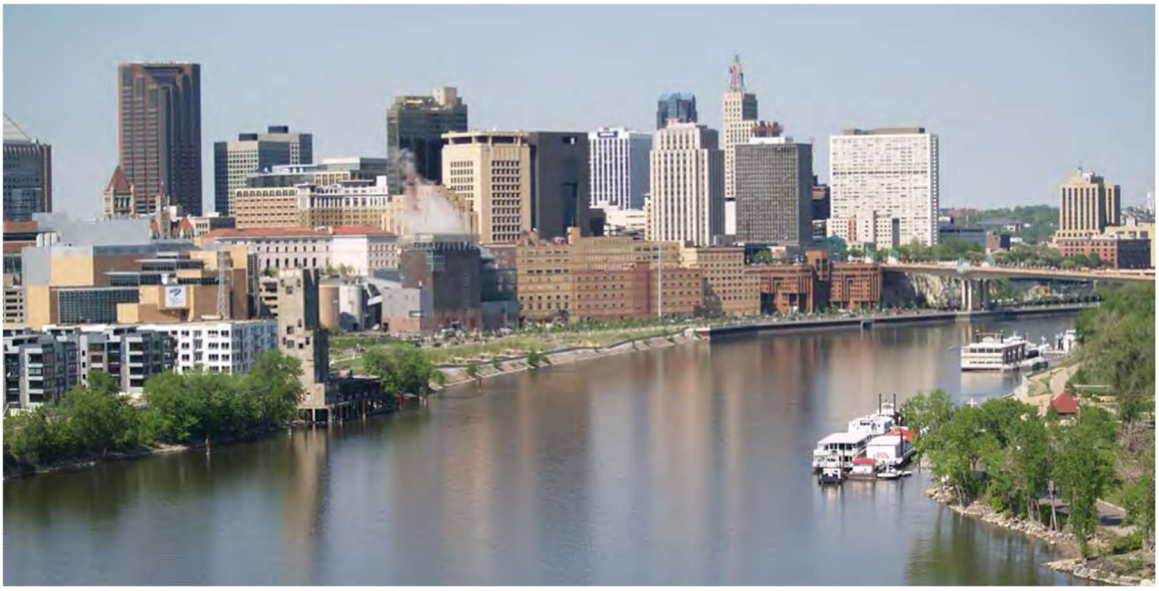
City of Saint Paul's
STORMWATER MANAGEMENT PROGRAM



Minnesota Pollution Control Agency

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
Permit No. MN0061263

SAINT PAUL
MINNESOTA

TABLE OF CONTENTS

GENERAL INFORMATION

BACKGROUND

The National Pollutant Discharge Elimination System (NPDES) program was created in 1990 by the United States Environmental Protection Agency (EPA) to safeguard public waters through the regulation of the discharge of pollutants to surface waters including lakes, streams, wetlands, and rivers. The Minnesota Pollution Control Agency (MPCA) is the local authority responsible for administering this program. Under this program, specific permits are issued to regulate different types of municipal, construction, and industrial activities.

The MPCA issued the first Municipal Separate Storm Sewer System (MS4) NPDES Permit to the City of Saint Paul (City) on December 1, 2000. The City applied for permit reissuance and received coverage with subsequent permits being issued on January 21, 2011, July 12, 2018, and October 17, 2024 (current). The permit requires the development of a revised Stormwater Management Program (SWMP) within 12 months of reissuance. Additionally, the Permit requires the submittal of an Annual Report by June 30th of the subsequent year. This SWMP is prepared in conformance with requirements of NPDES Permit MN0061263 issued to the City of Saint Paul on October 17, 2024. This permit, currently in effect, expires October 16, 2029.

The goal of the SWMP is to set a framework defining how the City will manage, operate, and maintain the MS4 in a manner to reduce the discharge of pollutants from the MS4 to the Maximum Extent Practicable (MEP), to protect water quality and satisfy the appropriate water quality requirements of the Clean Water Act and the conditions of the permit. The stormwater management activities conducted by the City cover a broad range of responsibilities involving the governing body and almost every department of the City. The City Council and Mayor approve budgets, ordinances, and policies to provide direction for the stormwater program. The departments of Public Works, Parks & Recreation, and Safety & Inspections have a primary role in implementing the SWMP, and other departments will have a more passive role in the SWMP.

The organizational chart in the appendix shows the structure of the city and the relationship of stormwater compliance between departments.

CONTACT INFORMATION

Permit coordination and annual reporting functions are handled by:

Contact Information
Pat Murphy
Department of Public Works
Phone: (651) 266-6254
Email: patrick.g.murphy@ci.stpaul.mn.us

PERMIT COVERAGE AREA, AUTHORIZATION, AND LIMITATONS ON AUTHORIZATION

This permit authorizes stormwater discharges from the Municipal Separate Storm Sewer System (MS4) which consists of storm sewer system and treatment works for the collection, conveyance, treatment, storage, and discharge of stormwater owned and operated by the City of Saint Paul.

This permit also authorizes the following non-stormwater discharges only if the City does not identify them as significant contributors of pollutants (i.e. illicit discharges): water line flushing, landscape irrigation, diverted stream flows, rising groundwaters, uncontaminated groundwater infiltration (as defined at 40 C.F.R. 35.2005(b)(20)), uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, 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 of flows from firefighting activities.

The permit identifies that the following discharges or activities are not authorized by the permit:

- non-stormwater discharges, except those authorized by the City noted above
- discharges of stormwater to the MS4 from activities requiring a separate National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) permit. The permit does not replace or satisfy any other permitting requirements;
- the permit does not replace or satisfy any environmental review requirements, including those under the Minnesota Environmental Policy Act (Minn. Stat. ch. 116D), or the National Environmental Policy Act (42 U.S.C. 4321 et seq.);
- the permit does not replace or satisfy any review requirements for endangered or threatened species, from new discharges that adversely impact or contribute to adverse impacts on a listed endangered or threatened species, or adversely modify a designated critical habitat;
- the permit does not replace or satisfy any review requirements for historic places or archeological sites, from new discharges which adversely affect properties listed or eligible for listing in the National Register of Historic Places or affecting known or discovered archeological sites; and
- the permit does not authorize discharges to wetlands unless the City is in compliance with the requirements of Minn. R. 7050.0186.
- Only the City's MS4 and the portions of the storm sewer system under the City's operational control are authorized by this permit. [Minn. R. 7090]

It should be noted that the MPCA issues MS4 permits and regulates additional public agencies within the jurisdictional boundaries of Saint Paul. Other regulated agencies include: Ramsey County (MS400191), MN Department of Transportation Metro District (MS400170), Capitol Region Watershed District (MS400206), Ramsey-Washington Metro Watershed District (MS400190), University of Minnesota (MS400212), Saint Paul College (MS400202), Metropolitan State University (MS400201).

The permit does not authorize stormwater discharges from any municipal facility where stormwater discharge is authorized under another individual NPDES/SDS permit or other industry-specific general NPDES/SDS permit (including City Asphalt Plant MNG490034/ Environmental Wood Supply MNR053C7Q).

ABBREVIATIONS AND ACRONYMS

BMP–Best Management Practice
CFR – Code of Federal Regulations
City- City of Saint Paul
CWA – Clean Water Act
DNR – Department of Natural Resources
DWSMA – Drinking Water Supply Management Area
ERA – Emergency Response Area
ERPs – Enforcement Response Procedures
IDDE – Illicit Discharge Detection and Elimination
MCM – Minimum Control Measure
MEP – Maximum Extent Practicable
Mgd – Million gallons/day
Mg/L – Milligrams/liter
MPCA – Minnesota Pollution Control Agency
MS4 – Municipal Separate Storm Sewer System
NPDES – National Pollutant Discharge Elimination System
SARA – Superfund Amendments and Reauthorization Act of 1986
SDS – State Disposal System
SU – Standard Units
SWMP – Stormwater Management Program
TMDL – Total Maximum Daily Load
TP – Total Phosphorus
TSS – Total Suspended Solids
USEPA – United States Environmental Protection Agency
WLA – Waste Load Allocation

STORMWATER MANAGEMENT PROGRAM

SUMMARY

The permittee must continue to develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from the MS4 to the Maximum Extent Practicable (MEP), to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act and the conditions of the permit. The SWMP is an enforceable part of the permit. [Minn. R. 7090]. The SWMP must utilize an adaptive management strategy by which the permittee monitors, analyzes, and adjusts the SWMP to achieve pollutant reductions to the MEP.

To achieve compliance with the permit, the City of Saint Paul's SWMP includes the following Minimum Control Measures (MCMs):

- Public Education and Outreach (Permit Section 15)
- Public Participation and Involvement (Permit Section 16)
- Illicit Discharge Detection and Elimination (Permit Section 17)
- Construction Site Stormwater Runoff Control (Permit Section 18)
- Post-Construction Stormwater Management (Permit Section 19)
- Pollution Prevention and Good Housekeeping for Municipal Operations (Permit Section 20)
- Stormwater Runoff Monitoring and Analysis (Permit Section 21)
- Discharges to Impaired Waters with an EPA-Approved TMDL that Includes an Applicable WLA (Permit Section 23)

The City's SWMP must include the following for each Section from Sections 15 through 21 (Permit Section 22):

- identification of the sources of pollutants targeted for reduction and the sensitivity of the receiving waters;
- a description of and the scope of the BMPs for each Section;
- identification of staff and financial resources, including estimated annual budgets, for the permit term dedicated to implementation of the Section;
- measurable goals for each Section that will be used to determine the success and/or benefits of the Section;
- schedules and a protocol for monitoring, recordkeeping, and reporting;
- an implementation schedule for new or revised BMPs; and
- a detailed description or copy of any agreement between the permittee and partner(s) to implement the Section describing the rights, roles, and responsibilities of each party to the agreement. [Minn. R. 7090]

MCM 1: Public Education and Outreach

MCM Overview (Permit Section 15.2):
The City must revise their current program, as necessary, and continue to implement a public education program to distribute educational materials or equivalent outreach that informs the public of the impact stormwater discharges have on waterbodies and that includes actions citizens, developers, businesses, elected officials, policy makers, and other local organizations can take to reduce the discharge of pollutants to stormwater. The City must incorporate the requirements of the Section into their program. [Minn. R. 7090]

Targeted Pollutants: nutrients, pesticides, sediment, chlorides, bacteria, oil and grease

Potential Sources: grass clippings, leaves, fertilizers, soil erosion, deicing materials, pet waste, pesticides, automotive fluids

BMP Description: implementation of a Public Education and Outreach Workplan detailing the City's multi-lingual program inclusive of partnerships with area educational contractors, public events, and handouts

Responsible Staff: Stormwater Permit Coordinator, Water Resource Coordinator, Volunteer Coordinator

Financial Resources: estimated at $100,000 annually (contracts, staff time, duplication/print service)

Measurable Goals: increased awareness of stormwater impacts on the environment, increased participation in events

Schedules: implement public education campaign annually

Reporting: update Public Education and Outreach Workplan annually to summarize activities and success of public education campaign including: dates of activities, quantities of materials distributed, estimated attendance, etc.

BMPs

- 1.1 Public Education and Outreach Workplan

BMP 1.1 Public Education and Outreach Workplan

Description: The City implements public education and outreach programs in accordance with the PUBLIC EDUCATION AND OUTREACH WORK PLAN (See Appendix) to increase the awareness of stormwater pollution impacts on waters of the state to encourage changes in public behavior to reduce impacts to receiving waters.

Workplan:

- Assess ongoing public education activities and identify additional opportunities for coordination. Develop plan for implementation including identification of target audiences, educational goals for each audience and activities to reach goals. This plan will address non-stormwater discharges, proper application of pesticides and fertilizers and proper management of pet waste, leaves and grass clippings
- Provide monetary support to the Metro WaterShed Partners Clean Water Minnesota Campaign
- Contract with Friends of the Mississippi River to deliver a Water Quality Education Program to citizens of Saint Paul
- Contract with the Center for Global Environmental Education to administer the Adopt-a-Drain Program
- Provide training for various utility and street construction representatives via the City's Utility Coordination Meeting
- Provide information on current ordinances related to stormwater management via the City's Site Plan Review Committee
- Participate, sponsor or administer public education events within Saint Paul (WaterFest, Snow Summit, Safe Summer Nights, etc.)
- Plan and organize the Spring Parks Clean-up

Responsible Staff: Stormwater Permit Coordinator, Water Resource Coordinator, Volunteer Coordinator

MCM 2: Public Participation and Involvement

MCM Overview (Permit Section 16.2):
The City must revise their current program, as necessary, and continue to implement a public participation and involvement program to solicit public input on the SWMP and involve the public in activities that improve or protect water quality. The permittee must incorporate the requirements of the Section into their program. [Minn. R. 7090]

Targeted Pollutants: nutrients, pesticides, sediment, chlorides, bacteria, oil and grease

Potential Sources: grass clippings, leaves, fertilizers, soil erosion, deicing materials, pet waste, pesticides, automotive fluids

BMP Description: implementation of a public website with information related to the MS4 Permit, Stormwater Management Program, Annual Report and Water Quality Monitoring and Analysis Report. Conduct public meeting inclusive of: advertising the notice of the public meeting in a newspaper, notifications to District Councils, City Council, adjacent organizations, and the adoption process for submittal of annual reports to the MPCA.

Responsible Staff: Stormwater Permit Coordinator, Water Resource Coordinator

Financial Resources: estimated at $50,000 annually (contracts, staff time, duplication/print service, participation at public events)

Measurable Goals: increased awareness of stormwater impacts on the environment, increased participation in events, increased feedback on the adequacy of the SWMP

Schedules: implement activities annually prior to adoption of Annual Report

Reporting: documentation of: public notifications, public feedback on SWMP, adoption of the Annual Report, etc.

BMPs

- 2.1 Encourage and Solicit Input from the Public

BMP 2.1 Encourage and Solicit Input from the Public

Description: Saint Paul citizens are actively engaged in many aspects of the City's governance, being involved through commissions, district councils, volunteer organizations and electronic communications. Other public involvement techniques include workshops, web page accessibility and outreach by elected officials. The objective of this program is to make the SWMP and related documents available to the public and to provide a process for public input in the development and implementation of the SWMP.

Workplan:

- Maintain public website to provide access to the MS4 Permit, SWMP, most recent Annual Report and most recent Water Quality Monitoring and Analysis Report
- Conduct annual meeting to receive feedback on the adequacy of the SWMP, inclusive of: advertising the notice of the public meeting in a newspaper, notifications to District Councils, City Council, adjacent organizations, and the adoption process for submittal of annual reports to the MPCA
- Include a summary of oral public input and responses with the Annual Report. Consider the public input and make appropriate adjustments to the SWMP
- Include a formal council resolution adopting the Annual Report and SWMP
- Carry out programs that engage volunteers and encourage citizen involvement as described in MCM 1 and provide information on City's website

Responsible Staff: Stormwater Permit Coordinator, Water Resource Coordinator

MCM 3: Illicit Discharge Detection and Elimination

MCM Overview (Permit Section 17.2):
The City must revise their current program, as necessary, and continue to implement and enforce a program to detect and eliminate illicit discharges into the MS4. The City must incorporate the requirements of the Section into their program. [Minn. R. 7090]

Targeted Pollutants: nutrients, pesticides, sediment, chlorides, bacteria, oil and grease

Potential Sources: grass clippings, leaves, fertilizers, soil erosion, deicing materials, pet waste, pesticides, automotive fluids

BMP Description: implementation of a program to map the City's MS4 inclusive of: inlets, pipes, ponds, stormwater management devices, outlets, land use and receiving water bodies. Implementation of a program to publicize reporting of illicit discharges and to receive, investigate and enforce illicit discharge complaints. Implementation of a regulatory mechanism(s) that require proper salt storage at commercial, institutional, and non-NPDES permitted industrial facilities. And the permittee must develop and implement a program to inspect industrial, commercial, and institutional.

Responsible Staff: Sewer Utility Manager, Right-of-Way Manager, Natural Resources Supervisor, Parks Design and Construction Manager, Water Resource Coordinator

Financial Resources: estimated at $500,000 annually (contracts, staff time, computer hardware/software, enforcement, regulation, etc.).

Measurable Goals: increased awareness of stormwater impacts on the environment, increased reporting, increased regulation and enforcement.

Schedules: Continuous updates to mapping and GIS. Continuous investigation and dry-weather screening of MS4. Continuous enforcement of prohibited discharges. Implementation of a program to regulate salt storage within 12 months and develop and implement a program to inspect industrial, commercial, and institutional within 36 months.

Reporting: documentation of: illicit discharges complaints received and addressed, modifications to City Ordinances and Field Investigation Manuals, progress on developing the Industrial, Commercial, Institutional Regulatory Program including inventory of sites and number of inspections completed annually.

BMPs

- 3.1 Prohibited Discharge Management Program
- 3.2 Storm Sewer System Map and Inventory
- 3.3 Dry Weather Field Screening Program
- 3.4 Industrial, Commercial, Institutional Regulatory Program

BMP 3.1 Prohibited Discharge Management Program

Description: The objective of this program is to effectively prohibit through ordinance or other regulatory mechanism and appropriate enforcement response procedures illicit discharges into the MS4.

Workplan:

- Maintain program to publicize reporting of illicit discharges and to receive, investigate and enforce illicit discharge complaints
- Maintain and enforce City Ordinance Chapter 51: Allowable Discharges to the Storm Sewer System
- Maintain and enforce City Ordinance Chapter 200: Animals (200.09 Cleaning up Litter)
- Maintain and enforce the written Enforcement Response Procedures (ERPs)
- Maintain and enact activities within the IDDE Field Guide

Responsible Staff: Stormwater Permit Coordinator, Water Resource Coordinator, Right-of-Way Manager, Sewer Maintenance Engineer

BMP 3.2 Storm Sewer System Map and Inventory

Description: The objective of this program is to minimize pollutants in stormwater through the effective use of electronic tools for data storage, retrieval, display and analysis. An electronic inventory and map and electronic inventory is continually being developed and updated to support numerous stormwater management system responsibilities and activities including: operation and maintenance, design, hydrologic and hydraulic modeling, Gopher State One Call locates, capacity, condition and water quality studies, illicit discharge detection and management of spills.

Workplan:

- Maintain and update electronic mapping and records system to include inlets, pipes, ponds, stormwater management devices, outlets, land use and receiving water bodies

Responsible Staff: Sewer Utility Manager, Parks Design and Construction Manager

BMP 3.3 Dry Weather Field Screening Program

Description: The objective of this program is to continue to develop, and implement, a dry weather field screening program to detect and eliminate non-stormwater discharges, including illegal dumping, to the system. The City shall inspect each outfall at least once over the five-year term of the current permit for evidence of illicit discharges.

Workplan:

- Maintain and enforce City Ordinance Chapter 51: Allowable Discharges to the Storm Sewer System
- Maintain and enact the Written Dry Weather Field Screening procedure
- Maintain and enact activities within the IDDE Field Guide

Responsible Staff: Stormwater Permit Coordinator, Sewer Maintenance Engineer

BMP 3.4 Industrial, Commercial, Institutional Regulatory Program

Description: The objective of this program is to minimize the discharge of pollutants from industrial, commercial, and institutional activities by administering and enforcing ordinances, exercising municipal authority over activities with high potential for stormwater pollution, inspecting sites, and providing information to assist the MPCA in carrying out its permitting program.

Workplan:

- Develop and maintain an inventory of industrial, commercial, or other institutional facilities that discharge non-stormwater flows to the MS4. The inventory will include industrial facilities covered under the MPCA's Industrial Stormwater (ISW) Permit Program. Where available, information for 25 percent of listed ISW permitted facilities will be evaluated annually to supplement MPCA data with required inventory fields. (2024-ongoing)
- Report to the MPCA discharge incidents from discharges subject to the MPCA's NPDES General Industrial Stormwater Permit program or from another permit program. Encourage the discharger to obtain a permit from the MPCA, if one is not already held. (ongoing)
- Develop and implement procedures addressing non-NPDES permitted facilities that City determines to be contributing a substantial pollutant load to the MS4
    - 2024-2026 Develop criteria for capturing applicable properties and create list of industrial facilities with non-NPDES permitted discharges, including municipal landfills, hazardous waste treatment, disposal and recovery facilities, and section 313 of Title III SARA facilities
    - 2025-2026 Develop and apply criteria for substantial pollutant loading and stormwater hotspots. Establish priorities.
    - 2025- 2026 Develop written procedures to for non-NPDES permitted facilities to include inspection, monitoring, and implementation of control measures for priority facilities
- Maintain inventory of stormwater hotspots through use of available information. The MS4 Permit defines "stormwater hotspot" as any land use or activity that may generate a higher concentration of hydrocarbons, trace metals, or toxic pollutants than are found in typical stormwater runoff. (2022 – ongoing) Maintain and enforce City Ordinance Chapter 51: Allowable Discharges to the Storm Sewer System

Responsible Staff: Water Resource Coordinator

MCM 4: Construction Site Stormwater Runoff Control

MCM Overview (Permit Section 18.2):
The City must revise their current program, as necessary, and continue to implement and enforce a construction site stormwater runoff control program. The program must address construction activity with a land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, within the permittee's jurisdiction and discharges to the permittee's MS4. The City must incorporate the requirements of this Section into their program. [Minn. R. 7090]

Targeted Pollutants: sediment, phosphorus, pesticides, concrete truck washout, construction debris, sanitary waste, nitrogen, oil and grease, construction chemicals

Potential Sources: construction activity, soil erosion, fertilizers

BMP Description: implementation of a program to manage construction site stormwater on projects occurring within the City.

Responsible Staff: Right-of-Way Manager, Street Design and Construction Manager, Parks Design and Construction Manager, Water Resource Coordinator

Financial Resources: estimated at $500,000 annually (staff time, computer hardware/software, enforcement, regulation, etc.).

Measurable Goals: increased awareness of stormwater impacts on the environment, increased reporting, increased regulation and enforcement.

Schedules: Annual program to inspect and enforce requirements on active construction sites.

Reporting: documentation of: number of reviewed and approved Site Plans, active construction sites, SWPPP inspections, and corrective actions

BMPs

- 4.1 Development and Redevelopment Control Program
- 4.2 Municipal Control Program

BMP 4.1 Development and Redevelopment Control Program

Description: The objective of this program is to minimize the discharge of pollutants from construction sites disturbing one acre or more by requiring erosion prevention and sediment control measures. Chapter 52 of the Saint Paul Code of Ordinances requires projects disturbing one acre or more to provide for erosion and sediment control during construction. Sites one or more acres in size are also required to obtain NPDES General Construction Permits from the Minnesota Pollution Control Agency, the Capitol Region Watershed District and the Ramsey-Washington Metro Watershed District.

This program encompasses a variety of individuals responsible for water quality concerns from construction activities. These individuals include designers of erosion control plans; staff responsible for plan review; and, field inspectors with municipal authority over contractors.

Workplan:

- Maintain and enforce City Ordinance Chapter 51: Allowable Discharges to the Storm Sewer System
- Maintain and enforce City Ordinance Chapter 52: Stormwater Runoff
- Maintain and enforce Stormwater Design Standards Document
- Maintain and enforce the written Enforcement Response Procedures (ERPs)

Responsible Staff: Water Resource Coordinator, Right-of-Way Manager, Stormwater Permit Coordinator

BMP 4.2 Municipal Control Program

Description: The objective of this program is to minimize the discharge of pollutants from construction sites disturbing 1 acre or more carried out by the City by requiring erosion and sediment control measures. Sites one or more acres in size are required to get NPDES General Construction Permits from the Minnesota Pollution Control Agency, the Capitol Region Watershed District and the Ramsey-Washington Metro Watershed District.

This program encompasses a variety of individuals responsible for water quality concerns from construction activities. These individuals include designers of erosion control plans, staff responsible for plan review and field inspectors.

Workplan:

- Maintain and enforce City Ordinance Chapter 51: Allowable Discharges to the Storm Sewer System
- Maintain and enforce City Ordinance Chapter 52: Stormwater Runoff
- Maintain and enforce Stormwater Design Standards Document
- Maintain and enforce the written Environmental Enforcement Procedure for PW Construction

Responsible Staff: Right-of-Way Manager, Street Design and Construction Manager, Parks Design and Construction Manager, Water Resource Coordinator, Stormwater Permit Coordinator

MCM 5: Post-Construction Stormwater Management

MCM Overview (Permit Section 19.2):
The City must revise their current program, as necessary, and continue to implement and enforce a post-construction stormwater management program that prevents or reduces water pollution after construction activity is completed. The program must address construction activity with land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, within the City's jurisdiction and that discharge to the City's MS4. The City must incorporate the requirements of this Section into their program. [Minn. R. 7090]

Targeted Pollutants: sediment, phosphorus, nitrogen, bacteria

Potential Sources: soil erosion, fertilizers

BMP Description: implementation of a program to manage construction site stormwater on projects occurring within the City.

Responsible Staff: Street Design and Construction Manager, Parks Design and Construction Manager, Water Resource Coordinator, Stormwater Permit Coordinator

Financial Resources: estimated at $500,000 annually (staff time, computer hardware/software, regulation, etc.).

Measurable Goals: increased awareness of stormwater impacts on the environment, increased stormwater management facilities to treat urban runoff.

Schedules: Annual program to design and install stormwater management facilities to treat urban runoff.

Reporting: documentation of: reviewed and approved Site plans, number of stormwater management facilities to treat urban runoff, MS4-owned facilities, etc.

BMPs

- 5.1 Development and Redevelopment Mitigation Program
- 5.2 Compliance Program for Private Site Controls
- 5.3 Municipal Mitigation Program

BMP 5.1 Development and Redevelopment Mitigation Program

Description: The objective of this program is to minimize the post-construction discharge of pollutants and stormwater runoff volume from construction projects disturbing one acre or more. Chapter 52 of the Saint Paul Code of Ordinances requires projects disturbing one acre or more to provide post-construction stormwater management. Sites one or more acres in size are also required to obtain NPDES General Construction Permits from the Minnesota Pollution Control Agency, the Capitol Region Watershed District and the Ramsey-Washington Metro Watershed District.

Projects are reviewed through the City's site plan review process, which is facilitated by the Department of Safety and Inspections. The Site Plan Review Committee is made up of staff from various departments including the PW Sewer Utility, Saint Paul Regional Water Services, PW Traffic Division, Zoning and Fire & Safety. Building permits are not issued until site plan review approval is formally attained.

Workplan:

- Implement Site Plan Review Process on development and redevelopment projects
- Maintain and enforce City Ordinance Chapter 52: Stormwater Runoff
- Maintain and enforce Stormwater Design Standards Document

Responsible Staff: Water Resource Coordinator

BMP 5.2 Compliance Program for Private Site Controls

Description: The objective of this program is to implement a program for maintenance, inspection, record keeping and reporting of private stormwater devices constructed in accordance with the City's requirements.

Workplan:

- Maintain and enforce City Ordinance Chapter 52: Stormwater Runoff
- Maintain and enforce Stormwater Design Standards Document
- Develop and enforce an inventory and mechanism to ensure system function on private sites

Responsible Staff: Water Resource Coordinator

BMP 5.3 Municipal Mitigation Program

Description: The stormwater management objective of this practice is to reduce the discharge of pollutants through the proper planning, design, and construction management of projects carried out by the City.

Workplan:

- Maintain and enforce City Ordinance Chapter 52: Stormwater Runoff
- Maintain and enforce Stormwater Design Standards Document
- Develop and enforce an inventory and mechanism to ensure system function on public sites

Responsible Staff: Street Design and Construction Manager, Parks Design and Construction Manager, Stormwater Permit Coordinator

MCM 6: Pollution Prevention and Good Housekeeping for Municipal Operations

MCM Overview (Permit Section 20.2):
The City must revise their current program, as necessary, and continue to implement an operations and maintenance program that prevents or reduces the discharge of pollutants to the MS4 from permittee owned/operated facilities and operations. The program must include written standard operating procedures for preventing pollution during municipal operations (e.g., street sweeper operation, procedures for lawn maintenance, fertilizer and pesticide usage, equipment cleaning, and vehicle maintenance). The City must incorporate the requirements of this Section into their program. [Minn. R. 7090]

Targeted Pollutants: sediment, phosphorus, nitrogen, bacteria, pesticides, chlorides, oil and grease

Potential Sources: soil erosion, fertilizers, deicing activities, automotive fluids, pet waste, grass clippings and leaves

BMP Description: implementation of a program to manage municipal infrastructure in manner that prevents or reduces the discharge of pollutants

Responsible Staff: Street Maintenance Engineer, Sewer Maintenance Engineer, Parks Operations Manager, Safety Manager, Stormwater Permit Coordinator

Financial Resources: estimated at $20,000,000 annually (staff time, equipment, computer hardware/software, regulation, etc.).

Measurable Goals: increased awareness of stormwater impacts on the environment, increased maintenance operations to minimize discharge of pollutants

Schedules: Annual program to manage municipal infrastructure in manner that prevents or reduces the discharge of pollutants

Reporting: documentation of: storm sewer system maintenance (pipe, manholes, catch basins, ponds, outfalls), street system maintenance (sweeping dates, sediment collected, salt usage), park system maintenance, SWPPP implementation, sediment management (structural pollution control devices, ponds, salt usage)

BMPs

- 6.1 Storm Sewer System Operation and Maintenance
- 6.2 Street System Operation and Maintenance
- 6.3 Park System Operation and Maintenance
- 6.4 Municipal Facility Stormwater Pollution Prevention Plan Management
- 6.5 Stormwater Runoff Volume Reduction Plan

BMP 6.1 Storm Sewer System Operation and Maintenance

Description: The objective of this program is to minimize the discharge of pollutants through proper and cost effective operation and maintenance of the City's storm sewer system (inlets, pipes, ponds, stormwater management devices, outlets). General operations and maintenance efforts include inspections, cleaning, repairs, rehabilitation and reconstruction.

Workplan:

- Maintain and enact a comprehensive storm system inspection program for inlets, pipes, ponds, stormwater management devices, outlets
- Maintain and enact a comprehensive storm system cleaning program for inlets, pipes, ponds, stormwater management devices, outlets
- Maintain and enact a comprehensive storm system repair, rehabilitation and reconstruction program for inlets, pipes, ponds, stormwater management devices, outlets
- Maintain and enact a program for collected sediment management and disposal

Responsible Staff: Sewer Maintenance Engineer

BMP 6.2 Street System Operation and Maintenance

Description: The objective of the street sweeping program is to minimize the discharge of pollutants to the storm sewer system and receiving waterbodies by removing leaf litter, sediment and debris from streets and gutters before the materials and pollutants can be washed into storm drain inlets. The objective of the deicing program is to minimize the runoff of deicing materials applied to roadways under its jurisdiction, consistent with public safety and to properly store deicing materials.

Workplan:

- Maintain and enact a comprehensive street sweeping program for residential, collector and arterial streets and alleys
- Maintain and enact a comprehensive chloride management program to inform municipal operations during the deicing season
- Store chlorides for municipal application in an environmentally responsible manner
- Conduct municipal operations related to street maintenance in an environmentally responsible manner

Responsible Staff: Street Maintenance Engineer

BMP 6.3 Park System Operation and Maintenance

Description: The objective of the park system operation and maintenance program is to minimize the discharge of pollutants to the storm sewer system and receiving waterbodies by removing leaf litter, sediment and debris from park areas before the materials and pollutants can be washed into storm drain inlets.

Workplan:

- Maintain and enact a comprehensive parking lot sweeping program for park system parking facilities
- Maintain and enact a comprehensive chloride management program to inform municipal operations during the deicing season
- Store chlorides for municipal application in an environmentally responsible manner
- Conduct municipal operations related to park maintenance in an environmentally responsible manner

Responsible Staff: Park Operations Manager

BMP 6.4 Municipal Facility Stormwater Pollution Prevention Plan Management

Description: The objective of this program is to minimize the discharge of pollutants by utilizing proper fleet and building maintenance practices, and proper operation and maintenance of parking lots and equipment and storage yards.

Workplan:

- Maintain and enact site specific SWPPPs at these locations:
  - Maintenance Facility at 419 Burgess (Sewer Maintenance)
  - Storage Yard at 380 Como Avenue (Street Maintenance)
- Develop and enact site specific SWPPPs at these locations:
  - Maintenance Facility at 1100 Hamline Avenue (Parks Maintenance)
  - Storage Yard at 310 Victoria Street (Street Maintenance)
  - Maintenance Facility at 891 Dale Street (includes Street Maintenance, Traffic Operations and Municipal Equipment)

Responsible Staff: Park Operations Manager, Public Works Safety Manager, Sewer Maintenance Engineer, Street Maintenance Engineer

BMP 6.5 Stormwater Runoff Volume Reduction Plan

Description: The objective of this program is to conduct a study of how stormwater volume reduction practices will best fit into Saint Paul's overall goals of stormwater management for projects that disturb one acre or more. Volume reduction practices include infiltration, bio-infiltration, stormwater reuse, evapotranspiration, minimizing and disconnecting impervious surfaces

Workplan:

- Maintain and implement Volume Reduction Inventory (2010)
- Explore opportunity to update Volume Reduction Inventory (2010) to more closely represent current regulatory requirements and industry practices

Responsible Staff: Water Resource Coordinator, Stormwater Permit Coordinator

MCM 7: Stormwater Runoff Monitoring

MCM Overview (Permit Section 21.2):
The goal of stormwater runoff monitoring and analysis is to quantify stormwater volumes and pollutant loads from the MS4 and to provide information on the effectiveness of the SWMP. The City must continue to develop and implement a monitoring and analysis program and incorporate the requirements of this Section into their program. [Minn. R. 7090]

Targeted Pollutants: sediment, phosphorus, nitrogen, bacteria, pesticides, chlorides, oil and grease and other parameters outlined within the Permit

Potential Sources: soil erosion, fertilizers, deicing activities, automotive fluids, pet waste, grass clippings and leaves

BMP Description: implementation of a program to quantify stormwater volumes and pollutant loads from the MS4

Responsible Staff: Stormwater Permit Coordinator

Financial Resources: estimated at $200,000 annually (staff time, consultants, equipment, computer hardware/software, regulation, etc.).

Measurable Goals: increased awareness of stormwater impacts on the environment, implementation of monitoring program

Schedules: Annual program to quantify stormwater volumes and pollutant loads from the MS4

Reporting: Generation of a dedicated report detailing requirements of the Permit

BMPs

- 7.1 Monitoring Program

BMP 7.1 Monitoring Program

Description: The objective of this program is to develop and implement a monitoring, analysis, and reporting program for stormwater leaving the MS4. Monitoring efforts could be combined with partner agencies including: adjacent municipalities, MPCA, Capitol Region Watershed District, Mississippi Watershed Management Organization, Ramsey-Washington Metro Watershed District, Metropolitan Council Environmental Services.

Workplan:

- Continue monitoring activities at a minimum of six sites within the MS4. Sites may be comprised of the following: installed BMPs, outfalls to the Mississippi River, representative land use areas, and contributions from upstream jurisdictions
- Continue collaboration with partner agencies to maximize the utilization of equipment, and share monitoring results for analysis
- Report the results of the monitoring program on the City's Stormwater Website

Responsible Staff: Stormwater Permit Coordinator

MCM 8: TMDL Program

MCM Overview (Permit Section 23.2):
The permittee must select and implement a program of appropriate BMPs and measurable goals to make progress towards meeting applicable WLAs. The permittee must incorporate the requirements of this Section into their program. [Minn. R. 7090]

Targeted Pollutants: Not applicable

Potential Sources: Not applicable

BMP Description: Population of forms prepared by MPCA for reporting

Responsible Staff: Stormwater Permit Coordinator, Water Resource Coordinator

Financial Resources: Not applicable

Measurable Goals: Not applicable

Schedules: Annual program to populate forms prepared by MPCA for reporting

Reporting: Submission of forms to MPCA

BMPs

- 8.1 TMDL Program

BMP 8.1 TMDL Program

Description: Stormwater runoff from Saint Paul is discharged to several surface waterbodies including the Mississippi River. Several of these have been listed on Minnesota's Impaired Waters List for having the presence of concentrations of certain pollutants identified at levels higher than Minnesota standards.

Workplan:

- Develop a general timeline and strategy for general activities to be conducted within each permit cycle, such as mapping the existing conveyance system, developing the means to calculate pollutant loads, identifying existing structural and non-structural BMPs, developing the means to evaluate their effectiveness, calculating effectiveness and comparing to the WLA, assessing and comparing the cost and benefit of new or modified BMPs, addressing level of funding in light of identified needs, developing modifications to the SWMP if needed, and implementing new or modified BMPs if needed.
- For an individual WLA, track City practices and calculate their effectiveness for progress in reducing loads to meet WLAs assigned to the Saint Paul MS4. Review the adequacy of the SWMP. If the SWMP will need to be modified to make reasonable progress in meeting the approved individual WLA, use knowledge gained through adaptive management over time to develop additional or modified practices or programs.
- For a categorical WLA, participate with other stakeholder MS4s (typically as members of a watershed organization) to track practices of the stakeholder MS4s and calculate their effectiveness for progress in reducing loads to meet categorical WLAs. As a group, review the adequacy of existing practices and programs. If the Saint Paul SWMP will need to be modified to make reasonable progress in meeting the approved categorical WLA, use knowledge gained through adaptive management over time to develop additional or modified practices or programs.
- Work with the partner agencies on approved TMDLs and assigned WLAs.

Responsible Staff: Stormwater Permit Coordinator, Water Resource Coordinator

APPENDIX

I. CITY ORGANIZATIONAL CHART

II. PUBLIC EDUCATION AND OUTREACH WORKPLAN (SEPT 2025)

III. PUBLIC EDUCATION DISTRIBUTED DOCUMENTS

IV. PUBLIC WORKS DRY WEATHER FIELD SCREENING PROCEDURES (APRIL 2025)

V. PUBLIC WORKS IDDE ENFORCEMENT RESPONSE PROCEDURES (APRIL 2025)

VI. PUBLIC WORKS ENVIRONMENTAL ENFORCEMENT RESPONSE PROCEDURE

VII. PUBLIC WORKS SWPPP STANDARD OPERATING PROCEDURE

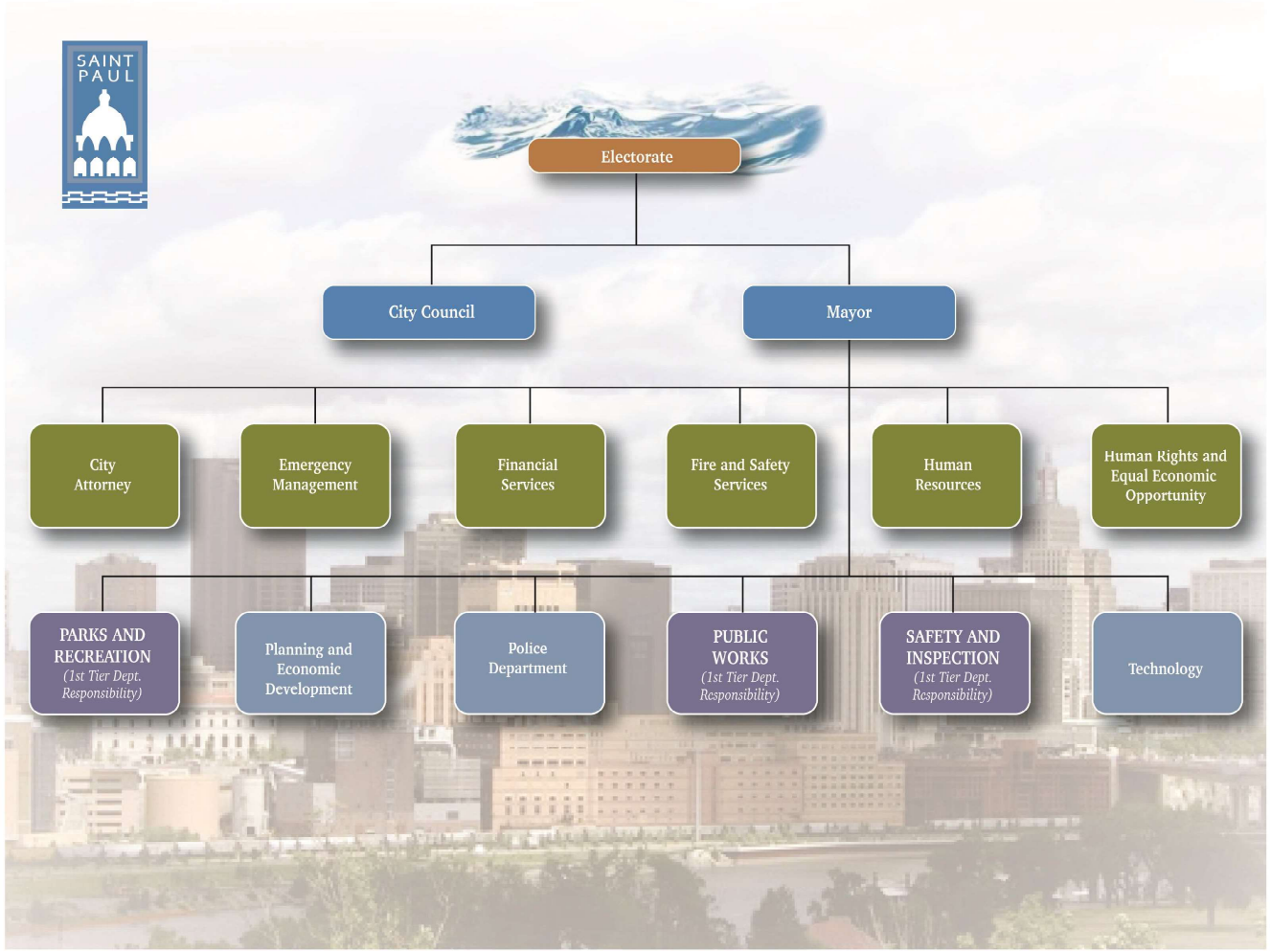
VIII. PUBLIC WORKS POND ASSESSMENT PROCEDURE AND SCHEDULE (APRIL 2025)

IX. PUBLIC WORKS CATCH BASIN AND SUMP MANAGEMENT PLAN (SEPT 2025)

X. CHLORIDE MANAGEMENT PLAN FOR MUNICIPAL OPERATIONS (FEB 2025)

XI. EMPLOYEE TRAINING AND CONTINUING EDUCATION OPPORTUNITIES

CITY ORGANIZATIONAL CHART



City of Saint Paul

Public Education and Outreach Work Plan

NPDES Permit MN0061263

Updated September 2025

2022 Stormwater Mural at Phalen Pavilion Park

1. (15.3(a, b, c, d) Multi-lingual program for residents and businesses to increase the level of awareness about stormwater runoff impacts to receiving waters. This activity must utilize a variety of communication tools and methods to reach target audiences and inform them of strategies to reduce pollutants in stormwater runoff. Educate the public, businesses, and commercial applicators on the proper application of pesticides, herbicides, and fertilizers and the benefits of retaining grass clippings and leaf litter on lawn surfaces. Educate developers and contractors on construction site and post-construction stormwater management BMP design, construction, and maintenance methods. Educate the public about impaired waters within the jurisdiction and the TMDLs developed to address the impairments.

   Specific Activities:

   a. **Friends of the Mississippi River Water Quality Education Program:** is implemented annually within Saint Paul. The target audience is groups of volunteers comprised of residents or community members (businesses, neighborhood groups, organizations). Major components of the program include: storm drain stenciling, distribution of door hangers, litter clean-up events, educational programs and workshops.

      Various stormwater runoff impact topics are presented through the Program including: pet waste disposal, leaves/grass impacts, litter/trash impacts, proper disposal of hazardous wastes, proper application of fertilizers, car washing techniques, salt application, etc.

   b. **Adopt-a-Drain Program:** is implemented annually within Saint Paul. The target audience are individual property occupants within Saint Paul. Major components of the program include: marketing of the Program, distribution of door hangers, distribution of welcome packets/signs, and collection of data.

      Various stormwater runoff impact topics are presented through the Program including: pet waste disposal, leaves/grass impacts, litter/trash impacts, proper disposal of hazardous wastes, salt application, etc.

   c. **Watershed Partners and Clean Water Minnesota:** is a collaborative outreach project and coalition providing resources to member organizations to aid in water quality education. The City of Saint Paul is member of this organization, and annually contributes financial resources to the coalition. The target audience is residents and community stakeholders of the member organizations including watershed districts, cities, counties, higher education, etc.

      Various stormwater runoff impact topics are presented through the Program including: lawn care techniques, urban agriculture, native planting/restoration, environmental health, etc. Additionally, the organization sponsors the clean water exhibits at the Minnesota State Fair.

d. **No-Parking Sign Water Quality Message:** on an annual basis, the City incorporates a water quality message on the back of No-Parking signs. The temporary No-Parking Signs are used citywide to prevent parking during programmed street sweeping, snow removal and street repair activities. The message advocates for keeping storm drains clear to prevent localized flooding and to promote knowledge of impacts to water quality in the Mississippi River.

e. **Pesticide and Fertilizer Applicator Licensing**: The Department of Safety and Inspections maintains a City Ordinance (Chapter 377) and Licensing system for pesticide and fertilizer applicators.

f. **Utility Coordination Meeting:** is held annually to present information related to various utility and street improvement projects occurring within the City limits. The target audience for this meeting is contractors, city staff, and utility companies.

   Various stormwater runoff impact topics are presented at this Meeting including illicit discharges and erosion and sediment control measures. Also made available at this meeting is a document detailing Erosion and Sediment Control for Utility Projects in the Right-of-Way.

g. **Chapter 52- Stormwater Runoff Ordinance:** is enforced for development projects occurring in the City. The target audience for this Ordinance is developers and city staff.

   Various stormwater runoff impact topics are presented within this Ordinance including: temporary erosion and sediment control devices and maintenance, permanent stormwater BMPs, rate control, etc. The Ordinance is applied by the City's Site Plan Committee at the time a development seeks City approvals. The Site Plan Committee uses the review as a forum to educate about temporary and permanent stormwater controls.

h. **TMDL Fact Sheet:** the City with the assistance of FMR developed a TMDL fact sheet, which is distributed at various events and available via the public website.

i. **Waterfest:** is an annual event held at Phalen Regional Park for an engaging way to improve public awareness on why stormwater is important, and what can be done to help keep receiving waters clean. People of all ages attend the event.

2. (15.4) Conduct communication and outreach to inform the public, business, and industry on identifying illicit discharges and connections to the MS4; the hazards associated with illicit discharges and connections to the MS4; methods to report illicit discharges and connections to the MS4; methods to prevent illicit discharges and

connections to the MS4; and containment response to illicit discharges and spills into the MS4.

Specific Activities:

a. **Friends of the Mississippi River Water Quality Education Program:** is implemented annually within Saint Paul. The target audience is groups of volunteers comprised of residents or community members (businesses, neighborhood groups, organizations). Major components of the program include: storm drain stenciling, distribution of door hangers, litter clean-up events, educational programs and workshops.

   Various stormwater runoff impact topics are presented through the Program including: pet waste disposal, leaves/grass impacts, litter/trash impacts, proper disposal of hazardous wastes, proper application of fertilizers, car washing techniques, salt application, etc.

b. **Adopt-a-Drain Program:** is implemented annually within Saint Paul. The target audience are individual property occupants within Saint Paul. Major components of the program include: marketing of the Program, distribution of door hangers, distribution of welcome packets/signs, and collection of data.

   Various stormwater runoff impact topics are presented through the Program including: pet waste disposal, leaves/grass impacts, litter/trash impacts, proper disposal of hazardous wastes, salt application, etc.

c. **Watershed Partners and Clean Water Minnesota:** is a collaborative outreach project and coalition providing resources to member organizations to aid in water quality education. The City of Saint Paul is member of this organization, and annually contributes financial resources to the coalition. The target audience is residents and community stakeholders of the member organizations including watershed districts, cities, counties, higher education, etc.

   Various stormwater runoff impact topics are presented through the Program including: lawn care techniques, urban agriculture, native planting/restoration, environmental health, etc. Additionally, the organization sponsors the clean water exhibits at the Minnesota State Fair.

d. **Chapter 51- Allowable Discharges to the Storm Sewer System:** identifies allowable discharges and enforcement actions for illicit discharges.

   Various stormwater runoff impact topics are presented within this Ordinance including: temporary erosion and sediment control devices and maintenance, permanent stormwater BMPs, rate control, etc. The Ordinance is applied by the City's Site Plan Committee at the time a development seeks City approvals. The

Site Plan Committee uses the review as a forum to educate about temporary and permanent stormwater controls.

e. **Illicit Discharge Video:** the City collaborated with various MS4s on the development of a public-facing illicit discharge video (English and Spanish) posted on the City's website.

f. **StormDrain@ci.stpaul.mn.us:** A storm drain email is available on the City of Saint Paul's website as an easy way for anyone to report an illicit discharge. Illegal dumping on private property can be reported to the City's Department of Safety and Inspections (DSI).

3. (15.5) Distribute educational materials or equivalent outreach to educate the public and commercial applicators on the impacts of de-icing salt on receiving waters; methods to reduce the use of de-icing salt; and proper storage of salt and other de-icing materials.

   Specific Activities:

   a. **Friends of the Mississippi River Water Quality Education Program:** is implemented annually within Saint Paul. The target audience is groups of volunteers comprised of residents or community members (businesses, neighborhood groups, organizations). Major components of the program include: storm drain stenciling, distribution of door hangers, litter clean-up events, educational programs and workshops.

      Various stormwater runoff impact topics are presented through the Program including: pet waste disposal, leaves/grass impacts, litter/trash impacts, proper disposal of hazardous wastes, proper application of fertilizers, car washing techniques, salt application, etc.

   b. **Adopt-a-Drain Program:** is implemented annually within Saint Paul. The target audience are individual property occupants within Saint Paul. Major components of the program include: marketing of the Program, distribution of door hangers, distribution of welcome packets/signs, and collection of data.

      Various stormwater runoff impact topics are presented through the Program including: pet waste disposal, leaves/grass impacts, litter/trash impacts, proper disposal of hazardous wastes, salt application, etc.

   c. **Watershed Partners and Clean Water Minnesota:** is a collaborative outreach project and coalition providing resources to member organizations to aid in water quality education. The City of Saint Paul is member of this organization, and annually contributes financial resources to the coalition. The target audience is residents and community stakeholders of the member organizations including watershed districts, cities, counties, higher education, etc.

Various stormwater runoff impact topics are presented through the Program including: lawn care techniques, urban agriculture, native planting/restoration, environmental health, etc. Additionally, the organization sponsors the clean water exhibits at the Minnesota State Fair.

d. **No-Parking Sign Water Quality Message:** on an annual basis, the City incorporates a water quality message on the back of No-Parking signs. The temporary No-Parking Signs are used citywide to prevent parking during programmed street sweeping, snow removal and street repair activities. The message advocates for keeping storm drains clear to prevent localized flooding and to promote knowledge of impacts to water quality in the Mississippi River.

e. **Snow Summit:** the City of Saint Paul hosts an annual Snow Summit each fall, which is free event to help residence prepare for winter. A display on chloride includes information on the impact of chloride, effects on receiving waters, ways to reduce use of deicing salt, and strategies for proper storage.

4. (15.6) Distribute educational materials or equivalent outreach to educate the public on the impacts of pet waste in receiving waters, strategies for proper pet waste disposal, and information on existing regulatory mechanisms.

   Specific Activities:

   a. **Friends of the Mississippi River Water Quality Education Program:** is implemented annually within Saint Paul. The target audience is groups of volunteers comprised of residents or community members (businesses, neighborhood groups, organizations). Major components of the program include: storm drain stenciling, distribution of door hangers, litter clean-up events, educational programs and workshops.

      Various stormwater runoff impact topics are presented through the Program including: pet waste disposal, leaves/grass impacts, litter/trash impacts, proper disposal of hazardous wastes, proper application of fertilizers, car washing techniques, salt application, etc.

   b. **Adopt-a-Drain Program:** is implemented annually within Saint Paul. The target audience are individual property occupants within Saint Paul. Major components of the program include: marketing of the Program, distribution of door hangers, distribution of welcome packets/signs, and collection of data.

      Various stormwater runoff impact topics are presented through the Program including: pet waste disposal, leaves/grass impacts, litter/trash impacts, proper disposal of hazardous wastes, salt application, etc.

c. **Watershed Partners and Clean Water Minnesota:** is a collaborative outreach project and coalition providing resources to member organizations to aid in water quality education. The City of Saint Paul is member of this organization, and annually contributes financial resources to the coalition. The target audience is residents and community stakeholders of the member organizations including watershed districts, cities, counties, higher education, etc.

   Various stormwater runoff impact topics are presented through the Program including: lawn care techniques, urban agriculture, native planting/restoration, environmental health, etc. Additionally, the organization sponsors the clean water exhibits at the Minnesota State Fair.

a. **No-Parking Sign Water Quality Message:** on an annual basis, the City incorporates a water quality message on the back of No-Parking signs. The temporary No-Parking Signs are used citywide to prevent parking during programmed street sweeping, snow removal and street repair activities. The message advocates for keeping storm drains clear to prevent localized flooding and to promote knowledge of impacts to water quality in the Mississippi River.

b. **Stormwater Fact Sheet:** the City developed a one-page fact sheet to communicate information on various stormwater topics, including pet waste and the various ordinances. The information includes impact of pet waste in the receiving waters, instructions on how to properly dispose pet waste, and information on the regulations.

5. (15.7) Develop and implement an education and outreach plan that includes specific activities to meet the requirements of items 15.3 through 15.6; target audiences for each activity; measurable goals to increase awareness, increase understanding, acquire skills and/or behavior changes; description of coordination with other stormwater education and outreach programs; annual evaluation of measurable goals and target audience attained; and responsible municipal staff.

   Specific Activities: the City developed a Public Education and Outreach Work Plan.

6. (15.8) Documentation of information required in the public education and outreach plan (section 15.7), logistical information for activities held, quantities and descriptions of educational materials distributed, estimated audience, and any modifications made to the program.

   Specific Activities: the City receives annual reports from FMR, Adopt-a-Drain, and Watershed Partners. These annual reports contain information on distributed materials, participation numbers, volunteer hours, etc.

7. Measurable Goals:

- Assess ongoing public education activities and identify additional opportunities for coordination. Develop plan for implementation including identification of target audiences, educational goals for each audience and activities to reach goals. This plan will address non-stormwater discharges, proper application of pesticides and fertilizers and proper management of pet waste, leaves and grass clippings
- Provide monetary support to the Metro Watershed Partners Clean Water Minnesota Campaign
- Contract with Friends of the Mississippi River to deliver a Water Quality Education Program to citizens of Saint Paul
- Contract with the Center for Global Environmental Education to administer the Adopt-a-Drain Program
- Provide training for various utility and street construction representatives via the City's Utility Coordination Meeting
- Provide information on current ordinances related to stormwater management via the City's Site Plan Review Committee
- Participate, sponsor or administer public education events within Saint Paul (Waterfest, Snow Summit, Safe Summer Nights, etc.)
- Plan and organize the Spring Parks Clean-up

stpaul.gov/stormwater

Stormwater & You

WHY IS STORMWATER IMPORTANT?

1. Stormwater is any rainfall or snowmelt that goes into the ground (infiltration) or runs off hard surfaces like streets and parking lots and enters into the city's storm sewer system.

2. Stormwater goes into storm drains (catch basins), which carries rainfall and snowmelt directly from your neighborhood to our lakes and rivers.

3. Stormwater is not treated before going into our lakes and rivers. Water from the sanitary sewer system (toilets, showers, sinks) is in a different system that is treated.

YOU CAN PROTECT OUR LAKES & RIVERS FROM POLLUTION

Rain and stormwater runoff can carry unwanted debris and pollution into our environment. Keep our lakes and rivers clean and healthy by:

Keeping storm drains clean and clear by participating in Adopt-A-Drain: adopt-a-drain.org

Cleaning up leaves, grass clippings, and litter in your neighborhood

Applying salt lightly on sidewalks and driveways only if necessary and cleaning up any excess.

Picking up pet waste, and properly disposing of it.

Preventing hazardous waste from entering the storm drains by cleaning up any oil leaks or spills and disposing of paint and household chemicals.

If you see blocked storm drains or pollution entering storm drains, contact:
651-266-9850 or 651-266-9700 (after-hour emergencies) | stormdrain@ci.stpaul.mn.us

SAINT PAUL
PUBLIC WORKS

Stormwater in Saint Paul is regulated through Legislative Codes: Chapter 51 – Allowable Discharges to the Storm Sewer System, Chapter 52 - Stormwater Runoff, and Chapter 200 – Animals

What is a TMDL?

Total Maximum Daily Load

Total Maximum Daily Load (TMDL) is the largest amount of a pollutant that can be in a body of water while still meeting Minnesota water quality standards. Every year, the Minnesota Pollution Control Agency (MPCA) develops a list of **impaired waters**, bodies of water that do not meet water quality standards. The MPCA establishes a TMDL plan for impaired bodies of water that identifies the amount specific pollutants need to be reduced to meet water quality standards. This process is required by The Clean Water Act and is approved by the U.S. Environmental Protection Agency.

WHERE?

Impaired waters in Saint Paul:

Battle Creek, Como Lake, Fish Creek, Kasota Ponds, Mississippi River, Lake Pickerel and Lake Phalen.

WHAT?

Major pollutants include:

chloride, E. coli, mercury, total suspended solids and excess nutrients like nitrogen.

CAUSES

Poor water quality often occurs due to:

- Runoff from yards and pavement.
- Winter salting of roads and sidewalks.
- Fertilizers from lawns and agriculture.
- Atmospheric pollutants.
- Sediments in the bodies of water.

SOLUTIONS

What you can do to improve water quality:

- Rake leaves and debris out of the street.
- Sweep up grass clippings.
- Learn how to properly apply reduced amounts of fertilizer in the summer and salt in the winter.
- Reduce the use of motor vehicles.

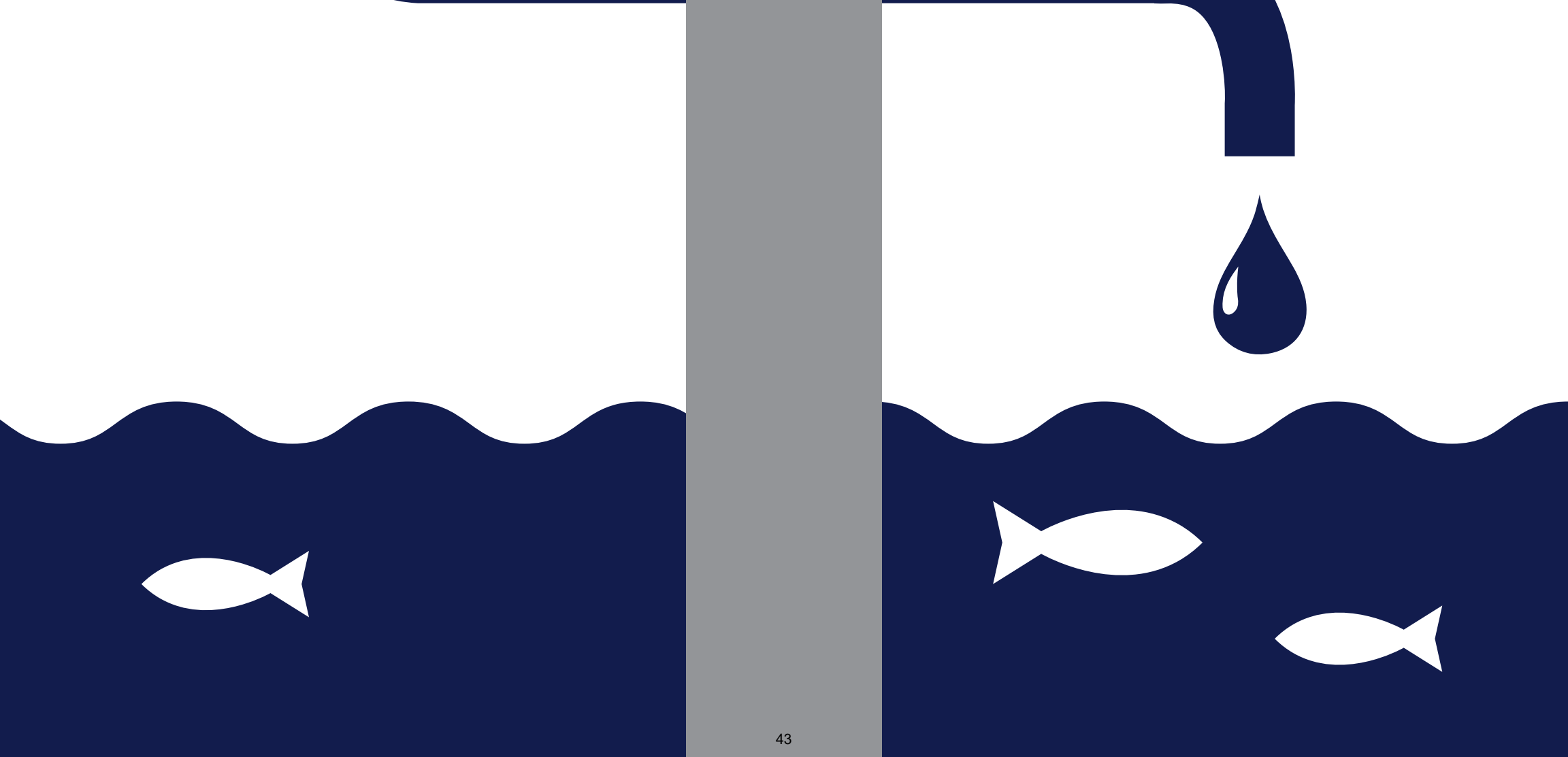
FRIENDS OF THE MISSISSIPPI RIVER
FMR.ORG

SAINT PAUL

Information Source: https:/epa.gov/tmdl/overview-total-maximum-daily-loads-tmdls

Keep storm drains clear.

It prevents flooding and protects the Mississippi River.



Sign up to

Adopt a Storm Drain!

Keep your neighborhood clean and protect the Mississippi River.
Sign up today!

ADOPT A STORM DRAIN
A project of Hamline University

adopt-a-drain.org

Join with neighbors to protect local waterways!

Sign up online. Individuals, community organizations, and businesses can sign up to adopt a storm drain at adopt-a-drain.org.

Keep your storm drain clear. Use a broom or rake to sweep leaves, trash, and other debris off the drain surface year round.

Track your impact. Enter the estimated total of debris you collect into your online account so we can track results.

Lead by example. Let others know about your commitment. Tell them how they can help prevent water pollution.

Sweep up! Rake up! Pick up!

ADOPT A STORM DRAIN

SAINT PAUL MINNESOTA

CAPITOL REGION WATERSHED DISTRICT

A project of Hamline University, the City of Saint Paul, and Capitol Region Watershed District.

STORM DRAINS

KEEP 'EM CLEAN

Desagües pluviales: Manténgalos limpios
Tej Kwj Hoob Dej Nag: Saib Xyuas Kom Tej Ntawd Huv Si

KEEP THESE OUT OF STORM DRAINS

PET WASTE

Desechos de mascotas
Tej quav tsiaj yug hauv tsev

LEAVES, GRASS & TRASH

Hojas, pasto y basura
Tej nplooj, tej nyom thib tej nplooj kaj tsib qhuav

HAZARDOUS WASTE

Residuos peligrosos
Tej khoom vuab tsuab phom sij

Mantenga estos artículos fuera de los desagües pluviales
Saib xyuas tej khoom no kom txhob nyob rau ntawm tej kwj hoob dej

Keep storm drains clean.
These drains are part of the storm sewer system, which carries rainfall and snowmelt directly from your neighborhood to our lakes and rivers.

Mantenga limpios los desagües pluviales. Estos desagües son parte del sistema de alcantarillado pluvial de la ciudad, que transporta la lluvia y el deshielo de su vecindario hacia nuestros lagos y ríos.
Saib xyuas tej kwj hoob dej nag kom huv si. Tej kwj hoob no yog ib feem tso tej dej qias neeg ntawm Lub Nroog, uas yuav tso tej dej nag thiab tej dej xab naus yaj tawm hauv koj ib cheeb tsam mus rau hauv tej pas dej thiab tej niam dej ntws.

WHAT YOU CAN DO

Lo que usted puede hacer
Yam koj tuaj yeem ua tau

1. **Keep leaves and grass clippings out of the street.**
Mantenga las hojas y los recortes de césped fuera de las calles.
Saib xyuas kom txhob muaj tej nplooj ntoos thiab tej nyom txheej tuaj rau ntawm tej kev tsheb.

2. **Keep fertilizer off paved surfaces and sweep up excess or spills.**
Mantenga el fertilizante fuera de las superficies pavimentadas y limpie el exceso o los derrames.
Saib xyuas tej chiv tawm mus ntawm txoj kev pua, thiab cheb tej khoom tshaj los si txheej tawm mus.

3. **Don't litter. Pick up pet waste.**
No tire basura. Recoja los desechos de las mascotas.
Txhob muab pov ua lwj ua liam. Sau tej quav tsiaj tu hauv tsev kom du lug.

4. **If you need to wash anything outside, do it in the grass — not the driveway or street.**
Si usted necesita lavar algo afuera, hágalo en el césped, no en el camino de entrada o en la calle.
Yog koj xav ntxuav tej chaw sab nrauv, ntxuav tej ntawd rau ntawm lub tiaj nyom xwb – txhob ntxuav mus rau ntawm txoj kev tsav tsheb mus los los si txoj kev tsheb.

5. **Immediately clean up any oil leaks or spills from vehicles.**
Limpie inmediatamente cualquier fuga o derrame de aceite de los vehículos.
Tu tej roj xau los sis tej roj txheej tawm ntawm tsheb los kom huv si.

6. **Properly dispose of paint and other household hazardous waste.**
Deseche adecuadamente la pintura y otros desechos domésticos peligrosos.
Muab tej kob npleev tsos xim thiab lwm yam khoom phom sij hauv tsev coj mus pov tseg kom raug zoo.

7. **Shovel snow. Lightly apply salt on sidewalks and driveways only if necessary.**
Quite la nieve con una pala. Aplique sal ligeramente en las aceras y entradas de vehículos solo si es necesario.
Daus tej xab naus tawm. Tso ntsev rau ob sab kev taug thiab kev tsheb nkaus xwb yog tsim nyog.

SAINT PAUL MINNESOTA

FRIENDS OF THE MISSISSIPPI RIVER

Recycling & Disposal Guide

stpaul.gov/publicworks | fmr.org/stenciling | ramseyrecycles.org/atoz

Illicit discharges to the City's storm sewer have the potential to contribute high levels of pollutants including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria. Pollutant levels from these illicit discharges have been shown to degrade water quality, and threaten aquatic, wildlife and human health.

Definition
Illicit discharges are defined as any discharge into the City's storm sewer system that is not composed entirely of stormwater.

Examples
Examples of illicit discharges found in urban areas include the following:
- Sanitary sewer connections, dumping, and spills into the storm sewer.
- Non-Residential Car/Truck washing operations.
- Discharges from residential laundry or carpet wash waters.
- Pavement saw cutting slurry discharges.
- Directional drilling bentonite effluent.
- Construction debris or sediment run-off.
- Dumping of automobile fluids, household toxics, and paint.
- Liquid fertilizers and pesticides.
- Spills on roadways (overturned truck, fluid leak, etc).

Prioritization (17.17)
Potions of the Public Storm Sewer System will be prioritized for field screening based on the following activities on an annual basis:
- Citywide Sewer Maintenance Activities (Cleaning, Inspection, Repair)
- Outfall Inspection
- Pond Inspection
- Citywide Monitoring Activities
- Video Inspection of Storm Sewers

Investigation (17.17)
Illicit Discharges detected in the Public Right-of-Way (ROW) will be investigated by the Department of Public Works Right-of-Way Division (PW-ROW).

Illicit Discharges detected in the Public Storm Sewer System will be investigated by the Department of Public Works Sewer Utility Division.

Investigation will follow the *City of St. Paul Sewer Utility Illicit Discharge Detection and Elimination (IDDE) Field Guide.*

Areas or Locations to be Evaluated (17.18)
Areas or locations to be evaluated include the following:

- Storm Sewer System Components (Pipe, Manholes, Catch Basins)
- River and Pond Outfalls
- Monitored Sites (BMPs, Outfalls to Mississippi River, Representative land use areas, contributions from upstream jurisdictions)

Schedule for Field Screening Activities (17.19)
Field screening activities to occur on the following schedule:
- Storm Sewer Components (as opportunities arise during routine maintenance activities)
- River and Pond Outfalls (Minimum of 20% Annually)
- Monitored Sites (Minimum of 6 Sites Annually)

Pollutants of Interest (17.20)
Pollutants of interest are identified within the *City of St. Paul Sewer Utility Illicit Discharge Detection and Elimination (IDDE) Field Guide.*

Evaluation Procedures (17.21)
Evaluation procedures are identified within *City of St. Paul Sewer Utility Illicit Discharge Detection and Elimination (IDDE) Field Guide,* and include the following:
- Physical Indicators (unusual flow, color, odor turbidity, etc.)
- Biological Indicators (algae growth, fish kills, vegetation condition, etc.)
- Chemical Indicators (temperature, ammonia, boron, RCRA Metals, etc.)

Sampling Procedures (17.22)
Sampling procedures are identified within *City of St. Paul Sewer Utility Illicit Discharge Detection and Elimination (IDDE) Field Guide,* and include the following:
- Flow, Color, Odor, Turbidity
- Tier I & II Parameters

Record Keeping (17.23)
Record keeping includes the following:
- Outfall Inspection Checklist
- Spill Report Form
- Storm Sewer Videos

Public Safety Duty Officer Notification (17.24)
Notification to the Public Safety Duty Officer is identified within the *IDDE Enforcement Response Plan* and *City of St. Paul Sewer Utility Illicit Discharge Detection and Elimination (IDDE) Field Guide.*

Enforcement Response Procedure (17.25)

Enforcement Response Procedures including details on investigation, reporting, enforcement and documentation are included in the Department of Public Works Illicit Discharge Enforcement Response Procedure.

Department of Public Works
Illicit Discharges
Enforcement Response Procedure

Created 3/19/2018
Updated 4/1/2025

Illicit discharges to the City's storm sewer have the potential to contribute high levels of pollutants including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria. Pollutant levels from these illicit discharges have been shown to degrade water quality, and threaten aquatic, wildlife and human health.

Definition (30.13)
"Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities. [40 CFR 122.26(b)(2)]

Examples
Examples of illicit discharges found in urban areas include the following:
- Sanitary sewer connections, dumping, and spills into the storm sewer.
- Truck washing.
- Discharges from residential laundry or carpet wash waters.
- Pavement saw cutting slurry discharges.
- Directional drilling bentonite effluent.
- Construction debris or sediment run-off.
- Dumping of automobile fluids, household toxics, and paint.
- Liquid fertilizers and pesticides.
- Spills from roadways.

Public Reporting (17.29)
Public Reporting of suspected illicit discharges is publicized via the City's Website and Public Educational Materials. Additional complaints may be redirected from the MPCA, Minnesota Duty Officer, or other MS4s to the City for response.

- Public Works: 651-266-9700 stormdrain@ci.stpaul.mn.us
- Safety and Inspections: 651-266-8989 dsicomplaints@ci.stpaul.mn.us

Investigation (17.15)
Illicit Discharges detected in the Public Right-of-Way (ROW) shall be investigated by the Department of Public Works Right-of-Way Division (PW-ROW).

Notifications to other Departments
If the source of the Illicit Discharge originates from Private Property, the ROW Division will notify the Department of Safety and Inspections to enact their Investigation and Enforcement Procedures. DSI Contact: 651-266-8989, dsicomplaints@ci.stpaul.mn.us

Department of Public Works
Illicit Discharges
Enforcement Response Procedure

Created 3/19/2018
Updated 4/1/2025

If the source of the Illicit Discharge originates from City Park Property, the ROW Division will notify the Department of Parks and Recreation to enact their Investigation and Enforcement Procedures. Parks and Recreation Contact: 651-266-6400, ParksCustomerService@ci.stpaul.mn.us

Reporting (17.24)
Illicit Discharges detected in the Public Right-of-Way (ROW) shall be reported to the Minnesota Duty Officer (651-649-5451). PW ROW inspectors shall contact the Minnesota Duty officer as soon as practical, but no less than 24-hrs. after an Illicit Discharge has been detected in the ROW. PW ROW will provide the information to the Duty Officer:

- Name of caller and contact information.
- Date, time and location of the incident.
- Whether the Police or Fire have been notified of incident.
- Materials and quantity involved in the incident.
- Responsible party of incident (property/business owner) and contact information.
- Any surface waters or sewers impacts.
- Actions taken.

Enforcement (17.14)
PW-ROW shall be responsible for enforcement of Illicit Discharges originating from an activity within the ROW. PW-ROW has the authority to conduct the following enforcement actions:

- Stop Work. PW ROW can order the immediate cessation of any work in the ROW. Reference: City of Saint Paul Code of Ordinances. Chapter 135 - Right-of-Way Permits, Section 135.15 – Inspection.
- Revocation of Permits. PW ROW can order the revocation of any ROW permit. Reference: City of Saint Paul Code of Ordinances. Chapter 135 - Right-of-Way Permits, Section 135.18 – Revocation of permits.
- Police Action. Notification and coordination with City of Saint Paul Police Department.

Documentation (17.40)
PW-ROW shall be responsible for documentation of Illicit Discharges originating from an activity within the ROW. Documentation of Illicit Discharges shall include the following:

- name of the person responsible for violating the terms and conditions of the permittee's regulatory mechanism(s);
- date(s) and location(s) of the observed violation(s);
- description of the violation(s);
- corrective action(s) (including completion schedule) issued by the permittee;

- date(s) and type(s) of enforcement used to compel compliance (e.g., verbal warning, written notice, citation,
- stop work order, withholding of local authorizations, etc.);
- referrals to other regulatory organizations (if any); and
- date(s) violation(s) resolved. [Minn. R. 7090]

City Sewer System

Illicit Discharges detected within the Public storm sewer system shall be investigated by the Department of Public Works Sewer Utility Division. Upon determining the point of entry to the Storm Sewer System, the Sewer Division will notify the appropriate Enforcement Department. Sanitary spills and the repairing defective Sewers shall be addressed by the Sewer Utility Policy - Sanitary Spills and Repairing Defective Sewers.

Department of Public Works Construction Division
Environmental Enforcement
Response Procedure

Construction projects have the potential to negatively impact the surrounding, and even outlying, environment in several ways if the proper measures are not taken. To prevent harmful influence to the environment, Public Works has in-place procedures to prevent, respond to and mitigate incidents.

Construction
Public Works construction personnel in conjunction with competent personnel designated by awarded Contractors are prepared to handle Public Works construction projects and all ecological threats that accompany the work. As with all aspects of the construction the contractor acts as Quality Control (MnDOT SPC 1717.2.A) while the Public Works representatives act as Quality Assurance. Together the team can prevent most incidents of negative impact to the surrounding environment.

Documentation
The Public Works Project Inspector records all activity and findings in a Daily Diary for assessment and action required by the Contractor to keep the work site in compliance with the SWPPP permit. In addition to the Daily Diary, the Project Inspector and the Erosion Control Supervisor, designated competent and certified personnel by the Contractor, keep inspection reports required by the SWPPP to ensure compliance of all BMPs and erosion control measures. Pictures and site maps are also used to clarify areas of interest or that require attention.

Non-Compliance
Non-Compliance occurs when the in-place BMPs are ineffective or if an unforeseen circumstance arises that threatens erosion or contamination both on and off the construction project.

After non-compliant measures are detected by inspection, the Contractor is verbally requested to correct the issue within the proper time period of time enumerated by the SWPPP. If the time period elapses and the issue remains, a written request is issued to the Contractor to bring the BMP back into compliance. If the site remains non-compliant after 24 hours beyond issuance of the written request PW will charge liquidated damages to the Contractor per the governing specifications of the project.

Reporting
The public is encouraged to contact officials with questions they may have not only with the construction process but with environmental questions and concerns. By having extra witnesses to the conditions that reside on the project we are able to ascertain the situation with accounts of those who are seeing the process on nights, weekends, holidays or any day there may not be construction or PW staff present. The residents impacted by the project are given the ability to contact by phone or email the following:

- PW Construction Office
- Project Engineer(s)
- Project Inspector
- Public Works After Hours Emergency Line
- Contractor's Office

Enforcement

Infractions are investigated to determine cause and liability. Upon discovery of possible contamination of any kind the work shall stop according to MnDOT SPC 1402.2 *Differing Site Conditions* to determine if the work has materially changed and the nature of the change that has occurred. The investigation will reveal if the Contractor provided reasonable protection to the water, land and air in accordance with 1717.1.B,C,D and 1717.2.

If the Contractor is unable to bring the jobsite into compliance with the SWPPP permits and erosion control provisions within 24-hours of the written order issued by PW representatives they will be subject to liquidated damages in the amount of $500 per calendar day deduction in accordance with PW governing specifications. The Contractor is also liable for additional damages or fines in the case of negligent actions. "The Contractor shall hold the City harmless for any fines or sanctions caused by the Contractor's actions or inactions regarding compliance with the permit or erosion control provisions of the Contract documents". (City of St. Paul Governing Specifications 1717)

If the Contractor is unable to demonstrate the ability to operate under the provisions of the permits and erosion control provisions the City of St. Paul will, pursuant of MnDOT 1808 and 1809, terminate the contract.

City of St. Paul
Department of Public Works
Street Design/Construction/Sidewalks
Standard Operating Procedures

SWPPP Inspections

The Storm Water Pollution Prevention Plan for each construction project administered by Public Works requires adherence to the Minnesota Pollution Control Agency mandates. The mandates can be found in the SWPPP within the plans and specifications for each project. The SWPPP details what instigates inspection and what must be inspected.

Each inspector is given report logs which they are required to maintain. The logs are to be kept with the official project documents when the project is complete alongside the contractors' required inspection logs which are collected after project completion and held for a minimum of three years.

Inspections are done once every seven days and within 24 hours of a rainfall event of .5" or more. The areas of interest are detailed in the SWPPP and summarized in the logs. Pictures and maps are utilized when projects are of increasing size and they can help with specificity. Once the inspection is complete the results are discussed with the Erosion Control Supervisor provided by the contractor and addressed in the proper time period.

Department of Public Works
Written Procedure and Schedule for Total Suspended Solids and Total Phosphorus Treatment Effectiveness of Saint Paul Public Works Ponds

Created 5/20/2019
Updated 4/1/2025

Ponds have the ability to attenuate runoff flow rate and remove pollutants from stormwater. Pollutants that have the ability to be removed include Total Suspended Solids and Total Phosphorus.

Procedure for Total Suspended Solid and Total Phosphorus Treatment Effectiveness (20.8):

- Utilize Program for Predicting Polluting Particle Passage through Pits, Puddles, & Ponds (P8), or other available software, to estimate treatment effectiveness.
- Utilize the existing monitoring program to determine actual treatment effectiveness.

Schedule

- As detailed Hydrologic and Hydraulic Modeling, and corresponding Water Quality Modeling, is completed on a Subwatershed Basis.
- As Capital Projects warrant the analysis of a local pond.
- Via Citywide Monitoring Activities.

Department of Public Works
Catch Basin & Sump Management Plan

Created 10/2013
Updated 9/8/2025
Updated 3/23/2026

Catch Basin Description

A catch basin is an inlet to the storm sewer system that typically includes a grate or curb opening where stormwater runoff enters the catch basin. Historic designs of catch basins in Saint Paul typically included a two-foot sump depth below the catch basin lead to capture and remove coarse sediment and debris. Knowledge regarding practices for urban sediment disposal and long-term experience with operational aspects of catch basin cleaning led to a design revision for the 2014 construction season where catch basins with two-foot sump depths would no longer be installed unless the catch basin serves as pretreatment for a downstream infiltration or filtration stormwater management feature. Further enhancement included the requirement of a snout or hood to remove and contain floatable debris within the sumped catch basin serving as pretreatment to a downstream infiltration or filtration stormwater management feature.

There are approximately 33,000 catch basins within the City of Saint Paul. When additional catch basins are discovered, the total number will increase. Breakdown of CB ownership within the city:

- City = 23,154
- Ramsey County = 3,580
- MNDOT = 2,424
- Other = 3,960 (West Saint Paul, South Saint Paul, Private, Saint Paul Parks, Minneapolis, Maplewood, Falcon Heights, Metropolitan Airports Commission)

Catch Basin Annual Maintenance

The Sewer Maintenance division has a goal of cleaning and inspecting 2,000 catch basins annually. In 2012, Public Works undertook an effort to clean and inspect every storm drain in the city. This work was completed in 2021, and the cycle was started again. Maintenance resources are directed towards catch basins on several factors including: communication from citizen observations, history of clogging, prior to repair or reconstruction of a catch basin, programmed cleaning and inspection, future paving projects, etc. Catch basins utilized as pretreatment to a downstream infiltration or filtration stormwater management feature are prioritized for annual cleaning. Cleaning activities occur during warm weather months, and due to expansiveness of the public storm sewer system, timing of activities cannot occur post Fall leaf drop, or with street sweeping timeframes and schedules.

Created 10/2013
Updated 9/8/2025
Updated 3/23/2026

Sediment Control Structures

Various sediment control structures are deployed across the public storm sewer system for pretreatment to a downstream infiltration or filtration stormwater management feature, or for gross pollutant removal prior to discharge to a receiving water. Design types vary, but most are considered hydrodynamic separators removing both sediments via a sump, and floatable debris. Design types are based on contributing drainage area, land use, maintenance/cleaning operations, consistency, etc. Typical designs include Vortech, CDS units, Downstream Defenders, SAFL Baffles, etc.

Sediment Control Structure Maintenance

Sediment control structure sump volumes should be calculated to contain an annual sediment loading, thus requiring an annual maintenance interval. Cleaning activities occur during warm weather months, and due to expansiveness of the public storm sewer system, timing of activities cannot occur post Fall leaf drop, or with street sweeping timeframes and schedules.

City of Saint Paul

Chloride Management Plan for Municipal Operations

Department of Public Works

Department of Parks and Recreation

March 2026

Snow and Ice Management Policy Statement:

Section 20.6 of the City's Municipal Separate Storm Sewer System Permit requires that:

> *The permittee must implement a written snow and ice management policy for individuals that perform winter maintenance activities for the permittee. The policy must establish practices and procedures for snow and ice control operations (e.g., plowing, or other snow removal practices, sand use, and application of deicing compounds). [Minn. R. 7090]*

It is the policy of the Departments of Public Works and Parks and Recreation to perform snow and ice control operations in a manner that protects public safety, minimizes impacts to the environment, and is economically sustainable.

To achieve the policy statement, the Departments of Public Works and Parks and Recreation are committed to:

- effective operator training
- prioritizing mechanical removal of snow
- updating and calibrating ice control equipment
- optimizing winter maintenance activities at specific seasonal use locations (seasonal parks, trails, etc.).

The Departments of Public Works and Parks and Recreation will continue to utilize best practices as identified in the following resources:

- Minnesota Snow and Ice Control Handbook for Snowplow Operators (MnDOT 2022)
- Minnesota Stormwater Manual (MPCA)
    - Environmental Impacts of Road Salt and other De-icing Chemicals (MPCA 2022)
    - MS4 Fact Sheet-Winter Road Materials Management (MPCA 2023)
    - Liquid Salt Storage Guidance and Regulations (MPCA 2023)
    - Smart Salting for Parking Lots and Sidewalks (MPCA 2022)
    - Smart Salting for Roads Manual (MPCA 2023)
    - Guidance and Recommendations for Storing Transported Snow and for On-site Snow Storage (MPCA 2023)
- American Public Works Association resources (APWA)
- Industry Best Practices

Chloride Material Storage:

Section 20.5 of the City's Municipal Separate Storm Sewer System Permit requires that:

> *The permittee must implement the following BMPs at permittee owned/operated salt storage areas:*
>
> *a) Cover or store salt indoors;*
> *b) Store salt on an impervious surface; and*

c) *Implement practices to reduce exposure when transferring material from salt storage areas (e.g., sweeping, diversions, and/or containment). [Minn. R. 7090]*

The materials utilized by the City of Saint Paul include non-treated granulated salt, treated granulated salt (Magnesium Chloride), sand/salt mixture, and liquid brine for pretreating surfaces and prewetting granulated salt prior to application.

The Department of Public Works stores granulated salt products in dedicated storage sheds equipped with rooftops and impervious surfaces at 873 Dale Street N. Brine preparation equipment and storage tanks are also located interior to buildings at 873 Dale Street N.

The Department of Parks and Recreation stores granulated salt products in dedicated storage sheds equipped with rooftops and impervious surfaces at the following locations: 1100 Hamline Avenue N., 864 Snelling Avenue S., and 995 Wheelock Parkway E.

The Department of Public Works and the Department of Parks and Recreation implement sweeping operations in/near the salt storage areas to reduce exposure after product deliveries, event loading, and post-event offloading.

Chloride Application Training:

Section 20.7 of the City's Municipal Separate Storm Sewer System Permit requires that:

> *Each calendar year, the permittee must ensure all individuals that perform winter maintenance activities for the permittee receive training that includes:*
>
> a) *The importance of protecting water quality*
> b) *BMPs to minimize the use of deicers (e.g., proper calibration of equipment and benefits of pretreatment, pre-wetting, and anti-icing); and*
> c) *Tools and resources to assist in winter maintenance (e.g., deicing application rate guidelines, calibration charts, Smart Salting Assessment Tool).*
>
> *The permittee may use training materials from the Agency's Smart Salting training or other organizations to meet this requirement. [Minn. R. 7090]*

The Department of Public Works participates in Snow Plow Operator Training (SPOT) which focuses on snow and ice equipment inspection, function, and operation. The Department of Public Works also partners with local Watershed Districts on Smart Salting training seminars ensuring new employees receive initial training, and existing employees receive refresher courses. Hands on, individual training also occurs for site/route specific locations and specialized equipment.

The Department of Parks and Recreation partners with local Watershed Districts on Smart Salting training seminars ensuring new employees receive initial training, and existing employees receive refresher courses. Hands on, individual training also occurs for site/route specific locations and specialized equipment.

Documentation of Chloride Application:

Section 20.10 of the City's Municipal Separate Storm Sewer System Permit requires that:

> *The permittee must document the amount of deicer applied each winter maintenance season to all permittee owned/operated surfaces. [Minn. R. 7090]*

On an annual basis, the Departments of Public Works and Parks and Recreation will track total quantities of chloride application including: non-treated granulated salt, treated granulated salt, sand/salt mixture, and liquid brine. These quantities will be reviewed as part of the City's winter maintenance annual assessment and included within the City's MS4 annual report to the MPCA.

Annual Assessment of Winter Maintenance Operations:

Section 20.11 of the City's Municipal Separate Storm Sewer System Permit requires that:

> *23.11 Each calendar year, the permittee must conduct an assessment of the permittee's winter maintenance operations to reduce the amount of deicing salt applied to permittee owned/operated surfaces and determine current and future opportunities to improve BMPs. The permittee may use the Agency's Smart Salting Assessment Tool or other available resources and methods to complete this assessment. The permittee must document the assessment. The assessment may include, but is not limited to:*
>
> *a) Operational changes such as pre-wetting, pretreating the salt stockpile, increasing plowing prior to deicing, monitoring of road surface temperature, etc.;*
> *b) Implementation of new or modified equipment providing pre-wetting, or other capability for minimizing salt use;*
> *c) Regular calibration of equipment;*
> *d) Optimizing mechanical removal to reduce use of deicers; or*
> *e) Designation of no salt and/or low salt zones. [Minn. R. 7090]*

On an annual basis, City staff will meet to review winter operations from the previous year. Participants will include representatives from: Sewer Utility, Street Maintenance, Bridge Maintenance, and Parks and Recreation Operations. The City will utilize the assessment worksheet included in the appendix to document activities and opportunities for chloride reduction.

Snow Storage:

The Department of Public Works utilizes offsite snow storage on an as-needed basis based on snow accumulation amounts. Primary locations for snow storage include Public Works maintenance yards at 873 Dale Street N. and 380 Como N. Depending on the amounts of snow accumulation there is opportunity to enter into temporary lease agreements on underutilized public or private property, and other Public Works facilities.

The Department of Parks and Recreation utilize offsite snow storage on an as-needed basis based on snow accumulation amounts. The primary location for snow storage is at Como Pool parking lot at 1151 Wynne. A secondary location is at Highland Pool at 1840 Edgcumbe Road.

Both the Departments of Public Works and Parks and Recreation perform debris clean-up work during and after snowmelt.

Annual Assessment of Winter Operations

Assessment Year: _____

Total Snowfall: _____(https://www.weather.gov/mpx/mspclimate)

Weather Summary from NOAA/National Weather Service for Twin Cities attached

Quantities of Chlorides Used:

Department	Non-treated	Treated	Sand/Salt Mix	Brine
Public Works				
Parks and Recreation				

Training Summary (name, number of attendees, etc.):

Public Works:

Parks and Recreation:

Equipment Summary (calibration activities, equipment upgrades, etc.):

Public Works:

Parks and Recreation:

Opportunities for reduced chloride application (seasonal parking lots/roads, reduced service, etc.):

Public Works:

Parks and Recreation:

Reasons for increased chloride application (City street system and parking lot expansion, etc.):

Public Works:

Parks and Recreation:

Employee Training and Continuing Education Opportunities

The City of Saint Paul is committed to providing training and educational opportunities to staff commensurate with the employee's duties. Listed below are the various subgroups that have a frontline impact with stormwater management and recommended training and educational opportunities.

Documentation of training and educational opportunities shall be maintained by the subgroups below and summarized in the Annual Report.

Sewer Engineering

- Illicit Discharge Detection and Elimination Training (In-house training prepared by Braun-Intertec)
- Construction Stormwater and Erosion Control (UMN certificate)
- Inspection and Maintenance of Permanent Stormwater Treatment Practices (UMN certificate)
- Minnesota Water Resource Conference (UMN)
- Wastewater Operations and Collection Systems Conference (MPCA)

Sewer Maintenance

- Illicit Discharge Detection and Elimination Training (In-house training prepared by Braun-Intertec)
- Wastewater Operations and Collection Systems Conference (MPCA)
- 419 Burgess Site SWPPP (In-house training prepared by Braun-Intertec)
- Smart Salting (MPCA)
- Snow Plow Operator Training (SPOT)

Street & Bridge Maintenance

- Smart Salting Training (MPCA)
- Snow Plow Operator Training (SPOT)
- Dale Campus Site SWPPP (In-house training prepared by Braun-Intertec)
- American Public Works Association North American Snow Conference
- Salt Symposium
- Snow and Ice Control training session (new hires)

Street Engineering & Construction

- Construction Stormwater and Erosion Control (UMN certificate)
- Minnesota Water Resource Conference (UMN)

ROW Management

- Illicit Discharge Detection and Elimination Training (In-house training prepared by Braun-Intertec)
- Construction Stormwater and Erosion Control (UMN certificate)
- Utility Coordination Meeting

DSI

- Construction Stormwater and Erosion Control (UMN certificate)
- Minnesota Water Resource Conference (UMN)

Park Operations

- Smart Salting Training (MPCA)
- Snow Plow Operator Training (SPOT)
- Snow and Ice Control training session (new hires)
- Non-commercial pesticide license certifications

Park Design

- Construction Stormwater and Erosion Control (UMN certificate)
- Inspection and Maintenance of Permanent Stormwater Treatment Practices (UMN certificate)
- Minnesota Water Resource Conference (UMN)