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, 2021 To March, 2022

Permit No. ILR40 0285

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

Name: Village of Barrington - Public Works Mailing Address 1: 302 N Raymond Ave.

Mailing Address 2: County: Lake

City: Barrington State: IL Zip: 60010 Telephone: 847-381-7903

Contact Person: Mike Casper Email Address: mcasper@barrington-il.gov
(Person responsible for Annual Report)

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

Village of Barrington Lake 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: 5-31-22

Mike Casper Printed Name: Plant Superintendent 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

IL 532 2585
WPC 691 Rev 6/10

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4. 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

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

Village of Barrington
Permit No. ILR40-0285
Permit Year 19: March 1, 2021 to March 1, 2022

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Appendix 2021-2022 Water Quality Report Data

Part A. MS4 Changes to Best Management Practices, Year 19

The Village of Barrington has committed to implementing Best Management Practices (BMPs) in accordance with the Village's Storm Water Management Plan (SWMP) dated March 2013 and revised March 2017. This plan reflects implementation of BMPs in accordance with the schedule below. No changes to the SMPP were made in Year 19.

Note: "X" indicates BMPs that were implemented in accordance with the MS4's SMPP
"✓" indicates BMPs that were changed during Year 19

Year 19 MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
	A.3 Public Service Announcement
	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
	B.3 Stakeholder Meeting
X	B.4 Public Hearing
	B.5 Volunteer Monitoring
X	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
X	C.8 Pollutant Field Testing
X	C.9 Public Notification
	C.10 Other Illicit Discharge Controls

Year 19 MS4	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
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	F.6 Other Municipal Operations Controls

This MS4 Program during the reporting year 3/2021-3/2022 for this Annual Facility Inspection Report:

- MS4 did not make any changes to Best Management Practices identified in the Notice of Intent submitted February 25, 2021 for Permit No. ILR40-0285.

Part B. MS4 Status of Compliance with Permit Conditions, Year 19

Stormwater Management Activities, Year 19

The IEPA issued a new version of its General NPDES Permit No. ILR40 (Permit), effective on March 1, 2016. The Village revised the local Storm Water Management Plan (SWMP) in March 2017 to reflect the requirements of the new Permit. Please note that IEPA issued a new version of its General NPDES Permit No. ILR40 (Permit) for Public Comment in September 2021, however this version is not effective. The permit effective on March 1, 2016 is being administratively continued by the IEPA. On behalf of all MS4s within the county, SMC performs activities related to each of the six minimum control measures which are described in detail in the SMPP. These BMPs, implemented at the county level, make significant strides in achieving the statutory goal of reducing the discharge of pollutants to the MEP as watershed boundaries are not constrained by municipal borders.

- The SWMP and previous five-years of Annual Reports for this MS4 Program can be viewed at the following link:
  https://www.barrington-il.gov/government/departments/development_services/stormwater_management.php

A. Public Education and Outreach

A.1 Distributed Paper Material

Brief Description of BMP:

- The QLP compiles, develops, and distributes throughout Lake County (to the general pubic and MS4s) a variety of materials related to stormwater management. The MS4 supports the QLP by further distributing education material via take-away racks, municipal newsletters, website, and at outreach events, as needed.

Measurable Goal(s):

- Record volume of paper material distributed annually. Track number of unique website hits annually.

Year 19 activities:

- MS4 posted the following on-line articles:
  - Some Thoughts About Barrington's Water Supply (March 5, 2021)
  - It's All About Water (June 18, 2021)
  - Please Use Salt Responsibly This Winter (January 21, 2022)
  - A total of 6 articles containing stormwater information was released during this reporting year.
- MS4 posted stormwater related articles in their Newsletter's:
  - STORMWATER POLLUTION: TIPS FOR PROPER LAWN CARE (MAY-JUNE 2021)
  - STORMWATER POLLUTION TIP: RETURN USED CAR OR TRUCK BATTERIES (NOVEMBER-DECEMBER 2021)
  - A total of 4 newsletters containing stormwater information was released during this reporting year which were also mailed.
- Unique website hits was not tracked during this reporting period.

A.6 Other Public Education

Brief Description of BMP:

- The MS4:
  - Maintains a website that contains a variety of materials and resources related to stormwater management. The website provides information about the ILR40 permit and stormwater best management practices (BMPs).
  - Maintains a Tree City USA designation and promotes and facilitates Arbor Day events.

- Continues promotion and implementation of the Village's rain barrel rebate program

Measurable Goal(s):
- Record number of attendees at Arbor Day events annually.
- Record number of trees planted annually in association with Arbor Day events.
- Record number of rain barrels rebate offers annually.
- Track the amount of recycled material and hazardous waste collected annually.

Year 19 activities:
- As of 5/10/22, a current NOI has not been published. An NOI was submitted in February 2021 and will be linked on the Village website. In addition, the link to "Ten Ways to Improve Stormwater Runoff" is broken and will be fixed.
- Week of April 25 to May 1, 2021 was dedicated as Tree Care Week in the Village with April 29, 2021 as the Village's Arbor Day holiday.
- Arbor day attendees and trees planted was not tracked during this reporting period.
- Rain barrel rebates was not tracked during this reporting period.
- 1,352.96 tons of recycling was collected for this reporting year.

B. Public Participation/Involvement

B.4 Public Hearing

Brief Description of BMP:
- Present Annual Report to Board during open meeting

Measurable Goal(s):
- MS4 to present Annual Report to Board during open meeting. Maintain meeting minutes annually.

Year 19 activities:
- Unable to identify date of presentation based on Village Board Committee of the Whole Meeting Minutes.

B.7 Other Public Involvement

Brief Description of BMP:
- Publicize contact information to encourage submission of complaints, suggestions, requests or report potential illicit discharges or illegal dumping.
- Complete the environmental justice screening annually and if any environmental justice areas are identified within the community, ensure that BMP efforts are targeted at these areas.
- Participate in watershed planning and stakeholder meetings

Measurable Goal(s):
- Record number of complaints, suggestions, and requests annually.
- Provide results of environmental justice screening effort in the Annual Report.
- Track subject matter and number of meetings attended by Village staff.

Year 19 activities:
- The Village continues to welcome Public Participation and Involvement in stormwater pollution prevention. Contact information is regularly publicized and members of the public are encouraged to report complaints, suggestions, and requests which are tracked by the Village. Zero illicit discharge or dumping complaints were made.

- MS4 attends Fox River Study Group monthly.
- MS4 attended Flint Creek/Spring Creek Watersheds Group in March & September 2021.

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. The following table presents data polled in May 2022.

Table 1: EJ Screen Data May 2022

Demographic Indicators	Village Statistic	State Average	2x State Average	> 2x State Average?
Demographic Index	12%	34%	68%	No
Minority Population	16%	39%	78%	No
Low Income Population	8%	28%	56%	No

C. Illicit Discharge Detection and Elimination

C.1 Sewer Map Preparation

Brief Description of BMP:

- The MS4 developed a map of the municipal storm sewer system identifying the location of all outfalls, and the names and location of all receiving waters. The storm sewer system map is meant to demonstrate a basic awareness of the discharge areas of the system. It is needed to help determine the extent of discharged dry weather flows, and the waterbody these flows may be affecting. The outfall map is revised as needed to incorporate permitted outfalls associated with new developments.

Measurable Goal(s):

- None

Year 19 activities:

- No modifications made to outfall map.

C.2 Regulatory Control Program

Brief Description of BMP:

- The local watershed ordinance includes provisions that prohibit illicit discharges to the storm sewer system during construction (i.e., prior to final site stabilization) on development sites.

MS4 has also adopted illicit discharge ordinances that prohibit all non-stormwater discharges, including illegal dumping, to the storm sewer system.

Measurable Goal(s):
- Document violations and enforcement action taken

Year 19 activities:
- No violations reported or detected

C.3 Detection/Elimination Prioritization Plan

Brief Description of BMP:
- Detection/ Elimination Plan has been developed and is included in SWMP. Detection methods include dry-weather screening and regular storm sewer maintenance.

Measurable Goal(s):
- Annually document outfalls inspected, results, and additional actions if needed

Year 19 activities:
- Annual inspection of all Village outfalls occurred between August and October 2021. A spreadsheet with notes of all of the outfalls inspected is in the Village's possession.

C.4 Illicit Discharge Tracing Procedures

Brief Description of BMP:
- Source Id/tracing procedures for identified illicit discharges have been developed and are included in SWMP.

Measurable Goal(s):
- Follow established tracing procedures for potential illicit discharges included in the SWMP as needed.

Year 19 activities:
- No illicit discharges reported or detected

C.5 Illicit Source Removal Procedures

Brief Description of BMP:
- Removal procedures for found illicit discharges have been developed and are included in SWMP.

Measurable Goal(s):
- Follow established removal procedures for found illicit discharges included in the SWMP as needed

Year 19 activities:
- No illicit discharges reported or detected

C.6 Program Evaluation and Assessment

Brief Description of BMP:
- Periodically evaluate and assess the IDDE portion of the SWMP. Collaborate and share information about IDDE program and results through MAC.

Measurable Goal(s):

- Annually evaluate effectiveness of program comparing volume of illicit discharge occurrences to prior years.

Year 19 activities:

- No evaluation conducted this reporting year

C.7 Visual Dry Weather Screening

Brief Description of BMP:

- Continue screening storm sewer structures as part of regular cleaning and maintenance and implementing dry weather screening program as described in the SWMP.

Measurable Goal(s):

- Record number of cleaned and inspected structures and outfalls annually.

Year 19 activities:

- The following was complete this reporting year:
    - 31 catch basins/inlets cleaned with 49.5 cubic yards of material removed
    - 6 catch basins/inlets repaired/replaced
    - Outfalls were inspected and MS4 maintains an inspection list

C.8 Pollutant Field Testing

Brief Description of BMP:

- Perform field testing consistent with the procedure identified in the SWMP during pre-screening, for outfalls observed with dry weather flow and for high-priority outfalls. Identify industrial and commercial businesses that have a high potential for contributing to water pollution and notify IEPA of NPDES ILR00 permit infractions and recommend enforcement actions, where appropriate.

Measurable Goal(s):

- Record number of inspected outfalls each year and evaluate new ILR00 permit holders annually.

Year 19 activities:

- Outfalls were inspected and MS4 maintains an inspection list
- No new ILR00 facilities identified

C.9 Public Notification

Brief Description of BMP:

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

Measurable Goal(s):

- Track illicit discharge complaints, response, and outcomes annually.

Year 19 activities:

- No illicit discharges reported or detected

D. Construction Site Runoff Control

D.1 Regulatory Control Program

Brief Description of BMP:

- 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):

- Record permitted development and inspections thereof annually.

Year 19 activities:

- Seven (7) permits were approved through the MS4. All development was designed, reviewed, constructed, and inspected for erosion control in accordance with the WDO.

D.2 Erosion and Sediment Control BMPs

Brief Description of BMP:

- §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 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):

- Record permitted development and inspections thereof annually.

Year 19 activities:

- Seven (7) permits were approved through the MS4. All development was designed, reviewed, constructed, and inspected for erosion control in accordance with the WDO.

D.3 Other Waste Control Program

Brief Description of BMP:

- 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. 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 (including waste control requirements).

Measurable Goal(s):

- Record permitted development and inspections thereof annually.

Year 19 activities:

- Seven (7) permits were approved through the MS4. All development was designed, reviewed, constructed, and inspected for erosion control in accordance with the WDO.

D.4 Site Plan Review Procedures

Brief Description of BMP:

- A community's designated enforcement officer is responsible for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO. Within

certified communities (i.e., communities certified by SMC to administer and enforce the provisions of the WDO), responsibility for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO lies with the MS4; within non-certified communities, the designated enforcement officer is SMC's chief engineer. All designated enforcement officers must pass an exam in order to qualify to act as such. 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):
- Record permitted development and inspections thereof annually.

Year 19 activities:
- Seven (7) permits were approved through the MS4. All development was designed, reviewed, constructed, and inspected for erosion control in accordance with the WDO.

D.5 Public Information Handling Procedures

Brief Description of BMP:
- Both the MS4 and QLP provide a number of opportunities for the receipt and consideration of information submitted by the public.

Measurable Goal(s):
- Record permitted development and inspections thereof annually.

Year 19 activities:
- No soil erosion and sediment control complaints were received.

D.6 Site Inspection/Enforcement Procedures

Brief Description of BMP:
- 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 non-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):
- The MS4 is a certified community. MS4 will document and track the number of site inspections conducted by certified community.

Year 19 activities:
- Seven (7) permits were approved through the MS4. All development was designed, reviewed, constructed, and inspected for erosion control in accordance with the WDO.

D.7 Other Construction Site Runoff Controls

Brief Description of BMP:

- The MS4 performs site plan reviews and construction site inspections and enforcement procedures that meet Village, WDO, or State guidelines (whichever is most stringent).

Measurable Goal(s):
- Track development projects; document and track site inspections on development files and keep files for 5 years.

Year 19 activities:
- Seven (7) permits were approved through the MS4. All development was designed, reviewed, constructed, and inspected for erosion control in accordance with the WDO. MS4 will maintain files for at least 5 years.

E. Post-Construction Runoff Control

E.2 Regulatory Control Program

Brief Description of BMP:
- 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):
- Document and record development applications with runoff control features and respond to soil erosion and sediment control related complaints received.

Year 19 activities:
- Seven (7) permits were approved through the MS4. All development was designed, reviewed, constructed, and inspected for erosion control in accordance with the WDO.
- No complaints were received.

E.3 Long Term O&M Procedures

Brief Description of BMP:
- §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):
- Review, permit, and inspect development in accordance with the WDO. Record events as they occur.

Year 19 activities:
- Seven (7) permits were approved through the MS4. All development was designed, reviewed, constructed, and inspected for erosion control in accordance with the WDO.

E.4 Pre-Construction Review of BMP Designs

Brief Description of BMP:
- 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 (RVR) standards of §503.

Measurable Goal(s):

- Ensure development plans address municipal established RVR goal and incorporate green infrastructure if practicable. Review, permit, and inspect development in accordance with the WDO. Record events as they occur.

Year 19 activities:

- Seven (7) permits were approved through the MS4. All development was designed, reviewed, constructed, and inspected for erosion control in accordance with the WDO.

E.5 Site Inspections During Construction

Brief Description of BMP:

- As described above in MCM 0.6 Article 11 of the WDO contains both recommended and minimum requirements for the inspection of development sites.

Measurable Goal(s):

- Review, permit, and inspect development in accordance with the WDO. Record events as they occur.

Year 19 activities:

- Seven (7) permits were approved through the MS4. All development was designed, reviewed, constructed, and inspected for erosion control in accordance with the WDO.

E.6 Post-Construction Inspections

Brief Description of BMP:

- SMC has collaborated on a number of watershed-based plans throughout the County. These watershed plans included 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 may assist communities in identifying potential project sites, recommended in adopted watershed plans, within their jurisdictional boundaries based on need and funding resources. Provisions of WDO §401, also requires a maintenance plan that includes the party responsible and funding sources of all stormwater management system components.

Measurable Goal(s):

- Review, permit, and inspect development in accordance with the WDO. Record events as they occur.

Year 19 activities:

- Seven (7) permits were approved through the MS4. All development was designed, reviewed, constructed, and inspected for erosion control in accordance with the WDO.

E.7 Other Post-Construction Runoff Controls

Brief Description of BMP:

- 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 WMS-funded projects have reduced flooding, improved surface water quality, and enhanced existing stormwater management facilities throughout Lake County. The MS4 has a Local Code which establishes minimum storm water management requirements for development, including requirements for post-construction runoff control. 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. A maintenance plan must also be provided. Where discrepancies occur in Code, the most stringent shall take precedence.

Measurable Goal(s):

- Review, permit, and inspect development in accordance with the WDO. Record events as they occur.

Year 19 activities:

- Seven (7) permits were approved through the MS4. All development was designed, reviewed, constructed, and inspected for erosion control in accordance with the WDO.

F. Pollution Prevention/Good Housekeeping

F.1 Employee Training Program

Brief Description of BMP:

- The MS4's Pollution Prevention/Good Housekeeping program includes: the evaluation and improvement of municipal policies and procedures to reduce the discharge of pollutants from municipal activities and operations; and, a training program for municipal employees.

Measurable Goal(s):

- Record annual employee training events and attendees.

Year 19 activities:

- Thirty-three (33) employees attended an on-line “Preventing Storm Water Pollution” Training.

F.2 Inspection and Maintenance Program

Brief Description of BMP:

- The Pollution Prevention/Good Housekeeping program described in the SWMP includes measures to reduce the amount and type of pollution that: (1) collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and (2) results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems. Clean, correct, or otherwise address identified storm and sanitary sewer trouble areas.
- Clean catch basins and inlets on an as needed basis, report catch basins to have structural deficiencies, and complete necessary repairs.
- Maintain current street sweeping practices.
- Properly handle, store, and dispose of wastes generated by Village maintenance activities (e.g. spoil stock pile, etc.)

Measurable Goal(s):

- Implement Good House Keeping provisions of the SWMP including inspecting and reconditioning spreaders and spinners annually.
- Maintain and track the number of storm structures cleaned and repaired annually.
- Track the location and miles of street cleaned annually.
- Track disposal of wastes annually.

Year 19 activities:

- 31 catch basins/inlets cleaned with 49.5 cubic yards of material removed.
- 6 catch basins/inlets repaired/replaced.
- Two Adopt-a-Highway Clean-ups conducted along Route 14 (from Hart Rd to Ela Rd) and Lake Cook Road (from Eastern Ave to Ela Rd).
- 1,352.96 tons of material recycled.
- 523 cubic yards of material was collected via the street sweeping program.
- MS4 performs monthly inspections on its fleet and an annual assessment.

F.3 Inspection and Maintenance Program

Brief Description of BMP:

- The SWMP identifies where maintenance and washing of MS4 fleet is done, how lubricant and oil spills are handled, how/where road salt and chemicals are stored, etc.
- Continue to implement pre-season procedures related to roadway ice control, snow plowing, driver training, and management of salt delivery and storage.

Measurable Goal(s):

- Implement spill response plan and track any spills.
- Track amount of de-icing chemicals and salt used annually.

Year 19 activities:

- 1,082 tons of salt used.
- Tracked any spills and implement spill response plan if required.

Part C. MS4 Information and Data Collection Results, Year 19

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

The QLP section of the report describes the status of Lake County waters using information gathered by active workgroups and the Lake County Health Department along with a discussion on TMDL status within the County. The Status of Lake County Waters provides insight as to the overall effectiveness of countywide efforts to improve water quality. As an active MS4 within the County, the countywide findings reflect the individual efforts of each MS4. Additionally, the SWMP identified two impaired waters based on the 2018 303(d) list. While the final report has not been released the draft 2020/22 indicates that these waters remain impaired.

Impaired waters within the Village:

- Flint Creek Main Stem IL_DTZS_01
- Lake Louise IL_VTZJ

The MS4 is located in and participates in the Flint Creek / Spring Creek Watershed Group 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 LCHD Lakes Management Unit has been collecting water quality data on Lake County lakes since the late 1960s. Since 2000, 176 different lakes each year 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). The IEPA approved the final Upper Fox River/Flint Creek Watershed TMDL Report detailing requirements for this watershed (URL: https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Documents/Upper%20Fox%20River-Flint%20Creek%20TMDL_Approved%20Final%20Report_061920.pdf).

The SWMP adopted by the Village identifies three water quality monitoring locations within the community. In Year 18 quarterly water quality monitoring was completed at six locations within the community including:

- Upstream of Lake Louise at Baker Lake
- Upstream of Lake Louise at Makray Memorial Gold Club
- Upstream of Lake Louise at Main Street
- East Branch of Flint Creek entering the Village at Lake Zurich Road
- East Branch of Flint Creek exiting the Village at Hart Road
- Along Lake Louise's southern limits.

Increasing the number of testing locations is expected to provide more resolution into the effectiveness of the Village's BMPs and the data collection results, and an analysis, is included in this report as an appendix.

Part D. MS4 Summary of Year 20 Stormwater Activities

The table below indicates the stormwater management activities that the MS4 plans to undertake during Year 20. Additional information about the stormwater management activities that the MS4 will perform is provided in the section following the table.

Note: "X" indicates BMPs that will be implemented during Year 20
"✓" indicates BMPs that were changed during Year 20

Year 20 MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
	A.3 Public Service Announcement
	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
	B.3 Stakeholder Meeting
X	B.4 Public Hearing
	B.5 Volunteer Monitoring
X	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
X	C.8 Pollutant Field Testing
X	C.9 Public Notification
	C.10 Other Illicit Discharge Controls

Year 20 MS4	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
X	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
	F.4 Municipal Operations Waste Disposal
	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

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 19 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 19.
- **Part E3** summarizes the information and data collected by the QLP during Year 19.
- **Part E4** describes the stormwater management activities that the QLP plans to undertake during Year 20.
- **Part E5** lists the construction projects conducted by the QLP during Year 19.

Part E1. QLP Changes to Best Management Practices, Year 19

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

Part E2. QLP Status of Compliance with Permit Conditions, Year 19

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 19 are described below.

A. Public Education and Outreach

A.1 Distributed Paper Material

Measurable Goal(s):

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

Year 19 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 19 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 on social media platforms and email list distributions.
- SMC held a virtual WetPro (Wetland Professionals) Forum on 03/12/2021.
- SMC staff presented at the virtual Prairie State Conservation Coalition Annual Meeting 03/03/2021 through 03/05/2021.
- SMC staff presented at the virtual Regional Flood Mitigation Meeting hosted by the City of Highland Park on 04/08/2021.
- SMC staff hosted virtual All-Natural Hazard Mitigation Plan meetings:
    - Annual Meeting on July 29, 2021.
    - 5-year Update Planning Committee and Stakeholder meetings on 01/26/2022 and 02/23/2022.

A.3 Public Service Announcement

Measurable Goal(s):

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

Year 19 QLP activities:

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

A.4 Community Event

Measurable Goal(s):

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

Year 19 QLP activities:

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

- SMC sponsored one (1) Designated Erosion Control Inspector (DECI) Workshop held on 2/15/2022 and one (1) Make-Up DECI Workshop on 3/23/2021 following the 2021 Workshop that took place during the previous reporting period.
- SMC co-sponsored five (5) de-icing workshops:
    - Deicing Workshop for Parking Lots and Sidewalks: September 28, 2021 and October 7, 2021.
    - Deicing Workshop for Public Roads: September 30, 2021, October 5, 2021, and October 12, 2021.
- In the summer of 2021, SMC sponsored Buffalo Grove Park District's Native Tree and Shrub Arboretum at Green Lake Park.
- SMC co-sponsored a river cleanup for Chicago River Day on 5/8/2021.

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 19 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 19 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, (URL hyperlink).
- SMC maintains reference documents for stormwater best practices, BMPs and green infrastructure practices on its website, (URL hyperlink).
- SMC continues to make available via the Lake County SMC website, Community Awareness Illicit Discharge Education and Elimination Videos. The online videos are available in English and Spanish; English version, (URL hyperlink); Spanish version (URL hyperlink).
- SMC staff created a webpage reference resource to Lake County citizens and organizations in May 2021. The website identifies a list of potential funding sources that communities can utilize and pursue based on the function and characteristic of their project goals (URL hyperlink).
- SMC continues to maintain website outreach. Lake County Communications Division switched to a new software in September 2021. The following SMC webpages had the following visitors in Year 19 (between September 2021 and March 1, 2022):
    - Stormwater Management Commission | Lake County, IL- 3,306 views visitors
    - Watersheds | Lake County, IL- 1,064 views
    - Watershed Development Ordinance | Lake County, IL- 1,678 views
    - Stormwater Best Practices | Lake County, IL- 350 views
    - National Pollution Discharge Elimination System (NPDES) Phase II | Lake County, IL- 135 views

B. Public Participation/Involvement

B.1 Public Panel

Measurable Goal(s):

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

Year 19 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 19.
- Per records, there were (10) SMC meetings, (4) TAC meetings, (2) MAC meetings, and (1) WMB meeting conducted.
- CIRS community inquiries were received and processed by SMC staff.

B.3 Stakeholder Meeting

Measurable Goal(s):

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

Year 19 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 19:
  - Des Plaines River Watershed Workgroup held two (2) meetings – August 19, 2021 and February 17, 2022 (excluding executive board and monitoring committee meetings).
  - Des Plaines River Watershed Workgroup released a newsletter in October 2021.
  - North Branch Chicago River Watershed Workgroup held five (5) General Membership meetings – May 12, 2021, August 11, 2021, November 10, 2021, February 09, 2022 and February 23, 2022 (excluding executive board meetings and monitoring committee meetings).
- 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 19.
- Prepare annual report on Qualifying Local Program activities at end of Year 19.

Year 19 QLP activities:

- SMC tracked the number of Municipal Advisory Committee (MAC) meetings: According to records, there were (2) MAC meetings conducted during this reporting period (04/07/2021 and 11/10/2021).
- The stormwater management activities that SMC performed as a QLP are described in the Annual Facility Inspection Report (i.e., Annual Report) template provided to Lake County MS4s.
- QLP prepared an NOI template including QLP activities related to each of the six minimum control measures (MCMs) provided to Lake County MS4s.
- SMC reviewed the IEPA ILR40 permit released for public comment in 2021 for Lake County MS4s and provided a comment template.
- The stormwater management activities that SMC plans to perform as a QLP during Year 20 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 19 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 19 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 19 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): 897.
    - DECIs who have passed the exam between 03/01/2021 – 02/28/2022: 40.
    - Total listed DECIs (to date): 241 (DECI completed certification process).
    - DECIs have a recertification process every three (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 19 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 43 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 19 QLP activities:

- SMC continues to enforce the countywide WDO.

D.4 Site Plan Review Procedures

Measurable Goal(s):

- Track number of enforcement officers who have passed the exam.
- Track number of communities that undergo a performance review.
- Complete ordinance administration and enforcement.

Year 19 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 19, there are 95 EOs certified in Lake County.
- The list of EOs representing Certified Communities is continually updated and is maintained on the SMC website, (URL hyperlink).
- In accordance with the amended countywide WDO, the certification process is every 5 years, (URL hyperlink). The community re-certification process includes a performance review of all 53 certified and non-certified communities for permitted development compliance.

- The SMC website includes guidance information to supplement WDO interpretation as well as ordinance administration and enforcement.

D.5 Public Information Handling Procedures

Measurable Goal(s):

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

Year 19 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 19 QLP activities:

- SMC continues to track the number of site inspections conducted by SMC staff.
- According to records, 866 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 19 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 19 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 19 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 19 QLP activities:

- SMC continues to enforce the countywide WDO.

E.6 Post-Construction Inspections

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 19 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 19 QLP activities:

- The annual WMB meeting was held on December 1, 2021.
- At the annual WMB meeting, ten (10) Projects were selected to receive $189,610 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 SMC "2022 DECI Virtual Workshop" on February 15, 2022.
- SMC staff attended the Kane-DuPage Soil and Water Conservation District Virtual Conference on January 13, 2022 and January 14, 2022.
- SMC staff attended Compost BMPs for Targeted Pollutant Removal on June 23, 2021.
- SMC staff attended Reduce Stormwater Infrastructure with Porous Pavements on September 21, 2021.
- SMC staff attended Pollution Prevention for MS4 Communities Webinar #1 and #2 by DuPage County Stormwater Management on April 22, 2021 and April 29, 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 19 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 19 QLP activities:

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

F.6 Other Municipal Operations Controls

Winter Roadway De-Icing

Measurable Goal(s):

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

Year 19 QLP activities:

- In total, at least 939 attendees participated in the online De-icing Workshop for Parking Lots and Sidewalks and the online De-icing Workshop for Public Roads workshops.
- De-icing certification process to promote trained vendors is offered
    - Preferred Providers that successfully completed a Lake County De-icing Training Workshop and passed the Course Exam can be referenced on a Preferred Provider List (URL hyperlink).
    - Certification is through a third-party vendor, Fortin Consulting, Inc.
    - In 2021, 21 preferred private vendors and 588 individuals who are preferred providers have been identified based on certification. Vendors stay on the list for 5 years.
- 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 19

The QLP did not collect any monitoring data on behalf of Lake County's MS4s during Year 19. However, SMC has reviewed information presented by the Illinois EPA (IEPA) in the 2018 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 2022

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 11, 2016) and the Illinois EPA's 2018 Illinois Integrated Water Quality Report (IIWQR) and Section 303(d) List (dated February 22, 2021). 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 2018 Illinois Integrated Water Quality Report and Section 303(d) List.

The Illinois EPA's 2018 IIWQR and Section 303(d) List assesses the condition of surface water within streams, inland lakes, and Lake Michigan waters. The IEPA assessment of surface water conditions is based on a degree of support (attainment) of a designated use within a stream segment, inland lake or within Lake Michigan. Determination of designation is accomplished through an analysis of various types of information: including biological, physicochemical, physical habitat, and toxicity data. Illinois waters are designated for various uses including aquatic life, wildlife, agricultural use, primary contact (e.g., swimming, water skiing), secondary contact (e.g., boating, fishing), industrial use, public and food-processing water supply, and aesthetic quality. When sufficient data is available, the IEPA assesses each applicable designation as Fully Supporting (Good resource quality), Not Supporting (Fair or Poor resource quality), Not Assessed or Insufficient Information. Uses determined to be Not Supporting are called "impaired," and waters that have at least one-use assessment as Not Supporting are also called impaired as designated within the 303(d) list.

Streams

An analysis of the 2018 impaired streams compared to the 2016 impaired streams indicates new pollutants added to three (3) stream segments previously not listed in the 2016 303(d) list:

Table E3.1 Stream Segments: Pollutants added to 2018 303(d) list, not previously listed in 2016

Assessment ID	Name	Parameter Code Name	New Use Attainment Impairment Added
IL_DT-06	Fox River	Mercury	Fish Consumption
IL_DT-22	Fox River	Mercury	Fish Consumption
IL_DT-35	Fox River	Mercury	Fish Consumption

An analysis of the 2016 impaired streams to the 2018 impaired streams indicates listed pollutants removed from two (2) stream segments from the 2018 303(d) list that were previously listed in the 2016 list:

Table E3.2 Stream Segments: Pollutants added to 2018 303(d) list, previously listed in 2016

Assessment ID	Name	Parameter Code Name	Reason for Removal
IL_DT-06	Fox River	Fecal Coliform	Applicable WQS attained; reason for recovery unspecified

IL_G-08	Des Plaines River	Fecal Coliform	Applicable WQS attained; reason for recovery unspecified

Due to a limited amount of mapped data, Figure E3.1 displays Lake County Impaired Waters, including Lake County Impaired streams, based on the 2016 IIWQR and Section 303(d) list, which does not reflect the changes noted in Tables E3.1 and E3.2 above.

Lakes

An analysis of the 2018 impaired lakes compared to the 2016 impaired lakes indicates new pollutants added to 19 lakes previously not listed in the 2016 303(d) list:

Table E3.3 Inland Lakes: Pollutants added to 2018 303(d) list, not previously listed in 2016

Assessment ID	Name	Parameter Code Name	New Use Attainment Impairment Added
IL_RGI	Gages	Mercury	Fish Consumption
IL_RTD	Catherine	Mercury	Fish Consumption
IL_RTF	Fox	Mercury	Fish Consumption
IL_RTQ	Grass	Mercury	Fish Consumption
IL_RTS	Zurich	Phosphorus (total)	Aesthetic Quality
IL_RTUA	Nippersink	Polychlorinated biphenyls (PCBs), Mercury	Fish Consumption
IL_SGC	Buffalo Creek	Dissolved Oxygen	Aquatic Life
IL_UGB	Halfday Pit	Dissolved Oxygen	Aquatic Life
IL_UGN	Bresen Lake	pH, Dissolved Oxygen	Aquatic Life
IL_UGP	Pond-A-Rudy	Dissolved Oxygen, Phosphorus (total)	Aquatic Life, Aesthetic Quality
IL_VGH	Werhane Lake	Phosphorus (total)	Aesthetic Quality
IL_VTH	Dunns	Phosphorus (total)	Aquatic Life
IL_VTJ	Bluff	Mercury, Polychlorinated biphenyls (PCBs)	Fish Consumption
IL_VTW	Petite	Polychlorinated biphenyls (PCBs)	Fish Consumption

An analysis of the 2016 impaired lakes to the 2018 impaired lakes indicates listed pollutants removed from two (2) lakes and three (3) lakes removed from the 2018 303(d) list that were previously listed in the 2016 list:

Table E3.4 Inland Lakes: Pollutants removed from 2018 303(d) list, previously listed in 2016

Assessment ID	Name	Cause	Reason for Removal
IL_RGP	Minear	Cause Unknown	Applicable WQS attained; reason for recovery unspecified
IL_STC	Little Silver	Cause Unknown	Applicable WQS attained; reason for recovery unspecified
IL_UTV	Cross	Cause Unknown	Applicable WQS attained; reason for recovery unspecified
IL_RTK	Cedar (Lake)	Phosphorus (total)	Applicable WQS attained; reason for recovery unspecified
IL_UTA	Lake Matthews	Phosphorus (total)	Applicable WQS attained; reason for recovery unspecified

Due to a limited amount of mapped data, Figure E3.1 displays Lake County Impaired Waters, including Lake County Impaired lakes, based on the 2016 IIWQR and Section 303(d) list, which does not reflect the changes noted in Tables E3.3 and E3.4 above.

Lake Michigan

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

Along Illinois' Lake Michigan coastline, two of the 13 harbors assessed in the 2018 IIWQR and Section 303(d) list are located in Lake County. 'Secondary Contact' has been removed as a potential use attainment in the 2018 list. Changes made in the 2018 IIWQR and Section 303(d) list as compared to the 2016 data are listed below:

Table E3.5 Use Attainments of Lake Michigan Harbors in Lake County: 2016 data vs. 2018 data

Assessment ID	Name	2016 303(d) data	2018 303(d) data	Summary:
IL_QH	North Point Marina Harbor	Fully Supporting: Aquatic Life, Aesthetic Quality Not Supporting: Fish Consumption Not Assessed: Primary Contact, Secondary Contact	Fully Supporting: Aquatic Life, Aesthetic Quality Not Supporting: Fish Consumption Not Assessed: Primary Contact	Added in 2018: None Removed in 2018: Secondary Contact
IL_QZO	Waukegan Harbor	Fully Supporting: None Not Supporting: Fish Consumption, Aesthetic Quality Not Assessed: Primary Contact, Secondary Contact	Fully Supporting: None Not Supporting: Aquatic Life, Fish Consumption, Aesthetic Quality Not Assessed: Primary Contact	Added in 2018: Not Supporting Aquatic Life Removed in 2018: Secondary Contact

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 (total), copper, and chromium (total). The table below show changes in the 2018 causes of impairment compared to 2016:

Table E3.6 Causes of Impairment of Lake Michigan Harbors in Lake County: 2016 data vs. 2018 data

Assessment ID	Name	2016 303(d) data	2018 303(d) data	Summary:
IL_QH	North Point Marina Harbor	Mercury, Polychlorinated biphenyls	Mercury, Polychlorinated biphenyls	No change.
IL_QZO	Waukegan Harbor	Polychlorinated biphenyls, Zinc, Phosphorus (total), Bottom Deposits	Arsenic, Cadmium, Chromium (total), Copper, Lead, Mercury, Polychlorinated	Added in 2018: Arsenic, Cadmium, Chromium (total), Copper, Lead, Mercury

			biphenyls, Zinc, Phosphorus (total), Bottom Deposits	

No changes were made to the sources of impairments between the 2016 and 2018 data. The sources of impairment for both harbors are:

North Point Marina Harbor: Atmospheric Deposition – Toxics, Source Unknown
Waukegan Harbor: Contaminated Sediments, Urban Runoff/Storm Sewers, Industrial Point Source Discharge, Atmospheric Deposition – Toxics, Source Unknown

Of Illinois' 64 miles of Lake Michigan coastline, six beaches (16.37 miles) are located in Lake County and assessed in the 2018 IIWQR and Section 303(d) List: Illinois Beach State Park North, Illinois Beach State Park South, North Point Beach, Lake Bluff Beach, Waukegan North Beach, and Waukegan South Beach. The reported use attainments are the same across all six beaches: Aquatic Life and Aesthetic Quality were not assessed; Fish Consumption and Primary Contact are not supported. No changes have been made to the 2018 data as compared to the 2016 data, except that 'Secondary Contact' as a potential use attainment and the sources for impairment are not listed.

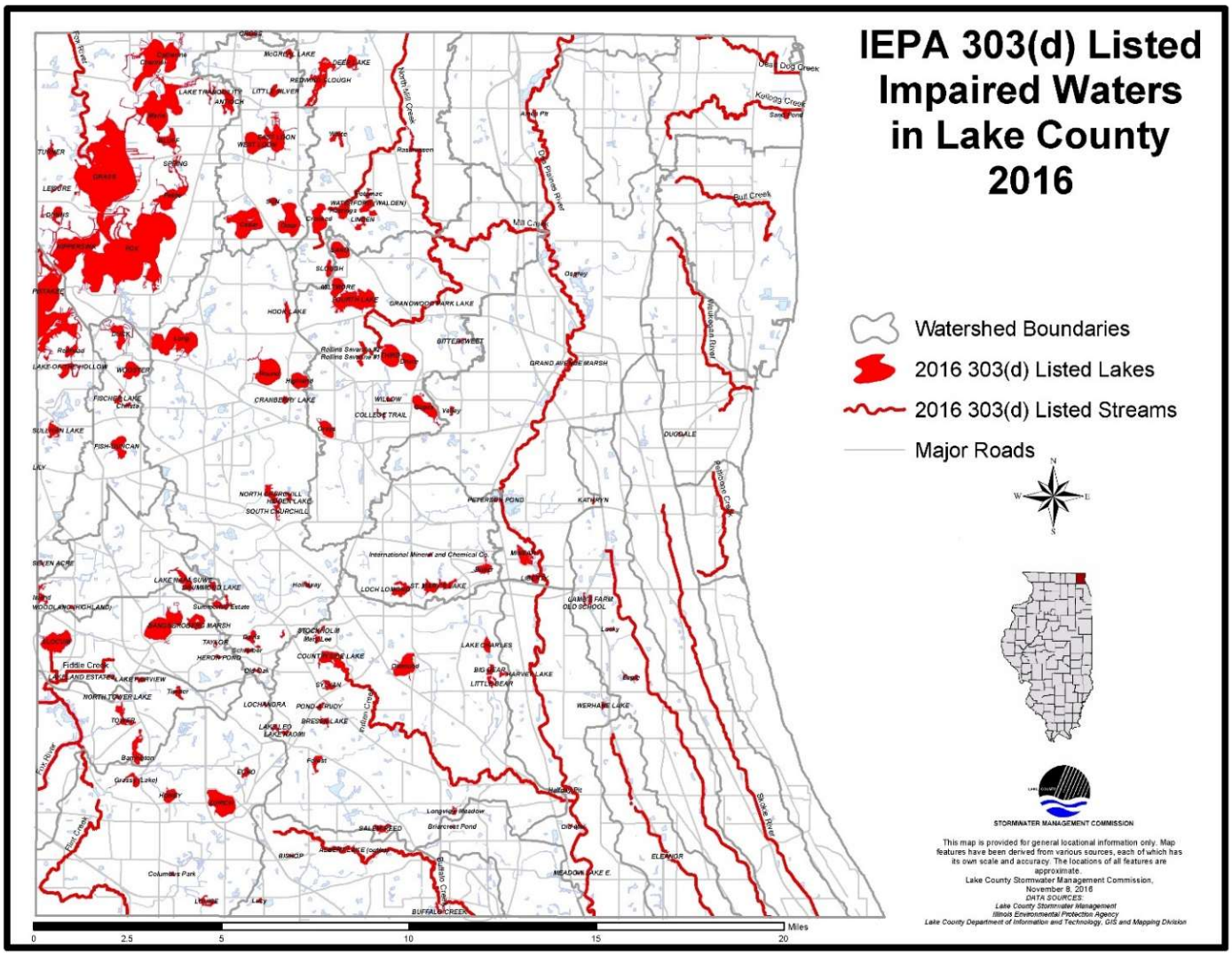

Figure E3.1
Note: 2018 303(d) GIS data is unavailable for public use. Map represents 2016 303(d) available GIS data.

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 Year 19 reporting period, DRWW's monitoring program includes: Water/Sediment sampling and analysis at 73 Monitoring Locations for 2021; bioassessment reporting; Continuous water quality and flow monitoring with data sondes and Chlorophyll a sampling and analysis at 3 Monitoring Locations. An annual water chemistry monitoring report was submitted to Illinois EPA on behalf of DRWW members in March 2021, 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 and continues to guide DRWW's monitoring. The DRWW continues development of the Nutrient Assessment Reduction Plan (NARP) that is due to the Illinois EPA on December 31, 2023. Current DRWW member list is located at (URL: http://www.drww.org/members).

The North Branch Watershed Workgroup (NBWW) monitors water quality in the North Branch Chicago River and tributaries to accurately identify the quality of the river ecosystems as well as stressors associated with non-attainment of water quality standards and designated uses. Monitoring data will allow for a greater understanding of the water quality impairments, identify priority restoration activities, and track water quality improvements. The Workgroup is committed to an approach for attaining water quality standards that focuses on stakeholder involvement, monitoring, and locally led decision-making based on sound science. Comprehensive baseline monitoring has been completed at all 25 sites for water column chemistry 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. The NBWW developed an NBWW Nutrient Assessment Reduction Plan (NARP) Workplan and submitted a draft version to the Illinois EPA by the December 31, 2021 deadline. Current NBWW member list is located at (URL: www.nbwwil.org).

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

Part E4. QLP Summary of Year 20 Stormwater Activities

The table below indicates the stormwater management activities that the QLP plans to undertake during Year 20. Additional information about the BMPs and measurable goals that the QLP will implement during Year 20 is provided in the section following the table.

Note: "X" indicates BMPs that will be implemented during Year 20

Year 20 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 20 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 20, SMC remains committed to performing a variety of stormwater management activities across the County, these commitments are now specifically outlined in the SMPP template. SMC program is continually evolving, to better assist Lake County MS4s in meeting the requirements of the most recent effective MS4 Permit.

A. Public Education and Outreach

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

A.1 Distributed Paper Material

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

Measurable Goal(s):

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

A.2 Speaking Engagement

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

Measurable Goal(s):

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

A.3 Public Service Announcement

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

Measurable Goal(s):

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

Public Service Announcement

Measurable Goal(s):

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

Year 19 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).

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 19

Project Name	Project Size (acres)	Construction Start Date	Construction End Date
2020 Demolition and Site Restoration Project:			
1217 Taylor Ave, Highland Park	0.20	02/18/2021	03/05/2021
9950 Marguerite Ln, Beach Park	0.34	10/01/2020	07/07/2021
9968 Marguerite Ln, Beach Park	0.23	10/01/2020	07/07/2021
3590 Deerfield Rd, Riverwoods	1.38	07/14/2021	08/13/2021

Part F. MS4 Construction Projects Conducted During Year 19

Project Name	Project Size (acres)	Construction Start Date	Construction End Date
Hart Road Water Main Improvements	0.9 Acres	3/5/21	4/30/21
2021 Road Program (resurfacing)	2.1 Acres	10/5/21	10/29/21
Metra Access Drive	1.75 Acres	5/3/21	Present

Site:	Baker's Lake						
Date	Parameter with Acceptable Limit						
	Ammonia	pH	BOD	Total Phosphorus	Fecal	TSS	DO
	17 mg/L	*6.5-9.0*	*>3 mg/L*	*<.05 mg/L**	*< 200 cfu/100ml*	*<11.3 mg/L***	*>3 mg/L*
2012	0.161	8.5	8	0.11	N/A	18	N/A
2013	0.04	9.8	8	0.18	N/A	77	N/A
2014	0.04	8.9	7	0.05	N/A	47	N/A
2016	0.03	10.2	14	0.67	N/A	170	N/A
March 2017	0.509	8.1	9	0.01	N/A	37	N/A
June 2017	0.022	9.1	11	0.77	N/A	276	N/A
Sept. 2017	0.27	7.8	12	0.89	N/A	258	N/A
Dec. 2017	0.037	9	8	0.3	N/A	53	N/A
March 2018	0.167	8.3	10	0.18	N/A	38	N/A
June 2018	0.115	9.1	11	0.55	230	148	N/A
Sept. 2018	1.11	9.4	9	0.38	114	152	N/A
Dec. 2018	0.0701	8.8	4	0.29	14	11	N/A
March 2019	0.0542	8.8	9	0.22	12	21	N/A
June 2019	2.82	8.4	11	0.74	61	76	N/A
Sept. 2019	0.02	10.4	9	0.58	26	113	N/A
Dec. 2019	0.193	8.5	6	0.24	2	21	N/A
March 2020	0.242	8.1	14	0.49	58	66	N/A
June 2020	0.243	9.6	9	0.77	52	147	N/A
Sept. 2020	0.177	8.1	13	0.76	204	164	N/A
Dec. 2020	0.729	9.5	17	0.42	2	39	N/A
March 2021	2.21	8.1	8	0.38	0	24	N/A
June 2021	0.784	7.5	7	1.73	180	167	1.12
Sept. 2021	1.03	7.8	10	1.21	136	91	0.65
Dec. 2021	0.303	8.9	12	0.33	38	65	15.88

*TMDL for Lake Louise June 2020

** LRS for Lake Louise June 2020

Site:	Lake Zurich Road						
Date	Parameter with Acceptable Limit						
	Ammonia	pH	BOD	Total Phosphorus	Fecal	TSS	DO
	17 mg/L	*6.5-9.0*	*>3 mg/L*	*<.05 mg/L**	*< 200 cfu/100ml*	*<11.3 mg/L***	*>3 mg/L*
2012	0.01	8	1	0.47	N/A	5	N/A
2013	0.11	7.7	3	0.37	N/A	0	N/A
2014	0.12	7.9	5	0.15	N/A	2	N/A
2016	0.17	8	7	0.56	N/A	12	N/A
March 2017	0.051	7.7	3	0.02	N/A	19	N/A
June 2017	0.601	8.8	7	0.49	N/A	68	N/A
Sept. 2017	0.64	7.7	11	0.64	N/A	5	N/A
Dec. 2017	0.12	7.9	5	0.22	N/A	30	N/A
March 2018	0.0825	7.7	5	0.13	N/A	14	N/A
June 2018	0.0767	7.9	6	0.28	120	27	N/A
Sept. 2018	1.13	7.3	4	0.18	96	16	N/A
Dec. 2018	0.121	7.8	3	0.15	126	8	N/A
March 2019	0.175	7.9	6	0.14	10	13	N/A
June 2019	0.187	7.9	6	0.32	101	30	N/A
Sept. 2019	0.07	7.6	5	0.22	108	10	N/A
Dec. 2019	0.0988	7.8	3	0.15	14	16	N/A
March 2020	0.0275	7.8	4	0.18	4	12	N/A
June 2020	0.231	7.8	4	0.37	92	23	N/A
Sept. 2020	0.09	7.9	6	0.34	140	27	N/A
Dec. 2020	0.324	7.7	7	0.32	26	41	N/A
March 2021	0.456	8	4	0.28	36	10	N/A
June 2021	1.03	7.7	7	0.41	16	14	1.52
Sept. 2021	0.847	7.8	9	0.34	218	12	2.44
Dec. 2021	0.151	7.9	6	0.2	42	20	14.27

*TMDL for Lake Louise June 2020

** LRS for Lake Louise June 2020

Site:	Hart Road						
Date	Parameter with Acceptable Limit						
	Ammonia	pH	BOD	Total Phosphorus	Fecal	TSS	DO
	17 mg/L	*6.5-9.0**	*>3 mg/L*	*<.05 mg/L**	*< 200 cfu/100ml*	*<11.3 mg/L***	*>3 mg/L*
2012	0.01	7.7	5	0.38	N/A	9	N/A
2013	0.04	8	3	4.16	N/A	1	N/A
2014	0.08	7.94	3	1.62	N/A	0	N/A
2016	0.07	8	6	1.68	N/A	5	N/A
March 2017	0.108	7.8	3	0.06	N/A	61	N/A
June 2017	0.176	7.9	5	0.59	N/A	33	N/A
Sept. 2017	0.06	8	3	1.67	N/A	3	N/A
Dec. 2017	0.163	7.8	4	0.58	N/A	2	N/A
March 2018	0.0722	7.8	4	0.17	N/A	4	N/A
June 2018	0.124	7.8	4	0.25	110	17	N/A
Sept. 2018	1.14	7.7	3	0.23	108	10	N/A
Dec. 2018	0.117	8	3	0.22	264	12	N/A
March 2019	0.418	8.1	7	0.39	86	24	N/A
June 2019	0.118	7.9	6	0.46	80	44	N/A
Sept. 2019	0.06	8	4	0.41	124	12	N/A
Dec. 2019	0.0659	7.8	3	0.24	14	5	N/A
March 2020	0.0299	8.1	4	0.2	106	16	N/A
June 2020	0.159	8	3	0.42	164	13	N/A
Sept. 2020	0.08	7.9	7	0.58	32	39	N/A
Dec. 2020	0.123	8.1	3	0.44	148	10	N/A
March 2021	0.637	8.2	5	0.43	328	27	N/A
June 2021	0.0771	8	3	0.41	16	14	7.27
Sept. 2021	0.147	8	4	0.34	218	12	8.46
Dec. 2021	0.06	7.8	3	0.2	42	20	14.08

*TMDL for Lake Louise June 2020

** LRS for Lake Louise June 2020

Site:	Main Street		
	Parameter with Acceptable Limit		
Date	Total Phosphorus	TSS	DO
	*<.05 mg/L**	*<11.3 mg/L***	*>3 mg/L*
Dec. 2018	0.22	N/A	N/A
March 2019	0.3	N/A	N/A
June 2019	0.71	N/A	N/A
Sept. 2019	0.49	N/A	N/A
Dec. 2019	0.23	N/A	N/A
March 2020	0.26	25	N/A
June 2020	0.62	126	N/A
Sept. 2020	0.49	31	N/A
Dec. 2020	0.27	20	N/A
March 2021	0.37	11	N/A
June 2021	0.45	27	2.33
Sept. 2021	0.6	34	7.24
Dec. 2021	0.24	15	15.03

*TMDL for Lake Louise June 2020

** LRS for Lake Louise June 2020

Site:	Makray Golf Club		
	Parameter with Acceptable Limit		
Date	Total Phosphorus	TSS	DO
	*<.05 mg/L**	*<11.3 mg/L***	*>3 mg/L*
Dec. 2018	0.24	N/A	N/A
March 2019	0.24	N/A	N/A
June 2019	1.1	N/A	N/A
Sept. 2019	0.53	N/A	N/A
Dec. 2019	0.23	N/A	N/A
March 2020	0.33	43	N/A
June 2020	0.55	133	N/A
Sept. 2020	0.5	83	N/A
Dec. 2020	0.28	34	N/A
March 2021	0.28	17	N/A
June 2021	0.79	N/A	N/A
Sept. 2021	2.42	150	N/A
Dec. 2021	0.33	17	15.97

*TMDL for Lake Louise June 2020

** LRS for Lake Louise June 2020

Site:	Lake Louise (1370 Lake Shore Drive)		
	Parameter with Acceptable Limit		
Date	Total Phosphorus	TSS	DO
	*<.05 mg/L**	*<11.3 mg/L***	*>3 mg/L*
Dec. 2018	N/A	N/A	N/A
March 2019	N/A	N/A	N/A
June 2019	N/A	N/A	N/A
Sept. 2019	N/A	N/A	N/A
Dec. 2019	N/A	N/A	N/A
March 2020	0.31	25	N/A
June 2020	0.61	123	N/A
Sept. 2020	0.4	28	N/A
Dec. 2020	0.3	18	N/A
March 2021	0.22	8	N/A
June 2021	0.41	43	1.93
Sept. 2021	0.46	29	5.1
Dec. 2021	0.25	74	14.84

*TMDL for Lake Louise June 2020

** LRS for Lake Louise June 2020