

City of Darien

Stormwater Management Program Plan



Prepared for:

City of Darien

Department of Municipal Services

1701 Plainfield Road

Darien, IL 60561

EXECUTIVE SUMMARY

The City of Darien (City) is an operator of a Municipal Separate Storm Sewer System (MS4) as defined by the Illinois Environmental Protection Agency's (IEPA) National Pollution Discharge Elimination System (NPDES) Phase II program. The City has applied for and obtained coverage under the IEPA's General NPDES Permit for Discharges from Small Municipal Separate Storm Sewer Systems. The City of Darien is a Qualifying Local Program of DuPage County (County) and works in conjunction with the County to achieve components of the six minimum control measures. Their permit number is ILR400180 and a copy of the general permit is provided in Appendix 8.

A central requirement of the NPDES Phase II Permit is the development and implementation of a program to reduce or prevent the discharge of pollutants in stormwater to meet the conditions and provisions of the ILR40 permit. To meet these requirements, the City has developed this Stormwater Management Program Plan (SMPP) to detail the policies, plans and procedures in place to meet the conditions and requirements of the permit and serve as a resource for the implementation, interpretation and documentation of the City's entire MS4 program. The SMPP encompasses all aspects of the City's NPDES Phase II program and specifically addresses the following six minimum control measures:

1. **Public Education**

Responsibilities of the City:

The City will make brochures available, created by the County, covering topics related to stormwater quality. These topics include steps the public can take to reduce pollutants to stormwater runoff or the impacts of stormwater runoff on local water bodies. Specifically, the City distributes education materials relating to water quality or stormwater management at the City Hall in addition to being available on the City website. The City website will provide a link to the County website, which provides additional brochures and information relating to stormwater quality. The goal of this program is to provide residents and businesses education information on the impacts of storm water discharges on local water bodies, the steps that the public can take to reduce pollutants in storm water discharge, and the hazards associated with illegal discharges and improper waste disposal. The City has additional information on its website relating to recycling of waste, waste disposal, stormwater and/or water quality and provides contact information for residents to report any potential stormwater or water quality related issues.. In addition to these measures, the City also relies on DuPage County as a QLP for Public Education as outlined below.

Responsibilities of the COUNTY:

DuPage County Stormwater Management will conduct public education and outreach activities throughout the region on a multitude of topics, such as watershed planning efforts, water quality, and best management practices (BMPs). On staff is a full time Stormwater Communications Supervisor who is responsible for managing stormwater education and outreach. The County also contracts annually, with several organizations that assist in providing additional education and outreach services pertaining to both technical and general education on stormwater impact topics.

- a. **Distribution of Publications.** Stormwater Management has created several handouts and brochures pertaining to sources of pollutants in waterways and water quality BMPs. These, as well as handouts from other entities, are distributed at public events, at the DuPage County complex, and through municipal partners. They are also available online. Informational topics include rain barrels, rain gardens, native plants, other green infrastructure techniques, citizen monitoring of waterways and seasonal BMPs for the spring, summer, fall and winter. Staff continues updating and developing educational materials to incorporate new and updated information, including the effects of climate change on stormwater impacts.
- b. **Speaking Engagements & Community Events.** Stormwater Management coordinates, hosts, and presents at many workshops and community events countywide throughout the year. Staff also invites outside speakers who are experts on particular topics to present. These events are held for residents, community groups, professional organizations, businesses, and governmental agencies. Among the topics discussed are water quality efforts for the watersheds, methods for pollutant reduction, during and after construction BMPs, native vegetation, and green infrastructure. In accordance with the updated NPDES requirements, presentations will include information on the potential impacts and effects of stormwater discharge due to climate change. Some of these presentations will be recorded and posted online for use by the County and municipalities for new staff or as a refresher course.
- c. **Public Service Announcements & Media.** Stormwater Management has taken advantage of technology to enhance outreach efforts. The department runs Facebook, Twitter, Instagram, and YouTube pages that detail water quality trends and highlight practices that can reduce the transport of pollutants into waterways. In recent years, Stormwater Management has created or modified six pollution prevention video public service announcements, as well as another eight videos detailing flood control facilities and water quality projects. The County promotes all of these informational outlets using a Stormwater Management monthly e-newsletter, distributed to more than 2,000 recipients. In addition, Stormwater Management engages in direct media relations using press releases and advisories to promote seasonal BMPs, events, and other stormwater-related news.
- d. **Classroom Education.** In partnership with schools and local educational organizations, DuPage County students are educated on stormwater management and water quality. Using several watershed models owned or borrowed by the County, students learn how watersheds work, including the transport of pollutants from watershed-wide land uses to waterways via stormwater. The students also learn about green infrastructure, such as rain gardens, permeable pavers, green roofs, native plants, and bioswales. DuPage County also promotes water quality and environmental efforts through the Water Quality Flag program. Schools and other institutions within the area can earn a Water Quality Flag by participating in certain educational trainings, using green infrastructure as a learning opportunity, and participating in a hands-on activity.

2. Public Participation and Involvement

Responsibilities of the City:

The City supports the County programs which coordinate with local groups to perform cleanup activities which directly reduce the amount of pollutants entering the City's storm sewer system. The County holds public panels, stakeholder meetings, public meetings and hearings which are to be promoted events with regards to City jurisdiction. The City posts links to these activities on its website and will have a yearly stormwater meeting. The City may also engage outside organizations such as the DuPage County Sheriff for cleanup activities. In addition to these measures, the City also relies on DuPage County as a QLP for Public Participation and Involvement as outlined below. The City is responsible for advertising and promoting meetings, hearings, and events online and within their jurisdictions and ensuring attendance by their own staff, as appropriate.

Responsibilities of the COUNTY:

DuPage County Stormwater aims to inform the public on watershed initiatives and engage a broad range of individuals regarding policies and projects related to the control and reduction of pollutants in stormwater runoff. This is accomplished through technical trainings, stakeholder groups, volunteer opportunities, and public meetings. The County has identified environmental justice areas within the watershed planning jurisdictions in order to ensure prioritization of efforts in regards to public involvement and participation initiatives.

- a. **Public Panels.** Stormwater Management annually supports several training initiatives throughout the County, including The Conservation Foundation's Environmental Summit and biannual Beyond the Basics seminars and the DuPage River Salt Creek Workgroup's chloride reduction trainings. The purpose of the events is to engage local residents, organizations, and government agencies in pollution reduction practices and volunteer opportunities.
- b. **Stakeholder Meetings.** Stormwater Management hosts at least two regular water quality stakeholder meetings per year in each of the County's three main watersheds. These meetings address matters pertaining to pollutant reduction on a watershed level. In addition, input on water quality impairments is requested from stakeholders for incorporation into watershed planning efforts, which may cause the formation of separate stakeholder groups any given year.
- c. **Public Meetings & Hearings.** Stormwater Management will provide opportunity for public comment at several locations throughout the watershed in order to reach all interested residents on the adequacy of its MS4 program, watershed plans, and projects. At least one public meeting or hearing also accompanies public comment periods associated with plans or projects. The County will publicize public comment

periods in accordance with its education and outreach initiatives and include opportunities to comment online, in person, or by mail.

- d. **Program Coordination.** Stormwater Management coordinates educational and public involvement strategies. To gauge their effectiveness, the County develops and distributes surveys via an email list, webpage, and on social media. These surveys measure citizen views, behaviors, and concerns pertaining to a variety of topics, including water quality, property management, flood perceptions, and residential pollutant control. County staff and/or educational partners analyze results of these surveys in order to improve and enhance the current program.
- e. **Volunteer Opportunities.** A variety of volunteer opportunities are sponsored by Stormwater Management, including:
 - o The Adopt-a-Stream program, which engages the public by providing an opportunity to pick up trash and/or monitor a stretch of waterway;
 - o The DuPage River Sweep, which is an annual event that allows residents, groups, schools, and businesses to volunteer for a day to pick trash out of a section of a local waterway; and
 - o The Storm Drain Stenciling program, where students can stencil information on a storm drain, which notifies the public where the drains lead and why nothing should be dumped into them.

3. Illicit Discharge Detection and Elimination

Responsibility of the City:

The City has an Intergovernmental Agreement (IGA) with the County in regards to screening for and tracing of illicit discharges into Waters of the State from MS4 outfalls. The City has also developed its own IDDE program to complement the County's program and assists in activities related to the Illicit Discharge Detection and Elimination minimum control as a vital part of their MS4 program. As part of this program, the City has a very detailed ordinance on illicit discharges. The City also has a strict policy regarding dewatering of swimming pools. The City prepared a storm sewer map that shows the location of all outfalls to receiving streams. The City annually updates the map to reflect new development or changes to the system. The City has procedures for requiring the removal of illicit discharges identified through the illicit discharge tracing program. The City is conducting dry weather screening on prioritized outfalls to receiving waters. The primary goal of this measure is to visually identify any illicit discharges, but is also beneficial in helping the City identify maintenance issues such as erosion or blockages. The City's program includes photos and documentation for all outfall locations compiled in an IDDE report.

Responsibilities of the COUNTY:

DuPage County will perform field inspections of all known MS4 outfall locations for illicit discharges. The County has created a hotline for the public to report illicit discharges. During the permit cycle, the DuPage County Stormwater Management will conduct inspections of outfalls within the watershed that are owned and maintained by partnering permittees.

- a. The County has developed a comprehensive storm sewer atlas from information obtained from partnering permittees, as well as other local and state entities. This atlas identifies the location of storm sewers and the outfalls point where a discharge into a Water of the State occurs. This atlas will be regularly updated to incorporate new projects as well as when updated information is received from other agencies. The atlas is also updated as outfall locations are verified and inspected for potential illicit discharges in the field.
- b. DuPage County will conduct the ten step prioritization program identified in the DuPage County IDDE Program Technical Guidance. The outfalls in each watershed will be inspected in the order of prioritization. Dry weather sampling will be conducted throughout the watershed in order to detect any non-stormwater discharges being conveyed through the storm sewer system.
- c. When a possible illicit discharge is located during dry weather conditions, field testing of pollutants is conducted. Testing parameters include temperature, surfactants, ammonia, fluoride, specific conductance, and pH.
- d. If a discharge from an outfall is suspected to be from an illicit source, then tracing procedures are conducted using the storm sewer atlas, as well as visual inspections of sewers in the field. When the source is located, the appropriate enforcement agency, as well as the owner of the property, are notified.
- e. DuPage County offers educational resources regarding illicit discharges to residents and businesses. Information regarding the County maintained IDDE Hotline is posted on DuPage County's website so that members of the public, residing throughout the watershed, can report suspected discharges from the storm sewer into a Water of the State. The end goal is to stop the discharge and educate the polluter on the implications of such actions. The site of the discharge is evaluated to determine any necessary remediation actions.
- f. DuPage County conducts presentations to train appropriate staff members for all partnering permittees on the hazards associated with illicit discharges and the improper disposal of waste, as well as the requirement and mechanism for reporting such discharges.

4. Construction Site Runoff Control

Responsibilities of the City:

The City performs activities and services related to the Construction Site Runoff Control measure as part of their MS4 program. Specifically, the City utilizes their regulatory control program and

enforcement of the DuPage County Stormwater Ordinance as a partial waiver community to regulate runoff from construction sites. The City requires soil erosion and sediment control measures to reduce pollutants in storm water runoff from construction activities, an erosion and sediment control plan is required, site plan review that considers water quality, site inspection and enforcement of control measures, and sanctions to ensure compliance. The City has procedures in place for site plan review and site inspection and enforcement of control measures that consider water quality as a part of the permitting process. The City has a consultant (Christopher B. Burke Engineering, Ltd.) to complete development reviews. The review and inspection procedures are documented by the Municipal Services department.

Responsibilities of the COUNTY:

DuPage County has developed and enacted the DuPage County Countywide Stormwater and Floodplain Ordinance (DCCSFPO) and will continue to administer the Ordinance and update as necessary. The Ordinance was first adopted in 1991 and has been revised several times. Sediment and erosion control provisions can be found in Section 15-40.E, 15-50, and Article VII of the DCCSFPO, last revised in April 2013. The DCCSFPO provides regulatory authority for developments in participating communities and unincorporated DuPage County. These communities may choose to review and process all aspects of the stormwater permit (complete waiver communities), while others may choose to delegate review authority for development in wetlands and floodplain, construction of post-construction BMPs, and sediment erosion control for developments over 1 acre to DuPage County (partial waiver communities), or the communities may allow DuPage County to review and process all aspects of the stormwater permit (non-waiver communities). The DCCSFPO establishes a minimum level of regulatory compliance that a municipality or unincorporated portion of the County must meet. As the DCCSFPO has been adopted into DuPage County’s County Code, it serves as the regulatory mechanism for enforcement of these requirements. Development securities can be drawn upon in the event of non-compliance. Legal action through the State’s Attorney’s Office may also be applied. The DuPage County Stormwater Management Planning Committee oversees the administration and enforcement of the Ordinance on a countywide basis.

5. Post Construction Site Runoff Control

Responsibilities of the City:

The City ordinance requires the identification and responsible entity for long term maintenance of post construction BMPs required for development. The City addresses volume and quality control for storm water runoff from finished development projects as part of its enforcement of the DuPage County Stormwater Ordinance as a partial waiver community. It specifically requires controls to prevent or minimize water quality impacts, implementation of structural and non-structural BMPs, provisions for long-term operation and maintenance, pre-construction review by the City of the site development plan, site inspections during construction, and post-construction inspections. The City has a consultant to complete development reviews.

Responsibilities of the COUNTY:

DuPage County has developed and enacted the DuPage County Countywide Stormwater and Floodplain Ordinance (DCCSFPO) and will continue to administer the Ordinance and update as necessary. The DCCSFPO was revised to include post-construction Best Management Practices in 2008. In 2013, the DCCSFPO was updated again to enhance the BMP section and add volume control requirements to all development sites increasing net new impervious area by 2,500 square feet or greater. Infiltration of runoff is allowed and considered to provide both volume and pollution control when sized correctly. BMP provisions can be found in Section 15-40.F, 15-49, and Article VIII of the DCCSFPO, last revised in April 2013. The DCCSFPO provides regulatory authority for developments in participating communities and unincorporated DuPage County. These communities may choose to review and process all aspects of the stormwater permit (complete waiver communities), while others may choose to delegate review authority for development in wetlands and floodplain, construction of post-construction BMPs, and sediment erosion control for developments over 1 acre to DuPage County (partial waiver communities), or allow DuPage County to review and process all aspects of the stormwater permit (non-waiver communities). The DCCSFPO establishes a minimum level of regulatory compliance that a municipality or unincorporated portion of the County must meet. Inspections are conducted before, during, and after construction to ensure site stabilization. As the DCCSFPO has been adopted into the County Code, it serves as the regulatory mechanism for enforcement of these requirements. Development securities can be drawn upon in the event of non-compliance. Legal action through the State's Attorney's Office may also be applied. The DuPage County Stormwater Management Committee oversees the administration and enforcement of the Ordinance on a countywide basis.

- a. The DCCSFPO requires a management and monitoring period including performance standards for BMPs utilizing native vegetation to ensure successful establishment of the planted native species. The management and monitoring period is typically 1- 3 years or until performance standards are achieved, depending on the planting plan being implemented. Post-construction inspections are conducted at all development sites utilizing native vegetation as a BMP, as well as for wetland, buffer, or riparian restoration and enhancement. These inspections are conducted by staff at least once per year for the duration of the maintenance and monitoring period. Long term operations and maintenance will be established in the permit for development sites utilizing native vegetation as a BMP. Development sites proposing to implement mechanical BMPs must also include long term maintenance plans to ensure that they remain functional.
- b. The DCCSFPO requires that proposed BMP designs are submitted with a development permit application. BMPs are reviewed for compliance with the pollution control requirements, as well as volume control provisions.
- c. The DCCSFPO requires that reviews of as-built details of infiltration and mechanical BMPs are conducted during construction to ensure they are installed correctly. Rock size is provided for infiltration trenches, and catch basins are inspected for mechanical BMP placement. As-built inspections are conducted on all BMP development sites immediately following site development and stabilization to ensure that BMPs have been implemented according to plan.

- d. BMP training is conducted as new regulations are added to the Ordinance. This training is offered to the public and is also specifically targeted to municipalities, developers, consultants, and others often involved in the stormwater permitting process.

6. Pollution Prevention and Good Housekeeping

Responsibilities of the City:

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The City performs activities related to pollution prevention and good housekeeping as a part of their overall NPDES program. Specifically, the City conducts regular employee training for municipal operations and safety and will complete yearly training to educate staff on prevention and reduction of storm water pollution from municipal activities. The goal of the program is to address activities such as open space maintenance, operation of storage yards, snow disposal, new construction and land disturbances, storm water system maintenance procedures for proper disposal of street cleaning debris and catch basin materials, and ways that flood management projects impact water quality, nonpoint source pollution control, and aquatic habitat. This program addresses the hazards associated with illegal discharges and improper disposal of waste. The City will update and modify the training as needed to meet the requirements of the NPDES program. Applicable City staff also attend County and DuPage River Salt Creek Workgroup meetings and training seminars as available.

The City also has many operational policies designed to prevent storm water pollution associated with municipal operations. Road salt is stored in a designated building to protect it from precipitation. All City salting is automated with calibrated equipment. The City stores diesel fuel and gasoline for its vehicles in tanks with vault containment below. Flammable and hazardous chemicals are stored inside in a building. Used vehicle oil is stored in a holding tank and periodically hauled away by a licensed waste disposal service. Maintenance and washing of the City's public work vehicles is performed in the public works garage. Spill kits are located next to the fueling stations. The City also privately contracts storm sewer and catchbasin cleaning. The existing policies described above will be continued. Policies regarding storage of municipal construction wastes, and spill prevention and clean-up procedures are also included in the program. These programs will be evaluated on a regular basis to determine its effectiveness and modified as necessary to meet the requirements of the NPDES program.

Responsibilities of the County:

The County will organize training in procedures and practices that will minimize the discharge of pollutants from municipal operations into the storm sewer system for County and municipal staff. Examples of training topics include automobile maintenance, hazardous material storage, landscaping and lawn care, parking lot and street cleaning, pest control, pet waste collection, road salt application and storage, roadway and bridge maintenance, spill response and prevention, and storm drain system cleaning.

The County will create checklists and/or guidance materials to assist County and municipal staff in following the good housekeeping measures outlined in the ILR40 permit.

DuPage County Stormwater Management has the ability to provide shared services to local communities, in regards to maintenance of BMPs and associated infrastructure. This may include vegetation management, storm sewer cleanout, street sweeping, and other maintenance activities. The shared services will be determined by the equipment and staff available from participating agencies. Each municipality interested in shared services will have a specific contract identifying the scope, duties & responsibilities which would be incorporated into an IGA.

Monitoring and Assessment

Responsibilities of the City:

The City will be responsible for coordinating with the County on their monitoring and assessment program. Each year during the Annual Report period, the City shall assess their program based on the monitoring results (if available) and other data.

Responsibilities of the County:

The County will be responsible for developing and implementing a monitoring and assessment program. This will include an evaluation of BMPs based on estimated effectiveness from published research accompanied by an inventory of the number and location of BMPs implemented as part of DuPage County and the Municipalities NPDES program and an estimate of pollutant reduction resulting from the BMPs. The County will also support and contribute to the DuPage River Salt Creek Workgroup ambient monitoring of waterways which will be performed within 48 hours of a precipitation event greater than or equal to one quarter inch in a 24-hour period. At a minimum, analysis of storm water discharges or ambient water quality will include monitoring for total suspended solids, total nitrogen, total phosphorus, fecal coliform, chlorides, and oil and grease. In addition, monitoring will be performed for any other pollutants associated with storm water runoff for which the receiving water is considered impaired pursuant to the most recently approved list under Section 303(d) of the Clean Water Act.

This SMPP details all of the Best Management Practices (BMPs), activities, policies, and procedures the City of Darien employs to protect water quality by reducing or preventing the introduction of contaminants into the municipal separate storm sewer system and to meet the requirements of their MS4 permit.

The SMPP is a living document that will be updated regularly based on changes within the City and the NPDES regulations. If fully utilized, the SMPP provides the City with a vital tool to meet the following goals of this program:

- Improve water quality,
- Provide cleaner and more aesthetically pleasing local waterbodies and streams,
- Enhance recreation opportunities
- Healthier environment for residents and wildlife.

The SMPP will be reviewed annually during the City's Annual Facility Inspection as required by the NPDES Phase II Permit and will be kept onsite in the Development Services Department at City Hall at 1701 Plainfield Road, Darien, DuPage County, IL 60561.