Village of Deerfield

Public Works and Engineering Department

May 31, 2024

Illinois Environmental Protection Agency
Water Pollution Control
Compliance Assurance Section #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Re: NPDES Phase II – Year 21 Annual Report
Village of Deerfield MS4
Permit No. ILR40-0324

To Whom It May Concern:

On behalf of the Village of Deerfield, please find attached a completed IEPA Annual Facility Inspection Report for Storm Water Discharges from Municipal Separate Storm Sewer Systems (MS4) with supplemental information.

If you require any additional information, please contact me directly at 847-317-2490.

Sincerely,

Bob Phillips, P.E.
Director of Public Works and Engineering

Attachments

cc: epa.indannualinsp@illinois.gov
Jodi McCarthy, Manhard Consulting (1 Overlook Point, Suite 290, Lincolnshire, IL 60069)

Illinois Environmental Protection Agency

Bureau of Water • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control
ANNUAL FACILITY INSPECTION REPORT
for NPDES Permit for Storm Water Discharges from Separate Storm Sewer Systems (MS4)

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Compliance Assurance Section at the above address. Complete each section of this report.

Report Period: From March, 2023 To March, 2024

Permit No. ILR40 00324

MS4 OPERATOR INFORMATION: (As it appears on the current permit)

Name: Village of Deerfield Mailing Address 1: 465 Elm Street

Mailing Address 2: County: Lake

City: Deerfield State: IL Zip: 60015 Telephone: 844-317-2490

Contact Person: Bob Philips, Director of PW and Eng. Email Address: rphilips@deerfield.il.us
(Person responsible for Annual Report)

Name(s) of governmental entity(ies) in which MS4 is located: (As it appears on the current permit)

Lake County

Cook County

THE FOLLOWING ITEMS MUST BE ADDRESSED.

A. Changes to best management practices (check appropriate BMP change(s) and attach information regarding change(s) to BMP and measurable goals.)

1. Public Education and Outreach ☐
2. Public Participation/Involvement ☐
3. Illicit Discharge Detection & Elimination ☐
4. Construction Site Runoff Control ☐
5. Post-Construction Runoff Control ☐
6. Pollution Prevention/Good Housekeeping ☐

B. Attach the status of compliance with permit conditions, an assessment of the appropriateness of your identified best management practices and progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, and your identified measurable goals for each of the minimum control measures.

C. Attach results of information collected and analyzed, including monitoring data, if any during the reporting period.

D. Attach a summary of the storm water activities you plan to undertake during the next reporting cycle (including an implementation schedule.)

E. Attach notice that you are relying on another government entity to satisfy some of your permit obligations (if applicable).

F. Attach a list of construction projects that your entity has paid for during the reporting period.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Owner Signature: Date: 5/20/24

Bob Philips
Printed Name:

Director of Public Works & Engineering
Title:

EMAIL COMPLETED FORM TO: epa.ms4annualinsp@illinois.gov

or Mail to: ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL
COMPLIANCE ASSURANCE SECTION #19
1021 NORTH GRAND AVENUE EAST
POST OFFICE BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276

MS4 Annual Facility Inspection Report

Illinois Environmental Protection Agency
Annual Facility Inspection Report
for General Permit for Discharges from Small MS4s

Village of Deerfield

Permit No. ILR40-0324

THE VILLAGE OF
DEERFIELD

Permit Year 21: March 1, 2023 to March 1, 2024

Prepared by
Manhard Consulting
1 Overlook Point, Suite 290
Lincolnshire, IL 60069

Manhard
CONSULTING

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Part A. MS4 Changes to Best Management Practices, Year 21

Information regarding the status of all of the BMPs and measurable goals described in the MS4's SMPP is provided in the following table.

Note: "X" indicates BMPs that were implemented in accordance with the MS4's SMPP
✓ indicates BMPs that were changed during Year 21

Year 21 MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
	A.3 Public Service Announcement
X	A.4 Community Event
	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
X	B.4 Public Hearing
	B.5 Volunteer Monitoring
	B.6 Program Coordination
X	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
X	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
X	C.3 Detection/Elimination Prioritization Plan
X	C.4 Illicit Discharge Tracing Procedures
X	C.5 Illicit Source Removal Procedures
X	C.6 Program Evaluation and Assessment
X	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
X	C.9 Public Notification
	C.10 Other Illicit Discharge Controls

Year 21 MS4	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
X	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
X	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
X	F.1 Employee Training Program
X	F.2 Inspection and Maintenance Program
X	F.3 Municipal Operations Storm Water Control
X	F.4 Municipal Operations Waste Disposal
X	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

This MS4 Program during the reporting year 3/2023-3/2024 for this Annual Facility Inspection Report:

- MS4 did not make any changes to Best Management Practices identified in the Notice of Intent submitted August 31, 2021, for Permit No. ILR40-0324.

Part B. MS4 Status of Compliance with Permit Conditions, Year 21

Stormwater Management Activities, Year 21

IEPA, please note that the issued version of its General NPDES Permit No. ILR40 (Permit) for Public Comment in September 2021, is not effective. We understand that the permit effective on March 1, 2016, is being administratively continued by the IEPA. On behalf of all MS4s within the county, the Lake County Stormwater Management Commission's Qualified Local Program performs activities related to each of the six minimum control measures which are described in detail in the SMPP. These BMPs, implemented at the county level, make significant strides in achieving the statutory goal of reducing the discharge of pollutants to the maximum extent practicable (MEP) as watershed boundaries are not constrained by municipal borders.

- The SMPP for this MS4 Program can be viewed at the following link: https://www.deerfield.il.us/660/Municipal-Separate-Storm-Sewer-System-MS
- The NOI for this MS4 Program can be viewed at the following link: https://www.deerfield.il.us/660/Municipal-Separate-Storm-Sewer-System-MS
- The previous five years of Annual Reports for this MS4 Program can be viewed at the following link: https://www.deerfield.il.us/660/Municipal-Separate-Storm-Sewer-System-MS

A. Public Education and Outreach

Distribution of Educational Materials: Educational materials are distributed in the Village newsletter, on the Village website, at take-a-way racks in Village offices, at outreach events, and at scheduled meetings with the general public. Topics include:

- Storm water BMPs including cost-benefits and implementation guidance.
- Construction site activities (soil erosion and sediment control BMPs).
- Effective pollution prevention measures regarding storage and disposal of fuels, oils, and similar materials used in the operation of, or leaking from vehicles and other equipment.
- Effective pollution prevention measures regarding the use of soaps, solvents, or detergents used in outdoor washing of vehicles, furniture, and other property, paint and related décor.
- Refuse, recycling, and yard waste.
- Lawn and garden care.
- Winter de-icing material storage and use.
- Green infrastructure strategies such as green roofs, rain gardens, rain barrels, bio-swales, permeable piping, dry wells, and permeable pavement.
- The potential impacts and effects on storm water discharge due to climate change http://epa.gov/climatechange.
- Hazards associated with illegal discharges and improper disposal of waste and the manner in which to report such discharges.
- Proper hazardous waste use and disposal, special collection of household products, and programs organized by the Solid Waste Agency of Lake County (SWALCO).

Measurable Goal(s):

- Implement BMPs and track progress of BMP implementation, as described in the SMPP.
- Distribute educational materials in the Village newsletter, on the Village website, at take-a-way racks in Village offices, at outreach events, and at scheduled meetings with the general public.
- Maintain and update the portion of the website dedicated to storm water.

- Post the Village's SWMP, Notice of Intent, current Annual Report, and the previous 5 years of Annual Reports on the Village website.

Year 21 MS4 activities:

- The MS4 continues to implement the BMPs described in its SMPP and to track progress in implementing its stormwater management program.

Household Hazardous Waste Program

The average garage contains a lot of products that are classified as hazardous wastes, including paints, stains, solvents, used motor oil, pesticides, and cleaning products. While some household hazardous waste may be dumped into storm drains, most enters the storm drain system as a result of outdoor rinsing and cleanup. Improper disposal of household hazardous waste can result in acute toxicity to downstream aquatic life. The desired neighborhood behavior is to participate in household hazardous waste collection days, and to use appropriate pollution prevention techniques when conducting rinsing, cleaning, and fueling operations.

For household products that cannot go into the curbside recycling program or in landfills, there are several ways to dispose of these materials through programs organized by SWALCO. Deerfield is a member community of this regional, intergovernmental agency. As a member, Deerfield residents are provided with a variety of waste management services, programs, and resource materials that include collections for special materials that are not allowed as part of curbside recycling or should not go into the garbage due to toxicity or recoverability (reuse and recycling).

Measurable Goal(s):

- Support and publicize SWALCO efforts.
- Continue the Village's special collection efforts and community programs.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Residential Recycling

Recycling is an effective means of achieving pollution prevention goals. Recycling is a series of activities that includes collecting recyclable materials that would otherwise be considered waste, sorting, and processing recyclables into raw materials such as fibers, and manufacturing raw materials into new products. Trash and floating debris in waterways can become significant pollutants and potentially pose a threat to wildlife and human health (e.g., choking hazards to wildlife and bacteria to humans). For residents, the most convenient kind of collection is curbside collection. The Village offers curbside refuse collection twice a week for its residents. Waste Management provides every single-family home with a 96-gallon container for recycling. The recyclables accepted include newspaper, mixed paper, corrugated cardboard, and mixed recyclables such as glass bottles and jars, steel/tin/bi-metal cans, aluminum cans/foils/tins, and various plastic containers.

Measurable Goal(s):

- Continue to offer and promote curbside waste and recycling collection for residents.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

B. Public Participation/Involvement

The Village's Public Participation and Involvement Program allows input from citizens during the development and implementation of the SWMP.

Public Review

The Village conducts one public meeting annually to present the annual report to the Village Board during an open meeting. This public meeting allows the public to provide input as to the adequacy of the Village's MS4 Program. Comments are evaluated for inclusion and incorporated into the next revision of the SWMP as appropriate. The meeting is typically part of a regular Village Board meeting. Public notification about the meeting content complies with Illinois' public notice requirements.

Measurable Goal(s):

- Implement BMPs and track progress of BMP implementation, as described in the SMPP.
- Present each year's Annual Report to the Village Board during an open meeting and provide for input from the public as to the adequacy of the SWMP.
- Evaluate and incorporate comments received from the Village Board and the public.

Year 21 MS4 activities:

- The MS4 continues to implement the BMPs described in its SMPP and to track progress in implementing its stormwater management program.

Environmental Justice Areas

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The USEPA has this goal for all communities and persons across the nation. It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards, and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

The USEPA identifies potential environmental justice communities based on the percentage of low-income and/or minority populations in the Village compared to the statewide average. Areas that have greater than twice the statewide average may be considered a potential environmental justice community. If the low-income and/or minority population percentage is equal to or less than the statewide average, the community should not be considered a potential environmental justice community. The following web application was used to determine if the Village qualifies as an environmental justice community https://ejscreen.epa.gov/mapper/index.html. Three indicators were reviewed as follows:

- **Demographic Index:** An index based on the average of two demographic indicators; percent low-income and percent minority.
- **Percent Minority:** The percent of individuals in a block group who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino.
- **Percent Low-Income**: The percent of a block group's population in households where the household income is less than or equal to twice the federal "poverty level."

Using the USEPA environmental justice website noted above, the Village determined that there are currently no areas within the Village that qualify as environmental justice areas.

Demographic Indicators	Village Statistic	State Average	Twice the Statewide Average	> Twice the State Average?
Demographic Index	10%	34%	68%	No
People of Color	11%	39%	78%	No
Low Income Population	8%	29%	58%	No

Measurable Goal(s):

- Complete the environmental justice screening annually. If any environmental justice areas are identified within the Village, ensure BMP efforts are targeted at these areas.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Complaints, Suggestions, and Requests

The Village encourages the submission of complaints, suggestions, and requests related to its Storm Water management program. Calls are screened, logged, and routed to the appropriate individual for action. General program related calls are directed to the Director of Public Works and Engineering, or designee. Construction activity related telephone calls are directed to the Village Engineer.

The Village website contains a link to report a concern. Concerns can be tracked using the Citizen Request Tracker.

Measurable Goal(s):

- Encourage the submission of complaints, suggestions, and requests related to the SWMP by publicizing contact information on educational materials and the Village website.
- Provide methods for residents, businesses, and visitors to communicate their concerns.
- Respond to concerns in a timely fashion.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Watershed Planning and Stakeholders Meetings

The Village of Deerfield participates (and encourages the participation of local stakeholders) in local program events and other sponsored watershed planning events. The Village attends these events and will adopt watershed plans per the direction and in coordination with the IEPA.

Measurable Goal(s):

- Participate in a local watershed group that addresses issues associated with the use of chlorides (i.e. road salt).

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

C. Illicit Discharge Detection and Elimination

Storm Sewer System Map

As required by the NPDES ILR40 permit, the Village developed a map of the municipal storm sewer system identifying the location of all outfalls, and the names and location of all waters of the United States that receive discharges from those outfalls. The storm sewer system map is meant to demonstrate a basic awareness of the intake and discharge areas of the system. It is needed to help determine the extent of discharged dry weather flows, the possible sources of the dry weather flows, and the particular water bodies these flows may be affecting. The final product is in a Geographic Information System (GIS) database. The outfall map is revised continuously throughout the year to incorporate permitted outfalls associated with new developments.

Measurable Goal(s):

- Maintain the Village's storm sewer system map, updating annually.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Regulatory Authority

The NPDES ILR40 permit requires the Village to institute an ordinance that prohibits non-Storm Water discharges into their MS4 to the extent allowable under current State, Tribal, and local law. Effective implementation of an Illicit Discharge Detection and Elimination (IDDE) program requires adequate legal authority to remove illicit discharges and prohibit future illicit discharges. This regulatory authority is achieved through the Village's Municipal Code. Additionally, the IEPA has the regulatory authority to control pollutant discharges and can take the necessary steps to correct or remove an inappropriate discharge over and above the Village's jurisdiction.

Measurable Goal(s):

- Enforce the Village's Municipal Code

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Lake County Watershed Development Ordinance

Several provisions of the Lake County WDO prohibit illicit discharges as part of the development process. Regulated developments are also required to meet the soil erosion and sediment control (SESC) standards of the WDO. The Village has adopted the Lake County WDO and is currently a Certified Community for the review, permitting, inspection, and enforcement of the provisions of the WDO.

Measurable Goal(s):

- Adhere to the requirements of the WDO.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.
- The Village continues to enforce the WDO in ensuring that all applicable developments are regulated pursuant to the WDO.

Visual Dry Weather Inspection Program

Inspecting storm water outfalls during dry-weather conditions reveals whether non-storm water flows exist. If non-storm water flows are observed, they can be screened and tested to determine whether pollutants are present. Dry weather discharges are typically composed of sewage from leaking pipes or septic systems; wash water from various residential, commercial, and industrial activities and operations; liquid wastes such as oil, paint, and process water; tap water from leaks in the water supply system; landscape irrigation; and groundwater. Water quality testing is used to conclusively identify flow types found during dry weather inspections. Testing can distinguish illicit flow types (e.g., sewage, liquid wastes, commercial/industrial wash water) from cleaner discharges (e.g., tap water, landscape irrigation, and groundwater).

Measurable Goal(s):

- Conduct outfall inspections annually during periods of dry weather.
- Follow up on any observations of dry weather flow.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Public Notification

The Village provides educational material regarding illegal dumping of trash and used materials. Residents are encouraged to report illegal dumpers by calling the Public Works Department. The Village publicizes the Public Works Department phone number for the public to report illicit discharges and illegal dumping on outreach material and on the Village website.

Some clues that can help citizens identify illegal dumpers include:

- Illegal dumping often occurs late at night and before dawn.
- There is often no company name on the construction vehicles or equipment.
- The construction activity occurs on a site with no company advertising sign.
- There is no construction entrance adjacent to the roadway (an area of large stone and gravel placed to keep mud off streets).

Measurable Goal(s):

- Publicize the Public Works Department phone number on outreach material and on the Village website.
- Provide educational material on illicit discharges and illegal dumping on the Village website.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

D. Construction Site Runoff Control

By many accounts, the most environmentally dangerous period of development is the initial construction phase, when land is cleared of vegetation and graded to create a proper surface for construction. The removal of natural vegetation and topsoil makes the exposed area particularly susceptible to erosion.

Regulatory Authority

The Village has adopted the Lake County WDO and is currently a Certified Community for the review, permitting, inspection, and enforcement of the provisions of the WDO in both counties. The Village's Village Code meets the minimum requirements of the WDO and any project within the corporate limits must meet these requirements. The purpose of these regulations is to establish reasonable rules and regulations for development to ensure that new development does not increase existing storm water problems or create new ones.

Applicants submit the completed application forms and supporting documentation to the Village for review and comment. After all applicable provisions of the Village Code have been addressed, a permit is issued. Each permit lists any additional conditions that are applicable to the development.

The Village Code is the regulatory mechanism that requires the use of SESCs on development sites. At a minimum, these standards apply to any development project that hydrologically disturbs 5,000 square feet of land or more. In addition, applicants that hydrologically disturb greater than 1-acre are required to seek coverage under the NPDES Construction Site General Permit ILR10 by filing a NOI with the IEPA. A copy of the NOI must be submitted to the Village prior to commencement of any site work, including demolition. During construction, applicants are required to submit to the IEPA Incidence of Noncompliance (ION) forms, as necessary. After the site is substantially stabilized, the applicant is required to submit a Notice of Termination (NOT) to the IEPA.

Site Plan Review

All permits start at the Building Department, who routes the plans to various departments. The Village reviews plans in accordance with the Village's Village Code. Elements reviewers look for in an effective site construction SESC plan include:

- Minimize needless clearing and grading.
- Protect waterways and stabilize drainage ways.
- Phase construction to limit soil exposure.
- Stabilize exposed soils immediately.
- Protect steep slopes and cuts.
- Install perimeter controls to filter sediments.
- Employ advanced sediment settling controls.

Measurable Goal(s):
- Review site plans and issue permits in accordance with the Village Code.
- Ensure construction sites needing coverage under the NPDES Construction Site Storm Water ILR10 permit obtain coverage prior to issuance of a Watershed Development Permit.

Year 21 MS4 activities:
- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.
- The Village continues to enforce the WDO in ensuring that all applicable developments are regulated pursuant to the WDO.

Construction Site Inspections

Village representatives are authorized to enter and inspect facilities subject to regulation as often as may be necessary to determine compliance with the Municipal Code. All Storm Water BMPs are inspected for effectiveness and structural integrity on a regular basis for the life of the construction project. Inspection and maintenance of BMPs continue until all construction activities have ended and all areas of a site have been permanently stabilized. During each inspection, the Village Inspector documents whether the BMP is performing correctly, any damage to the BMP since the last inspection, and recommendations for repairing the BMP if damage has occurred. The Village currently appoints an Engineering Inspector from the Department of Public Works and Engineering to inspect soil erosion and sediment control on construction sites on a weekly basis or more if needed. The soil erosion and sediment control inspections are coordinated to coincide with the pre-construction meeting with the contractor.

The Director of Public Works and Engineering, or designee, notifies the permittee when the site fails to comply with the site development plan. Where it is found by inspection that conditions are not substantially as stated or shown in the approved plan, the Village may stop further work until approval is obtained for a revised site plan conforming to the existing conditions. Plans for all work contemplated by the site plan, bearing the stamp of approval of the Village, are required to be maintained at the site during progress of the work. Until the final inspection is made, a sign issued by the Village indicating permission to work has been granted by the Village is required to be prominently displayed at the site, to be visible from the street. The frequency of inspections varies depending on the scope and intensity of the development.

Measurable Goal(s):
- Document and track site inspections on development sites. Keep files for 5 years.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.
- The Village continues to enforce the WDO in ensuring that all applicable developments are regulated pursuant to the WDO.

E. Post-Construction Runoff Control

The management of storm water runoff from sites after the construction phase is vital to controlling the impacts of development on urban water quality. The increase in impervious surfaces such as rooftops, roads, parking lots, and sidewalks due to land development can have a detrimental effect on aquatic systems. Runoff from impervious areas can also contain a variety of pollutants that are detrimental to water quality, including sediment, nutrients, road salts, heavy metals, pathogenic bacteria, and petroleum hydrocarbons.

Regulatory Program

The Village Code establishes the minimum storm water management requirements for development, including requirements for post-construction runoff control. The Village Code requires all applicants to adopt storm water management strategies for controlling post-construction storm water runoff on development sites. All development must adopt storm water management strategies that minimize increases in storm water runoff rates, volumes, and pollutant loads from development sites. Proposed storm water management strategies must address the runoff volume reduction requirements and include appropriate storm water BMPs to address the other applicable post-construction runoff control requirements of the Village Code. Applicants are also required to adopt strategies that incorporate storm water infiltration, reuse, and evapotranspiration of storm water into the project to the maximum extent practicable. Types of techniques include green roofs, rain gardens, rain barrels, bio-swales, permeable piping, dry wells, and permeable pavement.

The Village Code requires that maintenance plans be developed for all storm water management systems designed to serve major developments. Such maintenance plans must include the following:

Description of all maintenance tasks.

- Identification of the party or parties responsible for performing such maintenance tasks.
- Description of all permanent maintenance easements or access agreements, overland flow paths, and compensatory storage areas.
- Description of dedicated sources of funding for the required maintenance.

The Village Code also requires that all storm water management systems be located within a deed or plat restriction to ensure that the system remains in place in perpetuity and that access to the system is maintained in perpetuity for inspection and maintenance purposes.

Measurable Goal(s):

- Document BMPs approved on development sites.
- Ensure maintenance plans are prepared for all storm water management systems as required by the Village Code.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.
- The Village continues to enforce the WDO in ensuring that all applicable developments are regulated pursuant to the WDO.

Post Construction Inspections

Regular inspection is essential to maintain the effectiveness of post-construction storm water management facilities. Inspection and maintenance of facilities can be categorized into two groups: (1) expected routine maintenance, and (2) non-routine maintenance (i.e., repairs). Routine maintenance refers to checks performed on a regular basis to keep the facility in good working order and aesthetically pleasing. In addition, routine inspection and maintenance is an efficient way to reduce the chance of polluting storm water runoff by finding and correcting problems before the next rain. The failure of structural storm water facilities can lead to downstream flooding, causing property damage, injury, and even death.

The Village attempts to inspect approximately 20% of all public and private storm water management facilities a year; resulting in a 5-year inspection interval. Observed erosion, seeding/reseeding needs, and slope stabilization needs are documented. During the inspections, staff identify facilities that would most benefit from a retrofit or other enhancements. SMC's Streambank/Shoreline Stabilization Manual is used as a starting point in choosing the appropriate BMP for remediation activities. Impacts and effects due to climate change are taken into considered when making recommendations. A master list of storm water management facilities is maintained and updated on a regular basis.

Measurable Goal(s):

- Maintain an inventory of all public and private storm water management facilities.
- Inspect 20% of all public and private storm water management facilities on an annual basis. Recommend remedial actions as appropriate.
- Evaluate the feasibility of retrofits and enhancements to storm water management facilities.
- Implement BMPs and track progress of BMP implementation, as described in the SMPP.
- Enforce WDO in ensuring that all applicable developments regulated pursuant to the WDO.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.
- The Village continues to enforce the WDO in ensuring that all applicable developments are regulated pursuant to the WDO.
- The MS4 continues to implement the BMPs described in its SMPP and to track progress in implementing its stormwater management program.
- The MS4 continues to enforce the WDO in ensuring that all applicable developments are regulated pursuant to the WDO.

F. Pollution Prevention/Good Housekeeping

The Village is responsible for the care and upkeep of Village-owned property, municipal roads, and maintenance yards. Many maintenance activities are performed by Village staff; however, contractors are employed to perform specific activities. The Village requires documentation that

appropriate training has been completed annually, for all contractors retained to manage or carry out routine maintenance, repair, or replacement of public surfaces in current green infrastructure or low impact design techniques applicable to such projects. Contractors are responsible for providing training to their employees for projects which include green infrastructure or low impact design techniques and providing proof of such training to the Village.

The Village maintains compliance with permit requirements by incorporating pollution prevention and good housekeeping storm water quality management into day-to-day operations. On-going education and training is provided to staff to ensure they have the knowledge and skills necessary to perform their functions effectively and efficiently. The Village of Deerfield implements the following programs to fulfill the requirements of this minimum control measure.

Catch Basin/Inlet Cleaning

Catch basins are chambers or sumps that allow surface water runoff to enter the storm water conveyance system. Many catch basins are below the invert of the outlet pipe and are intended to retain coarse sediment. By trapping sediment, the catch basin prevents solids from clogging the storm sewer and being washed into receiving waters. Catch basins are cleaned periodically to maintain their ability to trap sediment and consequently, their ability to prevent flooding. The removal of sediment, decaying debris, and highly polluted water from catch basins has aesthetic and water quality benefits, including reducing foul odors, reducing suspended solids, and reducing the load of oxygen-demanding substances that reach receiving waters. Generally, catch basins are cleaned if the depth of deposits is greater than or equal to one-third to depth from the basin to the invert of the lowest pipe or opening into or out of the basin. Catch basins are cleaned either manually or by specially designed equipment. Before any materials can be disposed, it may be necessary to perform a detailed analysis to characterize the waste. However, material removed from catch basins is typically stored at the Village's maintenance yard and disposed in a conventional landfill. The Department of Public Works is currently responsible for administering the Villages Catch Basin/Inlet Cleaning BMP.

The Village cleans catch basins and inlets on an as needed basis (i.e. complaints, standing water, etc.). Catch basins found to have structural deficiencies are reported to the Director of Public Works and Engineering. Necessary remedial actions are completed by a contractor or incorporated into a capital project.

Measurable Goal(s):

- Clean catch basins and inlets on an as needed basis.
- Report catch basins found to have structural deficiencies.
- Complete necessary repairs.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Public Works Washing Station Facility

Vehicle and equipment wash waters have the potential to result in high loads of nutrients, metals, and hydrocarbons in receiving waters. The Village currently utilizes a triple catch basin connected to the sanitary sewer for washing vehicles and equipment at the Public Works Facility. The Department of Public Works maintains the triple catch basin.

Measurable Goal(s):

- Ensure Village vehicles are washed in the proper location.
- Complete routine maintenance of the triple catch basin.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Material Storage

Uncovered materials such as salt, wood, sand, stone, gravel, etc. have the potential to contaminate storm water when exposed to rain and/or runoff. Tarp, plastic sheeting, roofs, buildings, and other enclosures are examples of temporary or permanent coverings that are effective in preventing storm water contamination. Covering is necessary for loading/unloading areas; raw material, byproduct, and final product outdoor storage areas; fueling and vehicle maintenance areas; and other high-risk areas. The Department of Public Works maintains its salt done, covered fuel island, and material storage areas.

Measurable Goal(s):

- Maintain salt storage, covered fuel island, and material storage areas.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Street Sweeping

The Village employs street sweeping on a regular basis to minimize pollutant export to receiving waters. These cleaning practices are designed to remove from road and parking lot surfaces sediment, debris and other pollutants that are potential source of pollution impacting urban waterways. Recent improvements in street sweeper technology have enhanced the ability of present day machines to pick up the fine-grained sediment particles that carry a substantial portion of the storm water pollutant load. Street sweeping is used during the spring snowmelt to reduce pollutant loads from road salt and to reduce sand export to receiving waters. The Department of Public Works is responsible for the street sweeping program for the Village.

Measurable Goal(s):

- Maintain current street sweeping practices.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Landscape Maintenance

The Department of Public Works is responsible for maintenance of landscaping at municipal facilities, along municipal roads, and in maintenance yards. The Department of Public Works is

also responsible for the Village's program for application of pesticides and herbicides. The use of pesticides and fertilizers are managed in a way that minimizes the volume of storm water runoff and pollutants.

Measurable Goal(s):

- Manage the use of pesticides and fertilizers in a way that minimizes the volume of storm water runoff and pollutants.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Snow Removal and Ice Control

The Village of Deerfield's Department of Public Works handles snow and ice removal on Village Roadways. During snow removal and ice control activities, salt, de-icing chemicals, abrasives, and snow melt may pollute storm water runoff. To address these potential pollutants, the following procedures for the "winter season" are implemented.

Roadway Ice Control: Use the minimal amount of salt, de-icing chemicals, and additives necessary for effective control. Prior to November 1, preparation work to obtain seasonal readiness is completed. These tasks include installing, inspecting, re-conditioning, testing, and calibrating of spreaders and spinners per the National Salt Institution Application Guidelines. Driver training is also conducted annually for all drivers. The completion of these preparatory tasks helps to ensure that only the necessary level of salt is applied.

Snow Plowing: Snow plowing activities direct snow off the pavement and onto the parkways. This reduces the amount of salt, chemical additives, abrasives, or other pollutants that go directly into the storm sewer system.

Participation in Watershed Group**:** Village staff participate in a watershed group(s) organized to implement control measures which will reduce the chloride concentration in receiving streams in the watershed.

Salt Delivery and Storage**:** Steps are taken to ensure that the delivery, storage, and distribution of salt does not pollute storm water runoff. The floor of the enclosed salt storage building, and adjacent receiving/unloading area is constructed of impervious material. The limits of the salt piles are pushed back away from the door opening to minimize potential illicit runoff.

Measurable Goal(s):

- Continue to implement the pre-season procedures related to roadway ice control, snow plowing, participation in watershed groups, driver training, and management of salt delivery and storage.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Vehicle and Equipment Maintenance

Vehicle and equipment fueling procedures and practices are designed to minimize or eliminate the discharge of pollutants to the storm water management system, including receiving waters. The following standard procedures are implemented.

Vehicle Fueling: The vehicle fueling area contains two (2) single nozzle pumps with two (2) belowground tanks. One (1) 10,000-gallon single wall gasoline tank and one (1) 6,000-gallon double wall ultra-low sulfur diesel tank. The diesel tank has an interstitial monitoring alarm system.

Waste Oil**:** Used motor oil, transmission fluids, gear lubes, brake fluids and other vehicle fluids (except antifreeze) are collected and stored in approved containers. The waste oil tank is emptied by a private company and removed for recycling.

Antifreeze**:** Used antifreeze is stored in a 55-gallon tank. It is emptied by a private company and removed for recycling.

Batteries**:** Used batteries are stored in the vehicle maintenance area and are and removed for recycling weekly by a private battery supplier.

Tires**:** Used tires are picked up and recycled by a local vendor as accumulated. Tires are stored outside at the Village's garage until picked up for disposal.

Other: Private certified companies perform all air-conditioning related work; therefore, the disposal of Freon is not handled directly by the Village. Cleaning fluids and solvents are contained within an enclosed tank and maintained by a private licensed special waste company.

Measurable Goal(s):

- Continue to implement the procedures for vehicle and equipment maintenance.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Waste Management

Waste Management consists of implementing procedural and structural practices for handling, storing, and disposing of wastes generated by Village maintenance activity. This helps prevent the release of waste materials into receiving waters. Waste management practices include removal of materials such as asphalt and concrete maintenance by-products, excess earth excavation, contaminated soil, hazardous wastes, sanitary waste, and material from within triple basins. The following standard procedures are implemented.

Spoil Stock Pile**:** Asphalt and concrete maintenance by-products and excess earth excavation materials are temporarily stored in the stock pile in the maintenance yard. Attempts are made to recycle asphalt and concrete products prior to storage in the spoil stock pile. Licensed waste haulers are contracted to remove and dispose of the contents at a licensed landfill. Surface runoff from this area is largely contained.

Contaminated Soil Management: Contaminated soil/sediment generated during an emergency response or identified during construction activities is collected and management for treatment or disposal. Attempts are made to avoid stockpiling of the contaminated soil.

Hazardous Waste**:** All hazardous wastes area stored in sealed containers constructed of compatible material and labeled. The containers are located in non-flammable storage cabinets or on a containment pallet. These items include paint, aerosol cans, gasoline, solvents, and other hazardous wastes. Care is taken to avoid overfilling containers. Paint brushes and equipment used for water and oil-based paints are cleaned within the designated cleaning area. The Department of Public Works maintains oversight of hazardous waste generated by the Village. Containerized hazardous waste materials are disposed of or recycled through a contract arrangement with a third party hazardous waste disposal firm.

Measurable Goal(s):

- Properly handle, store, and dispose of wastes generated by Village maintenance activities.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Spill Response Plan

Spill prevention and control procedures are implemented wherever non-hazardous chemicals and/or hazardous substances are stored or used. These procedures and practices are implemented to prevent and control spills in a manner that minimizes or prevents discharge to the storm water drainage system and receiving waters.

The following general guidelines are implemented to prevent spills:

a. Ensure all hazardous substances are properly labeled.

b. Store all hazardous wastes in sealed containers constructed of compatible material and labeled.

c. Locate items, such as paint, aerosol cans, gasoline, solvents and other hazardous wastes, in non-flammable storage cabinets or on a containment pallet.

d. Do not overfill containers.

e. Provide secondary containers when storing hazardous substances in bulk quantities (greater than 55 gallons).

f. Dispense and/or use hazardous substances in a way that prevents release.

Non-Hazardous Spills/Dumping**:** Non-hazardous spills typically consist of an illicit discharge of household material(s) into the street or storm water management system. Upon notification or observance of a non-hazardous illicit discharge, the Public Works Department or Police Department implement the following procedure:

- Sand bag the receiving inlet to prevent additional discharge into the storm sewer system.
- Check structures (immediate and downstream) and if possible, vacuum materials out. Jet structure to dilute and flush the remaining unrecoverable illicit discharge.
- Clean up may consist of applying “Oil Dry” or sand and then sweeping up the remnant material.

- On-site personnel document the location, type of spill, and action taken.
- If a person is observed causing an illicit discharge, the Department Public Works is notified and appropriate citations issued.

Hazardous Spills**:** Upon notification or observance of a hazardous illicit discharge, the Public Works Department or Police Department implement the following procedure:

- Call 911, explain the incident. The Fire Department responds.
- Village Police provide emergency traffic control, as necessary.
- The Fire Department evaluates the situation and applies "No Flash" or "Oil Dry" as necessary.
- The Fire Department's existing emergency response procedure for hazardous spill containment clean-up activities is followed.
- On-site personnel document the location, type of spill, and action taken.

Measurable Goal(s):

- Implement the Spill Response Plan outlined above.

Year 21 MS4 activities:

- The Village continues to implement the BMPs described in its SWMP and to track progress in implementing its stormwater management program.

Stormwater Management Program Assessment, Year 21

The MS4 revised their SMPP to coincide with the March 2016 ILR40 permit. As described in the revised SMPP there are extensive monitoring efforts already underway across the County, refer to Part C of this report for additional information. The QLP section of the report describes the Status of Lake County waters using information gathered by active workgroups and the Lake County Health Department along with a discussion on TMDL status within the County. The Status of Lake County Waters provides insight as to the overall effectiveness of countywide efforts to improve water quality. As an active MS4 within the County, the countywide findings reflect the individual efforts of each MS4. Additionally, the SMPP identified impaired waters based on the July 2018 303(d) list. The inclusion or exclusion of water bodies on the IEPAs 303(d) list, published bi-annually, is a direct reflection of the program's effectiveness.

Year 21
March 2023 - February 2024

VILLAGE OF DEERFIELD

MS4 STORMWATER DOCUMENTATION LOG

Village of Deerfield

Public Education and Outreach

Description	Date	Distribution	Target Audience
Links to all Village Board Meetings (Live or On Demand)	ongoing	website	Residents
Resident-Oriented educational materials: - Can Cars Cause Water Pollution - Climate Change What You Can do at Home - Climate Change What You Can Do in the Office - Climate Change What You Can Do on the Road - Do You Know Where The Water in Your Storm Drain Goes - Dog Waste Fact Sheet - EPA Greenscaping - EPA Tips for Pollution Prevention - Four Seasons of Water Quality Protection - Home Hot Spots For Water Quality - How do Trees Benefit Our Environment - IDDE Citizens Guide to Monitoring Storm Water - Rain Garden Brochure The Conservation Foundation - Ran Garden Manual for Homeowners - Shoreline Landscaping - USEPA The Economic Benefits of Green Infrastructure	ongoing	website	Residents
Construction-Oriented educational materials: - Construction Site Control Fact Sheet - Post Construction Fact Sheet - Storm Water Pollution Prevention Small Construction sites - Stormwater and the Construction Industry	ongoing	website	Contractors/ Maintenance Managers/ Developers
Leaf collection program. Guidelines and schedule advertised on Village website	ongoing	website	Residents
Yard waste collection information and schedule advertised on Village website.	ongoing	website	Residents
Refuse and recycling information provided on Village website.	ongoing	website	Residents
Link to SWALCO provided on Village website.	ongoing	website	Residents
Green Up Deerfield Section on Website: Encourages sustainable living, promotes go-green garden and go-green house tips, contains recycling and landfill information, information on sustainable development, information on the residential water conservation program	ongoing	website	Residents
Energy Conservation Resources provided on the Village website. Includes information on Home Energy Assessments, Energy Impact Illinois, Smart Thermostat Initiative, Smarter House Guide, ComEd Home Energy Rebates, Home Energy Saving Tops and Water Conservation	ongoing	website	Residents
Daily collections at the Village Hall and Police Department where residents can drop CFL bulbs and batteries.	ongoing	website	Residents
Village participates in the Save s Star Program where residents can drop off prescription medications and over-the-counter drugs in a box in the Police Department.	ongoing	website	Residents
Recycling opportunities for household electronics and household chemical waste locations are provided.	ongoing	website	Residents
The Village's Residential Water Conservation Program is advertised.	ongoing	website	Residents
Municipal Separate Storm Sewer System (MS4) web page including links to USEPA, IEPA, contact information, ILR40 Permit, Village's Notice of Intent, and Annual Reports for 2012-2020. The web page also has three sets of educational materials geared towards residents, businesses, and construction sites.	ongoing	website	Residents

Public Education and Outreach

Description	Date	Distribution	Target Audience
Village Newsletters			
D-Tales March/April 2023 (Village Newsletter): - Protecting Water Quality - Green Up Deerfield - Arbor Day -Public Works Open House - Landscape Waste Pickup kickoff in April - Buckthorne information and incentive program - Deerfield Flood Information - Substantial Improvement/Damage	March/April 2023	D-Tales Village Newsletter	Residents
D-Tales May/June 2023 (Village Newsletter): - Lawn Sprinkling and Irrigation Regulations - Coal Tar Pavement Sealants Prohibited in Deerfield- Water Meter Head Replacement Program - Deerfield Flood Information and Recommendations - Yard Waste Reminders - Buckthorne Removal - Public Works Open House	May/June 2023	D-Tales Village Newsletter	Residents
D-Tales July/August 2023 (Village Newsletter): - 2021 Street Rehabilitation Project Update - Flood Information: Natural and Beneficial Functions, Drainage System Maintenance, Flood Warning System - Introduction to Water Quality Report - Village Board Action - Community Calendar - Reduce Mosquitos - "Green Up" Your Parkways with the 50/50 Tree Program - Township Transportation Program - Lawn Irrigation RPZ Regulations - Yard Waste Reminder - "Green Up" Deerfield - Put Waste in its Place with Updated Game -	July/August 2023	D-Tales Village Newsletter	Residents
D-Tales September/October 2023 (Village Newsletter): - Fall Leaf Collection Program - Flood Information - Sustainability Comission Tree Walk - Stormwater Master Plan Update	September/October 2023	D-Tales Village Newsletter	Residents
D-Tales November/December 2023 (Village Newsletter): - Committee to Reduce Greenhouse Gases- Sidewalk Snow Clearing Program - Holiday Refuse Collection Schedule- Snow Plowing Operations	Novemebr/December 2023	D-Tales Village Newsletter	Residents
D-Tales January/February 2024 (Village Newsletter): - Adopt-a-Hydrant - TeenConnect Program - Snow Plowing Operations - Winter Tree Trimming - Village Board Action - Calendar - Lakeshore Recycling Reminders - Christmas Tree Collection	January/ February 2024	D-Tales Village Newsletter	Residents
D-Tales March/April 2024 (Village Newsletter): - Lakeshore Recycling to Take Over Waste Hauling - Service Days - Waste Collection - "White" Good Removal - Recycling Collection - Yard Waste Collection - Compost and Recycling Guidelines - Protecting Water Quality - Tree City USA - Downtown Flower Planter Program - Help Conserve the Monarch Butterfly - Deerfield Flood Information	March/April 2024	D-Tales Village Newsletter	Residents

Public Participation & Involvement

Description	Date
The Village has a Sustainability Commission comprised on 10 Deerfield resident volunteers nominated by the Mayor and appointed by the Board of Trustees. Commission works with Village staff, acts as a resource for the Village on environmental issues.	ongoing
The Village of Deerfield initiated a new workgroup called the North Branch Chicago River Watershed Workgroup. The North Branch Watershed Workgroup (NBWW) is a voluntary, dues-paying organization with a mission to bring together a diverse coalition of stakeholders to work to improve water quality in the North Branch of the Chicago River watershed, in a cost-effective manner to meet Illinois Environmental Protection Agency National Pollutant Discharge Elimination System (NPDES) permit requirements. The NBWW is committed to an approach for attaining water quality standards that focuses on stakeholder involvement, monitoring, and locally led decision-making based on sound science. Membership consists of municipalities and agencies with separate storm sewer systems (MS4s), Publically Owned Treatment Works (POTW), and other interested parties. Dues include a fixed component, plus a variable amount that is based on the Design Average Flow for POTWs, and drainage area within the watershed for MS4s. Dues are weighted so that POTWs will be responsible for one third of the annual NBWW budget and MS4s/and other NPDES permit entities will beresponsible for two thirds of the annual budget. Brandon Janes is the President of the NBWW and attends all Executive Board, General Membership and Monitoring Committee meetings. Meetings are scheduled monthly. https://www.nbwwil.org/	ongoing
Website feature - Community Voice where residents can provide input on, and create new Village initiatives.	ongoing
Link to SWALCO provided on Village website.	ongoing
In celebration of Arbor Day the Village's Sustainability Commission partnered with the Deerfield High School Earth Works Club to plant a tree on Arbor Day. The Village encourages all residents to plant a tree on Arbor Day and to support efforts to protect trees and woodlands.	04/28/2023
Line items in Village Budget for MS4 Program.	ongoing
The Village Implemented and funded a program for rebates to remove residential sump pump connections to the Village's waste water transmission facilities. The program was aimed at reducing sanitary overflows and backups.	ongoiong
Various waste collection programs information on the Village website.	ongoiong

Illicit Discharge Detection and Elimination

The Village's outfalls are inspected annual to find potential illicit discharges and connections. Outfalls are visually inspected during dry conditions (i.e. no precipitation within the preceding 72 hours), photographed and data reported on an outfall inspection form. A full report including location maps, inspection forms, site photographs, and summary tables was prepared. A total of 65 outfalls and 15 detention basins were inspected in February of 2024. No potential illicit discharges were identified at any of these locations.

Construction Site Runoff Control

Description	Date	Distribution
Engineering details for construction sites are provided by the Engineering Department. Details in SESC details.	Ongoing	http://www.deerfield.il.us/DocumentCenter/Index/56
Site Grading and Drainage Ordinance	Ongoing	Municipal Code Chapter 6, Article 10, Sec. 6-61, Sec. 6-62, Sec. 6-63, Sec. 6-64 & Sec.16-17
Site Management Ordinance	Ongoing	Municipal Code Chapter 6, Article 11
Tree Preservation Ordinance	Ongoing	Municipal Code Chapter 21 Article 4. Tree Preservation
Site Grading and Drainage Ordinance User Guide	Ongoing	http://www.deerfield.il.us/DocumentCenter/View/287/Drainage-and-Grading-User-Guide-Final-PDF?bidId=

Project	Location	Details
Zion Woods Multi Family Housing		Effective Date: 09/04/2020
Deerbrook Mall Driveway		Effective Date: 10/26/2022

Post Construction Site Runoff Control

ID #	Address	Maintenance Needed
		Observations conducted by Manhard Consulting on February of 2024
AB	Takeda Pkwy.	Very minor erosion of side slopes was observed. Recommend adding stabilization to eroded areas.
C	Takeda Pkwy.	Basin is in acceptable condition, no work needed.
D	550 S. Common Ct	Basin is in acceptable condition, no work needed.
E	442 Kelburn Rd.	Basin was clear of trash. FES observed without grate, replacement is reccomended. No rocks were observed at the exit of the inlets, recommend adding rip rap.
F	478 Taupo Ln.	Basin is in acceptable condition, no work needed.
G	429 Milford Rd.	Basin is in acceptable condition, no work needed. No grates were observed on the outfall.
H	428 Milford Rd.	Basin is in acceptable condition, no work needed.
I	436 Amberley Ln.	Basin is in acceptable condition. FES were observede withpout grates, replacement is reccomedned. Recommend monitoring and cleaning as necessary.
J	570 Lake Cook Rd.	A few areas where the side slopes had fallen into the basin were observed. The inlet on the southwestern side of the basin had sedimentation buildup. It appears that a sinkhole has formed above the inlet on the southeastern side of the basin, possibly caused by a cracked pipe. Most inlets did not have rock present. Recommend to review spillways and potentially add reinforcement (rip rap) to the inlets and clean out the sediment buildup. Also inspect sinkhole above southeastern inlet.
K	662 Lake Cook Rd.	A couple clusters of cattails and phragmites were observed. Minor erosion of the side slopes was also noted. Outfall observed to have grate attached.
L	310 Huehl Rd.	Trash was observed around basin. Excess natural material blocking the outfalls. Basin contains a considerable amount of cattails, however they are accepted. No grates attached to outfalls.
M	Edens Expressway	Minor trash around the basin observed, as well as slight erosion of side slopes. Outfalls require maintence.
N	999 Island Ct.	Minor erosion of side slopes observed. Basin observed in acceptable conditon.
O	700 Lake Cook Rd.	Minor damage observed on various outfalls (chipping/cracking of FES). Minor side slope erosion observed. The Southwest outfall trash rack is clogged with natural vegetation and trash. Only one of the outfalls has a grate installed. Recommend cleaning around and inside the basin.
P	359 S. Waukegan Rd.	Excessive vegetation and trash around basin observed. Maintance is reccomended.

Pollution Prevention / Good Housekeeping

Description	Units	Total	2023										2024	
			Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Number of Inlets/Catch Basins Cleaned	Each	112	14	13	8	28	14	8	20	1	1	2	1	2
Yards of material/debris removed from CBs	Yd	28	3	3	2	7	4	2	5			1		1
CB/ Inlet repaired/replaced (# of structures)	Each	50	7	4	7	20	6	3		1	1	1		
Linear feet of storm line televised	LF	24080	0	1875	300	960	2850	2630	6950	2040	975	2650	1250	1600
Linear feet of storm line cleaned	LF	22670	0	1875	300	960	2750	2570	6300	2040	975	2400	1100	1400
CY of street sweeping material removed	CY	637	70	68	52	50	52	50	67	75	75			78
Street Sweeping (miles of road swept)	Mi	536	67	67	67	67	67	67	67					67
Salt Used (Tons)	Ton	1373									30	336	982	25
Liquid/Tri Mix or Beet Juice Used (Gal)	Gal	16100										8900	7200	
Tire Disposal (Number)	Each	115						55					60	
Vehicle Batteries Recycled (Number)	Each	30	2	2	2	2	2	2	2	2	4	2	4	4
Used Oil Recycled (Gal)	Gal	660	55	55	55	55	55	55	55	55	55	55	55	55
Used Coolant Recycled (Gal)	Gal	18			6			6				6		
Filter Baskets Installed/Maintained	Each	24	2	2	2	2	2	2	2	2	2	2	2	2

Employee Training

Description of Training Event	Location	Date	Village Staff Attendees
DECI 101 Webinar	Webinar	1/18/2024	Tyler Dickinson, John Guccione
2024 DECI Workshop	Webinar	2/13/2024	Tyler Dickinson, John Guccione
Illinois Floodplain and Floodway Permitting	Webinar	4/4/2023	Tyler Dickinson
ISAWWA - IEPA Fall Regulatory Update	Webinar	10/23/2023	Tyler Dickinson, Nick Hamilton, Adam Calistri, Jason Ostman, Keith Freewalt, Matt Wnek, Kyle Teichman
Joint Municipal Advisory Committee & ANHMP Annual Meeting	Webinar	11/23/2023	Ryan Oates
North Branch Chicago River Watershed Workgroup meetings	Deerfield / Lake Forest	3/8/23, 4/12/23, 5/10/23, 6/14/23, 7/12/23, 8/9/23, 9/23/23, 10/11/23, 11/8/23, 1/10/24, 2/14/24	Brandon Janes, Mark Olwszewski

Water Quality Testing

West Fork Upstream Testing Location Results

Parameter	Accepted Limits	Test Results					
		2018	2019	2020	2021	2022	2023
Chloride (mg/L)	500	36.5	62.3	36.3	149.0	239.0	215.0
Phosphorous, Total (mg/L)	0.05	0.087	0.182	0.091	0.043	0.043	0.064
Total Suspended Solids (mg/L)	15.0-30.0	11	97.6	12	6.6	7.2	18
Total Nitrogen (mg/L)	<20.0	<5	<5	1.00	1.00	1.00	1.19
Dissolved Oxygen (mg/L)	March – July at least 5.0 August – February at least 3.5	8.44	6.92	9.39	9.37	11.25	10.29
Total Dissolved Solids (ppm)	1000	409.9	153.8	397.4	592.9	816.5	707.4
Temperature (°F)	December – March 60.0 Max April – February 90.0 Max	62.75	73.77	52.74	38.22	41.15	41.43
Conductivity (µs/cm)	50.00 – 1500.0	64	240	621	926	1275	1105
pH	6.5 – 9.0	7.95	7.70	7.65	8.02	7.51	7.69
Fats, Oils, and Grease	100 mg/L	<5	<5	5	5	5	5
Fecal Coliform	400 colonies/100 ml	2600	22000	2800	330	340	70
Turbidity (NTU)	<50 NTU	68.74	42.40	102.60	80.90	34.71	27.09

Water Quality Testing

West Fork Downstream Testing Location Results

Parameter	Accepted Limits	Test Results					
		2018	2019	2020	2021	2022	2023
Chloride (mg/L)	500	38.0	91.0	98.2	291.0	198.0	241.0
Phosphorous, Total (mg/L)	0.05	0.073	0.064	0.038	0.060	0.296	0.711
Total Suspended Solids (mg/L)	15.0-30.0	12.0	22.0	2.5	6.0	11.0	6
Total Nitrogen (mg/L)	<20.0	<5	<5	1.00	1.15	2.32	6.94
Dissolved Oxygen (mg/L)	March – July at least 5.0 August – February at least 3.5	8.36	7.09	9.58	9.25	11.64	9.95
Total Dissolved Solids (ppm)	1000	513.9	217.4	301.4	898.2	567.9	817.7
Temperature (°F)	December – March 60.0 Max April – February 90.0 Max	64.34	74.1	57.19	46.40	43.45	46.75
Conductivity (µs/cm)	50.00 – 1500.0	803	339	471	1402	887	1278
pH	6.5 – 9.0	7.36	7.56	8.03	7.83	7.48	7.48
Fats, Oils, and Grease	100 mg/L	<5	<5	5	5	5	5
Fecal Coliform	400 colonies/100 ml	1300	3400	900	2400	1000	4200
Turbidity (NTU)	<50 NTU	56.97	27.05	61.20	81.10	81.10	14.40

Water Quality Testing

Middle Fork Upstream Testing Location Results

Parameter	Accepted Limits	Test Results					
		2018	2019	2020	2021	2022	2023
Chloride (mg/L)	500	23.8	68.9	32.3	195.0	180.0	216.0
Phosphorous, Total (mg/L)	0.05	0.1	0.132	0.106	0.049	0.049	0.047
Total Suspended Solids (mg/L)	15.0-30.0	24.5	20.6	8.8	15.0	43.0	6
Total Nitrogen (mg/L)	<20.0	<5	<5	1.00	1.00	1.00	1.19
Dissolved Oxygen (mg/L)	March – July at least 5.0 August – February at least 3.5	8.34	6.22	9.52	9.03	11.30	12.60
Total Dissolved Solids (ppm)	1000	268.6	282.2	406.4	580.9	658.8	739.1
Temperature (°F)	December – March 60.0 Max April – February 90.0 Max	64.26	73.54	54.91	44.77	40.17	38.35
Conductivity (µs/cm)	50.00 – 1500.0	419	441	635	907	1029	1156
pH	6.5 – 9.0	7.82	7.46	7.72	7.86	7.56	8.15
Fats, Oils, and Grease	100 mg/L	<5	<5	5	5	5	5
Fecal Coliform	400 colonies/100 ml	4600	5800	8,000	610	800	140
Turbidity (NTU)	<50 NTU	179.2	108.2	52.8	85.9	53.11	13.68

Water Quality Testing

Middle Fork Downstream Testing Location Results

Parameter	Accepted Limits	Test Results					
		2018	2019	2020	2021	2022	2023
Chloride (mg/L)	500	36.3	28.4	57.3	146.0	140.0	194.0
Phosphorous, Total (mg/L)	0.05	0.104	0.151	0.128	0.043	0.056	0.048
Total Suspended Solids (mg/L)	15.0-30.0	19.0	44.8	16.0	12.0	15.0	7.8
Total Nitrogen (mg/L)	<20.0	<5	<5	1.31	1.1	1.00	1.19
Dissolved Oxygen (mg/L)	March – July at least 5.0 August – February at least 3.5	7.88	5.24	9.47	9.10	11.97	10.95
Total Dissolved Solids (ppm)	1000	297	283.8	285.4	591.5	539.8	680.4
Temperature (°F)	December – March 60.0 Max April – February 90.0 Max	62.32	74.02	57.15	39.74	40.99	40.14
Conductivity (µs/cm)	50.00 – 1500.0	464	443	446	924	843	1063
pH	6.5 – 9.0	7.82	7.52	7.96	7.78	7.68	7.93
Fats, Oils, and Grease	100 mg/L	<5	<5	5	5	5	5
Fecal Coliform	400 colonies/100 ml	4600	18000	4800	1800	630	290
Turbidity (NTU)	<50 NTU	97.86	85.12	88.30	86.90	50.62	14.33

Part C. MS4 Information and Data Collection Results, Year 21

The IEPA's General NPDES Permit No. ILR40 includes a monitoring requirement in order to gauge the effect of stormwater discharges on the physical/habitat-related aspects of the receiving waters, and/or monitoring the effectiveness of BMPs. The Permit described various potential methods to meet this requirement. This section of the Annual Report should summarize any monitoring or sampling data that was collected during the reporting period to comply with this monitoring requirement.

Annual Monitoring and Data Collection, Year 21

Information and data that the MS4 collected to meet the monitoring requirement of the version of IEPA's General NPDES Permit No. ILR40 that applied to the reporting period are summarized below.

The MS4 revised their SMPP to coincide with the March 2016 ILR40 permit. As described in the revised SMPP there are extensive monitoring efforts already underway across the County. The MS4 is located in and participates in the North Branch Chicago River Watershed Workgroup (NBWW) and supports Lake County Health Department (LCHD) efforts. The QLP section of the report describes the status of Lake County waters using information gathered by these workgroups, the LCHD and IEPA.

In compliance with the deicing activities permitting requirement in the General NPDES Permit No. ILR40, Part III, Item D, this MS4 satisfies the permit requirement of participating in the watershed group(s) by maintaining membership in the following workgroup(s):

- The North Branch Watershed Workgroup (NBWW)

The following is a brief summary of the efforts described in more detail in the SMPP.

- The North Branch Watershed Workgroup (NBWW) monitors water quality in the North Branch Chicago River and tributaries to accurately identify the quality of the river ecosystems as well as stressors associated with non-attainment of water quality standards and designated uses. Monitoring data will allow for a greater understanding of the water quality impairments, identify priority restoration activities, and track water quality improvements. The Workgroup is committed to an approach for attaining water quality standards that focuses on stakeholder involvement, monitoring, and locally led decision-making based on sound science. Comprehensive baseline monitoring has been completed at all 25 sites for water column chemistry. Analysis and reporting of 2020-2021 fish, habitat, macroinvertebrate, and sediment chemistry was completed March 2023. The NBWW will continue to support the North Branch Watershed Planning Committee and the North Branch Watershed Consortium through regular discussion at general meetings. An annual water chemistry monitoring report was submitted to Illinois EPA on behalf of NBWW members on January 23, 2024, which covers the NPDES II monitoring requirements for MS4 communities that are NBWW members. The NBWW continues to progress on developing a NBWW Nutrient Assessment Reduction Plan (NARP) based on the NBWW NARP Workplan submitted to the Illinois EPA on December 31, 2021. NBWW deployed continuous monitoring data sondes to measure dissolved oxygen (D.O), pH, temperature, and specific conductance at 3 sites upstream, within and downstream of the Skokie Lagoons. Progress made on the NBWW NARP is summarized in the annual water chemistry monitoring report submitted to the Illinois EPA. The NBWW has continued to coordinate with the Illinois EPA on the progress of the NBWW NARP Workplan and NARP development. Current NBWW member list is located at (URL: www.nbwwil.org).
- The LCHD Ecological Services Department has been collecting water quality data on Lake County lakes since the late 1960s. Since 2000, 176 different lakes have been studied and data collected on temperature, dissolved oxygen, phosphorus, nitrogen, solids, pH, alkalinity,

chloride, conductivity, water clarity, the plant community and shoreline characteristics. Lake summary reports can be found (URL: https://www.lakecountyil.gov/2400/Lake-Reports).

- A portion of the community is located outside of these monitoring efforts. A total of four locations were selected to perform supplemental water quality monitoring. The data collected from these water quality sampling locations will be compared with subsequent years sampling to assist in determining if the BMPs and stormwater management program are appropriate.

Part D. MS4 Summary of Year 22 Stormwater Activities

The table below indicates the stormwater management activities that the MS4 plans to undertake during Year 22. Additional information about the stormwater management activities that the MS4 will perform is provided in the section following the table.

Note: "X" indicates BMPs that will be implemented during Year 22
✓ indicates BMPs that were changed during Year 22

Year 22 MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
	A.3 Public Service Announcement
X	A.4 Community Event
	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
X	B.4 Public Hearing
	B.5 Volunteer Monitoring
	B.6 Program Coordination
X	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
X	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
X	C.3 Detection/Elimination Prioritization Plan
X	C.4 Illicit Discharge Tracing Procedures
X	C.5 Illicit Source Removal Procedures
X	C.6 Program Evaluation and Assessment
X	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
X	C.9 Public Notification
	C.10 Other Illicit Discharge Controls

Year 22 MS4	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
X	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
X	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
X	F.1 Employee Training Program
X	F.2 Inspection and Maintenance Program
X	F.3 Municipal Operations Storm Water Control
X	F.4 Municipal Operations Waste Disposal
X	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

Stormwater Management Activities, Year 22

A. Public Education and Outreach

The Village of Deerfield utilizes a variety of methods to educate and provide outreach to the public about the impacts of storm water discharges on waterbodies and the steps that the public can take to reduce pollutants in storm water runoff. Outreach publications includes Village contact information to encourage residences to report environmental concerns. The Village plans to continue to implement the following BMPs as outlined in the Village's SWMP:

- Distribution of Educational Materials
- Household Hazardous Waste Program
- Residential Recycling & Refuse Program

Measurable Goal(s):

- Implement BMPs and track progress of BMP implementation, as described in the SMPP.

B. Public Participation/Involvement

The Village of Deerfield is committing to implementing the Public Participation/Involvement component of its SWMP. The Public Participation and Involvement Program allows input from citizens regarding implementation of the SWMP. The Village plans to continue to implement the following BMPs as outlined in the Village's SWMP:

- Public Review
- Environmental Justice Area Review
- Complaints, Suggestions, and Requests
- Watershed Planning and Stakeholders Meetings

Measurable Goal(s):

- Implement BMPs and track progress of BMP implementation, as described in the SMPP.

C. Illicit Discharge Detection and Elimination

The Village of Deerfield is committed to perform activities related to the illicit discharge component of its SWMP. The Village plans to continue to implement the following BMPs as outlined in the Village's SWMP:

- Storm Sewer System Map
- Enforcement of the Lake County Watershed Development Ordinance
- Visual Dry Weather Inspection Program
- Public Notification

Measurable Goal(s):

- Implement BMPs and track progress of BMP implementation, as described in the SMPP.

D. Construction Site Runoff Control

The Village has adopted the Lake County WDO and is currently a Certified Community for the review, permitting, inspection, and enforcement of the provisions of the WDO in both counties. The Village's Village Code meets the minimum requirements of the WDO and any project within the corporate limits must meet these requirements. The purpose of these regulations is to establish reasonable rules and regulations for development to ensure that new development does not increase existing storm water problems or create new ones. The Village plans to continue to implement the following BMPs as outlined in the Village's SWMP:

- Site Plan Review
- Construction Site Inspections & Enforcement

Measurable Goal(s):

- Continue to implement the SWMP and track progress of BMPs as described in the SWMP.
- Enforce the WDO in ensuring that all applicable developments are in compliance with the WDO.

E. Post-Construction Runoff Control

As described above, the WDO establishes the minimum stormwater management requirements for development in the village. The WDO establishes standards for post-construction site runoff control. The Village plans to continue to implement the following BMPs as outlined in the Village's SWMP:

- Regulatory Program
- Storm Water Management Facility Inspections

Measurable Goal(s):

- Implement BMPs and track progress of BMP implementation, as described in the SMPP.
- Enforce WDO in ensuring that all applicable developments are in compliance with the WDO.

F. Pollution Prevention/Good Housekeeping

In addition to the QLP efforts to provide training materials and opportunities, the MS4 is committed to implementing the Pollution Prevention/Good Housekeeping component of its SMPP. The MS4 is responsible for the care and upkeep of the general facilities, municipal roads, its general facilities, and associated maintenance yards. The MS4's Pollution Prevention/Good Housekeeping program includes: the evaluation and improvement of municipal policies and procedures to reduce the discharge of pollutants from municipal activities and operations; and a training program for municipal employees. The Village plans to continue to implement the following BMPs as outlined in the Village's SWMP:

- Catch Basin/Inlet Cleaning
- Public Works Washing Station Facility
- Material Storage Handling
- Street Sweeping
- Landscape Maintenance
- Snow Removal and Ice Control
- Vehicle and Equipment Maintenance
- Waste Management
- Spill Response Plan

Measurable Goal(s):

- Implement BMPs and track progress of BMP implementation, as described in the SMPP.

Part E. Notice of Qualifying Local Program

The Lake County Stormwater Management Commission (SMC) serves as a Qualifying Local Program (QLP) for MS4s in Lake County. In accordance with IEPA's General NPDES Permit No. ILR40, as a QLP, SMC performs activities related to each of the six minimum control measures. This part of the Annual Report, which summarizes the stormwater management activities performed by SMC as a QLP, consists of the following five sections:

- **Part E1** identifies changes to Best Management Practices (BMPs) that occurred during Year 21 and includes information about how these changes affected the QLP's stormwater management program.

- **Part E2** describes the stormwater management activities that the QLP performed during Year 21.

- **Part E3** summarizes the information and data collected by the QLP during Year 21.

- **Part E4** describes the stormwater management activities that the QLP plans to undertake during Year 22.

- **Part E5** lists the construction projects conducted by the QLP during Year 21.

Part E1. QLP Changes to Best Management Practices, Year 21

Note: "X" indicates BMPs that were implemented as planned
✓ indicates BMPs that were changed during Year 21

Year 21 QLP	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
X	A.2 Speaking Engagement
X	A.3 Public Service Announcement
X	A.4 Community Event
X	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
X	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
	B.4 Public Hearing
	B.5 Volunteer Monitoring
X	B.6 Program Coordination
	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
	C.3 Detection/Elimination Prioritization Plan
	C.4 Illicit Discharge Tracing Procedures
	C.5 Illicit Source Removal Procedures
	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
	C.9 Public Notification
X	C.10 Other Illicit Discharge Controls

Year 21 QLP	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
X	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
X	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
X	F.1 Employee Training Program
	F.2 Inspection and Maintenance Program
	F.3 Municipal Operations Storm Water Control
	F.4 Municipal Operations Waste Disposal
X	F.5 Flood Management/Assess Guidelines
X	F.6 Other Municipal Operations Controls

Part E2. QLP Status of Compliance with Permit Conditions, Year 21

IEPA issued its General NPDES Permit No. ILR40 effective March 1, 2016 (the first day of Year 14). SMC reviewed the permit, compared it to the previous permit, summarized the changes, and evaluated what the changes appear to mean for Lake County MS4s. Based on these findings, SMC revised its SMPP template that it provides to Lake County communities in August 2016; the final draft was provided in November 2016. SMC has provided annual updates to the template since 2016.

Please note the permit effective on March 1, 2016, expired on February 28, 2021, and is currently being administratively continued by the IEPA. In order to comply with the General NPDES Permit No. ILR40 issued in 2016, the Year 20 Annual Reporting Template includes updates on SMC QLP activities, DRWW and NBWW activities, and various text references of the 2016 permit.

The Lake County Stormwater Management Commission (SMC) serves as a Qualifying Local Program (QLP) for MS4s in Lake County. In accordance with IEPA's NDPES General Permit No. ILR40, as a QLP, SMC performs activities related to each of the six minimum control measures. The stormwater management activities that the QLP performed during Year 21 are described below.

A. PUBLIC EDUCATION AND OUTREACH

A.1 Distributed Paper Material

Measurable Goal(s):

- Distribute informational materials from the "take away" rack at SMC. Upon request, distribute materials directly to municipalities for local distribution.

Year 21 QLP activities:

- SMC distributes a variety of informational materials related to stormwater management through its "take away" rack and website.
- Upon request, informational materials are distributed directly to Lake County MS4s in PDF format for use on community websites, in community newsletters, and in community "take away" racks.

A.2 Speaking Engagement

Measurable Goal(s):

- Provide educational presentations related to Illinois EPA's NPDES Stormwater Program at MAC meetings. Upon request, provide educational presentations related to Illinois EPA's NPDES Stormwater Program to Lake County MS4s.
- Upon request or download "The Big Picture: Water Quality, Regulations & NPDES" to Lake County MS4s.

Year 21 QLP activities:

- SMC continues to provide and make available NPDES related information on our website, social media platforms and email list distributions.
- SMC continues to provide educational presentations related to Illinois EPA's NPDES Stormwater Program at MAC meetings on 04/12/2023 and 11/15/2023.
- SMC staff hosted the Annual All-Natural Hazard Mitigation Plan meeting on 11/15/2023.
- SMC staff presented at ILMA's 38th Annual Conference
    - The Ripple Effect: Lake County's SMC WMB Grant Program Overview: March 10, 2023.
- SMC staff presented at SMC Board meeting
    - Judicial Update: Waters of the U.S. Definition & IWLC Program under "Sackett": June 1, 2023.
- SMC staff presented at the Institute for Wetland & Environmental Education & Research, Inc. (IWEER)

  - Common Plants of the Wetland Boundary Identification Workshop: An Introduction: August 28, 2023.
  - Wetland Delineation: Corps Manual and Regional Supplement training course: August 29 – September 1, 2023.
- SMC staff presented at the Enforcement Officer-Certified Wetland Specialist (EO-CWS) Workshop
  - 2023 CWS Wetland Amendments: September 13, 2023
  - Roadmap for IWLC Discussion Points and Wetland Permitting: September 13, 2023
- SMC staff presented at the DECI 101 Webinar: Introduction to the Designated Erosion Control Inspector Program held on January 18, 2024.

A.3 Public Service Announcement

Measurable Goal(s):

- Include public service announcements highlighting community accomplishments related to IEPA's NPDES Stormwater Program on social media platforms and via email list distributions;
- Post watershed identification signage with LCDOT on Roads maintained by the Lake County Dept. of Transportation.

Year 21 QLP activities:

- SMC includes announcements highlighting community accomplishments related to IEPA's NPDES Stormwater Program on its website, in its newsletter, and through other media outlets (URL hyperlink).
- Watershed identification signage is located throughout the county.
  - Signage updates and name change awareness was provided to Lake County residents during SMC meetings and email notifications based on the USGS renaming of Squaw Creek to Manitou Creek in Lake County. Corrected identification signage has been posted throughout the county.

A.4 Community Event

Measurable Goal(s):

- Sponsor or co-sponsor workshop on a topic related to IEPA's NPDES Stormwater Program.

Year 21 QLP activities:

SMC sponsored or co-sponsored many workshops and events on stormwater-related topics, including:

- SMC co-sponsored a river cleanup for Chicago River Day on 5/13/202. Seven (7) SMC staff participated.
- SMC sponsored an education table for Its Our Fox River Day (IOFRD) Port Barrington River on 9/16/2023. Two (2) SMC staff participated.
- SMC co-sponsored five (5) de-icing workshops with over 1,000 participants and one (1) in-person calibration demo with 25 participants in the Northeastern Illinois region:
  - Lake County Calibration Demonstration Event (In-person): September 20, 2024
  - Deicing Workshop for Parking Lots and Sidewalks (2): October 3, 2023, and October 17, 2023.
  - Deicing Workshop for Public Roads (3): September 26, 2023, October 4, 2023, and October 10, 2023.
- SMC sponsored one (1) SMC & IECA BMP Field Day held on 4/26/2023 (115 participants), one (1) DECI 101 Webinar held on 1/18/2024 (85 participants), one (1) Designated Erosion Control Inspector (DECI) Workshop held on 2/13/2024 (320 participants), and one (1) Make-Up DECI Workshop on 3/21/2024 (35 participants).
- SMC sponsored "MS4 Inspection and Maintenance Workshop: BMP Maintenance Training" on 10/24/2023 with 41 participants.

A.5 Classroom Education

Measurable Goal(s):

- Develop and compile information for stormwater educational kit for distribution upon request.

- Provide materials and training on storm sewer inlet stenciling kits to teachers upon request.

Year 21 QLP activities:

- SMC continues to offer educational stormwater materials.

A.6 Other Public Education

Measurable Goal(s):

- Maintain and update the portion of the SMC website dedicated to IEPA's NPDES Stormwater Program with resource materials such as model ordinances, case studies, brochures, and web links.

Year 21 QLP activities:

- As new information and resource materials become available, they are posted to the SMC website and/or distributed directly to Lake County MS4s, (URL hyperlink).
- SMC continues to update and maintain an ArcGIS geospatial web tool for Lake County MS4 programs that indicates TMDL, 303(b), 305(d), HUC-12 watershed information and other information within an MS4 defined boundary, (URL hyperlink).
- SMC maintains an ArcGIS geospatial web tool for Lake County watersheds where inventoried, allowing the public to see inventory's of ravine, stream and detention basin Information, (URL hyperlink).
- SMC maintains an ArcGIS geospatial web tool for Lake County Des Plaines River Watershed Water Quality Improvement Project recommendations, (URL hyperlink).
- SMC maintains an ArcGIS geospatial web tool for Lake County North Branch Chicago River Watershed Water Quality Improvement Project recommendations, (URL hyperlink).
- SMC maintains reference documents for stormwater best practices, BMPs and green infrastructure practices on its website, (URL hyperlink).
- SMC continues to make available via the Lake County SMC website, Community Awareness Illicit Discharge Education and Elimination Videos. The online videos are available in English and Spanish; English version, (URL hyperlink); Spanish version (URL hyperlink).
- SMC staff maintains a webpage reference resource to Lake County citizens and organizations. The website identifies a list of potential funding sources that communities can utilize and pursue based on the function and characteristic of their project goals: last updated August 2023 (URL hyperlink).
- SMC made the following videos available to the public on its County YouTube channel:
    - 2023 Virtual DECI Workshop (URL hyperlink)
    - Rain Gardens -Stormwater Best Management Practices (URL hyperlink)
    - Green Roof -Stormwater Best Management Practices (URL hyperlink)
    - Native Plant Swale -Stormwater Best Management Practices (URL hyperlink)
    - Wetland Detention Basin -Stormwater Best Management Practices (URL hyperlink)
    - 2024 DECI 101 Webinar (URL hyperlink)
- SMC distributed (12) Mainstream Newsletter via email distribution to 65,795 recipients with an opening rate of 34%.
- SMC distributed (8) NPDES related informational emails to 1,908 recipients with an opening rate of 43%.
- SMC distributed (77) stormwater related informational emails to 255,245 recipients with an opening rate of 36%.
- SMC continues to maintain website outreach to the Lake County Community.
  The following SMC webpages had the following visitors in Year 21:
    - Stormwater Management Commission | Lake County, IL- 15,440 total views
    - Local Watersheds | Lake County, IL- 644 views
    - Watershed Development Ordinance Program | Lake County, IL- 1,577 views
    - Stormwater Best Practices | Lake County, IL- 474 views
    - National Pollution Discharge Elimination System (NPDES) Phase II | Lake County, IL- 165 views

B. PUBLIC PARTICIPATION/INVOLVEMENT

B.1 Public Panel

Measurable Goal(s):

- Provide notice of public meetings on SMC website. Track number of meetings conducted.

Year 21 QLP activities:

- Notice of all public meetings continues to be provided on the SMC website and though direct mailings and e-mailings to distribution lists.
- SMC tracked the number of Stormwater Management Committee Board (SMC) meetings, Technical Advisory Committee (TAC) meetings, Municipal Advisory Committee (MAC), and Watershed Management Board (WMB) meetings conducted during Year 20. Per records, there were (10) SMC meetings, (4) TAC meetings, (2) MAC meetings, and (1) WMB meeting conducted.
- CIRS community inquiries were received and processed by SMC staff.

B.3 Stakeholder Meeting

Measurable Goal(s):

- Provide notice of stakeholder meetings on SMC website.
- Track number of watershed planning committee meetings conducted.
- Establish watershed planning committees for each new watershed planning effort.

Year 21 QLP activities:

- Notice of all stakeholder meetings continues to be provided on the SMC website and e-mails to stakeholder lists.
- SMC tracked the number of stakeholder meetings conducted for the various watershed planning committees during the reporting period. The list below summarizes the watershed planning committee meetings that were conducted during Year 21:
    - Des Plaines River Watershed Workgroup held two (2) meetings – August 17, 2023, and February 15, 2024 (excluding executive board and monitoring committee meetings).
    - Des Plaines River Watershed Workgroup released a newsletter in May 2023 & annual accomplishments January 2024.
    - North Branch Chicago River Watershed Workgroup held two (2) General Membership meetings – August 9, 2023 and February 14, 2024 (excluding executive board meetings and monitoring committee meetings).
    - North Branch Chicago River Watershed Workgroup released a newsletter in January 2024.
    - SMC continues to establish and/or assist watershed planning committees for each new watershed planning effort.

B.6 Program Coordination

Measurable Goal(s):

- Track number of MAC meetings conducted during Year 21.
- Prepare annual report on Qualifying Local Program activities at end of Year 21.

Year 21 QLP activities:

- SMC tracked the number of Municipal Advisory Committee (MAC) meetings: According to records, there were (2) MAC meetings conducted during this reporting period (04/12/2023 and 11/15/2023).
- The stormwater management activities that SMC performed as a QLP are described in the Annual Facility Inspection Report (i.e., Annual Report) template provided to Lake County MS4s.
- The stormwater management activities that SMC plans to perform as a QLP during Year 22 are described in Part E4 of the Annual Report template.

C. ILLICIT DISCHARGE DETECTION AND ELIMINATION

C.2 Regulatory Control Program

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 21 QLP activities:

- SMC continues to enforce the countywide WDO.
- Lake County continues to provide the Lake County Illicit Discharge Detection and Elimination (IDDE) Manual on the SMC website, (URL hyperlink).

C.10 Other Illicit Discharge Controls

Measurable Goal(s):

- Sponsor or co-sponsor and track the number of attendees at an Illicit Discharge Detection and Elimination workshop or other training workshop related to IEPA's NPDES Stormwater Program.

Year 21 QLP activities:

- SMC sponsored or co-sponsored many workshops and events on stormwater-related topics. Such workshops and events are described above.
- SMC continues to make available via the Lake County SMC website, Community Awareness Illicit Discharge Education and Elimination Videos. The online videos are available in English and Spanish; English version, (URL hyperlink); Spanish version (URL hyperlink).

D. CONSTRUCTION SITE RUNOFF CONTROL

D.1 Regulatory Control Program

Measurable Goal(s):

- Continue to enforce the countywide WDO.
- Administer the Designated Erosion Control Inspector (DECI) program outlined by the WDO.

Year 21 QLP activities:

- SMC continues to enforce the countywide WDO.
- SMC continues to administer the Designated Erosion Control Inspector (DECI) program as outlined by the WDO, (URL hyperlink).
    - Total DECIs who have passed the exam (to date): 958.
    - DECIs who have passed the exam between 03/01/2023 – 03/01/2024: 42.
    - Total listed DECIs (to date): 203 (DECI completed certification process).
    - DECIs have a recertification process every three (3) years. Current cycle 2023-2026.

D.2 Erosion and Sediment Control BMPs

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 21 QLP activities:

- SMC continues to enforce the countywide WDO.
- SMC continues to provide technical guidance and reference materials to support the administration and enforcement of the countywide WDO.
- SMC staff distributed 29 precipitation weather notifications. The rainfall reports indicate county rain events with observed precipitation for guidance on construction site runoff SE/SC inspections.

D.3 Other Waste Control Program

Measurable Goal(s):

- Enforce WDO provisions regarding the control of waste and debris at construction sites.

Year 21 QLP activities:

- SMC continues to enforce the countywide WDO.

D.4 Site Plan Review Procedures

Measurable Goal(s):

- Track number of enforcement officers who have passed the exam.

- Track number of communities that undergo a performance review.
- Complete ordinance administration and enforcement.

Year 21 QLP activities:

- SMC continues to track the number of enforcement officers (EOs) who have passed the EO exam and have become EOs. Per records, as of the end of Year 21, there are 29 EOs certified in Lake County.
- The list of EOs representing Certified Communities is continually updated and is maintained on the SMC website, (URL hyperlink).
- In accordance with the amended countywide WDO, the certification process is every 5 years, (URL hyperlink). The community re-certification process includes a performance review of all 53 certified and non-certified communities for permitted development compliance.
- The SMC website includes guidance information to supplement WDO interpretation as well as ordinance administration and enforcement.

D.5 Public Information Handling Procedures

Measurable Goal(s):

- Track number of complaints received and processed related to soil erosion and sediment control (SE/SC).

Year 21 QLP activities:

- SMC continues to track the number of complaints received and processed related to soil erosion and sediment control as a component of inspections.

D.6 Site Inspection/Enforcement Procedures

Measurable Goal(s):

- Track number of site inspections conducted by SMC.

Year 21 QLP activities:

- SMC continues to track the number of site inspections conducted by SMC staff.
- According to records, 926 site inspections were conducted by SMC staff.

E. POST-CONSTRUCTION RUNOFF CONTROL

E.2 Regulatory Control Program

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 21 QLP activities:

- SMC continues to enforce the countywide WDO.

E.3 Long Term O&M Procedures

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 21 QLP activities:

- SMC continues to enforce the countywide WDO.

E.4 Pre-Construction Review of BMP Designs

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 21 QLP activities:

- SMC continues to enforce the countywide WDO.

E.5 Site Inspections During Construction

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 21 QLP activities:

- SMC continues to enforce the countywide WDO.

E.6 Post-Construction Inspections

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 21 QLP activities:

- SMC continues to enforce the countywide WDO.

E.7 Other Post-Construction Runoff Controls

Measurable Goal(s):

- Conduct annual Watershed Management Board (WMB) meeting.
- Contribute funding to flood reduction and water quality improvement projects, including stormwater retrofits, through the WMB.

Year 21 QLP activities:

- The annual WMB meeting was held on December 7, 2023.
- At the annual WMB meeting, eight (8) Projects were selected to receive $175,588 of funding through the SMC grant program. These projects include planning and in-the-ground project efforts that support flood hazard reduction, drainage and water quality improvement, and stormwater retrofit projects.
    - 8 WMB project grants awarded.
    - 1 project referred to the Stormwater Infrastructure Repair Fund (SIRF) grant program for funding.
    - 1 project referred to the Maintenance program for funding.
- SMC staff attended the SMC & IECA BMP Field Day on 4/26/2023.
- SMC staff attended the Calumet Stormwater Collaborative Green Infrastructure Maintenance Training on 5/17/2023.
- SMC staff attended the MS4 Inspection and Maintenance Workshop: BMP Maintenance Training on 10/24/2023.
- SMC staff attended the National Stormwater Center Certified Stormwater Inspector Webinar on 11/20/2023 and 12/1/2023.
- SMC staff attended the Illinois River Basin Annual Stakeholder Meeting on 1/17/2024.

F. POLLUTION PREVENTION/GOOD HOUSEKEEPING

F.1 Employee Training Program

Measurable Goal(s):

- Provide list of available resources to MS4s.
- Sponsor or co-sponsor employee training workshops or events.
- Make available the Excal Visual Municipal Storm Water Pollution Prevention Storm Watch Everyday Best Management Practices training video and testing.
- Make available the Excal Visual "IDDE - A Grate Concern" training video and testing.

Year 21 QLP activities:

- SMC continues to provide information on training opportunities and training resources to Lake County MS4s.
- SMC sponsored "MS4 Inspection and Maintenance Workshop: BMP Maintenance Training" with 41 participants on 10/24/2023.
- SMC continues to make available the Excal Visual "Storm Watch Municipal Stormwater Pollution Prevention" software to Lake County MS4s. During the reporting period there were ten (10) registrants.
- SMC continues to make available the Excal Visual "IDDE - A Grate Concern" software to Lake County MS4s. During the reporting period there were twelve (12) registrants.

F.5 Flood Management/Assess Guidelines

Measurable Goal(s):

- Track number of projects that are reviewed for multi-objective opportunities.

Year 21 QLP activities:

- SMC continues to evaluate all SMC-sponsored projects for multi-objective opportunities, such as flood control and water quality.

F.6 Other Municipal Operations Controls

Winter Roadway De-Icing

Measurable Goal(s):

- Advise MS4 communities of watershed groups addressing issues associated with the use of chlorides (i.e. road salt).

Year 21 QLP activities:

- SMC co-sponsored five (5) de-icing workshops with over 1,000 participants and one (1) in-person calibration demo with 25 participants in the Northeastern Illinois region.
- De-icing certification process to promote trained vendors is offered.
    - Preferred Providers that successfully completed a Lake County De-icing Training Workshop and passed the Course Exam can be referenced on a Preferred Provider List (URL hyperlink).
    - Certification is through a third-party vendor, Fortin Consulting, Inc.
- SMC continues to make available chloride reduction documents.
    - Too Much Salt in Our Winter Maintenance Recipe - Tips for Managing Snow and Ice at Home, (URL hyperlink).
    - Lake County Winter Parking Lot and Sidewalk Maintenance Manual, (URL hyperlink).
    - Less Salt Equals Less Money, Clean Water, Safe Conditions - Tips for Effective Road Salting, (URL hyperlink).

Part E3. QLP Information and Data Collection Results, Year 21

The QLP did not collect any monitoring data on behalf of Lake County's MS4s during Year 21. However, SMC has reviewed information presented by the Illinois EPA (IEPA) in the 2020/2022 Illinois Integrated Water Quality Report and 303(d) List and has developed the brief "State of Lake County's Waters" report provided below.

State of Lake County's Waters
March 2024

This brief report is based on information contained in the Illinois EPA's 2020/2022 Illinois Integrated Water Quality Report (IIWQR) and Section 303(d) List (dated June 1, 2022). Its purpose is to provide basic information to Lake County's MS4 communities on the condition of surface waters within Lake County. More detailed information about the condition of surface waters in Lake County can be found in the Illinois EPA's 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List.

The Illinois EPA's 2020/2022 IIWQR and Section 303(d) List assesses the condition of surface water within streams, inland lakes, and Lake Michigan waters. The IEPA assessment of surface water conditions is based on a degree of support (attainment) of a designated use within a stream segment, inland lake or within Lake Michigan. Determination of designation is accomplished through an analysis of various types of information: including biological, physicochemical, physical habitat, and toxicity data. Illinois waters are designated for various uses including aquatic life, wildlife, agricultural use, primary contact (e.g., swimming, water skiing), secondary contact (e.g., boating, fishing), industrial use, public and food-processing water supply, and aesthetic quality. When sufficient data is available, the IEPA assesses each applicable designation as Fully Supporting (Good resource quality), Not Supporting (Fair or Poor resource quality), Not Assessed or Insufficient Information. Uses determined to be Not Supporting are called "impaired," and waters that have at least one-use assessment as Not Supporting are also called impaired as designated within the 303(d) list.

Streams

An analysis of the 2020/2022 impaired streams to the 2018 impaired streams indicates listed pollutants removed from twelve (12) stream segments from the 2020/2022 303(d) list that were previously listed in the 2018 list:

Table E3.2 Stream Segments: Pollutants removed from 2020/2022 303(d) list, previously listed in 2018

Assessment ID	Name	Parameter Code Name	Reason for Removal
IL_DT-06	Fox River	DO	No standard violation in new data for 2020 cycle
IL_DT-22	Fox River	Chloride, Cu	No standard violation in new data for 2020 cycle
IL_G-07	Des Plaines River	Chloride	No standard violation in new data for 2020 cycle
IL_G-08	Des Plaines River	Algae, AqPlants, DO	No standard violation in new data for 2020 cycle
IL_G-25	Des Plaines River	DO, Sed/Silt	No standard violation in new data for 2020 cycle
IL_G-36	Des Plaines River	Cd, Ni	No standard violation in new data for 2020 cycle
IL_GW-02	Mill Creek	DO, pH	No standard violation in new data for 2020 cycle

IL_GWA	North Mill Creek	Mn	No standard violation in new data for 2020 cycle
IL_HCCB-05	West Fork North Branch Chicago River	Chloride, DO, FlowAlt, StreamAlt	Segment is Fully Supporting for 2020 cycle; No standard violation in new data for 2020 cycle
IL_HCCC-02	Middle Fork North Branch Chicago River	Algae, AqPlants, BotDep, StreamAlt, TP	Segment is Fully Supporting for 2022 cycle; No standard violation in new data for 2020 cycle
IL_QC-03	Waukegan River	DO	No standard violation in new data for 2020 cycle
IL_QF	Kellogg Creek	DO, FlowAlt,	No standard violation in new data for 2020 cycle

Lakes

An analysis of the 2020/2022 impaired lakes to the 2018 impaired lakes indicates listed pollutants removed three (3) lakes from the 2018 303(d) list:

Table E3.4 Inland Lakes: Pollutants removed from 2020/2022 303(d) list, previously listed in 2018			
Assessment ID	Name	Cause	Reason for Removal
IL_RGZB	HASTINGS	TSS	New data allowed for delisting of legacy cause
IL_RTR	MARIE (LAKE)	TSS	No standard violation in new data for 2020 cycle
IL_VTJ	BLUFF	TSS	No standard violation in new data for 2020 cycle

Lake Michigan

Lake Michigan is monitored by the Illinois EPA through the Lake Michigan Monitoring Program. Bordering Cook and Lake Counties, the State of Illinois has jurisdiction over approximately 1,526 square miles of open water, 13 harbors, and 64 shoreline miles of Lake Michigan.

Along Illinois' Lake Michigan coastline, two of the 13 harbors assessed in the 2020/2022 IIWQR and Section 303(d) list are located in Lake County.

Table E3.5 Use Attainments of Lake Michigan Harbors in Lake County: 2020/2022 data vs. 2018 data				
Assessment ID	Name	2020/2022 303(d) data	2018 303(d) data	Summary:
IL_QH	North Point Marina Harbor	Fully Supporting: Aquatic Life, Aesthetic Quality Not Supporting: Fish Consumption Not Assessed: Primary Contact, Secondary Contact	Fully Supporting: Aquatic Life, Aesthetic Quality Not Supporting: Fish Consumption Not Assessed: Primary Contact, Secondary Contact	No change.
IL_QZO	Waukegan Harbor	Fully Supporting: None Not Supporting: Fish Consumption, Aesthetic Quality Not Assessed: Primary Contact, Secondary Contact	Fully Supporting: None Not Supporting: Aquatic Life, Fish Consumption, Aesthetic Quality Not Assessed: Primary Contact, Secondary Contact	No change.

Appendix A-3 of the IIWQR, lists potential causes of impairment in the harbors of Lake Michigan that can include polychlorinated biphenyls (PCBs) and mercury.

Table E3.6 Causes of Impairment of Lake Michigan Harbors in Lake County: 2020/2022 data				
Assessment ID	Name	2020/2022 303(d) data	2018 303(d) data	Summary:
IL_QH	North Point Marina Harbor	Mercury, Polychlorinated biphenyls	Mercury, Polychlorinated biphenyls	No change.
IL_QZO	Waukegan Harbor	Mercury, Polychlorinated biphenyls	Arsenic, Cadmium, Chromium (total), Copper, Lead, Mercury, Polychlorinated biphenyls, Zinc, Phosphorus (total), Bottom Deposits	Removed in 2018: Arsenic, Cadmium, Chromium (total), Copper, Lead, Zinc, Phosphorus (total), Bottom Deposits

Appendix A-3 of the IIWQR, lists potential causes of impairment to Lake Michigan Shoreline Waters that can include E. coli, polychlorinated biphenyls (PCBs), and mercury. Aquatic Life Use and Aesthetic Quality Use is Not Assessed.

IL Beach State Park North IL_QH-03	IL Beach State Park South IL_QH-09	Lake Bluff Beach IL_QI-06
Lake Forest Beach IL_QI-10	Park Ave. Beach IL_QJ-05	Rosewood Beach IL_QJ
Waukegan North Beach IL_QH-04	Waukegan South Beach IL_QH-05	

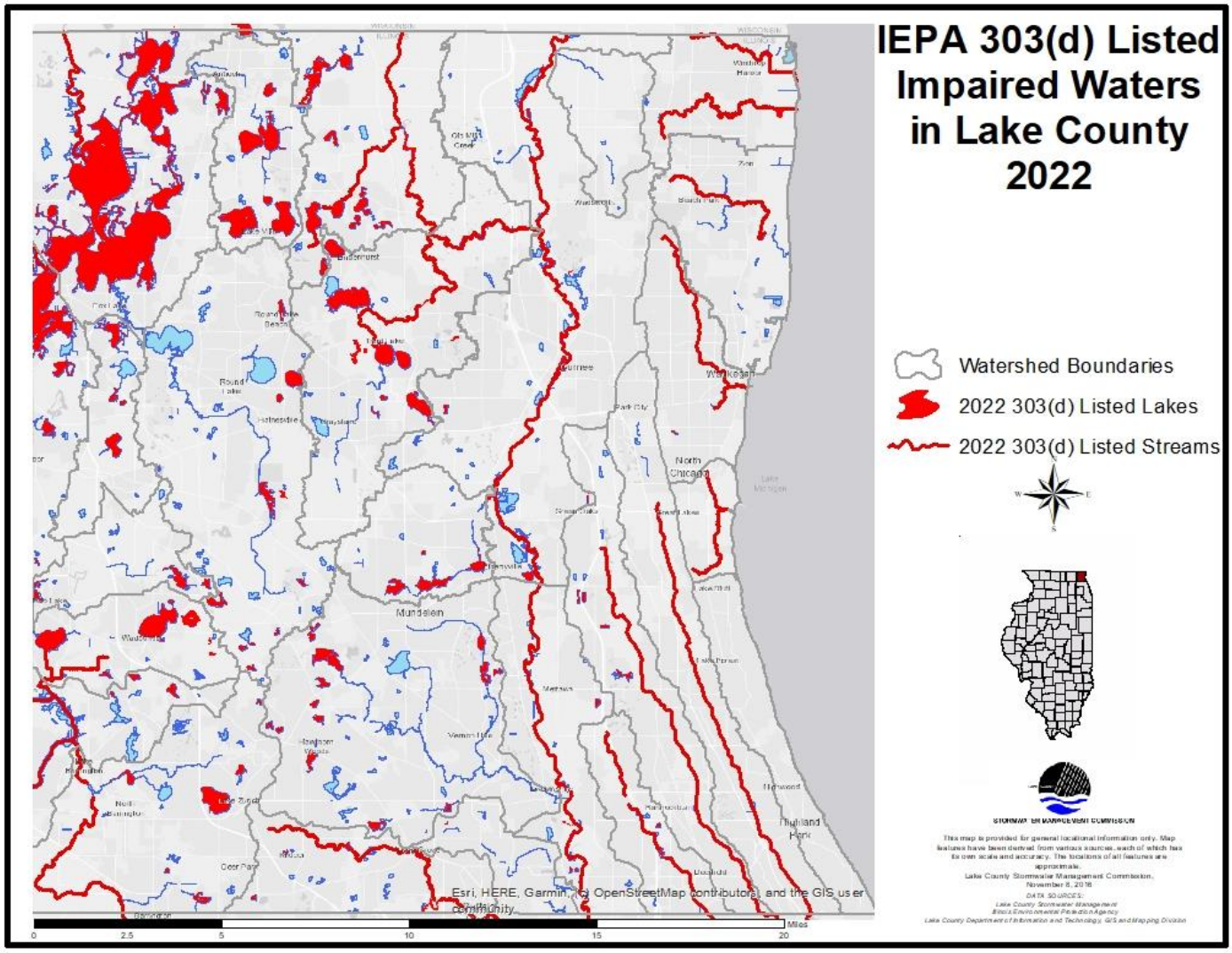

Figure E3.1
Note: Map represents 2022 303(d) available GIS data.
2022 303(d) GIS data is available here (https://illinois-epa.maps.arcgis.com/apps/webappviewer/index.html?id=773c1711e0e9417ea7cd6cad8afb66ea).

Monitoring

The **Des Plaines River Watershed Workgroup (DRWW)** monitors water quality in the Des Plaines River and tributaries to accurately identify the quality of the river ecosystems as well as stressors associated with non-attainment of water quality standards and designated uses. During the current YR21 reporting period, DRWW's monitoring program included Water/Sediment sampling and analysis at 73 Monitoring Locations for 2023; 20 sites were sampled for biota and habitat, 14 sites for short-term data sonde deployment and 17 sites for benthic chlorophyll a; Continuous water quality and flow monitoring with data sondes and Chlorophyll a sampling and analysis at 3 Monitoring Locations. An annual water chemistry monitoring report was submitted to Illinois EPA on behalf of DRWW members in March 2024, which covers the NPDES II monitoring requirements for MS4 communities that are DRWW members. The DRWW continued development of the Nutrient Assessment Reduction Plan (NARP) that was submitted to the Illinois EPA on December 29, 2023. Current DRWW member list is located at (URL: http://www.drww.org/members).

The **North Branch Watershed Workgroup (NBWW)** monitors water quality in the North Branch Chicago River and tributaries to accurately identify the quality of the river ecosystems as well as stressors associated with non-attainment of water quality standards and designated uses. Monitoring data will allow for a greater understanding of the water quality impairments, identify priority restoration activities, and track water quality improvements. The Workgroup is committed to an approach for attaining water quality standards that focuses on stakeholder involvement, monitoring, and locally led decision-making based on sound science. Comprehensive baseline monitoring has been completed at all 25 sites for water column chemistry. The NBWW will continue to support the North Branch Watershed Planning Committee and the North Branch Watershed Consortium through regular discussion at general meetings. An annual water chemistry monitoring report was submitted to Illinois EPA on behalf of NBWW members on January 23, 2024, which covers the NPDES II monitoring requirements for MS4 communities that are NBWW members. The NBWW continues to progress on developing a NBWW Nutrient Assessment Reduction Plan (NARP) based on the NBWW NARP Workplan submitted to the Illinois EPA on December 31, 2021. NBWW deployed continuous monitoring data sondes to measure dissolved oxygen (D.O), pH, temperature, and specific conductance at 3 sites upstream, within and downstream of the Skokie Lagoons. Progress made on the NBWW NARP is summarized in the annual water chemistry monitoring report submitted to the Illinois EPA. The NBWW has continued to coordinate with the Illinois EPA on the progress of the NBWW NARP Workplan and NARP development. Current NBWW member list is located at (URL: www.nbwwil.org).

The **LCHD Ecological Services Department** has been collecting water quality data on Lake County lakes since the late 1960s. Since 2000, 176 different lakes have been studied and data collected on temperature, dissolved oxygen, phosphorus, nitrogen, solids, pH, alkalinity, chloride, conductivity, water clarity, the plant community and shoreline characteristics. Lake summary reports can be found on the Lake County Health Department website, (URL hyperlink). This data is used as part of ongoing watershed planning efforts throughout the county, which result in specific programmatic and site-specific recommendations throughout the county. SMC is currently developing an application to assist communities in identifying potential site-specific recommendations within their jurisdictional boundaries.

Part E4. QLP Summary of Year 22 Stormwater Activities

The table below indicates the stormwater management activities that the QLP plans to undertake during Year 22 Additional information about the BMPs and measurable goals that the QLP will implement during Year 22 is provided in the section following the table.

Note: "X" indicates BMPs that will be implemented during Year 21

Year 22 QLP	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
X	A.2 Speaking Engagement
X	A.3 Public Service Announcement
X	A.4 Community Event
X	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
X	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
	B.4 Public Hearing
	B.5 Volunteer Monitoring
X	B.6 Program Coordination
	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
	C.3 Detection/Elimination Prioritization Plan
	C.4 Illicit Discharge Tracing Procedures
	C.5 Illicit Source Removal Procedures
	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
	C.9 Public Notification
X	C.10 Other Illicit Discharge Controls

Year 22 QLP	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
X	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
X	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
X	F.1 Employee Training Program
	F.2 Inspection and Maintenance Program
	F.3 Municipal Operations Storm Water Control
	F.4 Municipal Operations Waste Disposal
X	F.5 Flood Management/Assess Guidelines
X	F.6 Other Municipal Operations Controls

The Lake County Stormwater Management Commission (SMC) is a Qualifying Local Program for MS4s in Lake County. SMC has been providing services under four of the six minimum control categories since it began implementing a comprehensive, countywide stormwater program in 1991. The revised SMPP template clarifies and emphasizes the significant efforts by SMC related to each of the six minimum control measures. These QLP commitments provide Lake County with a baseline Countywide stormwater management program that can be built upon by each of the individual MS4s.

During Year 22, SMC remains committed to performing a variety of stormwater management activities across the County, these commitments are now specifically outlined in the SMPP template. SMC program is continually evolving, to better assist Lake County MS4s in meeting the requirements of the most recent effective MS4 Permit.

A. PUBLIC EDUCATION AND OUTREACH

SMC will continue to support Lake County MS4s in the development and implementation of their stormwater management programs by performing activities related to the Public Education and Outreach minimum control measure, as described below.

A.1 Distributed Paper Material

SMC compiles, develops, and distributes throughout Lake County a variety of materials related to stormwater management.

Measurable Goal(s):

- Develop and Distribute informational materials from "take away" rack at SMC.
- Upon request, distribute informational materials directly to Lake County MS4s for local distribution.

A.2 Speaking Engagement

SMC provides educational presentations related to IEPA's NPDES Stormwater Program on a regular basis at Municipal Advisory Committee (MAC) meetings. Upon request, SMC will provide educational presentations related to IEPA's NPDES Stormwater Program to Lake County MS4s.

Measurable Goal(s):

- Provide educational presentations related to IEPA's NPDES Stormwater Program at MAC meetings.
- Upon request, provide educational presentations related to IEPA's NPDES Stormwater Program to Lake County MS4s.

A.3 Public Service Announcement

SMC performs extensive Social Media Outreach & Announcement Activities. Public service announcement related to IEPA's NPDES Stormwater Program or Stormwater BMPs are posted periodically on SMC's social media platforms and sent via email list distributions. SMC also coordinates with the Lake County Department of Transportation (LCDOT) to distribute information regarding watershed identification signage in watersheds where watershed planning activities have occurred or are occurring.

Measurable Goal(s):

- Include public service announcements related to IEPA's NPDES Stormwater Program or stormwater BMPs on social media platforms and via email list distributions.
- Post watershed identification signage in cooperation and collaboration with LCDOT.
- Provide information via social media (Facebook and Twitter).

A.4 Outreach Events

SMC sponsors and co-sponsors educational and technical training workshops on a variety of stormwater management-related topics. Each year, SMC will sponsor or co-sponsor at least one

workshop on a topic related to IEPA's NPDES Stormwater Program, such as soil erosion and sediment control, illicit discharge detection and elimination, or stormwater best management practices (BMPs) that can be used to protect and improve water quality.

Measurable Goal(s):

- Sponsor or co-sponsor workshop on stormwater-related topics.
- Track workshops and events.

A.5 Classroom Education Material

Upon request, SMC will contribute to the development and compilation of material for inclusion in a stormwater education kit that can be distributed to local students and teachers and/or other local stakeholders. Additionally, upon request, SMC will provide information, materials, and training to local students and teachers and/or other local stakeholders interested in conducting storm drain stenciling.

Measurable Goal(s):

- Upon request, develop and compile materials for inclusion in a stormwater education kit.
- Upon request, provide information, materials, and training to local students and teachers and/or stakeholders interested in conducting storm drain stenciling.

A.6 Other Public Education

SMC maintains a website that contains a variety of materials and resources related to stormwater management. The website provides information about IEPA's NPDES Stormwater Program, provide information about stormwater best management practices (BMPs), allow for download of stormwater management-related publications and documents, provide notices of upcoming meetings and ongoing projects, includes watershed plans and watershed workgroup information, and provide links to a number of other stormwater management-related resources.

Measurable Goal(s):

- Maintain and update the portion of the SMC website dedicated to IEPA's NPDES Stormwater Program with resources such as model ordinances, case studies, brochures, and links including information related to climate change.
- Make "The Big Picture: Water Quality, Regulations & NPDES" presentation available to Lake County MS4s.
- Make available via the Lake County SMC website, Community Awareness Illicit Discharge Education and Elimination Videos. The online videos are available in English and Spanish; English version, (URL hyperlink); Spanish version (URL hyperlink).

B. PUBLIC PARTICIPATION/INVOLVEMENT

SMC will continue to support Lake County MS4s in the development and implementation of their stormwater management programs by performing activities related to the Public Participation/Involvement minimum control measure, as described below.

B.1 Public Panel

SMC provides procedural guidance and implements its Citizen Inquiry Response System (CIRS) for receiving and taking action on information provided by the public regarding post-construction stormwater runoff control. SMC coordinates and conducts public meetings as well as committee meetings that are open to the public.

Measurable Goal(s):

- Implement and provide guidance on existing CIRS procedures.
- Provide notice of public meetings on SMC website.
- Track number of meetings conducted.

B.3 Stakeholder Meeting

SMC is actively involved in watershed planning throughout Lake County. SMC believes that the watershed planning process cannot happen and will not be successful without the input, interest, and commitment of the watershed stakeholders. Watershed stakeholders may include municipalities, townships, drainage districts, homeowner associations, lakes management associations, developers, landowners, and local, county, state, and federal agencies.

Measurable Goal(s):

- Provide notice of stakeholder meetings on SMC website.
- Track number of watershed committee meetings conducted.
- Establish watershed planning committees for each new watershed planning effort.

B.6 Program Involvement

Consistent with Lake County's comprehensive, countywide approach to stormwater management, SMC serves as a Qualifying Local Program (QLP) for all Lake County MS4s. In this role, in 2002, SMC proactively formed the Municipal Advisory Committee (MAC) to provide a forum for representatives of local MS4s, which include municipalities, townships, and drainage districts, to discuss, among other topics, the implementation of IEPA's NPDES Stormwater Program. SMC will continue to facilitate MAC meetings and will continue to provide general support to Lake County MS4s as they continue to develop and implement their stormwater management programs. SMC will prepare an annual report on its stormwater management activities and will provide guidance to Lake County MS4s in preparing their own annual reports.

Measurable Goal(s):

- Track number of MAC meetings conducted.
- Prepare annual report template for use by Lake County MS4s including a description of the Qualifying Local Program stormwater management activities.
- Prepare/maintain SMPP template for use by Lake County MS4s in creating their own SMPP.

C. ILLICIT DISCHARGE DETECTION AND ELIMINATION

SMC will continue to support Lake County MS4s in the development and implementation of their stormwater management programs by performing activities related to the Illicit Discharge Detection and Elimination minimum control measure, as described below. Note, however, that the primary responsibility for the implementation of the Illicit Discharge Detection and Elimination minimum control measure lies with the MS4.

Measurable Goal(s):

- Continue to make available information regarding prioritization of outfalls for illicit discharge screening activities.
- Continue to make available compiled GIS data related to the County's existing stormwater infrastructure (e.g. storm sewer atlases, stream inventories and detention basin inventories).

C.2 Regulatory Control Program

SMC provides local MS4s with model and example illicit discharge ordinances that prohibit all non-stormwater discharges, including illegal dumping, to the storm sewer system. Additionally, the WDO includes provisions that prohibit illicit discharges to the storm sewer system during construction (i.e., prior to final site stabilization) on development sites.

Measurable Goal(s):

- Provide model and example illicit discharge ordinances to Lake County MS4s.
- Continue to administer and enforce the WDO.

C.10 Other Illicit Discharge Controls

SMC regularly sponsors and co-sponsors educational and technical training workshops on a variety of stormwater management-related topics.

Measurable Goal(s):

- Sponsor or co-sponsor and track the number of attendees at an Illicit Discharge Detection and Elimination workshop or other training workshop related to IEPA's NPDES Stormwater Program.
- Distribute informational materials about the hazards of illicit discharges and illegal dumping from "take away" rack at SMC and SMC website.

D. CONSTRUCTION SITE RUNOFF CONTROL

Lake County has adopted a countywide Watershed Development Ordinance (WDO) that establishes the minimum stormwater management requirements for development in Lake County, including requirements for construction site runoff control.

D.1 Regulatory Control Program

The WDO is the regulatory mechanism that requires the use of soil erosion and sediment controls on development sites throughout Lake County. SMC has also created a Designated Erosion Control Inspector (DECI) program, a program designed to closely mirror the inspection requirements of IEPA's General NPDES Permit No. ILR10.

Measurable Goal(s):

- Continue to administer and enforce the WDO.
- Continue to administer the Designated Erosion Control Inspector (DECI) program outlined by the WDO.

D.2 Erosion and Sediment Control BMPs

§600 of the WDO specifies the soil erosion and sediment control measures that must be used in conjunction with any land disturbing activities conducted on a development site. SMC maintains technical guidance resources and documents to accompany the WDO.

Measurable Goal(s):

- Continue to administer and enforce the WDO.
- Continue to maintain technical guidance documents.

D.3 Other Waste Control Program

The WDO includes several provisions that address illicit discharges generated by construction sites. The applicant is required to prohibit the dumping, depositing, dropping, throwing, discarding, or leaving of litter and construction material and all other illicit discharges from entering the stormwater management system.

Measurable Goal(s):

- Continue to administer and enforce the provisions of the WDO related to the control of waste and debris during construction on development sites.

D.4 Site Plan Review Procedures

A community's designated enforcement officer is responsible for reviewing and permitting development plans and for administering and enforcing the provision of the WDO. Within certified communities the responsibility lies with the MS4; within non-certified communities the designated enforcement officer is SMC's chief engineer. SMC administers this enforcement officer program, providing training on an as-needed basis to all enforcement officers to assist them in passing the exam, and maintains an up-to-date list identifying each community's designated enforcement officer. In addition to administering the enforcement officer program, SMC periodically reviews

each community's WDO administration and enforcement records, using the results of such review to evaluate the performance of certified communities and designated enforcement officers.

Measurable Goal(s):

- Administer the Enforcement Officer (EO) program outlined by the WDO.
- Maintain an up-to-date list identifying each community's designated enforcement officer.
- Periodically review each community's WDO administration and enforcement records. Re-Certification Procedure.
- Continue to maintain technical guidance documents.

D.5 Public Information Handling Procedures

SMC provides a number of opportunities for the receipt and consideration of information submitted by the public.

Measurable Goal(s):

- Document and track the number of soil erosion and sediment control-related complaints received and processed by SMC.

D.6 Site Inspection/Enforcement Procedures

Article 11 of the WDO contains both recommended and minimum requirements for the inspection of development sites. Within certified communities, the community's designated enforcement officer is responsible for conducting these inspections; within certified communities, SMC's chief engineer is responsible for conducting these inspections. Article 12 of the WDO specifies the legal actions that may be taken and the penalties that may be imposed if the provisions of the WDO are violated.

Measurable Goal(s):

- Document and track the number of site inspections conducted by SMC.

E. POST-CONSTRUCTION RUNOFF CONTROL

As described above, Lake County has adopted a countywide Watershed Development Ordinance (WDO) that establishes the minimum stormwater management requirements for development in Lake County, including requirements for post-construction runoff control.

E.2 Regulatory Control Program

Proposed stormwater management strategies must address the runoff volume reduction requirements described in §503 of the WDO and must include appropriate stormwater BMPs to address the other applicable post-construction runoff control requirements of the WDO.

Measurable Goal(s):

- Continue to administer and enforce the WDO.

E.3 Long Term O&M Procedures

§401 of the WDO requires that maintenance plans be developed for all stormwater management systems and, §500 further details deed or plat restriction requirements for all stormwater management systems.

Measurable Goal(s):

- Continue to administer and enforce the WDO.

E.4 Pre-Construction Review of BMP Designs

As described above, a community's designated enforcement officer is responsible for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO. This includes a review of the stormwater BMPs that will be used to meet the post-construction runoff control requirements of the WDO and adherence to the Runoff Volume Reduction standards of §503.

Measurable Goal(s):

- Continue to administer and enforce the WDO.

E.5 Site Inspections During Construction

As described above in MCM D.6 Article 11 of the WDO contains both recommended and minimum requirements for the inspection of development sites.

Measurable Goal(s):

- Continue to administer and enforce the WDO.

E.6 Post-Construction Inspections

SMC has collaborated on a number of watershed-based plans throughout the County. These watershed plans included a stream and detention basin inventories. The plans also include a list of site-specific best management practices within various communities based on an assessment of these inventories and other data. SMC is currently developing an application to assist communities in identifying potential project sites, recommended in adopted watershed plans, within their jurisdictional boundaries.

Measurable Goal(s):

- Continue to administer and enforce the WDO.
- Develop an application, for use by MS4s, to identify adopted watershed plan recommendations within their communities.
- Watershed Planning Status Map, (URL hyperlink).
- Lake County Watershed Based Plans, (URL hyperlink).

E.7 Other Post-Construction Runoff Controls

Through the Watershed Management Board (WMB), SMC provides partial funding for flood damage reduction and surface water quality improvement projects. The WMB, which includes representatives from the Lake Michigan, North Branch of the Chicago River, Fox River, and Des Plaines River watersheds, meets annually to review potential projects and to make recommendations on stormwater BMP project funding. Members of the WMB include chief municipal elected officials, township supervisors, drainage district chairmen, and county board members from each district found within each of Lake County's four major watersheds. The goal of the WMB program is to maximize opportunities for local units of government and other groups to have input and influence on the solutions used to address local stormwater management problems. Previous WMB-funded projects have reduced flooding, improved surface water quality, and enhanced existing stormwater management facilities throughout Lake County.

Measurable Goal(s):

- Conduct annual WMB meeting.
- Contribute funding to flood damage reduction and water quality improvement projects through the WMB.

F. POLLUTION PREVENTION/GOOD HOUSEKEEPING

SMC will continue to support Lake County MS4s in the development and implementation of their stormwater management programs by performing activities related to the Pollution Prevention/Good Housekeeping minimum control measure, as described below. Note, however, that the primary responsibility for the implementation of the Pollution Prevention/Good Housekeeping minimum control measure lies with the MS4.

F.1 Employee Training Program

SMC will assist Lake County MS4s with the development and implementation of their employee training programs by maintaining a list of known employee training resources and opportunities,

making available a software-based employee training program, and providing technical assistance to local MS4s. In addition, each year, SMC will sponsor or co-sponsor training workshops.

Measurable Goal(s):

- Maintain a list of known employee training resources and opportunities.
- Make available the Excal Visual Storm Watch: Municipal Storm Water Pollution Prevention software-based employee training program.
- Make available the Excal Visual IDDE: A Grate Concern software-based employee training program.
- Sponsor or co-sponsor a training workshop related to pollution prevention/good housekeeping or other training workshop related to IEPA's NPDES Stormwater Program.

F.5 Flood Management/Assess Guidelines

In working toward meeting its primary goals of flood damage reduction and surface water quality improvement, SMC follows a set of stormwater management policies that were created to define its roles and responsibilities for stormwater management in Lake County. One of these policies is to integrate multi-objective opportunities (e.g., flood damage reduction, surface water quality improvement, environmental enhancement) into SMC-sponsored projects. In accordance with this policy, SMC will evaluate all SMC-sponsored projects for multi-objective opportunities.

Measurable Goal(s):

- Track number of SMC-sponsored projects that are reviewed for multi-objective opportunity.

F.6 Other Municipal Operations Controls

SMC develops and distributes chloride reduction documents and materials. Each year, SMC will sponsor or co-sponsor at least one workshop on a topic related to winter de-icing. Lake County also publishes a "Lake County Winter Maintenance Preferred Providers" list. Providers included on this list have successfully completed a Lake County Deicing Training Workshop and passes the associated course exam.

Measurable Goal(s):

- Advise MS4 communities of watershed groups addressing issues associated with the use of chlorides (i.e. road salt).
- Sponsor or co-sponsor at least one workshop on a topic related to winter de-icing.
- Make available chloride reduction documents on take-away racks and the website.

Part E5. QLP Construction Projects Conducted During Year 21

Project Name	Project Size (acres)	Construction Start Date	Construction End Date
Knollwood Subdivision Flood Mitigation and Road Improvements, Fox Lake	8.2	8/2022	4/2023
Oak Spring Lane Storm Sewer Bypass, Libertyville Township	1.85	9/2022	6/2023
Flood Hazard Mitigation 1054 Kilbourne Road, Gurnee	0..44	3/2023	9/2023
Flood Hazard Mitigation 1062 Kilbourne Road, Gurnee	0.52	3/2023	9/2023
Flood Hazard Mitigation 881 Emerald Avenue, Gurnee	0.33	3/2023	9/2023
Flood Hazard Mitigation 623 Channel Drive, Fox Lake	0.22	3/2023	10/2023
Talbot Avenue Drainage Improvements, Shields Township	0.54	5/2023	Ongoing
Park City Flood Mitigation Storm Sewer, Park City	1.25	8/2023	Ongoing
Wildwood Area Stormwater Infrastructure Improvements, Warren Township	2.0	8/2023	Ongoing

Part F. MS4 Construction Projects Conducted During Year 21

Project Name	Project Size (acres)	Construction Start Date	Construction End Date
N/A			