



Engineering

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2024 MS4 Stormwater Pollution Prevention Overview

What is an MS4?

MS4 stands for Municipal Separate Storm Sewer System and is the network of stormwater drainage infrastructure that the City of Duluth owns and maintains to collect and convey stormwater runoff, which is runoff from rain and snow melt. Stormwater is typically conveyed through an MS4 directly into a receiving water. Receiving waters in the City of Duluth include Lake Superior, St. Louis Bay Estuary and many local streams, 16 of which are Trout Streams. Stormwater runoff is separate from Sanitary Sewer from households. Sanitary sewer flows are conveyed through a separate system to WLSSD for treatment.

Pollution Prevention

Pollution prevention practices are needed because stormwater runoff is largely untreated before flowing to receiving waters. The City of Duluth employs a number of methods to target pollution prevention through guidelines set by the MPCA in the City's MS4 Permit. These guidelines are broken into six (6) Minimum Control Measures (MCMs). The City performs, and partners with other agencies, on actions to prevent pollution along these guidelines.

City of Duluth MCMs

1. Public Education and Outreach

Each year the City of Duluth partners with local area agencies and authorities to distribute messages about pollution prevention in stormwater through a collaborative group named the Regional Stormwater Protection Team (RSPT). Some of these messages include a direct focus on smart salting to reduce impacts of the use of chlorides as a deicer, keeping leaf litter off of the street and out of catch basins, and messages on picking up after pets to improve water quality. For more information visit – <https://sites.google.com/view/rspt/home>

In 2024, RSPT and the City of Duluth, took a direct focus on stormwater quality and pollution prevention, along with household best management practices, like native lawn conversion. This included running many targeted public service announcements with local television stations and movie theaters to educate the public. The Mow Less, Lounge More video was a big part of the PSA announcements this year and City of Duluth partnered with Carlton County SWCD during the Spring native plant sale to provide guidance on how to use native plants for stormwater management. Information on these educational topics and videos can be found at <https://www.poopfairy.university/>

2. Public Participation/Involvement

www.duluthmn.gov

The City of Duluth is an Equal Opportunity Employer.

The City of Duluth engages the community through events that help deliver a message about items that improve water quality.

In the Fall of 2022 the City of Duluth began participating in the Adopt-a-Drain Program which is currently active throughout much of Minnesota and the United States. The City of Duluth asks residents to adopt a local storm drain of their choosing and work to keep the surrounding drainage area free of litter and debris that would otherwise wash into the storm drain, impacting our local water resources. In 2024, many more local residents have made the pledge to adopt a drain and protect local water resources. Currently, around 250 adopters have taken the pledge to keep over 400 drains clear of pollutants! For more information, and to sign up, please follow this link - <https://mn.adopt-a-drain.org/> Additionally, City of Duluth Public Works and Utilities offers drop off locations for materials collected during drain clearing in the spring. In 2024, five drop-off locations were available around the city for around one month starting on April 22nd. Watch future updates for collections sites in spring of 2025.

City stormwater staff also attended multiple community events and presented to a number of different student groups including elementary, middle and high school students, as well as college students within the city. Presentation and outreach content included stormwater pollution prevention, green infrastructure implementation, chloride pollution prevention and other stormwater management techniques.

The City of Duluth also welcomes comments or questions around the Stormwater Pollution Prevention Plan (SWPPP). To discuss or comment on the SWPPP please contact Ryan Granlund at rgranlund@duluthmn.gov or 218-730-4088.

3. Illicit Discharge Detection and Elimination (IDDE)

Illicit discharge is the discharge of a pollutants into the City's storm sewer system or a receiving water. The City of Duluth conducts regular inspections and maintenance of storm sewer infrastructure in an effort to detect and eliminate any signs or sources of pollution. The City responds to all concerns of illicit discharge and follows up with cleaning and enforcement where necessary. Things to watch for are water coming from out of a manhole lid, odd odors or discolored water/discharges, and blatant dumping of materials that could runoff into public water through the storm system or otherwise. Any concerns of illicit discharge in the City of Duluth should be promptly reported by calling 218-730-4130 or submitting online at <https://duluthmn.gov/public-works-utilities/utilities/stormwater/report-illicit-discharge/>

4. Construction Site Stormwater Runoff Control

The City of Duluth requires an Erosion Control Permit for all construction activities that disturb more than 3,000 s.f. or is within a shoreland zone. The City conducts regular inspections of construction sites within its jurisdiction to ensure that measures are in place to minimize erosion and discharge of sediment and other pollutants in stormwater runoff during construction activity. There are currently 207 active Erosion Control permits in the City! Additionally, all proposed construction sites undergo a review process with City staff to ensure that there are erosion control measures designed for each site. All construction site stormwater concerns can be directed to City of Duluth Engineering at 218-730-5200.

5. Post-Construction Stormwater Management

The City of Duluth's Unified Development Chapter contains stormwater management requirements for all new and redevelopment projects that create 3,000 sq.ft. or more of new impervious surface. These requirements are combined with the MPCA Construction Stormwater Activities Permit for development projects that exceed an acre of new impervious surface area. The City conducts plan reviews and approves the stormwater management plan for all projects prior to construction. The City of Duluth requires the installation of structural stormwater management practices that provide rate, volume, temperature and water quality controls for stormwater runoff from the proposed development.

6. Pollution Prevention/Good Housekeeping

The City of Duluth practices pollution prevention through a variety of efforts in its typical municipal operations. The City owns and maintains over a hundred stormwater runoff Best Management Practices (BMPs) that manage runoff through a variety of means including improving water quality, reducing rate of runoff and capturing pollutants. Many of these BMP's are cleared of sediment, trash and debris annually in an effort to protect our public waters. The City also maintains a large network of storm sewer infrastructure in an effort to reduce the discharge of pollutants in stormwater. Additionally, the City's Street Maintenance Staff is focused and committed on reducing the use of chlorides during winter maintenance through staff training, and acquisition of equipment and technology that will aide in that venture. Stormwater management is a daily part of most of the City's Divisions. This includes everything from maintenance of City parks, facility maintenance and ensuring vehicles and equipment are maintained and not leaking.

In 2024, Public Works and Utilities received a MN GreenCorps Service member, who will work with Street Maintenance, Sustainability, and Stormwater Management staff to develop and accelerate practices specifically related to reducing chloride usage during winter maintenance operations. Public waters within the City of Duluth, greater Minnesota and the Mid-West are impaired for high levels of chlorides in surface and ground water. With this increased capacity, the City aims to further understand how to reduce chloride pollution and plan for needed equipment and strategies to address upcoming operational challenges.

The city also was a recent recipient of grant from the Great Lakes Commission – Great Lakes Sediment and Nutrient Reduction Program for \$121k to aide in funding a Green Stormwater Infrastructure Bio-Filtration Basin in Irving Park, Duluth to treat urban stormwater flows before discharge to Keene Creek Trout Stream, St. Louis River Estuary and Lake Superior. <https://www.glc.org/news/glsnrp-100622> The project also received an additional \$288k in project funding from the United States Army Corps of Engineers. The project will be constructed in the summer of 2025. City staff have also applied for grant funding to the MPCA for large scale stormwater management projects, with the goal of construction in 2025 and 2026 if awarded.

City stormwater staff have also been engaged with other City departments to accelerate the integration of stormwater treatment, including through the use of green infrastructure, into capital improvement projects.

For more information on other practices of pollution prevention contact Ryan Granlund at rgranlund@duluthmn.gov or 218-730-4088.