VILLAGE OF DEERFIELD

May 26, 2021

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 18 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
Peter Stoehr, 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, 2020 To March, 2021

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: 847-317-2490

Contact Person: Bob Phillips, Director of PW and Eng. Email Address: RPhillips@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: 5/26/21

Bob Phillips Director of Public Works & Engineering

Printed Name: 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
National Pollutant Discharge Elimination System
Phase II

Village of Deerfield

ILR400324

THE VILLAGE OF
DEERFIELD

Permit Year 18: March 2020 to February 2021

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

Manhard
CONSULTING

Table of Contents

Part A. Changes to Best Management Practices, Year 18

Information regarding the status of all of the BMPs and measurable goals described in the Village's Storm Water Management Plan (SWMP) is provided in the following table.

Note: X indicates BMPs that were implemented in accordance with the Village's SWMP
✓ indicates BMPs that were changed during Year 18

Year 18 Village of Deerfield	
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

Year 18 Village of Deerfield	
	C.10 Other Illicit Discharge Controls
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

No changes were made to the BMPs during Year 18.

Part B. Status of Compliance with Permit Conditions, Year 18

Stormwater Management Activities, Year 18

During Year 18, the Village of Deerfield reviewed its Storm Water Management Program (SWMP). The stormwater management activities that the Village of Deerfield performed during Year 18 and the status of each of the BMPs and measurable goals described in the Village of Deerfield's SWMP, as of the end of Year 18, are described in this Annual Report. Documentation of the Village's implementation of the SWMP is provided in Part C.

In addition to the efforts of the Village, the Lake County Storm Water Management Commission (SMC) performs activities related to each of the six minimum control measures on behalf of all MS4s in the County. 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 as watershed boundaries are not constrained by municipal borders.

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.

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).

- Information on the Village's MS4 Program, including the SWMP, Notice of Intent, and annual reports.

Measurable Goals

1. 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.
2. Maintain and update the portion of the website dedicated to storm water.
3. Post the Village's SWMP, Notice of Intent, current Annual Report, and the previous 5 years of Annual Reports on the Village website.

Year 18 Activities

1. The Village continues to implement the BMPs described in its SWMP 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 Goals

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

Year 18 Activities

1. 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 Goals

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

Year 18 Activities

1. 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 Goals

1. 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.
2. Evaluate and incorporate comments received from the Village Board and the public.

Year 18 Activities

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

Due to the COVID-19 pandemic, the permittee was limited in its ability to administer certain BMPs. BMPs were performed to the maximum extent practicable

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	> Twice the State Average?
Demographic Index	8%	34%	68%	No
Minority Population	9%	38%	76%	No
Low Income Population	7%	29%	58%	No

Measurable Goals

1. 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 18 Activities

1. 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 Goals

1. Encourage the submission of complaints, suggestions, and requests related to the SWMP by publicizing contact information on educational materials and the Village website.

2. Provide methods for residents, businesses, and visitors to communicate their concerns.
3. Respond to concerns in a timely fashion.

Year 18 Activities

1. 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 Goals

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

Year 18 Activities

1. 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 Goals

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

Year 18 Activities

1. 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 Goals

1. Enforce the Village's Municipal Code

Year 18 Activities

1. 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 Goals

1. Adhere to the requirements of the WDO.

Year 18 Activities

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

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

Year 18 Activities

1. 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 Goals

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

Year 18 Activities

1. 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 Goals

1. Review site plans and issue permits in accordance with the Village Code.
2. 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 18 Activities

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

1. Document and track site inspections on development sites. Keep files for 5 years.

Year 18 Activities

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

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

Year 18 Activities

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

1. Maintain an inventory of all public and private storm water management facilities.
2. Inspect 20% of all public and private storm water management facilities on an annual basis. Recommend remedial actions as appropriate.
3. Evaluate the feasibility of retrofits and enhancements to storm water management facilities.

Year 18 Activities

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

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

Year 18 Activities

1. 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 Goals

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

Year 18 Activities

1. 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 Goals

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

Year 18 Activities

1. 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 Goals

1. Maintain current street sweeping practices.

Year 18 Activities

1. 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 Goals

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

Year 18 Activities

1. 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 Goals

1. 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 18 Activities

1. 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 Goals

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

Year 18 Activities

1. 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 Goals

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

Year 18 Activities

2. 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:

- Ensure all hazardous substances are properly labeled.
- Store all hazardous wastes in sealed containers constructed of compatible material and labeled.
- Locate items, such as paint, aerosol cans, gasoline, solvents and other hazardous wastes, in non-flammable storage cabinets or on a containment pallet.
- Do not overfill containers.
- Provide secondary containers when storing hazardous substances in bulk quantities (greater than 55 gallons).
- 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 Goals

1. Implement the Spill Response Plan outlined above.

Year 18 Activities

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

Part C. Information and Data Collection Results, Year 18

Stormwater Management Program Assessment, Year 18

Village staff met with their consultant to review the annual report and tracking documents; and assess the appropriateness and effectiveness of the Best Management Practices identified in the Village's SWMP. Based on this assessment, the Village believes that their current program is effectively making progress towards achieving the statutory goal of reducing the discharge of pollutants to the maximum extent practicable.

Water Quality Monitoring and Assessment Program, Year 18

The Village of Deerfield developed a Water Quality Monitoring and Assessment Program for the purpose of demonstrating compliance with the minimum standards required by the IEPA's General Storm Water Permit ILR40 for discharges from MS4s. The Permit requires annual monitoring of receiving waters upstream and downstream of the MS4 discharges, use of indicators to gauge the effects of storm water discharges on the physical/habitat-related aspects of the receiving waters and/or monitoring of the effectiveness of the Best Management Practices (BMPs). Monitoring of storm water discharges must be performed within 48 hours of a precipitation event greater than or equal to one-quarter inch in a 24-hour period.

Water pollution control programs are designed to protect the beneficial uses of the water resources within the state. Each state has the responsibility to set water quality standards (WQS) that protect these beneficial uses, commonly referred to as "designated uses". In 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, drinking water, food-processing water supply and aesthetic quality. Illinois' WQS provide the basis for assessing whether the beneficial uses of the state's waters are being attained. The purpose of the Village's Water Quality Monitoring and Assessment Program is to assess the quality of receiving waters and provide recommendations for BMPs that will target the identified areas of concern.

Test results are compared against the water quality standards (WQS) established by the Illinois Pollution Control Program (IPCB) and to the water quality results of prior testing. The Illinois WQS are located in the Illinois Administrative Rules Title 35, Environmental Protection; Subtitle C, Water Pollution; Chapter I, Pollution Control Board; Part 302, Water Quality Standards. The purpose of these standards are to protect existing uses of all waters of the State of Illinois, maintain above standard water quality and prevent unnecessary deterioration of waters of the State. Not all of the constituents tested for contain a limit under the General Use Water Quality Standard.

Water quality sampling was conducted during Year 18 at four (4) locations within the receiving waters, both upstream and downstream of the Village's stormwater discharges. Water samples were collected at each location within forty-eight hours of a rain event greater than 0.25". The total rainfall was equal to 1.52". Each sample was sent to a lab and analyzed for the following parameters: total suspended solids; total nitrogen; total phosphorous; fecal coliform; chlorides; and fats, oils, and grease. On-site measurements were completed for temperature, dissolved oxygen, total dissolved solids, conductivity, turbidly, and pH.

Sampling is conducted in accordance with EPA standard protocols. Parameters are analyzed according to Standard Methods, 17th and 18th Editions, and USEPA methods.

The data was reviewed to determine whether or not it provides any evidence of reduced pollutant loads or improved water quality. The data collected from water quality sampling locations upstream and downstream of the Village's stormwater discharges show either no change or a decrease in the concentrations of a number of water quality parameters between the upstream and downstream sampling locations. These findings may be attributable to the MS4's stormwater management activities and indicate that the Village's BMPs and stormwater management program are appropriate.

North Branch Chicago River Watershed Workgroup and Lake County Health Department Efforts

The Village 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. The following is a brief summary of the efforts:

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 and sampled 14 sites for fish, habitat, macroinvertebrate, and sediment chemistry. Data sondes were deployed at 6 sites in the Middle and West Forks for collection of dissolved oxygen (D.O), pH, temperature, and specific conductance. The NBWW will continue to support the North Branch Watershed Planning Committee and the North Branch Watershed Consortium through regular discussion at general meetings. MS4 communities that are currently NBWW members for the reporting year are located at (URL: www.nbwwil.org).

The LCHD Lakes Management Unit 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).

Tracking and Data Collection, Year 18

A summary of activities performed in accordance with the Village's SWMP are presented in the following pages.

Year 18
March 2020 - February 2021

VILLAGE OF DEERFIELD

MS4 STORMWATER DOCUMENTATION LOG

Village of Deerfield

Public Education and Outreach

Village of Deerfield

Description	Date	Distribution	Target Audience
D-Tales March/April 2020 (Village Newsletter): - Meeting Schedule - Open House for Village Wide Drainage Study - Woodvale Avenue Reconstruction Project - Protecting Water Quality - Pfingsten Road Bridge Closure - Underground Sprinkler & Fire Suppression System Testing - Village Board Action - Community Calendar - Help Conserve the Monarch Butterfly - Landscape Waste Pickup - Tree City USA - Arbor Day 2020	March/April 2020	D-Tales Village Newsletter	Residents
D-Tales May/June 2020 (Village Newsletter): - Waste Management Collection Update - Mayor's Message - Special Events (COVID-19) - Stay at Home Order Extended - Community Information - Construction Update	May/June 2020	D-Tales Village Newsletter	Residents
D-Tales July/August 2020 (Village Newsletter): - Meeting Schedule - Mayor's Message - Village Facilities Reopen - "Green UP" Your Parkway with the 50/50 Tree Program - Remember to Leash and Clean up after your dogs - Sprinkling Restrictions - Register for Road Construction Updates - Woodvale Avenue Reconstruction Project - Drainage Study Update - 2020 Street Rehabilitation Project Update - Deerfield Road Resurfacing Project - Introduction to Water Quality Report - Annual Drinking Water QUality Report - Lake Michigan: Our Water Source - Lead and Copper Testing - Village Board Action - Deerfield Flood Information - Community Programs - Lawn Irrigation Regulations - Reduce, Reuse, and Recycle Reminders	July/August 2020	D-Tales Village Newsletter	Residents
D-Tales September/October 2020 (Village Newsletter): - Meeting Schedule - Mayor's Message - Village Facilities Update - Fall Leaf Collection Program - Flood Information - National Preparedness Month Step by Step - Grate Keepers Program Protects Waterways - Capital Projects 2020 Status Update - Village Board Action - Water Reclamation Facility 101	September/ October 2020	D-Tales Village Newsletter	Residents
D-Tales November/December 2020 (Village Newsletter): - Meeting Schedule - Mayor's Message - Ways to Avoid Large Water Bills - Community Solar Provides Cost Savings and Clean Energy for Residents and Businesses - Snow Plowing Operations - Deerfield Flood Information - Sidewalk Snow Clearing Program - Village Board Action - Community Calendar - Holiday Refuse Collection Schedule - 2020 Leaf Collection Program Continues - Landscape Waste Collection	November/ December 2020	D-Tales Village Newsletter	Residents
D-Tales January/February 2021 (Village Newsletter): Meeting Schedule - Message from the Mayor - Adopt a Hydrant - Snow Plowing Operations - Winter Tree Trimming - Village Board Action - New Water Meter Replacement Fee - Join the Community Solar Program	January/February 2021	D-Tales Village Newsletter	Residents
Links to all Village Board Meetings (Live or On Demand)	ongoing	website	Residents

Public Education and Outreach

Village of Deerfield

Description	Date	Distribution	Target Audience
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
Business-Oriented educational materials: - Auto Repair - Events Resource Sheet - Fats, Oil and Grease BMP Manual - Fats, Oil and Grease Fact Sheet - Gas Station Resource Sheet - Landscaping Resource Sheet - Restaurant Resource Sheet	ongoing	website	Business Owners and Workers
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

Public Education and Outreach

Village of Deerfield

Description	Date	Distribution	Target Audience
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
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 2012-2018. The web page also has three sets of educational materials geared towards residents, businesses, and construction sites.	ongoing	website	Residents

Public Participation & Involvement

Village of Deerfield

Description	Date
In person participation and involvement was cancelled due to COVID-19.	
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. Meeting Dates:
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
Online Citizen Request Tracker available to report concerns.	ongoing
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

Illicit Discharge Detection and Elimination

Village of Deerfield

Description	Date	Illicit Discharge Suspected
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 66 outfalls were inspected in September and December of 2020. No potential illicit discharges were identified at any of these locations.	September - December, 2020	None

Construction Site Runoff Control

Village of Deerfield

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**
JUF Senior Residences - Permit No. ILR10Z257	1625 Lake Cook	65 Inspections performed in Year 18 by Manhard Consulting
Oracle Innovation Phase 2	1405 Lake Cook	31 Inspections performed in Year 18 by Village of Deerfield, 6 inspections performed by Manhard Consulting

Post Construction Site Runoff Control

Village of Deerfield

ID #	Address	Maintenance Needed
		observations conducted by Manhard Consulting on September 10 and September 11, 2020
AB	Takeda Pkwy.	Minor trash scattered in and around the basin. Multiple dead fish observed around the basin but determined to not be fish-kill. Significant damage observed on the North Westerly outfall. Consider repairing.
C	Takeda Pkwy.	Minor trash observed around the basin, excessive phragmite growth observed. Excessive algae present around the basin.
D	550 S. Commons Ct.	Minor trash scattered in and around the basin. Sediment and vegetative growth inhibiting flow at the north east corner outfall. Material should be removed to promote positive flow.
E	442 Kelburn Rd.	Various outfalls have sediment and vegetative growth around the discharge point. May lead to inhibited flow. Basin overall in good condition.
F	478 Taupo Ln.	Basin in great condition. No comments.
G	429 Milford Rd.	Basin in great condition. No comments.
H	428 Milford Rd.	Basin in great condition. No comments.
I	436 Amberley Ln.	Basin in great condition. Minor side slope erosion observed around the basin.
J	570 Lake Cook Rd.	Minor trash scattered in and around the basin. Areas of side slope erosion observed. Debris to be removed from the outfalls to promote positive flow.
K	662 Lake Cook Rd.	Minor trash scattered in and around the basin. Areas of side slope erosion observed. Phragmites observed around the basin (invasive). Excessive algae present.
L	310 Huehl Rd.	Minor trash scattered around the basin. Basin consists of primarily cat tails. Outfall nearly filled with sediment and vegetation. Should be cleaned to promote positive flow.
M	Edens Expressway	Basin in great condition. The 2 northern outfalls are separated at the joint. Recommend repairing the outfalls.
N	999 Island Ct.	Minor trash scattered in and around the basin. Areas of side slope erosion observed. Minor damage to the outfalls, but it does not affect the flow of water.
O	700 Lake Cook Rd.	Minor trash scattered in and around the basin. Excessive algae observed along the edges of the basin and blocking the west outfalls. Areas of side slope erosion observed.
P	360 S. Waukegan Rd.	Unable to inspect. Perimeter fence and trees/brush blocking access to the basin.

Water Quality Testing

Village of Deerfield

West Fork Upstream Testing Location Results

Parameter	Accepted Limits	Test Results									
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Chloride (mg/L)	500	194	102	278	166	194	83.2	102	36.5	62.3	36.3
Phosphorous, Total (mg/L)	0.05	0.134	0.16	0.227	0.171	0.102	0.054	0.111	0.087	0.182	0.091
Total Suspended Solids (mg/L)	15.0-30.0	9	3.36	19	5	8	4.5	24.8	11	97.6	12
Total Nitrogen (mg/L)	<20.0	0.28	0.418	3.9	1.12	0.98	0.75	<5	<5	<5	1.00
Dissolved Oxygen (mg/L)	March – July at least 5.0 August – February at least 3.5	1.39	2.85	5.28	5.37	9.06	7.19	8.42	8.44	6.92	9.39
Total Dissolved Solids (ppm)	1000	486	578.5	815	525	704	372.8	282.3	409.9	153.8	397.4
Temperature (°F)	December – March 60.0 Max April – February 90.0 Max	73	58.46	62.36	75.33	70.68	58.77	62.39	62.75	73.77	52.74
Conductivity (µs/cm)	50.00 – 1500.0	971	715	856	794	1011	582	441	64	240	621
pH	6.5 – 9.0	6.58	7.59	7.89	7.66	8.26	7.76	7.64	7.95	7.7	7.65
Fats, Oils, and Grease	100 mg/L	NA	NA	NA	NA	NA	4	<5.0	<5	<5	5
Fecal Coliform	400 colonies/100 ml	NA	NA	NA	NA	NA	7,200	1,600	2,600	22,000	2,800
Turbidity (NTU)	<50 NTU	NA	NA	NA	NA	NA	26.71	28.02	68.74	42.4	102.6

Water Quality Testing

Village of Deerfield

West Fork Downstream Testing Location Results

Parameter	Accepted Limits	Test Results									
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Chloride (mg/L)	500	218	162	233	NA	250	72	93	38	91	98.2
Phosphorous, Total (mg/L)	0.05	0.147	0.165	0.822	0.478	0.592	0.099	0.056	0.073	0.064	0.038
Total Suspended Solids (mg/L)	15.0-30.0	20	3.36	33	5	5	32.5	7.4	12	22	2.5
Total Nitrogen (mg/L)	<20.0	1.12	0.557	2.23	1.4	1.4	0.86	<5	<5	<5	1.00
Dissolved Oxygen (mg/L)	March – July at least 5.0 August – February at least 3.5	4.73	1.15	8.61	8.3	9.6	7.27	8.07	8.36	7.09	9.58
Total Dissolved Solids (ppm)	1000	585	2931.5	607	822	869	541.1	180.1	513.9	217.4	301.4
Temperature (°F)	December – March 60.0 Max April – February 90.0 Max	72	63.68	67.33	73.62	69.26	59.88	61.12	64.34	74.1	57.19
Conductivity (µs/cm)	50.00 – 1500.0	1170	3877	937	1222	1225	0.845	281	803	339	471
pH	6.5 – 9.0	6.49	6.64	7.47	7.16	7.44	7.52	7.61	7.36	7.56	8.03
Fats, Oils, and Grease	100 mg/L	NA	NA	NA	NA	NA	<3.50	<5.0	<5	<5	5
Fecal Coliform	400 colonies/100 ml	NA	NA	NA	NA	NA	4500	2000	1,300	3400	900
Turbidity (NTU)	<50 NTU	NA	NA	NA	NA	NA	30.45	51.96	56.97	27.05	61.2

Water Quality Testing

Village of Deerfield

Middle Fork Upstream Testing Location Results

Parameter	Accepted Limits	Test Results									
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Chloride (mg/L)	500	167	202	96.5	168	214	82.9	39.8	23.8	68.9	32.3
Phosphorous, Total (mg/L)	0.05	0.238	0.103	0.203	0.172	0.116	0.089	0.089	0.1	0.132	0.106
Total Suspended Solids (mg/L)	15.0-30.0	9	3.36	17	11	6	4	12	24.5	20.6	8.8
Total Nitrogen (mg/L)	<20.0	1.3	0.836	1.95	0.98	0.84	1.24	<5	<5	<5	1.00
Dissolved Oxygen (mg/L)	March – July at least 5.0 August – February at least 3.5	5.33	7.54	5.75	4.79	7.16	7.14	7.57	8.34	6.22	9.52
Total Dissolved Solids (ppm)	1000	431	754	588	552	697	426.6	213.4	268.6	282.2	406.4
Temperature (°F)	December – March 60.0 Max April – February 90.0 Max	76.43	58.64	60.15	73.13	65.91	58.7	60.23	64.26	73.54	54.91
Conductivity (µs/cm)	50.00 – 1500.0	862	937	425	815	946	0.666	333	419	441	635
pH	6.5 – 9.0	7.25	7.97	7.63	7.63	7.82	7.7	7.56	7.82	7.46	7.72
Fats, Oils, and Grease	100 mg/L	NA	NA	NA	NA	NA	<3.5	<5.0	<5	<5	5
Fecal Coliform	400 colonies/100 ml	NA	NA	NA	NA	NA	>8700	15000	4,600	5800	8,000
Turbidity (NTU)	<50 NTU	NA	NA	NA	NA	NA	46.53	79.82	179.2	108.2	52.8

Water Quality Testing

Village of Deerfield

Middle Fork Downstream Testing Location Results

Parameter	Accepted Limits	Test Results									
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Chloride (mg/L)	500	194	233	115	244	150	70.4	29.7	36.3	28.4	57.3
Phosphorous, Total (mg/L)	0.05	1.145	0.121	0.341	0.2	0.098	0.111	0.098	0.104	0.151	0.128
Total Suspended Solids (mg/L)	15.0-30.0	10	4	11	42	11	36	42	19	44.8	16
Total Nitrogen (mg/L)	<20.0	0.7	1.11	1.95	1.26	1.12	0.91	<5	<5	<5	1.31
Dissolved Oxygen (mg/L)	March – July at least 5.0 August – February at least 3.5	3.99	4.99	6.42	5.27	8.15	5.97	6.7	7.88	5.24	9.47
Total Dissolved Solids (ppm)	1000	458	832	502	762	569	390	331.3	297	283.8	285.4
Temperature (°F)	December – March 60.0 Max April – February 90.0 Max	71	57.2	60.24	73.06	65.64	59.15	62.45	62.32	74.02	57.15
Conductivity (µs/cm)	50.00 – 1500.0	917	7009	572	1124	770	0.609	517	464	443	446
pH	6.5 – 9.0	6.49	7.66	7.72	7.7	7.82	7.7	7.72	7.82	7.52	7.96
Fats, Oils, and Grease	100 mg/L	NA	NA	NA	NA	NA	<3.5	<5.0	<5	<5	5
Fecal Coliform	400 colonies/100 ml	NA	NA	NA	NA	NA	>12000	7000	4,600	18000	4,800
Turbidity (NTU)	<50 NTU	NA	NA	NA	NA	NA	62.78	31.22	97.86	85.12	88.3

Employee Training

Village of Deerfield

Date	Event	Location	Attendees
Due to COVID, training was put on hold until 2021			

Part D. Summary of Year 19 Stormwater Activities

The table below indicates the stormwater management activities that the Village plans to undertake during Year 19. Additional information about the BMPs and measurable goals that the Village will implement during Year 19 is provided in the section following the table.

Note: X indicates BMPs that will be implemented during Year 19

Year 19 Village of Deerfield	
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
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 19 Village of Deerfield	
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
X	D.6 Site Inspection/Enforcement Procedure
	D.7 Other Construction Site Runoff
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
X	F.4 Municipal Operations Waste Disposal
X	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

Stormwater Management Activities, Year 19

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 Goals

1. Continue to implement the SWMP and track progress of BMPs as described in the SWMP.

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 Goals

1. Continue to implement the SWMP and track progress of BMPs as described in the SWMP.

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 Goals

1. Continue to implement the Illicit Discharge Detection and Elimination Program and track progress as described in the SWMP.

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 Goals

1. Continue to implement the SWMP and track progress of BMPs as described in the SWMP.
2. 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 Goals

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

F. Pollution Prevention/Good Housekeeping

The Village of Deerfield is committing to implementing the Pollution Prevention/Good Housekeeping component of its SWMP. This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. The Village of Deerfield will examine and subsequently alter their actions to help ensure a reduction in the amount and type of pollution. Various pollution types include material that collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways. The Village will continue to evaluate "sensible salting" procedures relating to a reduction in chloride use. The Village will conduct regular inlet/catch basin cleaning and street sweeping. The Village continues to organize events to help reduce pollution and floatable material. 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 Goals

1. Continue to implement the SWMP and track progress of BMPs as described in the SWMP.

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 18 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 18.

- **Part E3** summarizes the information and data collected by the QLP during Year 18.

- **Part E4** describes the stormwater management activities that the QLP plans to undertake during Year 19.

- **Part E5** lists the construction projects conducted by the QLP during Year 18.

Part E1. QLP Changes to Best Management Practices, Year 18

Note: "X" indicates BMPs that were implemented as planned
✓ indicates BMPs that were changed during Year 18

Year 18 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 18 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 18

IEPA issued its General NPDES Permit No. ILR40 effective March 1, 2016 (the first day of Year 14). SMC has reviewed the new 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 and provided it to communities in August 2016; the final draft was provided in November 2016.

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 18 are described below.

A. Public Education and Outreach

A.1 Distributed Paper Material

Measurable Goal(s):

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

Year 18 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 18 QLP activities:

- SMC continues to make available "The Big Picture: Water Quality, Regulations & NPDES" presentation to Lake County MS4s, (URL hyperlink).
- Provided NPDES related information via Facebook.
- SMC held a Virtual Meeting "Illinois DCEO Capital Projects Roundtable" on 2/19/2021.
- SMC held a presentation via Storm Water Solutions (SWS) Video Series #21: Lake County Wetland Restoration and Preservation Plan on 1/18/2021.
- SMC presented on the QLP MS4 NOI to the Des Plaines River Watershed Workgroup

- Monitoring/Water Quality Improvements Committee on 9/13/2020.

A.3 Public Service Announcement

Measurable Goal(s):

- Include public service announcement highlighting community accomplishments related to IEPA's NPDES Stormwater Program in "Watershed E-News";
- Post watershed identification signage with LCDOT on Roads maintained by the Lake County Dept. of Transportation.

Year 18 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.

A.4 Community Event

Measurable Goal(s):

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

Year 18 QLP activities:

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

- SMC sponsored (1) Designated Erosion Control Inspector (DECI) Workshop held on 2/23/2021.
- SMC co-sponsored a river cleanup for Chicago River Day on 5/9/2020 throughout the watershed.

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 18 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 18 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 an Inventory 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, allowing the public to see, (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 continue to maintain website outreach. In YR18 SMC had the following visitors:
    - Stormwater Management Commission | Lake County, IL- 8,933 visitors
    - Watersheds | Lake County, IL- 1,668 visitors
    - Watershed Development Ordinance | Lake County, IL- 2,798 visitors
    - Stormwater Best Practices | Lake County, IL- 699 visitors
    - National Pollution Discharge Elimination System (NPDES) Phase II | Lake County, IL- 161 visitors

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 18 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 18.
- Per records, there were (12) SMC meetings, (6) TAC meetings, (1) 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 18 QLP activities:

- Notice of all stakeholder meetings continues to be provided on the SMC website and through direct mailings and e-mailings 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 18:
    - Des Plaines River Watershed Workgroup (9) meetings (excluding executive board meetings)
    - North Branch Chicago River Watershed Workgroup (3) General Membership meetings – Aug 2020, Nov 2020 and Feb. 2021 (excluding executive board meetings and Monitoring Committee meetings)
    - Des Plaines River Planning Committee had (0) meetings during reporting year. Meetings cancelled due to in person meeting restrictions.
- 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 18.
- Prepare annual report on Qualifying Local Program activities at end of Year 18.

Year 18 QLP activities:

- SMC tracked the number of Municipal Advisory Committee (MAC) meetings: According to records, there were (1) MAC meetings conducted during this reporting period (12/09/20). During the reporting year additional meetings were cancelled due to in person meeting restrictions.
- QLP prepared an annual report template including stormwater management activities that SMC performed as a QLP are described in this Annual Facility Inspection Report template. This template is provided to Lake County MS4s.
- QLP prepared an NOI template including QLP activities related to each of the six minimum control measures (MCMs) provided to Lake County MS4s.
- The stormwater management activities that SMC plans to perform as a QLP during Year 19 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 18 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 18 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 18 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): 793.
    - DECIs who have passed the exam between 03/01/2020 – 03/1/2021: 35.
    - Total listed DECIs (to date): 201 (DECI completed certification process).
    - DECIs have a recertification process every (3) years. Current cycle 2020-2023.

D.2 Erosion and Sediment Control BMPs

Measurable Goal(s):

- Continue to enforce the countywide WDO.
- Complete TRM update and work toward final approval and publication of the document.

Year 18 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 59 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 18 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 chapter of TRM.

Year 18 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 18, there are 93 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, which includes a performance review of all 53 certified and non-certified communities for permitted development compliance.
- The SMC website includes guidance information to supplement the TRM related to 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 18 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 18 QLP activities:

- SMC continues to track the number of site inspections conducted by SMC staff.
- According to records, 959 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 18 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 18 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 18 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 18 QLP activities:

- SMC continues to enforce the countywide WDO.

E.6 Post-Construction Inspections

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 18 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 18 QLP activities:

- The annual WMB meeting was held on Dec. 2, 2020.
- At the annual WMB meeting 11 Projects were selected to receive $196,400 of funding through the SMC grant program. These projects including planning and in

the ground project efforts that support flood reduction, water quality improvement, and stormwater retrofit projects.

- 10 WMB project grants awarded.
- 1 Watershed Management Assistance (WMAG) project grant awarded.

- SMC staff attended the Stormwaterone.com "Addressing Stormwater Compliance on Construction Projects using "The 3 C's of Stormwater" on 5/21/2020.
- SMC staff attended the Stormwater Solutions "MS4 Challenges Posed by Evolving Construction Site Storm Water Requirements" on 6/04/2020.
- SMC staff attended the SMC "2021 DECI Virtual Workshop" on 2/23/2021.

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 18 QLP activities:

- SMC continues to provide information on training opportunities and training resources to Lake County MS4s.
- SMC continues to make available the Excal Visual Storm Watch Municipal Stormwater Pollution Prevention software to Lake County MS4s.
- SMC continues to make available the Excal Visual "IDDE - A Grate Concern" software to Lake County MS4s.

F.5 Flood Management/Assess Guidelines

Measurable Goal(s):

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

Year 18 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 Deicing

Measurable Goal(s):

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

Year 18 QLP activities:

- De-icing workshops:
    - During the reporting year workshops were cancelled due to in person meeting restrictions.
- De-icing certification process to promote trained vendors is offered
    - No new certification recorded during the reporting year due to in person meeting restrictions.
    - In 2019, 117 preferred providers have been identified based on certification. Vendors stay on the list for 5 years.
- Deicing Summit was cancelled due to in person meeting restrictions.
- 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 18

The QLP did not collect any monitoring data on behalf of Lake County's MS4s during Year 18. However, SMC has reviewed information presented by the Illinois EPA (IEPA) in the 2016 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 2021

This brief report is based on information contained in the Illinois EPA's 2016 Illinois Integrated Water Quality Report (IIWQR) and Section 303(d) List, dated July 2016. 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 2016 Illinois Integrated Water Quality Report and Section 303(d) List.

The Illinois EPA's 2016 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 designation is 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 data accompanying the Illinois EPA's 2016 IIWQR and Section 303(d) List shows that 179.68 stream miles in Lake County have been assessed by the Illinois EPA for attainment of at least one designated use per the IIWQR Appendix B-2. Specific Assessment Information for Streams, 2016.

An analysis of data accompanying the Illinois EPA's 2016 Illinois Integrated Water Quality Report and Section 303(d) List shows that 157.84 stream miles (of the 179.68 stream miles that have been assessed) in Lake County are considered impaired by the Illinois EPA. These stream segments have been mapped and are shown in Figure E3.1.

An analysis of the 2014 impaired streams to the 2016 impaired streams, indicates 8 stream miles previously listed in the 2014 303(d) list have new data indicating aquatic life is now "Fully Supported" and applicable water quality standards have been attained; these waters are no longer included in the 2016 303(d) list. The IIWQR mentions there is no specified reason for the recovery.

Table E3.1 2014 303(d) streams removed from 2016 303(d) list						
Assessment ID	**Name**	**Miles**		**Assessment ID**	**Name**	**Miles**
IL_G-08	Des Plaines River	0.98		IL_QE-01	Dead Dog Creek	4.02
IL_GV-01	Bull Creek	2.33		IL_DTZS-01	Flint Creek	9.66
IL_RGZB	Hastings Lake	0.34		IL_RTJ	Long Lake	2.85
IL_DT-35	Fox River	5.03		IL_RHK	Eleanor Lake	0.36
IL_HCCB-05	West Fork North Branch	5.73		IL_GWA	North Mill Creek	6.62
IL_GST	Buffalo Creek	8.77		IL_RGZE	Slough Lake	0.42
IL_RGZA	Crooked Lake	1.00				

An analysis of the 2014 impaired streams to the 2016 impaired streams indicates 27 stream miles previously not listed in the 2014 303(d) list are now considered impaired in the 2016 303(d) list as new data indicates impairments.

Table E3.2 Stream Segments added to 2016 303(d) list not previously listed in 2014						
Assessment ID	**Name**	**Miles**		**Assessment ID**	**Name**	**Miles**
IL_HCCB-05	West Fork North Branch Chicago River	0.002		IL_QC-03	Waukegan River	1.47
IL_DTRA-W-C1	Fiddle Creek	0.003		IL_GU-02	Indian Creek	11.32
IL_GW-02	Mill Creek	12.96		IL_QA-C4	Pettibone Creek	1.24

Lakes

An analysis of data accompanying the Illinois EPA's 2016 IIWQR and Section 303(d) List shows that 170 inland lakes in Lake County have been assessed by the Illinois EPA for attainment of at least one designated use per the IIWQR Appendix B-3. Specific Assessment Information for Lakes, 2016.

An analysis of data accompanying the Illinois EPA's 2016 IIWQR and Section 303(d) List shows that 140 inland lakes, of the 170 assessed, in Lake County are considered impaired by the Illinois EPA. These lakes have been mapped and are shown in Figure E3.1.

An analysis of the 2014 impaired lakes to the 2016 impaired lakes indicates 5 lakes previously not listed in the 2014 303(d) list are now considered impaired in the 2016 303(d) list as new data indicates impairments.

Table E3.3 Inland Lakes added to 2016 303(d) list not previously listed in 2014						
Assessment ID	**Name**	**Acres**		**Assessment ID**	**Name**	**Acres**
IL_RGZD	Miltmore	83.1		IL_VGW	Rollins Savanna #1	8
IL_RGK	Grays	80		IL_VGX	Rollins Savanna #2	53
IL_SGZ	Briarcrest Pond	4				

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.

Located within Illinois is 196 square miles of open water of Lake Michigan, or about thirteen percent of the total open water located within Illinois. These waters were assessed for the 2016 IIWQR and Section 303(d) List, and all 196 assessed square miles were rated as Fully Supporting for the following uses: aquatic life use, primary contact use, secondary contact use, and public and food processing water supply use. However, fish consumption uses in all 196 assessed square miles of open water was rated as Not Supporting due to contamination from polychlorinated biphenyls (PCBs) and mercury. Additionally, aesthetic quality use in all 196 assessed square miles of open water was rated as Not Supporting due to exceedances of the Lake Michigan open water standard for total phosphorus. It should be noted that such exceedances do not necessarily indicate that there are offensive conditions in Lake Michigan due to excessive algal or aquatic plant growth.

Along Illinois' Lake Michigan coastline, four of the 13 harbors are currently assessed in the 2016 IIWQR and Section 303(d) List, for several different designated uses. The Illinois EPA uses data collected from the Lake Michigan Monitoring Program harbor component to assess water quality for the following designated uses:

- Aesthetic Quality, a 0.18 sq. mi area was assessed, with 0.12 sq. mi fully supporting and 0.06 sq. mi Not Supporting (poor).
- Aquatic Life, a 3.88 sq. mi area was assessed, with 3.82 sq. mi fully supporting and 0.06 sq. mi Not Supporting (poor).
- Fish Consumption, a 2.62 sq. mi area was assessed, with 2.62 sq. mi Not Supporting (poor).
- Primary and Secondary Contact were not assessed.

Table C-10 of the IIWQR, lists potential causes of impairment in the harbors of Lake Michigan that can include Pesticides, Organic Pollutants, Metal Pollutants as well as polychlorinated biphenyls (PCBs), mercury, bottom deposits, lead, zinc, cadmium, arsenic, phosphorus, copper, and chromium.

Along Illinois' Lake Michigan coastline, a portion of all 64 shoreline miles of Lake Michigan located in Illinois were assessed for the Illinois EPA's 2016 IIWQR and Section 303(d) List for several different designated uses. Contamination sources for Not Supporting is due to polychlorinated biphenyls (PCBs) and mercury and bacterial contamination from Escherichia coli (E. coli) bacteria.

- Aesthetic Quality and Aquatic Life were not assessed.
- Fish Consumption, 64 mi area was assessed, with 64 mi Not Supporting (poor).
- Primary Contact, 64 mi area was assessed, with 5.5 mi fully supporting and 58.5 mi Not Supporting (poor).
- Secondary Contact, 5.5 mi area was assessed, with 5.5 mi fully supporting.

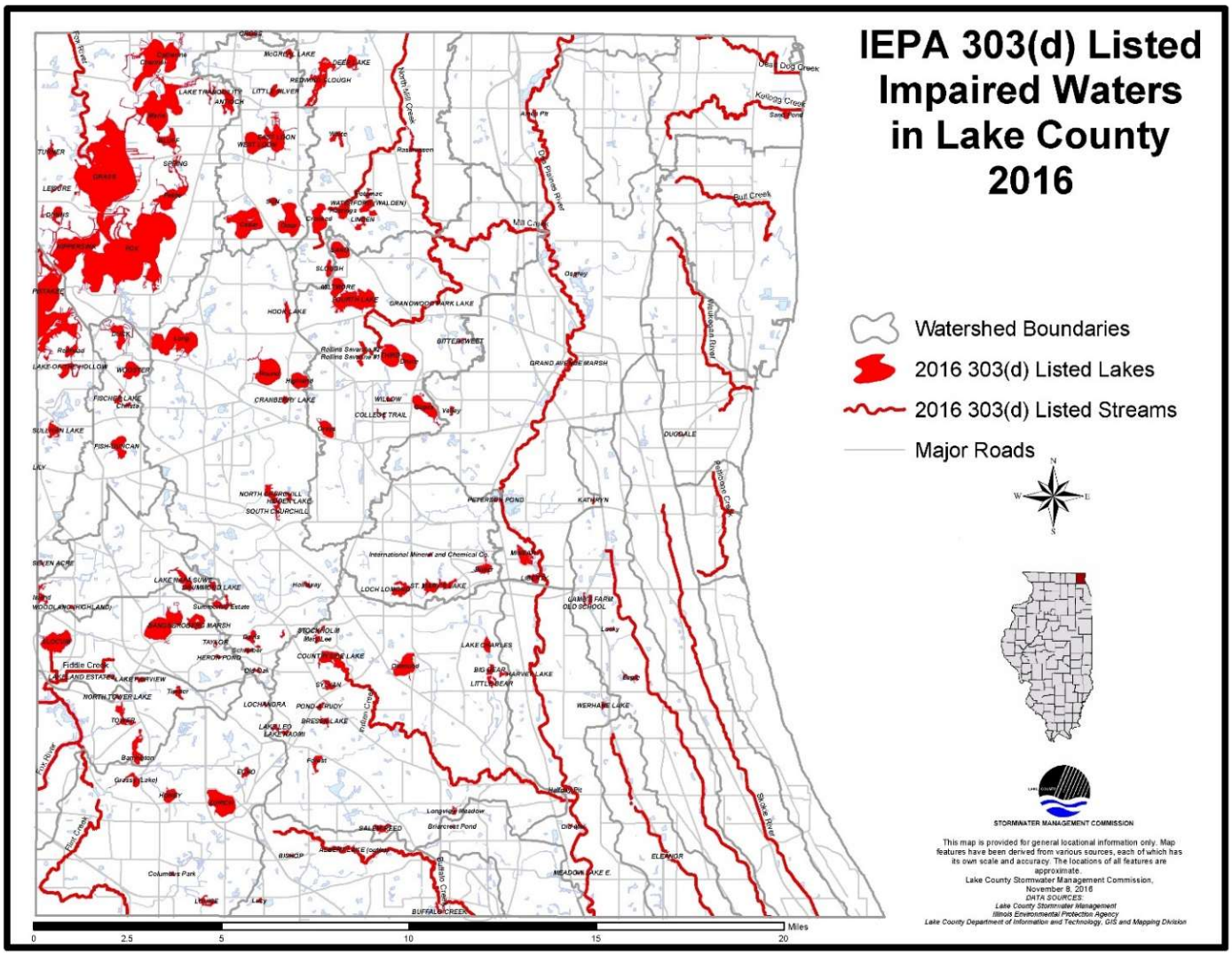
IEPA 303(d) Listed Impaired Waters in Lake County 2016
Watershed Boundaries
2016 303(d) Listed Lakes
2016 303(d) Listed Streams
Major Roads
N
W
E
S
STORMWATER MANAGEMENT COMMISSION
This map is provided for general locational information only. Map features have been derived from various sources, each of which has its own scale and accuracy. The locations of all features are approximate.
Lake County Stormwater Management Commission, November 8, 2016
DATA SOURCES:
Lake County Stormwater Management
Illinois Environmental Protection Agency
Lake County Department of Information and Technology, GIS and Mapping Division
0
2.5
5
10
15
20
Miles

Figure E3.1

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 YR18 reporting period, DRWW's monitoring program includes: Water/Sediment sampling and analysis at 73 Monitoring Locations for 2019; Bioassessment monitoring at 31 monitoring locations; Continuous water quality monitoring with data sondes and Chlorophyll a sampling and analysis at 14 Monitoring Locations; and Flow Monitoring data collection at 22 sites. An annual water chemistry monitoring report was submitted to Illinois EPA on behalf of DRWW members in March 2020, which covers the NPDES II monitoring requirements for MS4 communities that are DRWW members. The Des Plaines River Watershed Monitoring Strategy was also updated and submitted to Illinois EPA in March 2020. 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 and sampled 14 sites for fish, habitat, macroinvertebrate, and sediment chemistry. Data sondes were deployed at 6 sites in the Middle and West Forks for collection of dissolved oxygen (D.O), pH, temperature, and specific conductance. The NBWW will continue to support the North Branch Watershed Planning Committee and the North Branch Watershed Consortium through regular discussion at general meetings. Current NBWW member list is located at (URL: www.nbwwil.org).

The LCHD Lakes Management Unit 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 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 19 Stormwater Activities

The table below indicates the stormwater management activities that the QLP plans to undertake during Year 19. Additional information about the BMPs and measurable goals that the QLP will implement during Year 19 is provided in the section following the table.

Note: "X" indicates BMPs that will be implemented during Year 19

Year 19 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 19 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 19, 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 2016-2021 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 included in SMC’s watershed E-News. SMC also utilizes social media and coordinates with the Lake County Department of Transportation (LCDOT) to post 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 in watershed E-News at least once each year.
- 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.
- Contribute green infrastructure support as a certified professional in the National Green Infrastructure Certification Program (NGICP).

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 18

Project Name	Project Size (acres)	Construction Start Date	Construction End Date
Strawberry Condos Drainage Improvement Project	0.18	10/5/2020	12/18/2020
Beach Park Bull Creek Ravine and Streambank Stabilization Project	0.54	11/10/2020	7/25/2021
2020 Demolition and Site Restoration Project – 991 Kilbourne Rd, Gurnee	0.35	11/10/2020	7/25/2021
2020 Demolition and Site Restoration Project – 1046 Kilbourne Rd, Gurnee	0.43	12/1/2020	3/15/2021
2020 Demolition and Site Restoration Project – 1059 Briargate Dr, Highland Park	0.42	12/1/2020	3/15/2021
2020 Demolition and Site Restoration Project – 1065 Briargate Dr, Highland Park	0.42	12/1/2020	3/15/2021
2020 Demolition and Site Restoration Project – 1318 Golf Ave, Highland Park	0.17	12/1/2020	3/15/2021
2020 Demolition and Site Restoration Project – 1217 Taylor Ave, Highland Park	0.20	12/1/2020	3/15/2021

Part F. Construction Projects Conducted During Year 18

Project Name	Project Size (acres)	Construction Start Date	Construction End Date
No applicable projects.			