal agreements
69.H. Other mechanism(s) (describe below):
69.I.
70. **If yes in Q68, provide a website address to the regulatory mechanism(s). If the regulatory mechanism is not available online, briefly describe how a copy of the regulatory mechanism can be obtained:**
71. **If yes in Q68, is your regulatory mechanism(s) at least as stringent as the MPCA's most current Construction Stormwater General Permit (MNR100001) for erosion, sediment, and waste controls by incorporating the Construction Stormwater General Permit by reference, or by incorporating all items in Q72?**
- Yes (skip to Q73)
 No
72. **If no in Q71, which of the following requirements are incorporated into your regulatory mechanism(s)?** (Check all that apply)
- 72.A. Erosion prevention practices:**
- 72.A.1. Before work begins, owner(s)/operator(s) must delineate the location of areas not to be disturbed.
- 72.A.2. Owner(s)/operator(s) must minimize the need for disturbance of portions of the project with steep slopes. When steep slopes must be disturbed, owner(s)/operator(s) must use techniques such as phasing and stabilization practices designed for steep slopes (e.g., slope draining and terracing).
- 72.A.3. Owner(s)/operator(s) must stabilize all exposed soil areas, including stockpiles. Stabilization must be initiated immediately to limit soil erosion when construction activity has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization must be completed no later than 14 calendar days after the construction activity has ceased. Stabilization is not required on constructed base components of roads, parking lots and similar surfaces. Stabilization is not required on temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) but owner(s)/operator(s) must provide sediment controls at the base of the stockpile.

- 72.A.4. For Public Waters that the Minnesota Department of Natural Resources (DNR) has promulgated “work in water restrictions” during specified fish spawning time frames, owner(s)/operator(s) must complete stabilization of all exposed soil areas within 200 feet of the water’s edge, and that drain to these waters, within 24 hours during the restriction period.
- 72.A.5. Owner(s)/operator(s) must stabilize the normal wetted perimeter of the last 200 linear feet of temporary or permanent drainage ditches or swales that drain water from the site within 24 hours after connecting to a surface water or property edge. Owner(s)/operator(s) must complete stabilization of the remaining portions of temporary or permanent ditches or swales within 14 calendar days after connecting to a surface water or property edge and construction in that portion of the ditch temporarily or permanently ceases.
- 72.A.6. Temporary or permanent ditches or swales that are being used as a sediment containment system during construction (with properly designed rock-ditch checks, bio rolls, silt dikes, etc.) do not need to be stabilized. Owner(s)/operator(s) must stabilize these areas within 24 hours after their use as a sediment containment system ceases.
- 72.A.7. Owner(s)/operator(s) must not use mulch, hydromulch, tackifier, polyacrylamide or similar erosion prevention practices within any portion of the normal wetted perimeter of a temporary or permanent drainage ditch or swale section with a continuous slope of greater than two percent.
- 72.A.8. Owner(s)/operator(s) must provide temporary or permanent energy dissipation at all pipe outlets within 24 hours after connection to a surface water or permanent stormwater treatment system.
- 72.A.9. Owner(s)/operator(s) must not disturb more land (i.e., phasing) than can be effectively inspected and maintained.

72.B. Sediment control practices:

- 72.B.1. Owner(s)/operator(s) must establish sediment control BMPs on all down gradient perimeters of the site and downgradient areas of the site that drain to any surface water, including curb and gutter systems. Owner(s)/operator(s) must locate sediment control practices upgradient of any buffer zones. Owner(s)/operator(s) must install sediment control practices before any upgradient land-disturbing activities begin and must keep the sediment control practices in place until they establish permanent cover.
- 72.B.2. If the downgradient sediment controls are overloaded, based on frequent failure or excessive maintenance requirements, owner(s)/operator(s) must install additional upgradient sediment control practices or redundant BMPs to eliminate the overloading and amend the site plans to identify these additional practices.
- 72.B.3. Temporary or permanent drainage ditches and sediment basins designed as part of a sediment containment system (e.g., ditches with rock-check dams) require sediment control practices only as appropriate for site conditions.
- 72.B.4. A floating silt curtain placed in the water is not a sediment control BMP to satisfy perimeter control requirements in this part except when working on a shoreline or below the waterline. Immediately after the short term construction activity (e.g. installation of rip rap along the shoreline) in that area is complete, owner(s)/operator(s) must install an upland perimeter control practice if exposed soils still drain to a surface water.
- 72.B.5. Owner(s)/operator(s) must re-install all sediment control practices adjusted or removed to accommodate short-term activities such as clearing or grubbing, or passage of vehicles, immediately after the short-term activity is completed. Owner(s)/operator(s) must re-install sediment control practices before the next precipitation event even if the short-term activity is not complete.
- 72.B.6. Owner(s)/operator(s) must protect all storm drain inlets using appropriate BMPs during construction until they establish permanent cover on all areas with potential for discharging to the inlet.
- 72.B.7. Owner(s)/operator(s) may remove inlet protection for a particular inlet if a specific safety concern (e.g., street flooding/freezing) is identified by owner(s)/operator(s) or the jurisdictional authority (e.g., city/county/township/MnDOT engineer). Owner(s)/operator(s) must document the need for removal in the site plans.
- 72.B.8. Owner(s)/operator(s) must provide silt fence or other effective sediment controls at the base of stockpiles on the downgradient perimeter.
- 72.B.9. Owner(s)/operator(s) must locate stockpiles outside of natural buffers or surface waters, including stormwater conveyances such as curb and gutter systems unless there is a bypass in place for the stormwater.
- 72.B.10. Owner(s)/operator(s) must install a vehicle tracking BMP to minimize the track out of sediment from the construction site or onto paved roads within the site.
- 72.B.11. Owner(s)/operator(s) must use street sweeping if vehicle tracking BMPs are not adequate to prevent sediment tracking onto the street.
- 72.B.12. In any areas of the site where final vegetative stabilization will occur, owner(s)/operator(s) must restrict vehicle and equipment use to minimize soil compaction.
- 72.B.13. Owner(s)/operator(s) must preserve topsoil on the site, unless infeasible.
- 72.B.14. Owner(s)/operator(s) must direct discharges from BMPs to vegetated areas unless infeasible.
- 72.B.15. Owner(s)/operator(s) must preserve a 50 foot natural buffer or, if a buffer is infeasible on the site, provide redundant (double) perimeter sediment controls when a surface water is located within 50 feet of the project’s earth disturbances and stormwater flows to the surface water. Owner(s)/operator(s) must install

perimeter sediment controls at least 5 feet apart unless limited by lack of available space. Natural buffers are not required adjacent to road ditches, judicial ditches, county ditches, stormwater conveyance channels, storm drain inlets, and sediment basins. If preserving the buffer is infeasible, owner(s)/operator(s) must document the reasons in the site plans. Sheet piling is a redundant perimeter control if installed in a manner that retains all stormwater.

- 72.B.16. Owner(s)/operator(s) must use polymers, flocculants, or other sedimentation treatment chemicals in accordance with accepted engineering practices, dosing specifications and sediment removal design specifications provided by the manufacturer or supplier. Owner(s)/operator(s) must use conventional erosion and sediment controls prior to chemical addition and must direct treated stormwater to a sediment control system for filtration or settlement of the floc prior to discharge.

72.C. Dewatering and basin draining:

- 72.C.1. Owner(s)/operator(s) must discharge turbid or sediment-laden waters related to dewatering or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) to a temporary or permanent sediment basin on the project site unless infeasible. Owner(s)/operator(s) may dewater to surface waters if they visually check to ensure adequate treatment has been obtained and nuisance conditions (see Minn. R. 7050.0210, subp. 2) will not result from the discharge. If owner(s)/operator(s) cannot discharge the water to a sedimentation basin prior to entering a surface water, owner(s)/operator(s) must treat it with appropriate BMPs such that the discharge does not adversely affect the surface water or downstream properties.
- 72.C.2. If owner(s)/operator(s) must discharge water that contains oil or grease, owner(s)/operator(s) must use an oil-water separator or suitable filtration device (e.g. cartridge filters, absorbents pads) prior to discharge.
- 72.C.3. Owner(s)/operator(s) must discharge all water from dewatering or basin-draining activities in a manner that does not cause erosion or scour in the immediate vicinity of discharge points or inundation of wetlands in the immediate vicinity of discharge points that causes significant adverse impact to the wetland.
- 72.C.4. If owner(s)/operator(s) use filters with backwash water, they must haul the backwash water away for disposal, return the backwash water to the beginning of the treatment process, or incorporate the backwash water into the site in a manner that does not cause erosion.

72.D. Inspection and maintenance:

- 72.D.1. Owner(s)/operator(s) must ensure that a trained person will inspect the entire construction site at least once every seven (7) days during active construction and within 24 hours after a rainfall event greater than one-half inch in 24 hours.
- 72.D.2. Owner(s)/operator(s) must inspect and maintain all permanent stormwater treatment BMPs.
- 72.D.3. Owner(s)/operator(s) must inspect all erosion prevention and sediment control BMPs and Pollution Prevention Management Measures to ensure integrity and effectiveness. Owner(s)/operator(s) must repair, replace, or supplement all nonfunctional BMPs with functional BMPs by the end of the next business day after discovery unless another time frame is specified below. Owner(s)/operator(s) may take additional time if field conditions prevent access to the area.
- 72.D.4. During each inspection, owner(s)/operator(s) must inspect surface waters, including drainage ditches and conveyance systems but not curb and gutter systems, for evidence of erosion and sediment deposition. Owner(s)/operator(s) must remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems and restabilize the areas where sediment removal results in exposed soil. Owner(s)/operator(s) must complete removal and stabilization within seven (7) calendar days of discovery unless precluded by legal, regulatory, or physical access constraints. Owner(s)/operator(s) must use all reasonable efforts to obtain access. If precluded, removal and stabilization must take place within seven (7) calendar days of obtaining access. Owner(s)/operator(s) are responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work in surface waters.
- 72.D.5. Owner(s)/operator(s) must inspect construction site vehicle exit locations, streets and curb and gutter systems within and adjacent to the project for sedimentation from erosion or tracked sediment from vehicles. Owner(s)/operator(s) must remove sediment from all paved surfaces within one (1) calendar day of discovery or, if applicable, within a shorter time to avoid a safety hazard to users of public streets.
- 72.D.6. Owner(s)/operator(s) must repair, replace, or supplement all perimeter control devices when they become nonfunctional or the sediment reaches one-half of the height of the device.
- 72.D.7. Owner(s)/operator(s) must drain temporary and permanent sedimentation basins and remove the sediment when the depth of sediment collected in the basin reaches one-half of the storage volume.
- 72.D.8. Owner(s)/operator(s) must ensure that at least one individual present on the site (or available to the project site in three (3) calendar days) is trained in the job duties of overseeing the implementation of, revising and/or amending the site plans and performing inspections for the project.
- 72.D.9. Owner(s)/operator(s) may adjust the inspection schedule as follows:
- a. inspections of areas with permanent cover can be reduced to once per month, even if construction activity continues on other portions of the site; or
 - b. where construction sites have permanent cover on all exposed soil areas and no construction activity is occurring anywhere on the site, inspections can be reduced to once per month and, after 12 months, may be suspended completely until construction activity resumes. The MPCA may require inspections to resume if conditions warrant; or

- c. where construction activity has been suspended due to frozen ground conditions, inspections may be suspended. Inspections must resume within 24 hours of runoff occurring, or upon resuming construction, whichever comes first.
- 72.D.10 Owner(s)/operator(s) must record all inspections and maintenance activities within 24 hours of being conducted and these records must be retained with the site plans. These records must include:
- a. date and time of inspections; and
 - b. name of person(s) conducting inspections; and
 - c. accurate findings of inspections, including the specific location where corrective actions are needed; and
 - d. corrective actions taken (including dates, times, and party completing maintenance activities); and
 - e. date of all rainfall events greater than one-half inch in 24 hours, and the amount of rainfall for each event. Owner(s)/operator(s) must obtain rainfall amounts by either a properly maintained rain gauge installed onsite, a weather station that is within one (1) mile of owner(s)/operator(s) location, or a weather reporting system that provides site specific rainfall data from radar summaries; and
 - f. if owner(s)/operator(s) observe a discharge during the inspection, they must record and should photograph and describe the location of the discharge (i.e., color, odor, settled or suspended solids, oil sheen, and other obvious indicators of pollutants); and
 - g. any amendments to the site plans proposed as a result of the inspection must be documented within seven (7) calendar days.

72.E. Inspection and maintenance:

- 72.E.1. Owner(s)/operator(s) must place building products and landscape materials under cover (e.g., plastic sheeting or temporary roofs) or protect them by similarly effective means designed to minimize contact with stormwater. Owner(s)/operator(s) are not required to cover or protect products which are either not a source of contamination to stormwater or are designed to be exposed to stormwater.
- 72.E.2. Owner(s)/operator(s) must place pesticides, fertilizers and treatment chemicals under cover (e.g., plastic sheeting or temporary roofs) or protect them by similarly effective means designed to minimize contact with stormwater.
- 72.E.3. Owner(s)/operator(s) must store hazardous materials and toxic waste, (including oil, diesel fuel, gasoline, hydraulic fluids, paint solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids) in sealed containers to prevent spills, leaks or other discharge. Storage and disposal of hazardous waste materials must be in compliance with Minn. R. ch. 7045 including secondary containment as applicable.
- 72.E.4. Owner(s)/operator(s) must properly store, collect, and dispose of solid waste in compliance with Minn. R. ch. 7035.
- 72.E.5. Owner(s)/operator(s) must position portable toilets so they are secure and will not tip or be knocked over. Owner(s)/operator(s) must dispose of sanitary waste in accordance with Minn. R. ch. 7041.
- 72.E.6. Owner(s)/operator(s) must take reasonable steps to prevent the discharge of spilled or leaked chemicals, including fuel, from any area where chemicals or fuel will be loaded or unloaded including the use of drip pans or absorbents unless infeasible. Owner(s)/operator(s) must ensure adequate supplies are available at all times to clean up discharged materials and that an appropriate disposal method is available for recovered spilled materials. Owner(s)/operator(s) must report and clean up spills immediately as required by Minn. Stat. § 115.061, using dry clean up measures where possible.
- 72.E.7. Owner(s)/operator(s) must limit vehicle exterior washing and equipment to a defined area of the site. Owner(s)/operator(s) must contain runoff from the washing area in a sediment basin or other similarly effective controls and must dispose of waste from the washing activity properly. Owner(s)/operator(s) must properly use and store soaps, detergents, or solvents.
- 72.E.8. Owner(s)/operator(s) must provide effective containment for all liquid and solid wastes generated by washout operations (e.g., concrete, stucco, paint, form release oils, curing compounds and other construction materials) related to the construction activity. Owner(s)/operator(s) must prevent liquid and solid washout wastes from contacting the ground and must design the containment so it does not result in runoff from the washout operations or areas. Owner(s)/operator(s) must properly dispose of liquid and solid wastes in compliance with Minn. R. ch. 7035. Owner(s)/operator(s) must install a sign indicating the location of the washout facility.

72.F. Temporary sediment basins:

- 72.F.1. Where ten (10) or more acres of disturbed soil drain to a common location, owner(s)/operator(s) must provide a temporary sediment basin to provide treatment of the runoff before it leaves the construction site or enters surface waters. Owner(s)/operator(s) may convert a temporary sediment basin to a permanent basin after construction is complete. The temporary basin is no longer required when permanent cover has reduced the acreage of disturbed soil to less than ten (10) acres draining to a common location.
- 72.F.2. The temporary basin must provide live storage for a calculated volume of runoff from a two (2)-year, 24-hour storm from each acre drained to the basin or 1,800 cubic feet of live storage per acre drained, whichever is greater.

- 72.F.3. Where owner(s)/operator(s) have not calculated the two (2)-year, 24-hour storm runoff amount, the temporary sediment basin must provide 3,600 cubic feet of live storage per acre of the basin's drainage area.
- 72.F.4. Owner(s)/operator(s) must design basin outlets to prevent short-circuiting and the discharge of floating debris.
- 72.F.5. Owner(s)/operator(s) must design the outlet structure to withdraw water from the surface to minimize the discharge of pollutants. Owner(s)/operator(s) may temporarily suspend the use of a surface withdrawal mechanism during frozen conditions. The basin must include a stabilized emergency overflow to prevent failure of pond integrity.
- 72.F.6. Owner(s)/operator(s) must provide energy dissipation for the basin outlet within 24 hours after connection to a surface water.
- 72.F.7. Owner(s)/operator(s) must locate temporary basins outside of surface waters and any required buffer zones.
- 72.F.8. Owner(s)/operator(s) must construct temporary basins prior to disturbing (10) or more acres of soil draining to a common location.
- 72.F.9. Where a temporary sediment basin meeting the requirements of this part is infeasible, owner(s)/operator(s) must install effective sediment controls such as smaller sediment basins and/or sediment traps, silt fences, vegetative buffer strips or any appropriate combination of measures as dictated by individual site conditions. In determining whether installing a sediment basin is infeasible, owner(s)/operator(s) must consider public safety and may consider factors such as site soils, slope, and available area on-site. Owner(s)/operator(s) must document this determination of infeasibility in the site plans.

72.G. Termination conditions:

- 72.G.1. Owner(s)/operator(s) must complete all construction activity and must install permanent cover over all areas. Vegetative cover must consist of a uniform perennial vegetation with a density of 70 percent of its expected final growth. Vegetation is not required where the function of a specific area dictates no vegetation, such as impervious surfaces or the base of a sand filter.
- 72.G.2. Owner(s)/operator(s) must clean the permanent stormwater treatment system of any accumulated sediment and must ensure the system meets all applicable requirements and is operating as designed.
- 72.F.3. Owner(s)/operator(s) must remove all sediment from conveyance systems.
- 72.G.4. Owner(s)/operator(s) must remove all temporary synthetic erosion prevention and sediment control BMPs. Owner(s)/operator(s) may leave BMPs designed to decompose on-site in place.
- 72.G.5. For residential construction only, permit coverage terminates on individual lots if the structure(s) are finished and temporary erosion prevention and downgradient perimeter control is complete and the residence sells to the homeowner.
- 72.G.6. For construction projects on agricultural land (e.g., pipelines across cropland), owner(s)/operator(s) must return the disturbed land to its preconstruction agricultural use.

72.H. If applicable, additional requirements for discharges to special and impaired waters:

- 72.H.1. Owner(s)/operator(s) must immediately initiate stabilization of exposed soil areas, and complete the stabilization within seven (7) calendar days after the construction activity in that portion of the site temporarily or permanently ceases.
- 72.H.2. Owner(s)/operator(s) must provide a temporary sediment basin for common drainage locations that serve an area with five (5) or more acres disturbed at one time.
- 72.H.3. Owner(s)/operator(s) must include an undisturbed buffer zone of not less than 100 linear feet from a special water (not including tributaries) and must maintain this buffer zone at all times, both during construction and as a permanent feature post construction, except where a water crossing or other encroachment is necessary to complete the project. Owner(s)/operator(s) must fully document the circumstance and reasons the buffer encroachment is necessary in the site plans and include restoration activities. Owner(s)/operator(s) must minimize all potential water quality, scenic and other environmental impacts of these exceptions by the use of additional or redundant (double) BMPs and must document this in the site plans for the project.
- 72.H.4. Owner(s)/operator(s) must conduct routine site inspections once every three (3) days for projects that discharge to prohibited waters.

*73. **Permit item 19.5:** Does your regulatory mechanism(s) require that owners and operators of construction activity develop site plans that must be submitted to you for review and confirmation that regulatory mechanism(s) requirements have been met, prior to the start of construction activity?

- Yes
- No

*74. **Permit item 19.6:** Do you have written procedures for site plan reviews to ensure compliance with requirements of the regulatory mechanism(s)? (*Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.*)

- Yes
- No (Skip to Q76)

75. **If yes in Q74, do your procedures include the following?** (Check all that apply)
- 75.A. Written notification to owners and operators of the need to apply for and obtain coverage under the CSW Permit.
- 75.B. Use of a written checklist, consistent with the requirements of the regulatory mechanism(s), to document the adequacy of each site plan required.
- *76. **Permit item 19.7:** Do you have written procedures for conducting site inspections to determine compliance with your regulatory mechanism(s)?
- Yes
- No
- *77. **Permit item 19.8:** Do you maintain written procedures for identifying high-priority and low-priority sites for inspection? **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- Yes
- No (Skip to Q79)
78. **If yes in Q77, do your procedures include the following?** (Check all that apply)
- 78.A. A detailed explanation describing how sites will be categorized as either high-priority or low-priority.
If checked, how do you prioritize sites for inspection? (Check all that apply)
- 78.A.1. Site topography
- 78.A.2. Soil characteristics
- 78.A.3. Types of receiving water(s)
- 78.A.4. Stage of construction
- 78.A.5. Compliance history
- 78.A.6. Weather conditions
- 78.A.7. Citizen complaints
- 78.A.8. Project size
- 78.A.9. Other (describe below):
- 78.A.10.
- 78.B. A frequency at which you will conduct inspections for high-priority sites.
If checked, how often will you inspect high-priority sites? (Check only one)
- 78.B.1. More than once every seven (7) days
- 78.B.2. Once every seven (7) days
- 78.B.3. Once every 14 days
- 78.B.4. Once every 21 days
- 78.B.5. Once every 30 days
- 78.B.6. Other (describe below):
- 78.B.7.
- 78.C. A frequency at which you will conduct inspections for low-priority sites.
If checked, how often will you inspect low-priority sites? (Check only one)
- 78.C.1. More than once every seven (7) days
- 78.C.2. Once every seven (7) days
- 78.C.3. Once every 14 days
- 78.C.4. Once every 21 days
- 78.C.5. Once every 30 days
- 78.C.6. Other (describe below):
- 78.C.7.

78.D. The name(s) of individual(s) or position title(s) responsible for conducting site inspections:

- *79. **Permit item 19.9:** Do you use a written checklist to document each site inspection when determining compliance with your regulatory mechanism(s)? *(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)*
- Yes
 No (Skip to Q82)
80. **If yes in Q79, are the following items incorporated in your written checklist?** (Check all that apply)
- 80.A. Stabilization of exposed soils (including stockpiles)
80.B. Stabilization of ditch and swale bottoms
80.C. Sediment control BMPs on all downgradient perimeters of the project and upgradient of buffer zones
80.D. Storm drain inlet protection
80.E. Energy dissipation at pipe outlets
80.F. Vehicle tracking BMPs
80.G. Preservation of a 50 foot natural buffer or redundant sediment controls where stormwater flows to a surface water within 50 feet of disturbed soils
80.H. Owner/operator of construction activity self-inspection records
80.I. Containment for all liquid and solid wastes generated by washout operations (e.g., concrete, stucco, paint, form release oils, curing compounds, and other construction materials)
80.J. BMPs maintained and functional
81. **Provide any additional information on your process to document site inspections (optional):**
- *82. **Permit item 19.10:** Do you have written procedures for receipt and consideration of reports of noncompliance or other stormwater related information on construction activity submitted to you by the public?
- Yes
 No (Skip to Q84)
83. **If yes in Q82, please provide your procedures or a description of your procedures (e.g., how the public may submit concerns, typical timeframe for you to investigate reports):**
- *84. **Permit item 19.11:** Do individuals receive training commensurate with their responsibilities as they relate to your Construction Site Stormwater Runoff Control program? Individuals includes, but is not limited to, individuals responsible for conducting site plan reviews, site inspections, and/or enforcement.
- Yes
 No (Skip to Q87)

85. **If yes in Q84, do previously trained individuals attend a refresher-training every three (3) calendar years following the initial training? (Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- Yes
 No
86. **If yes in Q84, what training do your staff who perform site inspections receive? (Check all that apply)**
- 86.A. University of Minnesota Erosion and Stormwater Management Certification Program
86.B. Qualified Compliance Inspector of Stormwater
86.C. Minnesota Laborers Training Center Stormwater Pollution Prevention Plan Installer or Supervisor
86.D. Minnesota Utility Contractors Association Erosion Control Training
86.E. Certified Professional in Erosion and Sediment Control
86.F. Certified Professional in Stormwater Quality
86.G. Certified Erosion Sediment and Storm Water Inspector
86.H. Other (describe below):
86.I.
- *87. **Permit item 19.12: Do you maintain written ERPs to compel compliance with your regulatory mechanism(s) in Section 19? (Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- Yes
 No (Skip to Q89)
88. **If yes in Q87, which enforcement tools are included in your ERPs? (Check all that apply)**
- 88.A. Verbal warning
88.B. Notice of violation
88.C. Administrative order
88.D. Stop work order
88.E. Fine
88.F. Forfeit of security bond money
88.G. Withholding of certificate of occupancy
88.H. Criminal action
88.I. Civil penalty
88.J. Other (describe below):
88.K.
- *89. **Please specify name or position title of responsible person(s) for conducting enforcement:**
- *90. **Permit item 19.13: Do you document each site plan review you conduct?**
- Yes
 No (Skip to Q92)
91. **If yes in Q90, what do you document in your site plan review process? (Check all that apply)**
- 91.A. Project name
91.B. Location
91.C. Total acreage to be disturbed
91.D. Owner and operator of the proposed construction activity
91.E. Proof of notification to obtain coverage under the CSW Permit or proof of coverage under the CSW Permit
(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)
91.F. Any stormwater related comments and supporting completed checklist, to determine project approval or denial
(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)

- *92. **Permit item 19.14:** Do you document training related to permit item 19.11?
 Yes
 No (Skip to Q94)
93. **If yes in Q92, what do you document?** (Check all that apply)
 93.A. General subject matter covered
 93.B. Name(s) and departments of individuals in attendance
(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)
 93.C. Date of each event
- *94. **Permit item 19.15:** Do you document enforcement conducted pursuant to your ERPs in item 19.12, including verbal warnings?
 Yes
 No (Skip to Q96)
95. **If yes in Q94, what do you document relating to ERPs for MCM 4?** (Check all that apply)
 95.A. Name of the person responsible for violating the terms and conditions of your regulatory mechanism(s)
 95.B. Date(s) and location(s) of the observed violation(s)
 95.C. Description of the violation(s)
 95.D. Corrective action(s) (including completion schedule) that you issued
 95.E. Referrals to other regulatory organizations (if any)
 95.F. Date(s) violation(s) resolved
- *96. **Permit item 12.4: Who is responsible for implementation of this MCM? List name(s) or position title(s):**
97. **Provide any additional information about your current construction site stormwater runoff control program that you would like to share (optional): (Maximum 10 lines of text)**

MCM 5: Post-construction stormwater management

- *98. **Permit item 20.3:** Do you have a post-construction stormwater management regulatory mechanism(s)?
 Yes
 No (skip to Q102)
99. **If yes in Q98, what does your regulatory mechanism(s) consist of?** (Check all that apply)
 99.A. Contract language
 99.B. Ordinance
 99.C. Permits
 99.D. Standards
 99.E. Written policies
 99.F. Operational plans
 99.G. Legal agreements
 99.H. Other mechanism(s) (describe below):
 99.I.

100. **If yes in Q98, provide a website address to the regulatory mechanism(s). If the regulatory mechanism is not available online, briefly describe how a copy of the regulatory mechanism can be obtained:**
101. **If yes in Q98, which of the following requirements are incorporated into your regulatory mechanism? (Check all that apply)**
- 101.A. **Permit item 20.4:** You must require owners of construction activity to submit site plans with post-construction stormwater management BMPs designed with accepted engineering practices to you for review and confirmation that regulatory mechanism(s) requirements have been met, prior to start of construction activity.
- 101.B. **Permit item 20.5:** You must require owners of construction activity to treat the water quality volume on any project where the sum of the new impervious surface and the fully reconstructed impervious surface equals one or more acres. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- 101.C. **Permit item 20.6:** For construction activity (excluding linear projects), the water quality volume must be calculated as one (1) inch times the sum of the new and the fully reconstructed impervious surface. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- 101.D. **Permit item 20.7:** For linear projects, the water quality volume must be calculated as the larger of one (1) inch times the new impervious surface or one-half (0.5) inch times the sum of the new and the fully reconstructed impervious surface. Where the entire water quality volume cannot be treated within the existing right-of-way, a reasonable attempt to obtain additional right-of-way, easement, or other permission to treat the stormwater during the project planning process must be made. Volume reduction practices must be considered first, as described in item 20.8. Volume reduction practices are not required if the practices cannot be provided cost effectively. If additional right-of-way, easements, or other permission cannot be obtained, owners of construction activity must maximize the treatment of the water quality volume prior to discharge from the MS4. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- 101.E. **Permit item 20.8:** Volume reduction practices (e.g., infiltration or other) to retain the water quality volume on-site must be considered first when designing the permanent stormwater treatment system. This permit does not consider wet sedimentation basins and filtration systems to be volume reduction practices. If this permit prohibits infiltration as described in item 20.9, other volume reduction practices, a wet sedimentation basin, or filtration basin may be considered.
- 101.F. **Permit item 20.9:** Infiltration systems must be prohibited when the system would be constructed in areas:
- That receive discharges from vehicle fueling and maintenance areas, regardless of the amount of new and fully reconstructed impervious surface. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
 - Where high levels of contaminants in soil or groundwater may be mobilized by the infiltrating stormwater. To make this determination, the owners and/or operators of construction activity must complete the MPCA's site screening assessment checklist, which is available in the Minnesota Stormwater Manual, or conduct their own assessment. The assessment must be retained with the site plans. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
 - Where soil infiltration rates are more than 8.3 inches per hour unless soils are amended to slow the infiltration rate below 8.3 inches per hour. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
 - 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.
 - Of predominately Hydrologic Soil Group D (clay) soils. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
 - In an Emergency Response Area (ERA) within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, Subp. 13, classified as high or very high vulnerability as defined by the Minnesota Department of Health. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
 - In an ERA within a DWSMA classified as moderate vulnerability unless you perform or approve a higher level of engineering review sufficient to provide a functioning treatment system and to prevent adverse impacts to groundwater. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
 - Outside of an ERA within a DWSMA classified as high or very high vulnerability unless you perform or approve a higher level of engineering review sufficient to provide a functioning treatment system and to prevent adverse impacts to groundwater. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
 - Within 1,000 feet up-gradient or 100 feet down gradient of active karst features. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**

- j. That receive stormwater runoff from these types of entities regulated under NPDES for industrial stormwater: automobile salvage yards; scrap recycling and waste recycling facilities; hazardous waste treatment, storage, or disposal facilities; or air transportation facilities that conduct deicing activities.
- 101.G. **Permit item 20.10:** For non-linear projects, where the water quality volume cannot cost effectively be treated on the site of the original construction activity, you must identify, or may require owners of the construction activity to identify, locations where off-site treatment projects can be completed. If the entire water quality volume is not addressed on the site of the original construction activity, the remaining water quality volume must be addressed through off-site treatment and, at a minimum, ensure the requirements of permit items 20.11 through 20.14 are met.
- 101.H. **Permit item 20.11:** You must ensure off-site treatment project areas are selected in the following order of preference:
- Locations that yield benefits to the same receiving water that receives runoff from the original construction activity
 - Locations within the same DNR catchment area as the original construction activity
 - Locations in the next adjacent DNR catchment area up-stream
 - Locations anywhere within your jurisdiction
- 101.I. **Permit item 20.12:** Off-site treatment 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. Routine maintenance of structural stormwater BMPs already required by this permit cannot be used to meet this requirement.
- 101.J. **Permit item 20.13:** Off-site treatment projects must be completed no later than 24 months after the start of the original construction activity. If you determine that more time is needed to complete the treatment project, you must provide the reason(s) and schedule(s) for completing the project in the annual report.
- 101.K. **Permit item 20.14:** If you receive payment from the owner of a construction activity for off-site treatment, you must apply any such payment received to a public stormwater project, and all projects must comply with permit items 20.11 through 20.13.
- 101.L. **Permit item 20.15:** You must include the establishment of legal mechanism(s) between you and owners of structural stormwater BMPs not owned or operated by you, that have been constructed to meet the requirements in Section 20. The legal mechanism(s) must include provisions that, at a minimum:
- Allow you to conduct inspections of structural stormwater BMPs not owned or operated by you, perform necessary maintenance, and assess costs for those structural stormwater BMPs when you determine the owner of that structural stormwater BMP has not ensured proper function.
 - Are designed to preserve your right to ensure maintenance responsibility, for structural stormwater BMPs not owned or operated by you, when those responsibilities are legally transferred to another party.
 - Are designed to protect/preserve structural stormwater BMPs. If structural stormwater BMPs change, causing decreased effectiveness, new, repaired, or improved structural stormwater BMPs must be implemented to provide equivalent treatment to the original BMP.
- *102. **Permit item 20.16:** Do you maintain a written or mapped inventory of structural stormwater BMPs that you do not own or operate that meet all of the following criteria? (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)
- The structural stormwater BMP includes an executed legal mechanism(s) between you and owners responsible for the long-term maintenance, as required in item 20.15; and
 - The structural stormwater BMP was implemented on or after August 1, 2013.
- Yes
 No
- *103. **Permit item 20.17:** Do you to have written procedures for site plan reviews to ensure compliance with requirements of your regulatory mechanism(s)?
- Yes
 No
- *104. **Permit item 20.18:** Do individuals receive training commensurate with their responsibilities as they relate to your Post-Construction Stormwater Management program? Individuals include, but is not limited to, individuals responsible for conducting site plan reviews and/or enforcement.
- Yes
 No (Skip to Q106)
105. **If yes in Q104,** do previously trained individuals attend a refresher training every three (3) calendar years following the initial training? (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)
- Yes
 No
- *106. **Permit item 20.19:** Do you maintain written ERPs to compel compliance with your regulatory mechanism(s) required in Section 20? (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)
- Yes
 No (Skip to Q108)

107. **If yes in Q106, what enforcement tools are included in your ERPs?** (Check all that apply)

- 107.A. Verbal warning
- 107.B. Notice of violation
- 107.C. Administrative order
- 107.D. Fine
- 107.E. Criminal action
- 107.F. Civil penalty
- 107.G. Other (describe below):
- 107.H.

*108. **Please specify name or position title of responsible person(s) for conducting enforcement:**

*109. **Permit item 20.20:** Do you document each site plan review you conduct?

- Yes
- No (Skip to Q111)

110. **If yes in Q109, what do you document in your site plan review process?** (Check all that apply)

- 110.A. Supporting documentation used to determine compliance, including any calculations for the permanent stormwater treatment system.
- 110.B. The water quality volume that will be treated through volume reduction practices compared to the total water quality volume required to be treated. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- 110.C. Documentation associated with off-site treatment projects you authorize, including rationale to support the location of permanent stormwater treatment projects in accordance with items 20.10 and 20.11. **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- 110.D. Payments received and used in accordance with permit item 20.14.
- 110.E. All legal mechanisms drafted in accordance with permit item 20.15, including date(s) of the agreement(s) and name(s) of all responsible parties involved.

*111. **Permit item 20.21:** Do you document training related to your Post-Construction Stormwater Management program?

- Yes
- No (Skip to Q113)

112. **If yes in Q111, what are you documenting?** (Check all that apply)

- 112.A. General subject matter covered
- 112.B. Names and departments of individuals in attendance **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
- 112.C. The date of each event

*113. **Permit item 20.22:** Do you document enforcement conducted pursuant to your ERPs in item 20.19, including verbal warnings?

- Yes
- No (Skip to Q115)

114. **If yes in Q113, what do you document relating to ERPs for MCM 5?** (Check all that apply)

- 114.A. The name of the person responsible for violating the terms and conditions of your regulatory mechanism(s)
- 114.B. The date(s) and location(s) of the observed violation(s)
- 114.C. A description of the violation(s)
- 114.D. Corrective action(s) issued
- 114.E. Referrals to other regulatory organizations
- 114.F. The date(s) violation(s) are resolved

*115. **Permit item 12.4:** Who is responsible for implementation of this MCM? List name(s) or position title(s):

116. **Provide any additional information about your current post-construction stormwater management program that you would like to share (optional): (Maximum 10 lines of text)**

MCM 6: Pollution prevention/Good housekeeping for municipal operations

*117. **Permit item 21.3:** Do you maintain a written or mapped inventory of your owned/operated facilities that contribute pollutants to stormwater discharges?

Yes

No (skip to Q119)

118. **If yes in Q117, which of the following facilities do you own and/or operate? (Check all that apply)**

118.A. Composting

118.B. Equipment storage and maintenance

118.C. Hazardous waste disposal

118.D. Hazardous waste handling and transfer

118.E. Landfill(s)

118.F. Solid waste handling and transfer

118.G. Park(s)

118.H. Pesticide storage

118.I. Public parking lot(s)

118.J. Public golf course(s)

118.K. Public swimming pool(s)

118.L. Public works yard(s)

118.M. Recycling

118.N. Salt storage

118.O. Snow storage

118.P. Vehicle storage and maintenance (e.g., fueling and washing) yard(s)

118.Q. Materials storage yard(s)

118.R. Other (describe below):

118.S.

*119. **Permit item 21.4:** Do you implement BMPs to prevent or reduce pollutants in stormwater discharges from municipal operations?

Yes

No (Skip to Q121)

120. **If yes in Q119, provide additional information on the BMPs you implement to address stormwater discharges from municipal operations (e.g., waste disposal, management of stockpiles, road maintenance):**
- *121. **Permit item 21.5:** Do you implement BMPs at your owned/operated salt storage areas?
(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)
- Yes
 No (Skip to Q123)
122. **If yes in Q121, what BMPs do you have in place at salt storage areas?** (Check all that apply)
- 122.A. Salt is covered or stored indoors
122.B. Salt stored on an impervious surface
122.C. Implementation of practices to reduce exposure when transferring material from salt storage areas
122.D. Other (describe below):
122.E.
- *123. **Permit item 21.6:** Do you implement a written snow and ice management policy for individuals that perform winter maintenance activities for you? *(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)*
- Yes
 No (Skip to Q125)
124. **If yes in Q123, what practices and procedures for snow and ice control operations are included?**
(Check all that apply)
- 124.A. Plowing or other snow removal practices
124.B. Sand use
124.C. Application of deicing compounds
124.D. Other (describe below):
124.E.
- *125. **Permit item 21.7:** Each calendar year, do all individuals that perform winter maintenance activities for you receive training?
(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)
- Yes
 No (Skip to Q127)
126. **If yes in Q125, what does the winter maintenance training include?** (Check all that apply)
- 126.A. The importance of protecting water quality
126.B. BMPs to minimize the use of deicers
126.C. Tools and resources to assist in winter maintenance (e.g., deicing application rate guidelines, calibration charts, Smart Salting Assessment Tool)
126.D. Other (describe below):
126.E.
- *127. **Permit item 21.8:** Do you maintain written procedures for determining TSS and total phosphorus (TP) treatment effectiveness of all owned/operated ponds constructed and used for the collection and treatment of stormwater?
- Yes
 No

- *128. **Permit item 21.9:** Do you inspect structural stormwater BMPs (excluding stormwater ponds, which are under a separate schedule) each calendar year to determine structural integrity, proper function, and maintenance needs (excluding structural stormwater BMPs where the inspection frequency has been adjusted)?
- Yes
 No
- *129. **Do you have a different inspection frequency (i.e., more or less than each calendar year) for any of your structural stormwater BMPs?**
- Yes
 No (Skip to Q131)
130. **If yes in Q129, what led to your adjusted inspection frequency? (Check all that apply)**
- 130.A. Complaints received or patterns of maintenance indicated a greater frequency was necessary.
130.B. Determined maintenance or sediment removal was not required after completion of the first two calendar year inspections.
130.C. Other (describe below):
130.D.
- *131. **Permit item 21.10:** Do you inspect all ponds and outfalls (excluding underground outfalls) each permit term in order to determine structural integrity, proper function, and maintenance needs?
- Yes
 No (Skip to Q133)
132. **If yes in Q131, describe the frequency of inspections:**
- *133. **Permit item 21.12:** Do you implement a stormwater management training program commensurate with individual's responsibilities as they relate to your SWPPP, including reporting and assessment activities? Training materials can be from the U.S. Environmental Protection Agency (EPA), state and regional agencies, or other organizations as appropriate to meet this requirement.
- Yes
 No (Skip to Q135)
134. **If yes in Q133, what does your stormwater management training program include? (Check all that apply)**
- 134.A. The importance of protecting water quality.
134.B. Cover the requirements of the permit relevant to the responsibilities of the individual.
134.C. A schedule that establishes initial training for individuals, including new and/or seasonal employees, and recurring training intervals to address changes in procedures, practices, techniques, or requirements.
134.D. Other (describe below):
134.E.
- 134.F. Additional information for checked items (optional):
- *135. **Permit item 21.13:** Do you document information associated with the operations and maintenance program?
- Yes
 No (Skip to Q137)
136. **If yes in Q135, what are you documenting? (Check all that apply)**
- 136.A. Date(s) and description of findings, including whether or not an illicit discharge is detected, for all inspections conducted in accordance with items 21.9 and 21.10.
136.B. Any adjustments to inspection frequency as authorized in item 21.9.
136.C. Date(s) and a description of maintenance conducted as a result of inspection findings, including whether or not an illicit discharge is detected.

- 136.D. Schedule(s) for maintenance of structural stormwater BMPs and outfalls when necessary maintenance cannot be completed within one year of discovery (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)
- 136.E. Stormwater management training events, including general subject matter covered, names and departments of individuals in attendance, and date of each event.

*137. **Permit item 21.14:** Do you document pond sediment excavation and removal activities?

- Yes
 No (Skip to Q139)

138. **If yes in Q137, what pond sediment excavation and removal activity information is documented?**

(Check all that apply)

- 138.A. A unique ID number and geographic coordinate of each stormwater pond from which sediment is removed.
 138.B. The volume (e.g., cubic yards) of sediment removed from each stormwater pond.
 138.C. Results from any testing of sediment from each removal activity.
 138.D. Location(s) of final disposal of sediment from each stormwater pond.
 138.E. Additional information for checked items (optional):

*139. **Permit item 12.4:** Who is responsible for implementation of this MCM? List name(s) or position title(s).

140. **Provide any additional information about your current pollution prevention/good housekeeping for municipal operations program that you would like to share (optional):** (Maximum 10 lines of text)

Discharges to Impaired Waters with an EPA-Approved TMDL that Includes an Applicable Waste Load Allocation (WLA)

To determine if you have an applicable WLA(s), please reference the MPCA's MS4 Permit TMDL Application Form webpage at https://stormwater.pca.state.mn.us/index.php?title=Guidance_for_completing_the_MS4_Permit_TMDL_Application_Form.

*141. **Permit item 22.3:** Do you have an applicable WLA where a reduction in pollutant loading is required for bacteria?

- Yes
 No (Skip to Q146)

142. **If yes in Q141, do you maintain a written or mapped inventory of potential areas and sources of bacteria (e.g., dense populations of waterfowl or other bird, dog parks)?** (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)

- Yes
 No (Skip to Q145)

143. **If yes in Q142, do you maintain a written plan to prioritize reduction activities to address the areas and sources identified in the inventory? The written plan must include BMPs you will implement over the permit term.** (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)

- Yes
 No (Skip to Q145)

144. **If yes in Q143, which of the following are included in your written plan?** (Check all that apply)

- 144.A. Water quality monitoring to determine areas of high bacteria loading.
 144.B. Installation of pet waste pick-up bags in parks and open spaces.
 144.C. Elimination of over-spray irrigation at permittee land owned areas.

- 144.D. Removal of organic matter via street sweeping.
- 144.E. Implementation of infiltration structural stormwater BMPs.
- 144.F. Management of areas that attract dense populations of waterfowl (e.g., riparian plantings).
- 144.G. Other (describe below):
- 144.H.

145. **Permit item 12.9:** If yes in Q141, who is or will be responsible for implementation of this required component (i.e., inventory, plan, and BMP implementation)? List name(s) or position title(s):

*146. **Permit item 22.5:** Do you have an applicable WLA where a reduction in pollutant loading is required for chloride?
 Yes
 No (Skip to Q151)

147. **If yes in Q146, do you document the amount of deicer applied each winter maintenance season to all your owned/operated surfaces? (Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
 Yes
 No

148. **If yes in Q146, each calendar year do you conduct an assessment of your winter maintenance operations to reduce the amount of deicing salt applied to your owned/operated surfaces and determine current and future opportunities to improve BMPs? You may use the MPCA's Smart Salting Assessment Tool or other available resources and methods to complete this assessment. The assessment must be documented. (Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**
 Yes
 No (Skip to Q150)

149. **If yes in Q148, what does your winter maintenance operations assessment include? (Check all that apply)**

- 149.A. Operational changes such as pre-wetting, pre-treating the salt stockpile, increasing plowing prior to deicing, monitoring of road surface temperature, etc.
- 149.B. Implementation of new or modified equipment providing pre-wetting, or other capability for minimizing salt use.
- 149.C. Regular calibration of equipment.
- 149.D. Optimizing mechanical removal to reduce use of deicers.
- 149.E. Designation of no salt and/or low salt zones.
- 149.F. Other (describe below):
- 149.G.

149.H. Additional information for checked items (optional):

150. **Permit item 12.9:** If yes in Q146, who is or will be responsible for implementation of this required component (i.e., documenting deicer applied and winter maintenance operations assessment)? List name(s) or position title(s):

*151. **Permit item 22.7:** Do you have an applicable WLA where a reduction in pollutant loading is required for temperature?
 Yes
 No (Skip to Q155)

152. If yes in Q151, do you maintain a written plan that identifies specific activities you will implement to reduce thermal loading during the permit term? **(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)**

- Yes
- No (Skip to Q154)

153. **If yes in Q152, what activities does the plan include?** (Check all that apply)

- 153.A. Implementation of infiltration BMPs such as bioinfiltration practices
- 153.B. Disconnection and/or reduction of impervious surfaces
- 153.C. Retrofitting existing structural stormwater BMPs
- 153.D. Improvement of riparian vegetation
- 153.E. Other (describe below):
- 153.F.

153.G. Provide any additional information about your written plan (optional):

154. **Permit item 12.9: If yes in Q151, who is or will be responsible for implementation of this required component? List name(s) or position title(s):**

*155. **Permit item 12.8:** Do you have an applicable WLA(s) for oxygen demand, nitrate, TSS, or TP?

- Yes - If yes, you **must complete** the corresponding tabs in the *MS4 Permit TMDL Application* (available on the MPCA's website at https://stormwater.pca.state.mn.us/index.php?title=Guidance_for_completing_the_MS4_Permit_TMDL_Application_Form) and submit it with this application.
- No

Alum or Ferric Chloride Phosphorus Treatment Systems

*156. **Permit Section 23:** Do you own and/or operate an Alum or Ferric Chloride Phosphorus Treatment System within your MS4?

- Yes - If yes, complete questions 157-173 as directed.
- No (Skip to Q174)

157. Provide the geographic coordinates of the alum or ferric chloride phosphorus treatment system, in decimal degrees. (Approximate centroid of treatment system within five-foot accuracy):

- 157.A. Latitude: _____
- 157.B. Longitude: _____

158. **Who is responsible for the operation of the treatment system? List name(s) or position title(s):**

159.A. **Provide the date the system first became operational (mm/dd/yyyy):** _____

For question 159.B-G, provide information for calendar year 2020.

159.B. For each month, provide the number of days the system was operational:

- 159.B.1. January: _____
- 159.B.2. February: _____
- 159.B.3. March: _____
- 159.B.4. April: _____
- 159.B.5. May: _____
- 159.B.6. June: _____
- 159.B.7. July: _____
- 159.B.8. August: _____
- 159.B.9. September: _____
- 159.B.10. October: _____
- 159.B.11. November: _____
- 159.B.12. December: _____

159.C. What chemical(s) was used for treatment:

- 159.C.1. Alum
- 159.C.2. Ferric Chloride

159.D. Provide the number of gallons of water treated: _____

159.E. Provide the number of gallons of alum or ferric chloride treatment used: _____

159.F. Provide the calculated pounds of phosphorous removed: _____

159.G. Describe any performance issue(s) and the corrective action(s), including the date(s) when corrective action(s) were taken:

160. Permit item 23.3: Which of the following requirements are you meeting? (Check all that apply)

- 160.A. Your treatment system is for the treatment of phosphorus in stormwater. Non-stormwater discharges must not be treated by this system.
- 160.B. Your treatment system is contained within the conveyances and structural stormwater BMPs of the MS4. The utilized conveyances and structural stormwater BMPs do not include any receiving waters.
- 160.C. Phosphorus treatment systems utilizing chemicals other than alum or ferric chloride receive written approval from the MPCA.
- 160.D. In-lake phosphorus treatment activities are not authorized.

161. Permit item 23.3: Which of the following design parameters does your treatment system include? (Check all that apply)

- 161.A. The treatment system is constructed in a manner that diverts the stormwater flow to be treated from the main conveyance system.
- 161.B. A high flow bypass is part of the inlet design.
- 161.C. A flocculent storage/settling area is incorporated into the design, and adequate maintenance access is provided (minimum of eight feet wide) for the removal of accumulated sediment.

162. Permit item 23.5: Do you have a designated person perform visual monitoring of the treatment system for proper performance at least once every seven (7) days, and within 24 hours after a rainfall event greater than 2.5 inches in 24 hours?

- Yes
- No (Skip to Q164)

163. If yes in Q162, please list the name(s) of the individual(s) or position title(s):

164. **Permit item 23.5:** Following visual monitoring which occurs within 24 hours after a rainfall event, do you conduct the next visual monitoring of your system seven (7) days after that rainfall event?
- Yes
 No
165. **Permit item 23.6:** Does your treatment system utilize three (3) benchmark monitoring stations? Table 1 in Appendix A in the permit must be used for the parameters, units of measure, and frequency of measurement for each station.
- Yes
 No
166. **Permit item 23.7:** Do you collect grab samples or flow-weighted 24-hour composite samples at your treatment system?
- Yes
 No
167. **Permit item 23.8:** Are your treatment system samples, excluding potential of hydrogen (pH) samples, analyzed by a laboratory certified by the Minnesota Department of Health and/or the MPCA?
- Yes
 No
168. **Which of the following do your sample tests include?** (Check all that apply)
- 168.A. Sample preservation and test procedures for the analysis of pollutants that conform to 40 CFR Part 136 and Minn. R. 7041.3200.
- 168.B. Detection limits for dissolved phosphorus, dissolved aluminum, and dissolved iron that are a minimum of 6 micrograms per liter ($\mu\text{g/L}$), 10 $\mu\text{g/L}$, and 20 $\mu\text{g/L}$, respectively.
- 168.C. pH that is measured within 15 minutes of sample collection using calibrated and maintained equipment.
169. **Permit item 23.9:** In the following situation(s) do you perform corrective action(s) and immediately notify the Minnesota Department of Public Safety Duty Officer? (Check all that apply)
- 169.A. The pH of the discharged water is not within the range of 6.0 and 9.0.
- 169.B. Indications of toxicity or measurements exceeding water quality standards which could endanger human health, public drinking water supplies, or the environment.
- 169.C. A spill or discharge or alteration resulting in water pollution, as defined in Minn. Stat. § 115.01, subd. 13, of alum or ferric chloride.
170. **Permit item 23.13:** Do you conduct site-specific jar testing using typical and representative water samples in accordance with the most current approved version of ASTM D2035? (**Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.**)
- Yes
 No
171. **Permit item 23.14:** Do you have baseline concentrations of the following parameters in the influent and receiving waters at your treatment system location? (Check all that apply)
- 171.A. Aluminum or iron
- 171.B. Phosphorus
172. **Permit item 23.15:** Do you have the following system parameters and how each was determined at your treatment system location? (Check all that apply)
- 172.A. Flocculant settling velocity
- 172.B. Minimum required retention time
- 172.C. Rate of diversion of stormwater into the system
- 172.D. The flow rate from the discharge of the outlet structure
- 172.E. Range of expected dosing rates
173. **Permit item 23.16:** Have you developed the following site-specific procedures? (Check all that apply)
- 173.A. Procedures for the installation, operation and maintenance of all pumps, generators, control systems, and other equipment.
- 173.B. Specific parameters for determining when the solids must be removed from the system and how the solids will be handled and disposed of.
- 173.C. Procedures for cleaning up and/or containing a spill of each chemical stored on site.

Complete last page and submit using Adobe Acrobat Reader.

(If you do not have Acrobat Reader, you can download a free version at <https://get.adobe.com/reader/>.)

Additional information

174. Provide any additional information about your current Stormwater Pollution Prevention Program (SWPPP) that you would like to share (optional): **(Maximum 30 lines of text)**

Complete last page and submit using Adobe Acrobat Reader.

(If you do not have Acrobat Reader, you can download a free version at [https://get.adobe.com/reader/.](https://get.adobe.com/reader/))

Appendix B: MS4 Staff List

Appendix C: MS4 Calendar

Appendix D: Maps (Storm Drainage System Map, Storm Sewer Map, Facility Map)

Information

Facility ID	Facility Name/Land Use
1	Pioneer Creek Park
2	Maple Plain Fire Department
3	Municipal Property
4	Rainbow Park
5	Municipal Property
6	Municipal Property
7	Bryantwood Park
8	Municipal Property
9	Historic Post Office/Library
10	Municipal Property
11	Veterans Memorial Park
12	Municipal Property

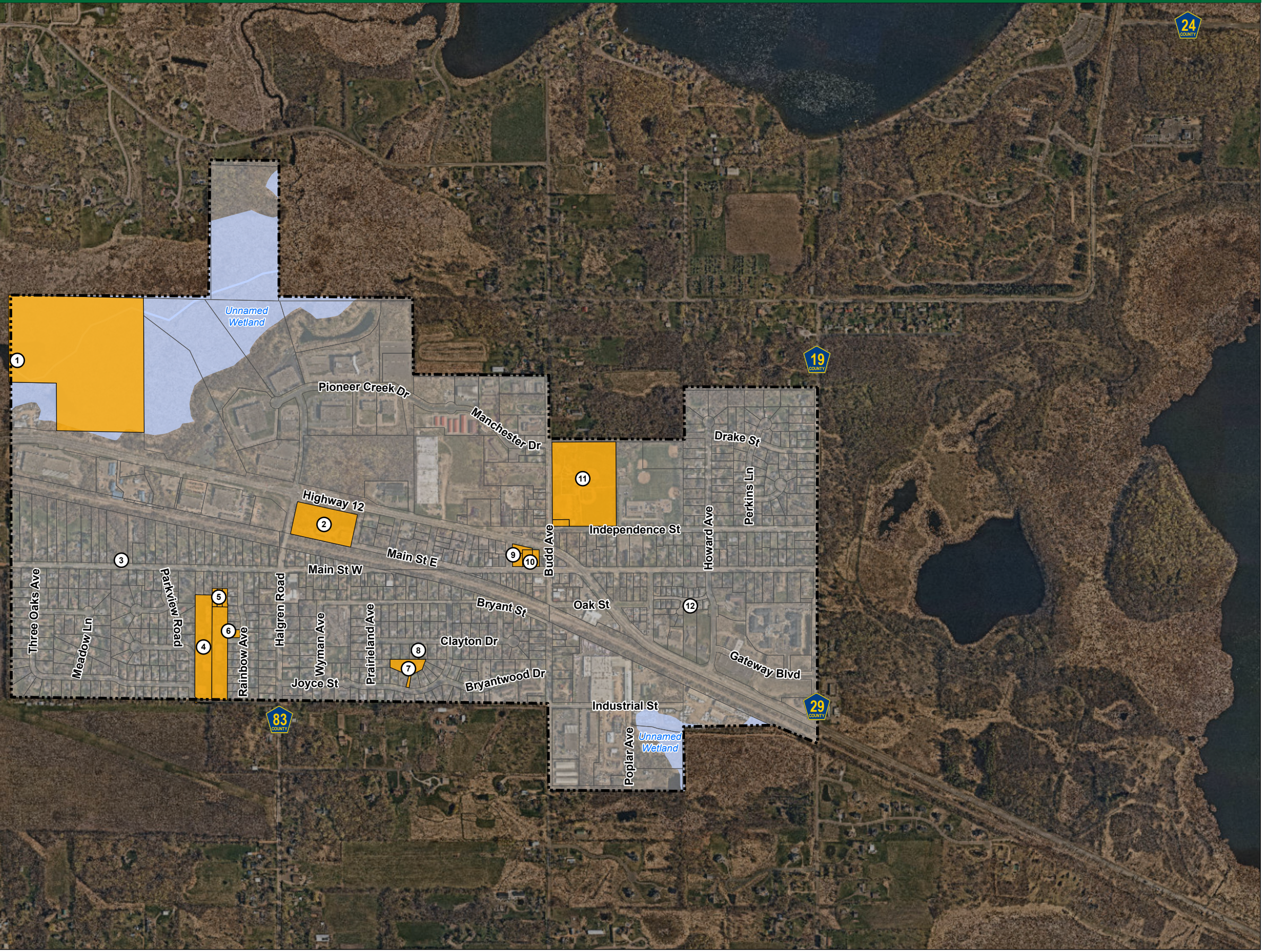
12

Legend

- City Limits
- Parcels
- City Parcels
- MnDNR Public Water
- MnDNR Public Watercourse

0 1,000
Feet

Source: Hennepin County, MnDNR



24
COUNTY

19
COUNTY

29
COUNTY

83
COUNTY

Map Document: \\arscserver1\GIS\MAPS\LEPLA_CI_MN\OC1126136ESR1\Pro\FacilityMap.aprx | User: kende | Date Saved: 10/26/2022 10:04 PM

Appendix E: Municipal Facility Inventory

FACILITY ID	Facility Name / Land Use	Municipal Operations Best Management Practices											
		1	2	3	4	5	6	7	8	9	10	11	12
		Proper Waste Management, Storage & Disposal	Proper Stockpile Management	Proper Vehicle Fueling, Washing, & Maintenance	Routine Pavement Sweeping	Proper Emergency Response Procedures	Proper Cleaning of Maintenance Equipment, Buildings, & Dumpsters	Proper Use, Storage, and Disposal of Significant Materials	Proper Lawn and Landscape Maintenance	Proper Road Maintenance	Proper Right-of-Way Maintenance	Proper Application of Herbicides, Pesticides, and Fertilizers	Proper Snow Removal and Deicing Operations
1	Municipal Property	X							X			X	
2	Pioneer Park	X	X		X		X		X			X	X
3	Municipal Property	X							X			X	
4	Rainbow Park	X			X		X		X			X	X
5	Rainbow Park	X			X		X		X			X	X
6	Rainbow Park	X			X		X		X			X	X
7	Bryantwood Park	X							X			X	
8	Bryantwood Park	X							X			X	
9	Municipal Property	X			X				X			X	X
10	Municipal Property	X			X				X			X	X
11	Veteran's Memorial Park	X			X		X		X			X	X
12	Oak Street Park	X			X				X			X	X

Appendix F: Illicit Discharge Report and Response Form

CITY OF MAPLE PLAIN, MN

ILLICIT DISCHARGE REPORT AND RESPONSE FORM

Illicit Discharge Identification

Date: _____ Reported by: _____
Time: _____ Phone No: _____
Weather: _____ Temperature: _____
Location: _____
Spill Material: _____
Spill Volume: _____
Other Information: _____

Received by: _____

Investigation

Date: _____ Assigned Investigator: _____
Watershed Description: _____
Storm Drain/Outfall ID: _____
Illicit Discharge Confirmed Entering Storm Drain System/Receiving Waters? YES NO
Discharge Material:
 HAZARDOUS WASTE WASTEWATER PAINT SALT
 OIL/GREASE SEDIMENT GRASS/LEAF CLIPPINGS ANIMAL WASTE
 OTHER
Estimated Quantity: _____
Additional Information: _____
Samples Collected: YES NO Photo(s) Taken: YES NO
Land Use:
 RESIDENTIAL COMMERCIAL/INDUSTRIAL PUBLIC/PARK
Industrial NPDES Permit: YES NO
Source Description: _____
Responsible Party: _____
Attachments:
 PICTURES VIDEO FIELD NOTES MAPS
 TEST RESULTS MONITORING REPORT EST OF LABOR/MAT'LS/COSTS

Actions/Enforcement

Voluntary Compliance: YES NO Notice of Violation: YES NO
Corrective Actions Req'd:
 PERFORM MONITORING
 ELIMINATE CONNECTION/DISCHARGE
 ELIMINATE/DISPOSE PET WASTE
 INSTALL PROPER SALT STORAGE FACILITIES / IMPLEMENT PROPER SALT HANDLING PROCEDURES
 REMEDIATION/RESTORATION REQUIRED
 PAYMENT OF FINE TO COVER ADMINISTRATIVE OR REMEDIATION COSTS
 IMPLEMENT SOURCE CONTROL OR TREATMENT BMPs
Proof of Correction/Attachments:
 PICTURES VIDEO TEST RESULTS MONITORING REPORT
 PAID INVOICE CORRESPONDENCE NOTICE OF VIOLATION
Date Closed: _____

Appendix G: IDDE Investigation Techniques

Table 56: Techniques to Locate the Discharge		
Technique	Best Applications	Limitations
Dye Testing	<ul style="list-style-type: none"> Discharge limited to a very small drainage area (<10 properties is ideal) Discharge probably caused by a connection from an individual property Commercial or industrial land use 	<ul style="list-style-type: none"> May be difficult to gain access to some properties
Video Testing	<ul style="list-style-type: none"> Continuous discharges Discharge limited to a single pipe segment Communities who own equipment for other investigations 	<ul style="list-style-type: none"> Relatively expensive equipment Cannot capture non-flowing discharges Often cannot capture discharges from pipes submerged in the storm drain
Smoke Testing	<ul style="list-style-type: none"> Cross-connection with the sanitary sewer Identifying other underground sources (e.g., leaking storage techniques) caused by damage to the storm drain 	<ul style="list-style-type: none"> Poor notification to public can cause alarm Cannot detect all illicit discharges

TIP

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



Figure 63: Dye Testing Plumbing (NEIWPCC, 2003)

Dye Testing

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

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

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

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

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

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

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

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

Table 57: Key Field Equipment for Dye Testing

(Source: Wayne County, MI, 2000)

Maps, Documents

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

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

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

Equipment for Actual Dye Testing and Communications

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



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

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

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

Table 58: Dye Testing Options

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

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

Dye Selection

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

Selecting Fixtures to Test

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

Selecting a Sewer Manhole for Observations

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

Communications Between Crew Members

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

Locating Missing Dye

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

Video Testing

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

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

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

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

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

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

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

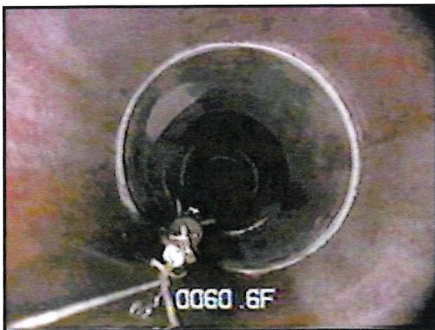


Figure 65: Camera being towed

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

Smoke Testing

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



Figure 66: Tractor-mounted camera



Figure 67: Review of an inspection video

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

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

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

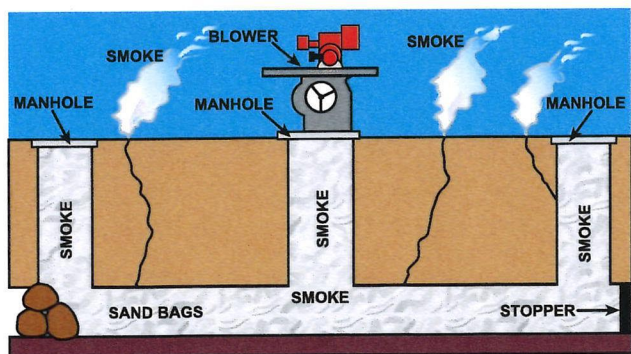


Figure 68: Smoke Testing System Schematic

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

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

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

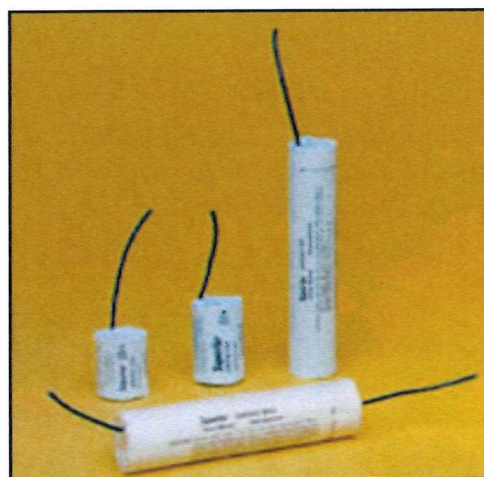


Figure 69: Smoke Candles



Figure 70: Smoke blower

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

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

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

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

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

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

13.4 Septic System Investigations

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

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

Appendix H: Spill Response Plan

Spill Response Plan

A. Requirements

Emergency Notification REQUIRED if there is a spill of a hazardous material or more than 5 gallons of a petroleum product AND it can reach surface water or sewers, or can reach ground/soil you must call:

- Local Authorities Call 9-1-1 first, if there is a threat to life or property
- City: Clarissa Hadler, City Administrator – 763-479-0516
- Minnesota Duty Officer 1-800-422-0798 or (651) 649-5451 if public safety or environmental threat and/or state notification for reportable spills is required
- The National Response Center 1-800-424-8802 if Duty Officer states federal notification required

Be prepared to provide the following information to the Minnesota Duty Officer:

- Name of caller
- Date, time, and location of incident
- Telephone number for call-backs
- What local officials have been contacted (fire, police, sheriff)

Additional information that may be required for special circumstances:

Notification of a Spill	Requesting State Assistance
<ul style="list-style-type: none">• Materials and quantity involved• Incident location (address, coordinates)• Party responsible for incident• Telephone # of responsible party• Surface waters or infrastructure impacted	<ul style="list-style-type: none">• Type of assistance requested (information, specialized equipment/labor)• Name of requesting agency• Materials, quantity, and personnel• Coordination with other local, County, and other agencies

B. Spill Response

1. Approach

- a) Use safety
- b) Use safety first in responding to spills. Do not endanger yourself or others by entering a hazardous environment. If there is a fire or medical attention is needed, call 911 immediately.
- c) Avoid exposure. Approach the spill from upwind and stay clear of spills, vapors, fumes, and smoke.

2. Secure the Site

- a) Isolate the spill.

- b) Direct people away from site; divert traffic and pedestrians as necessary.
 - c) Stop the source of spill, if possible.
 - d) Eliminate any potential ignition sources, if possible.
3. Identify Hazards
- a) Identify the spilled material, if possible.
 - b) Note characteristics of material (odor, color, sheen), warning labels, container types, activities that are contributing to incident.
4. Assess Conditions
- a) Ascertain the appropriate first response and need for additional help.
 - b) Note potential threats (fire, explosion, mixing with something else).
 - c) Note resources available to contain the spill.
 - d) Note persons/infrastructure at risk.
5. Reporting
- a) Contact the Minnesota Department of Public Safety Duty Officer at 1-800-422-0798 (toll free) or 651-649-5451 (Metro area), if the spill of any substance or material may cause or has caused pollution of waters of the state.
 - b) Report spills that may cause pollution (toxic, flammable, corrosive, or dangerous industrial chemicals).
 - c) Report petroleum spills of 5 gallons or greater in volume.
6. Containment
- a) Put on appropriate personal protective equipment (PPE), such as boots, gloves, and safety glasses.
 - b) Place berms or available material around perimeter of spill.
 - c) Provide protection of nearest storm water conveyance (inlet, gutter, culvert).
 - d) Apply absorbent material, starting at downstream edge of spill.
7. Clean Up
- a) Only personnel with proper training shall perform clean up.
 - b) Clean small spills according to their Material Safety Data Sheet.
 - c) Do not wash or hose spill into the street or storm drain system.
 - d) Ventilate area and eliminate any sources of ignition.
 - e) Clean spills quickly.
 - f) Use “dry” clean up methods if possible (sweeping, shoveling, scraping).
 - g) Place waste in appropriate containers.
 - h) Dispose of spill material in accordance with State and Federal regulations.
 - i) If personnel with proper training are not available, leave the area and notify emergency responders.
8. Follow Up and Documentation

- a) Clean and decontaminate all reusable spill cleanup equipment.
- b) Restock spill response materials and personal protection equipment as soon as possible.
- c) Document spill (see Documentation and Assessment Plan).

Appendix I: Maintenance Plans (Road Maintenance Plan), Snow Management Policy

City of Maple Plain
Snow Plowing Policy
Presented November 26, 2018
Revised December 10, 2018

The City of Maple Plain has adopted the following policy pertaining to Snow Plowing

Timing/Trigger: The Maple Plain Public Works will determine based off weather conditions, the appropriate time to plow or pre-treat roads. This could mean plowing in the middle of the night and plowing multiple times in one day. Public Works shall plow automatically at 2 inches of accumulated snow. If snow totals under 2 inches make the roads unsafe or difficult to drive on, public works will go out to plow.

Curb to Curb: The Maple Plain Public Works Department will plow curb to curb along all streets.

Salt and Sand Use: When plowing or pre-treating roads the Maple Plain Public Works Department will use a salt as the primary treating agent. If temperatures fall below 10 degrees, then sand will be used with no salt use.

Location of Salt and Sand Use: Treating roads with salt or sand shall only be applied on curves, intersections and the following streets: Independence St. Budd Ave North and Main Street East Downtown. No other parts of the roads shall be treated unless extreme circumstances warrant that treatment.

Main Street East Downtown: The Maple Plain public Works will plow the snow along Main Street East downtown to center of the road. After all plowing is complete Public Works shall return and remove all snow pushed to the middle along Main Street East downtown. Removing this snow shall completed immediately following the conclusion of plowing the City.

Appendix J: Agreements (Municipal and Private)

Appendix K: Checklists

Note: This inspection checklist is an option for small construction sites. Large construction sites and linear projects require more extensive/more location specific inspection requirements. This inspection report does not address all aspects of the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit (Permit) issued on August 1, 2018. The completion of this checklist does not guarantee that all permit requirements are in compliance; it is the responsibility of the Permittee(s) to read and understand the permit requirements.

Facility information

Site name: _____
 Site address: _____ Permit number: _____
 City: _____ State: _____ Zip code: _____

Inspection information

Inspector name: _____ Phone number: _____

Organization/Company name: _____

Date (mm/dd/yyyy): _____ Time: _____ am pm

Is the inspector trained in sediment and erosion control and is it documented in the Stormwater Pollution Prevention Plan (SWPPP)?
 Yes No

Is this inspection routine or in response to a storm event: 7 day Rain

Rainfall amount (if applicable): _____

Is site within one aerial mile of special or impaired water that can potentially receive discharge from the site? Yes No

If yes, follow Section 23 and other applicable permit requirements.

Note: If NA is selected at any time, specify **why** in the comment area for that section.

Erosion prevention requirements (Section 8.1)

	Yes	No	NA
1. Are soils stabilized where no construction activity has occurred for 14 days (including stockpiles)? (7 days where applicable, or 24 hours during Minnesota Department of Natural Resources [DNR] Fish Spawning restrictions)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the need to disturb steep slopes been minimized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. If steep slopes are disturbed, are stabilization practices designed for steep slopes used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. All ditches/swales stabilized 200' back from point of discharge or property edge within 24 hours? (Mulch, hydromulch, tackifier, or similar best management practices [BMPs] are not acceptable in ditches/swales if the slope is greater than 2%)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Do pipe outlets have energy dissipation (within 24 hours of connection)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is construction phasing being followed in accordance with the SWPPP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Are areas not to be disturbed marked off (flags, signs, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Sediment control requirements (Section 9.1))

	Yes	No	NA
1. Are perimeter sediment controls installed properly on all down gradient perimeters?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Are appropriate BMPs installed protecting inlets, catch basins, and culvert inlets?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is a 50 foot natural buffer preserved around all surface waters during construction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If No, have redundant sediment controls been installed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Do all erodible stockpiles have perimeter control in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is there a temporary sediment basin on site, and is it built as required in Section 14 of the permit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is soil compaction being minimized where not designed for compaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Is topsoil being preserved unless infeasible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. If chemical flocculants are used, is there a chemical flocculant plan in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Maintenance and inspections (Section 11)

	Yes	No	NA
1. Are all previously stabilized areas maintaining ground cover?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Are perimeter controls maintained and functioning properly, sediment removed when one-half full?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Are inlet protection devices maintained and adequately protecting inlets?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are the temporary sediment basins being maintained and functioning properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are vehicle tracking BMPs at site exists in place and maintained and functioning properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is all tracked sediment being removed within 24 hours?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Have all surface waters, ditches, conveyances, and discharge points been inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Were any discharges seen during this inspection (i.e., sediment, turbid water, or otherwise)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If yes, record the location of all points of discharge. Photograph and describe the discharge (size, color, odor, foam, oil sheen, time, etc.). Describe how the discharge will be addressed. Was the discharge a sediment delta? If yes, will the delta be recovered within seven days and in accordance with item 11.5 of the permit?

Comments:

Pollution prevention (Section 12)

	Yes	No	NA
1. Are all construction materials that can leach pollutants under cover or protected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Are hazardous materials being properly stored?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Are appropriate BMPs being used to prevent discharges associated with fueling and maintenance of equipment or vehicles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are all solid wastes being properly contained and disposed of?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is there a concrete/other material washout area on site and is it being used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is the concrete washout area marked with a sign?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Are the concrete/other material washout areas properly maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Other

	Yes	No	NA
1. Is a copy of the SWPPP, inspection records, and training documentation located on the construction site, or can it be made available within 72 hours?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the SWPPP been followed and implemented on site, and amended as needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is any dewatering occurring on site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If yes, what BMPs are being used to ensure that clean water is leaving the site and the discharge is not causing erosion or scour?			
4. Will a permanent stormwater management system be created for this project if required and in accordance with Section 15 of the permit (if adding an acre or more of new impervious surface)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If yes, describe:			
5. If infiltration/filtration systems are being constructed, are they marked and protected from compaction and sedimentation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Description of areas of non-compliance noted during the inspection, required corrective actions, and recommended date of completion of corrective actions:			
7. Proposed amendments to the SWPPP:			

8. Potential areas of future concern:

9. Additional comments:

Disclosures:

- After discovery, the permit requires many of the deficiencies that may be found on site be corrected within a specified period of time. See permit for more details.
- The Permittee(s) is/are responsible for the inspection and maintenance of temporary and permanent water quality management BMPs as well as erosion prevention and sediment control BMPs until another Permittee has obtained coverage under this Permit according to Section 3, or the project has met the termination conditions of the permit and a Notice of Termination has been submitted to the Minnesota Pollution Control Agency.

MS4 Annual Assessment

Municipal Stormwater Permit Program

City of Maple Plain

The Annual SWPPP Assessment shall be performed prior to completion of each Annual Report. Use this form to evaluate program compliance, appropriateness of BMP practices, and progress towards identified measurable goals. Note: This annual assessment shall be done to comply with the requirements of NPDES/SDS Permit MN R100001.

Reviewer(s): _____ Date: _____

1. Program Management (Part III and IV)

	S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable	S	M	U	NA
1	Stormwater program organizational structure to implement SWPPP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Internal communication and coordination to implement SWPPP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Effective use of outside groups and/or partnerships to implement SWPPP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Review and evaluation of measurable goals as defined in SWPPP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Process or procedures for establishing stormwater priorities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Program documentation and record retention.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Submittal of annual report by June 30 th .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Prepared for permit compliance evaluation, audit, and provided materials requested by MPCA staff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Recommended Actions:

2. Impaired Waters/TMDLs (Part III.E)

	S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable	S	M	U	NA
1	Review of impaired waters and evaluation of SWPPP for appropriate reductions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Implementing BMPs and making progress toward meeting each applicable Waste Load Allocation (WLA).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Estimated cumulative reductions in loading and implementing adaptive management strategies for achieving each WLA.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Recommended Actions:

3. MCM 1 – Public Education and Outreach (Part III.D.1)

	S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable	S	M	U	NA
1	Distributed educational materials or conducted equivalent outreach activities on stormwater-related issue(s) of high priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Distributed materials or conducted equivalent outreach activities on illicit discharge recognition and reporting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Implementation plan with identified target audiences and activities to reach measurable goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4	Utilization of other entities and partnerships as appropriate to implement a stormwater educational program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Annual evaluation of education program measurable goals reviewed for adequacy and updated as necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Recommended Actions:

4. MCM 2 – Public Participation and Involvement (Part III.D.2)

	S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable	S	M	U	NA
1	Procedures to solicit public input and opinion annually on the adequacy of the SWPPP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Consider oral statements and written comments by the public regarding the SWPPP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Provide access to the SWPPP Document, Annual Reports and other documentation for public review upon request.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Process to consider input and make appropriate modifications to the SWPPP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Documentation of all relevant written input received regarding the SWPPP and all responses from the permittee regarding input received on the SWPPP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Documentation of date(s) and location(s) of events to meet requirements of MCM 2 and documentation of notices provided to the public regarding events scheduled to meet these requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Recommended Actions:

5. MCM 3 – Illicit Discharge Detection and Elimination (Part III.D.3)

	S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable	S	M	U	NA
1	Completed storm sewer system map updates showing the location of items in Part III.C.1.a. – d.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Ordinance or other regulatory mechanism in place that prohibits illicit discharges into MS4 conveyances and establishes appropriate enforcement procedures and actions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Incorporation of illicit discharge detection into all maintenance and inspection activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Provides Illicit Discharge, Detection, and Elimination training for all field staff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Identified priority areas likely to have illicit discharges and information used to guide subsequent inspections.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Developed and utilizes Enforcement Response Procedures (ERPs) for investigating, locating, and eliminating the source of illicit discharges and spills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Informs businesses and the general public about illicit discharges/illegal dumping.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Evaluated non-stormwater discharges as described in Part I.A.2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Maintains adequate documentation of illicit discharge reports, tracking, and elimination procedures as required in Part III.D.3.h.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Recommended Actions:

6. MCM 4 – Construction Site Stormwater Runoff Control (Part III.D.4)

	S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable	S	M	U	NA
1	Ordinance or other regulatory mechanism in place that establishes erosion and sediment controls as stringent as the MPCA National Pollutant Discharge Elimination System/State Disposal System, Construction Stormwater General Permit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Requirements for construction site operators to implement waste controls and erosion and sediment control BMPs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Requirements for construction site operators to develop site plans prior to the start of construction activity for review and approval.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Written procedures for site plan review to ensure compliance with the requirements of the regulatory mechanism or ordinance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Written procedures for site inspections to determine compliance with the requirements of the regulatory mechanism or ordinance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Utilization of ERPs to ensure compliance with the regulatory mechanism or ordinance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Written procedures for receipt and consideration of reports of noncompliance or other information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Documentation of site plan review information for the proposed construction activity and documentation of site inspections of the active construction site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Recommended Actions:

7. MCM 5 – Post Construction Stormwater Management (Part III.D.5)

	S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable	S	M	U	NA
1	Ordinance or other regulatory mechanism to address post-construction stormwater runoff from new development and redevelopment meeting requirements for Part III.D.5.a.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Strategies for implementing structural stormwater BMPs for post-construction stormwater management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Written procedures for site plan reviews prior to the start of construction activity to ensure compliance with requirements of the regulatory mechanism or ordinance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Stormwater management limitations for infiltration techniques constructed in areas of contaminated soils, high groundwater, clayey soils, and soils with high infiltration rates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Mitigation strategies when stormwater management for Total Suspended Solids (TSS) and/or Total Phosphorus (TP) cannot be achieved on the site of the original construction activity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Documentation of site plan reviews, mitigation projects, legal mechanisms for long term maintenance of structural stormwater BMPs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Recommended Actions:

8. MCM 5 – Pollution Prevention/Good Housekeeping for Municipal Operations (Part III.D.6)

	S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable	S	M	U	NA
1	Operation and Maintenance Program to prevent or reduce pollutant runoff from municipal operations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Facilities inventory of permittee owned/operated facilities that contribute pollutants to stormwater discharges.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Development and implementation of BMPs for inventoried facilities and municipal operations, such as those described in Part III.D.6.b.(2).(a) – (l).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Development and implementation of BMPs for stormwater discharges that may affect Source Water Protection Areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Procedures and a schedule for determining TSS and TP treatment effectiveness of all permittee owned/operated stormwater ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Annual inspections of all structural stormwater BMPs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	At least one inspection of all outfalls and ponds prior to the expiration of the Permit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Quarterly inspections of all stockpiles, storage, and material handling areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Repairs, replacement, or maintenance activities for structural stormwater BMPs based on inspection findings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Employee training program commensurate with employee’s job duties and addresses the importance of protecting water quality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Documentation of maintenance activities, maintenance schedules, BMP inspections, and employee training.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Recommended Actions:

Construction Stormwater Program

Stormwater Pollution Prevention Plan (SWPPP)

Doc Type: Stormwater Pollution Prevention Plan (SWPPP)

C000					
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Background: This checklist is used by Minnesota Pollution Control Agency (MPCA) staff for Stormwater Pollution Prevention Plan (SWPPP) reviews. It is provided as an additional resource intended for SWPPP designers for construction projects to assure all required elements of a SWPPP are included. Use of this checklist will help you to determine if your SWPPP is complete, though not all checklist items are applicable to all projects. This checklist can be used for all size projects; however, the guidance document "Stormwater Compliance Assistance Toolkit for Small Construction Operators," contains a SWPPP template designed specifically for small site projects. This guidance is available on the MPCA Construction Stormwater webpage at: <https://www.pca.state.mn.us/water/construction-stormwater>.

Note - This checklist is for your information and use is voluntary. The checklist does not need to be returned to the MPCA.

Review information

Applicant: _____ Project name: _____

Application date: _____ Reviewer name: _____

Reason for review:

- | Yes | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Mandatory (over 50 acres and discharging to a special or impaired water) |
| <input type="checkbox"/> | <input type="checkbox"/> | Random audit |
| <input type="checkbox"/> | <input type="checkbox"/> | Enforcement case |
| Case lead: | | |

Notes

SWPPP contains a combination of:

- | Yes | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Narrative |
| <input type="checkbox"/> | <input type="checkbox"/> | Plan sheets |
| <input type="checkbox"/> | <input type="checkbox"/> | Standard detail sheets (where appropriate) |

Notes

SWPPP information

- | Yes | N/A | SWPPP narrative should contain the following: |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | A description of the nature of the construction activity |
| <input type="checkbox"/> | <input type="checkbox"/> | The person knowledgeable and experienced in the application of erosion prevention and sediment control best management practices (BMPs) who will oversee the implementation of the SWPPP |
| <input type="checkbox"/> | <input type="checkbox"/> | The person, organization, or entity (name or title) responsible for long-term operation and maintenance of the permanent stormwater treatment system |
| <input type="checkbox"/> | <input type="checkbox"/> | Documentation for all trained individuals |
| <input type="checkbox"/> | <input type="checkbox"/> | A description of installation timing for all erosion prevention and sediment control BMPs |
| <input type="checkbox"/> | <input type="checkbox"/> | A description of the permanent cover methods for all exposed soil areas (may be in narrative or on plan sheets) |
| <input type="checkbox"/> | <input type="checkbox"/> | Any stormwater mitigation measures proposed as part of environmental, endangered species, archaeological or other required local, state or federal reviews conducted for the project |
| <input type="checkbox"/> | <input type="checkbox"/> | Identify discharges to any U.S. Environmental Protection Agency (EPA)-approved Total Maximum Daily Load (TMDL) for the pollutants/stressors described in item 23.7 |

Notes

- Yes** **N/A** **SWPPP narrative should contain the following (continued):**
- A description of the permanent stormwater treatment system
 - A description of procedures to amend the SWPPP
 - A description of methods used to minimize soil compaction and preserve topsoil
 - In designing the stormwater controls, the SWPPP must account for:
 - Yes** **N/A**
 - The expected amount, frequency, intensity and duration of precipitation
 - The nature of stormwater runoff and run-on at the site, including factors such as expected flow from impervious surfaces, slopes and site drainage features
 - The range of soil particles expected to be present
 - The stormwater volume, velocity, and peak flowrates to minimize discharge of pollutants in stormwater and to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points
 - A description of any specific chemicals and chemical treatment systems used for enhancing the sedimentation and how compliance with item 9.18 will be achieved
 - Acres of impervious surfaces (pre- and post-construction)
 - If permittees determine compliance with the following requirements is infeasible, document the determination:
 - Yes** **N/A**
 - Temporary sediment basins (must describe alternative BMPs used)
 - If the permanent treatment system for linear projects cannot be constructed within the right-of-way (reasonable attempt to obtain the right-of-way must be made)
 - Buffer zones
 - The full volume reduction requirement
 - Any required site assessments for groundwater or soil contamination
 - Tabulated quantities of all erosion prevention and sediment control BMPs anticipated for the life of the project

Notes

- Yes** **N/A** **The plan sheets should contain the following:**
- A site map or maps including:
 - Yes** **N/A**
 - Existing and final grades
 - Drainage area boundaries
 - Direction of stormwater flow
 - All discharge points where stormwater is leaving the site or entering a surface water
 - Soil types
 - Impervious surfaces
 - Locations of potential pollutant generating activities (as identified in Section 12)
 - Areas of steep slope (3:1 or greater)
 - All surface waters, existing wetlands, and stormwater ponds/basins within one aerial mile that receive stormwater from the construction site, during or after construction

Note: If they do not fit on the plan sheets, use an arrow to note the direction and distance

Notes

Yes N/A The plan sheets should contain the following (continued):

Yes N/A

- Construction activity areas that are adjacent to and drain to Public Waters for which the Minnesota Department of Natural Resources (DNR) has promulgated "work in water restrictions" during specified fish spawning time frames
- 50 foot buffer zones
- 100 foot permanent buffer zones
- Locations and types of all temporary and permanent erosion prevention and sediment control BMPs
- Locations of areas where construction will be phased to minimize duration of exposed soil areas

Yes N/A Standard plates or specifications:

- Are standard plates or specifications included where appropriate?

Notes

Construction activity requirements

Yes N/A Erosion prevention measures:

- Exposed soils (including stockpiles) have erosion protection/cover initiated immediately and completed within 14 days (or 7 days per Section 23)
- For DNR Public Waters with "work in waters restrictions" during specified fish spawning time frames, stabilization must be completed for all exposed soil areas within 200 feet of the water's edge, and draining to the water, within 24 hours during the restriction period
- The wetted perimeter of the last 200 linear feet of ditches must be stabilized within 24 hours of connecting to a surface water or property line
- Temporary or permanent ditches or swales that are being used as a sediment containment system during construction must be stabilized within 24 hours after no longer being used as a sediment containment system
- Pipe outlets must have energy dissipation within 24 hours of connecting to a surface water or permanent stormwater treatment system
- Mulch, hydromulch, tackifier, polyacrylamide, or similar erosion prevention practices cannot be used within the normal wetted perimeter of drainage ditches or swale sections with a continuous slope greater than 2%

Yes N/A Sediment control measures:

- Sediment control practices are established on downgradient perimeters and upgradient of any buffer zones
- Sediment control practices are established at the base of stockpiles on the downgradient perimeter
- Stockpiles are located outside of natural buffers or surface waters, including stormwater conveyances (e.g., curb and gutter systems) unless there is a bypass
- Inlet protection BMPs included
- Vehicle tracking BMPs established where vehicles are exiting the site to minimize street tracking

Notes

Notes

Yes N/A Sediment control measures (continued):

- Plans to preserve topsoil (unless infeasible)
- Plans to minimize soil compaction
- Direct discharges from BMPs to vegetated areas, unless infeasible
- 50-foot natural buffers are preserved **or** (if maintaining buffer is infeasible) redundant sediment controls are provided when a surface water is located within 50 feet of the project's earth disturbances and drains to the surface water

Notes

Yes N/A Dewatering and basin draining:

- If dewatering is required on the site, there must be a plan in place to prevent nuisance conditions, erosion, and inundation of wetlands
- If using filters with backwash water, backwash water must be hauled away for disposal, returned to the beginning of the treatment process, or incorporated into the site in a manner that does not erode into runoff

Notes

Yes N/A Inspection requirements:

- The SWPPP must identify the trained person (as identified in item 21.2.b) who will conduct inspections
- Inspections must be performed once every 7 days
- Inspections must be performed within 24 hours of a rain event greater than 0.5 inches in 24 hours
- Inspection and Maintenance records should include:
 - Yes N/A**
 - Date and time of inspection
 - Name of person(s) conducting inspections
 - Findings of inspections, including the specific location where corrective actions are needed
 - Corrective actions taken (including dates, times, and party completing maintenance activities)
 - Date and amount of rainfall events greater than 0.5 inch in 24 hours
 - Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, or by a weather station that is within one mile or by a weather reporting system
 - Requirements to observe any discharge that may be occurring during the inspection. Discharge should also be described and photographed

Notes

Yes N/A Maintenance requirements:

- All nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs by the end of the next business day after discovery, or as soon as field conditions allow.
- Perimeter control devices must be repaired, replaced, or supplemented when nonfunctional or sediment reaches one-half the height of the device.
- Temporary and permanent sediment basins must be drained and sediment removed when the depth of sediment collected reaches one-half storage volume

Notes

Yes N/A Maintenance requirements (continued):

- All sediment deposits and deltas must be removed from surface waters (including drainage ways, catch basins, and other drainage systems) and the removal areas restabilized within seven days
- Sediment on paved surfaces (e.g., sediment tracked from vehicles) must be removed within one calendar day of discovery
- Permanent stormwater treatment BMPs must be inspected and maintained

Notes

Yes N/A Pollution prevention management measures:

- Proper storage, handling, and disposal of construction products, materials, and wastes is required
- SWPPP should address fueling and maintenance of equipment or vehicles and spill prevention and response
- Limit exterior vehicle and equipment washing to a defined area of the site
- The SWPPP should include a description of the containment for concrete and other washout waste
- Portable toilets must be positioned so that they are secure

Notes

Yes N/A Permit termination conditions:

- Permanent uniform perennial vegetative cover must be established at 70% density of its expected final growth
- The permanent stormwater treatment system is constructed, meets all requirements, and is operating as designed
- All temporary synthetic erosion prevention and sediment control BMPs must be removed
- Clean out sediment from conveyance systems and permanent stormwater treatment systems (return to design capacity)
- For residential sites, install temporary erosion protection and downgradient perimeter control and distribute the MPCA's Homeowner Fact Sheet
- Submit a Notice of Termination (NOT) to the MPCA

Notes

Design requirements

Yes N/A Temporary sediment basins:

- If yes:
 - Yes** **N/A** Basins must provide live storage for runoff from a 2-year, 24-hour storm (minimum 1,800 ft³/acre) or, with no calculative minimum, provide 3,600 ft³/acre
 - Outlets must be designed to remove floating debris
 - Outlets must be designed to allow complete drawdown
 - Outlets must be designed to withdraw water from the surface
 - Outlets must have energy dissipation within 24 hours of connecting to a surface water

Notes

Yes N/A Temporary sediment basins (continued):

If yes:

Yes N/A

- Basins must be designed to prevent short circuiting
- Basins must have a stabilized emergency overflow
- Basins must be situated outside of surface waters and any required buffer zones

Notes

Yes N/A Permanent stormwater treatment system:

- Include calculations for the permanent stormwater treatment system (water quality volume of one inch times the net increase of impervious surfaces created by the project to be retained on site)
- Volume reduction practices must be considered first
- Is infiltration prohibited due to the practice being constructed in or receiving discharges from one of the following?

Yes N/A

- Areas where vehicle fueling and maintenance occur
- Areas with less than three (3) feet of separation distance from the bottom of the infiltration system to the seasonally saturated soils or the top of bedrock
- Areas where industrial facilities are not authorized to infiltrate industrial stormwater under a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Industrial Stormwater Permit issued by the MPCA:
 - Automobile salvage yards
 - Scrap recycling and waste recycling facilities
 - Hazardous waste treatment, storage or disposal facilities
 - Air transportation facilities that conduct deicing activities
- Areas where high levels of contaminants in soil or groundwater may be mobilized by the infiltrating stormwater
- Areas of predominantly Hydrological Soil Group D (clay) soils
- Areas within 1,000 feet upgradient, or 100 feet downgradient of active karst features
- Areas within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13, if the system will be located in:
 - An Emergency Response Area (ERA) within a DWSMA classified as having high or very high vulnerability
 - An ERA within a DWSMA classified as having moderate vulnerability unless a regulated MS4 Permittee has performed or approved a higher level of engineering review

Notes

Yes N/A Permanent stormwater treatment system (continued):

- Outside of an ERA within a DWSMA classified as having high or very high vulnerability unless a regulated MS4 Permittee has performed or approved a higher level of engineering review
- Areas where soil infiltration rates are field measured at more than 8.3 inches per hour unless soils are amended to slow the infiltration rate below 8.3 inches per hour
- If infiltration is prohibited:
 - Yes N/A**
 - Other methods of volume reduction are considered
 - The water quality volume is treated by a wet sedimentation basin, filtration system, regional ponding or equivalent methods prior to the discharge of stormwater to surface waters.
- If proximity to bedrock precludes the installation of any of the permanent stormwater management practices, some treatment has been provided:
 - Yes N/A**
 - Grassed swales
 - Smaller ponds
 - Grit chambers

Notes

Yes N/A Permanent treatment method selected:

- Infiltration (e.g., infiltration basins, infiltration trenches, rain gardens, swales with check dams, natural depressions)
 - Yes N/A**
 - Include at least one soil boring, test pit or infiltrometer test in the location of the infiltration practice
 - If the infiltration rate has been field-measured, the rate has been divided by two for design purposes
 - Appropriate testing has been conducted to ensure a minimum of three feet of separation from the bottom of the infiltration practice to the seasonally saturated soils and/or bedrock
 - The system has been designed to maintain pre-existing hydrologic conditions of wetlands in the vicinity (e.g., do not breach a perched water table that is supporting a wetland)
 - The SWPPP includes requirements to avoid excavating the infiltration system within three feet of final grade before the drainage area is stabilized
 - If the infiltration system is excavated within three feet of final grade, rigorous erosion prevention and sediment control BMPs are used to keep all runoff and sediment out of the infiltration system

Notes

Yes N/A Permanent treatment method selected (continued):

- Infiltration (continued)

Yes N/A

- A pretreatment device is planned
- All stormwater routed to the practice can be discharged in 48 hours
- Note: Any additional flows must bypass the system through a stabilized discharge point*
- There is a way to visually verify the system is operating as designed
- Adequate maintenance access is provided

Notes

- Filtration (e.g., sand filters, biofiltration areas, swales using underdrains and check dams, and underground sand filters)

Yes N/A

- The filtration system is designed to remove at least 80% of total suspended solids (TSS)
- The SWPPP includes requirements to not install the filter media until the drainage area is fully stabilized
- If the filter media is installed before the drainage area is fully stabilized, rigorous erosion prevention and sediment control BMPs are used to keep all runoff and sediment out of the filtration practice
- A pretreatment device is planned
- All stormwater routed to the practice can be discharged in 48 hours or less
- There is a way to visually verify the system is operating as designed
- Appropriate testing has been conducted to ensure a minimum of three feet of separation from the bottom of the filtration practice to the seasonally saturated soils and/or bedrock
- If there is less than three feet of separation, the filter has been designed with an impermeable liner
- Adequate maintenance access is provided

Notes

- Wet sedimentation basin

Yes N/A

- The basin must provide live storage of one inch (or the remainder of volume not reduced) of runoff from new impervious surfaces
- The basin must provide a permanent volume of 1,800 feet³ below the outlet pipe for each acre draining to the basin
- The permanent pool depth is between 3 feet and 10 feet

Notes

- Wet sedimentation basin (continued)
 - The basin is configured to minimize scour or resuspension of solids
 - Outlets must be designed to discharge at less than 5.66 cubic feet per second (cfs) per acre of pond
 - Outlets must be designed to prevent short circuiting
 - Outlets must be designed to prevent the discharge of floatables
 - A stabilized emergency overflow is provided
 - Adequate maintenance access is provided
 - The basin is located outside of surface waters and any buffer zones required in item 23.11
 - If the basin is in active karst terrain, the basin must be designed with an impermeable liner

Notes

- Regional wet sedimentation basin
 - Yes N/A**
 - Provide written authorization from the owner of the regional basin
 - Ensure that there will be no significant degradation of waterways between the project and the regional basin
 - The regional basin design conforms to the permit requirements for a wet sedimentation basin

Notes

Yes N/A Record retention requirements:

- The SWPPP (including all changes to it) must be kept at the site during construction by the permittee who has operational control of that portion of the site

Notes

Yes N/A **Additional requirements for discharges to Special (Prohibited, Restricted, Other) and Impaired Waters:**

Does this site drain to a discharge point on the project that is within one aerial mile of a Special or Impaired Water?

Which type of special or impaired water?	BMP category	Notes
Prohibited waters		
<input type="checkbox"/> Wilderness areas	23.9, 23.10, 23.11, 23.13, 23.14	
<input type="checkbox"/> Part of Lake Superior	23.9, 23.10, 23.11, 23.13, 23.14	
<input type="checkbox"/> Scientific and natural areas	23.9, 23.10, 23.11, 23.13, 23.14	
Restricted waters		
<input type="checkbox"/> Lake Superior (apart from Prohibited)	23.9, 23.10, 23.11	
<input type="checkbox"/> Scenic and recreational river segments	23.9, 23.10, 23.11	
<input type="checkbox"/> Lake Trout lakes	23.9, 23.10, 23.11	
<input type="checkbox"/> Calcareous fens	23.9, 23.10, 23.11	
Other special waters		
<input type="checkbox"/> Trout lakes	23.9, 23.10, 23.11	
<input type="checkbox"/> Trout streams	23.9, 23.10, 23.11, 23.12	
Impaired water		
<input type="checkbox"/> Impaired for phosphorus, turbidity, TSS, dissolved oxygen or aquatic biota	23.9, 23.10	

BMP category	Requirement	Notes
<input type="checkbox"/> 23.9	Stabilization initiated immediately and completed within seven days	
<input type="checkbox"/> 23.10	Temporary sediment basin provided for areas of five acres or more that drain to a common location	
<input type="checkbox"/> 23.11	Include and maintain at all times an undisturbed buffer zone of not less than 100 linear feet from a special water	
<input type="checkbox"/> 23.12	Temperature controls	
<input type="checkbox"/> 23.13	Conduct routine site inspections once every three days when draining to Prohibited Waters	
<input type="checkbox"/> 23.14	If discharges to prohibited waters cannot provide volume reduction equal to one inch times the net increase of impervious surfaces, permittees must develop a permanent stormwater treatment system design that will result in no net increase of TSS or phosphorus to the prohibited water	

Yes N/A Requirements for discharges to wetlands:

- Does this site have a discharge with the potential for adverse impacts to wetlands?

If yes:

Yes N/A

- Has the wetland mitigation sequence (avoid, minimize, mitigate) been followed/satisfied? Permittee must demonstrate this through one of the following:
- The potential adverse impacts are addressed by permits/approvals from an official statewide program (e.g., U.S. Army Corps of Engineers, Minnesota DNR, Wetland Conservation Act)
- If there are impacts not addressed by the permits or other determinations, compliance with 7050.0186 must be documented to the MPCA and approved

Notes

Appendix L: TMDL Plans

Appendix M: Documentation