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, 2018 To March, 2019

Permit No. ILR40 0517

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

Name: Lake County Mailing Address 1: 17 North County Street

Mailing Address 2: County: Lake

City: Waukegan State: IL Zip: 60085 Telephone: 847-377-7728

Contact Person: Joe Marencik Email Address: jmarencik2@lakecountyil.gov
(Person responsible for Annual Report)

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

Lake County, Illinois

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))

Amy J McEwan
Owner Signature:

5/20/2019
Date:

Amy McEwan Amy
Printed Name:

Interim County Administrator
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

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

Lake County MS4
Permit No. ILR4000517
Permit Year 16: March 1, 2018 to February 28, 2019

LakeCounty

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Part A. MS4 Changes to Best Management Practices, Year 16

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

Note: "X" indicates BMPs that were implemented in accordance with the MS4's SMPP
✓ indicates BMPs that were changed during Year 16

Year 16 MS4	
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
	A.5 Classroom Education Material
	A.6 Other Public Education
B. Public Participation/Involvement	
X	B.1 Public Panel
X	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
X	B.4 Public Hearing
X	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 16 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
X	F.4 Municipal Operations Waste Disposal
	F.5 Flood Management/Assess Guidelines
X	F.6 Other Municipal Operations Controls

Part B. MS4 Status of Compliance with Permit Conditions, Year 16

Stormwater Management Activities, Year 16

Please note that Illinois Environmental Protection Agency (IEPA) issued a new version of its General NPDES Permit No. ILR40 (Permit), effective on March 1, 2016. On behalf of all Municipal Separate Storm Sewer communities (MS4) within the county, Lake County Stormwater Management Committee (SMC) performs activities as a Qualifying Local Program (QLP) related to each of the six minimum control measures. These Best Management Practices (BMPs), implemented at the county level, make significant strides in achieving the statutory goal of reducing the discharge of pollutants to the maximum extent practicable as watershed boundaries are not constrained by municipal borders. Lake County also functions as an MS4 community for the unincorporated land areas and County Highways located within Lake County and implements appropriate BMPs related to each of the six minimum control measures which are described in detail in the Stormwater Management Program Plan (SMPP). The SMPP can be viewed at the following link: http://www.lakecountyil.gov/DocumentCenter/View/8636

During Year 14, An evaluation of the Lake County MS4 program as outlined in the Lake County SMPP was completed. Based on the report findings, Lake County proceeded to implement program revisions to its MS4 program during Year 15 and continued implementation throughout Year 16.

A. Public Education and Outreach

Lake County remains committed to implementing the Public Education and outreach component of its Stormwater Management Program Plan. Lake County's Public Education and outreach program includes the distribution of educational materials to the community, conducting equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce those impacts, supporting classroom education, supporting storm drain stenciling, watershed delineation and planning efforts, and supporting Solid Waste Agency of Lake County (SWALCO) events and programs. Lake County, in cooperation with the Lake County Stormwater Management Commission (QLP), utilizes a variety of methods to educate and provide outreach to the public about the importance of managing pollutants that potentially could enter the stormwater system. The specific program activities and Lake County Departments responsible are outlined and discussed in detail in Section 3.1 of the SMPP.

Measurable Goal(s): Implement Public Education and Outreach BMPs and track progress of BMP implementation, as described in Section 3.1 of the SMPP.

Lake County continues to implement the BMPs described in its SMPP and to track progress in implementing its stormwater management program.

Year 16 MS4 activities included -

- Distribute information on MS4 related issues through various take away racks and e-communications (websites, e-mail, newsletters, social media, story maps, etc.). (A.1, A.3)
- Utilize tracking metrics via (website and e-mail) to measure the effectiveness of Public Outreach and Education efforts as it relates to NPDES MS4 issues. (A.1)
- Coordinate and publicized several MS4/stormwater related activities including SWLACO collection events, in which 29 household chemical waste collections events diverted 560,00 lbs. of waste, along with 3,828,416 lbs. of electronics from improper disposal. Additionally, SWALCO sold 118 rain barrels in Year 16. (A.3, A.4)

- Lake County co-sponsored (with Lake County SMC) three annual deicing workshops in October 2018 – 1 Parking Lots & 2 Sidewalks and Roadway De-Icing. This year marked the 10th Anniversary of this event. (A.2, A.3, A.4)

B. Public Participation/Involvement

Lake County is committed to implementing the Public Participation/Involvement component of its SMPP. Lake County's Public Participation/Involvement Program includes maintaining a process for receiving and processing citizen input, attending and publicizing stakeholder input meetings, presenting program-related information at public meetings throughout the year, and publicizing Illicit Discharge Detection and Elimination Program reporting contact numbers. The specific program activities and Lake County Departments responsible are outlined and discussed in detail in Section 3.2 of the SMPP.

Measurable Goal(s): Implement Public Participation and Involvement BMPs and track progress of BMP implementation, as described in Section 3.2 of the SMPP.

Lake County continues to implement the public involvement activities described in its SMPP and to track progress in implementing its stormwater management program.

Year 16 MS4 activities included –

- Membership/participation in both the Des Plaines River Watershed Workgroup and the North Branch Chicago River Watershed Workgroup. Several Lake County staff serve on both the Executive Board and various Committees of both groups. (B.1, B.3, B.6)
- Lake County Division of Transportation (LCDOT) Adopt A Highway program – Coordination of 454 events, covering 263 miles of roads, and a total collection of 10 tons of materials removed from Lake County roads. (B.6)
- Expansion of Report a Concern weblinks on Lake County departmental websites. (B.7)
- Lake County Health Department – Lake Management Unit (LCHD-LMU) presented lake/water quality monitoring data to 12 lake association groups in addition to several other lake related presentations/workshops (B.1, B.3)
- LCHD – LMU coordinated the Illinois EPA's Volunteer Lake Monitoring Program for lake County. This includes 40 lakes the County and 50 volunteers. As part of this program, the LCHD – LMU provides training and technical/educational as part of this volunteer program (B.2, B.5, B.6)
- Attendance/Participations at various meetings as outlined in the SMPP that incorporate or address MS4 related issues. (B.1, B.3, B.4, B.7)

C. Illicit Discharge Detection and Elimination

Lake County recognizes that illicit discharges can contribute considerable pollutant loads to receiving waters and is committed to identifying and eliminating these sources of pollution from its storm sewer system. Lake County's Illicit Discharge Detection and Elimination Program (IDDE) includes development of a storm sewer map, prohibition of non-stormwater discharges into the storm sewer system with appropriate enforcement procedures, a plan to detect and address illicit discharges into the storm sewer system, education of employees, businesses and the public about the hazards associated with illegal discharges and the improper disposal of waste, and the identification and implementation of appropriate BMPs and measurable goals. The specific program activities and Lake County Departments responsible are outlined and discussed in detail in Section 3.3 of the Lake County Stormwater Management Program Plan.

Measurable Goal(s): Implement BMPs and track progress of BMP implementation, as described in Section 3.3 of the SMPP.

Lake County continues to implement the Illicit Discharge Detection and Elimination Program and BMPs described in its SMPP and to track progress in implementing its stormwater management program.

Year 16 MS4 activities included -

- Lake County revised its outfall inspection program, which plays a large roll in the County's IDDE program. The program included developing a prioritized inspection process in which a subset of higher priority outfalls (outfalls ≥36", proximity to IEPA 303d lists lakes and streams, proximity to ILR00 permits) are inspected on a yearly basis with the balance of lower priority outfalls screened over the permit cycle. For Year 16, this included 541 outfalls - 186 Higher Priority, 355 Lower Priority). (C.1, C.3, C.6, C.7, C.8)
- One IDDE incident was reported, investigated, and resolved with participation by LCDOT, Lake County Public Works (PW), and Lake County Planning, Building and Development (PB&D). No downstream impacts were observed, and issue was rectified. (C.4, C.5)
- GIS project inventorying "Properties of Concern" as they relate to possible IDDE issues. These Properties of Concern include those that pose an elevated risk of an illicit discharge; including automotive repair facilities, landscaping firms, car washes, industrial manufacturing, paint stores, etc. (C.6)

D. Construction Site Runoff Control

It is the goal of Lake County to minimize the discharge of pollutants for new development projects. Lake County has a well-established regulatory program and enforcement procedures in place to prevent the discharge of sediment from active construction sites, to protect receiving waters, natural areas and adjacent properties from damage, to reduce runoff volumes, and to ensure compliance with required erosion and sediment control practices. The specific program activities, regulatory requirements and Lake County Departments responsible are outlined and discussed in detail in Section 3.4 of the SMPP.

Measurable Goal(s): Implement BMPs and track progress of BMP implementation, as described in detail in Section 3.4 of the SMPP. Enforce the Watershed Development Ordinance (WDO) or assist SMC in ensuring that all applicable developments are in compliance with the Watershed Development Ordinance.

Lake County continues to implement the Regulatory Program and Construction Site Runoff Control BMPs described in its SMPP and to track progress in implementing its stormwater management program.

Year 16 MS4 activities included:

- LCDOT conducted ongoing, daily site inspections on its various projects via full time, onsite LCDOT Project Managers (D.4, D.6)
- PD&D conducted 2,248 inspections related to the WDO/stormwater BMPs in Year 16. (D.6)
- Staff from LCDOT, PW, and PB&D attended SMC's Designated Erosion Control Inspector Workshop. (D.1, D.4)

E. Post-Construction Runoff Control

Lake County complies with NPDES permit requirements by incorporating ordinance and BMP standards to minimize the discharge of pollutants for new development projects. The Lake County Watershed Development Ordinance (WDO) establishes the minimum stormwater management requirements for development in Lake County. The WDO establishes standards for post-construction site runoff control. These standards apply to any new development or redevelopment resulting in over 0.5 acres of new impervious area. In unincorporated areas of Lake County, the WDO has been incorporated into the Unified Development Ordinance (UDO) and is enforced by the Lake County Department of Planning, Building and Development. As an applicant, Lake County is responsible for the post-construction inspection of its own facilities, including the County Highway System for compliance with this post-construction portion of the program. The specific program activities, regulatory requirements and Lake County Departments responsible are outlined and discussed in greater detail in Section 3.5 of the Lake County Stormwater Management Program Plan.

Measurable Goal(s): Implement BMPs and track progress of BMP implementation, as described in detail in Section 3.5 of the SMPP. Enforce the Watershed Development Ordinance or assist SMC in ensuring that all applicable developments are compliant with the WDO.

Lake County continues to implement the BMPs described in its SMPP and to track progress in implementing its stormwater management program.

Lake County continues to enforce the WDO or assist the SMC in ensuring that all applicable developments are compliant with the minimum required standards of the WDO. The WDO can be viewed at the following link:
https://www.lakecountyil.gov/DocumentCenter/View/3445/Lake-County-Watershed-Development-Ordinance-October-13-2015-PDF

Year 16 MS4 activities included:

- LCDOT conducted ongoing inspections and maintenance on green infrastructure associated with their roadway stormwater systems. (E.3, E.5, E.6)
- MS4 Program Coordinator conducted outfall inspections on 541 outfalls associated with LCDOT storm sewer system. These inspections also serve as both IDDE and post-construction inspections (E.6)

F. Pollution Prevention/Good Housekeeping

Lake County is responsible for the implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. Lake County is committed to implementing the Pollution Prevention/Good Housekeeping component of its SMPP. Lake County's Pollution Prevention/Good Housekeeping program includes: the evaluation and improvement of municipal policies and procedures to reduce the discharge of pollutants from municipal activities and operations; and, a training program for municipal employees. The specific program activities and Lake County Departments responsible are outlined and discussed in detail in Section 3.6 of the SMPP.

Measurable Goal(s): Implement BMPs and track progress of BMP implementation, as described in the SMPP.

Lake County continues to implement the program, procedures and Pollution Prevention/Good Housekeeping BMPs described in its SMPP and to track progress in implementing its stormwater management program.

Year 16 MS4 activities included:

- During Year 15, LCDOT constructed a pilot project chloride capture facility immediately downstream of its Snow & Ice Control Materials Handling Facility and modified material handling procedures to help limit the release of chlorides from the site. During Year 16, Lake County monitored the effectiveness of this BMP and associated programmatic changes through water quality monitoring downstream of this facility to evaluate its long-term effectiveness. (F.2, F.3)
- Inspection of 541 LCDOT outfall structures (43% of entire system). This included noting any maintenance and/or clean out needs. (F.2)
- Good housekeeping/Pollution Prevention stormwater inspections at Lake County facilities including parking lots, POTWs, and green infrastructure. (F.2)
- Lake County co-sponsored (with Lake County SMC) three annual deicing workshops in October 2018 – (1) Parking Lots & (2) Sidewalks and Roadway De-Icing. (F.1, F.3)
- Lake County sponsored (through its involvement with the DRWW) and attended a Green Infrastructure maintenance seminar in November of 2018. (F.1, F.3)
- SWALCO held 29 Household chemical waste collections events which diverted 560,00 lbs. waste along with 3,828,416 lbs. of electronics from improper disposal. Additionally, SWALCO sold 118 rain barrels at events in Year 16. (F.4)
- LCDOT street sweeping activities covered 3,721 miles of road (F.2)

Stormwater Management Program Assessment, Year 16

An overall assessment of the MS4's stormwater management program and the appropriateness of its BMPs is provided below. During Year 10, Lake County adopted a Stormwater Management Program Plan to provide both a framework and additional guidance for staff in addressing the annual program requirements of the IEPA's General NPDES Permit No. ILR40. The SMPP represents an organized approach to achieving compliance with the requirements of the NPDES Phase II program for both private and public activities taking place within the county. The SMPP both documents and organizes the previously existing procedures and incorporates the objectives of the WDO to create one cohesive program addressing the pre-development, construction, post-development activities and municipal operations.

A copy of Lake County's Stormwater Management Program Plan is available at this link: http://www.lakecountyil.gov/DocumentCenter/View/8636.

In consideration of current and anticipated future water quality monitoring needs, Lake County has partnered with Publicly Owned Treatment Works (POTWs) operators, MS4 communities, environmental advocacy groups, consultants and other interested stakeholders located in both the Des Plaines River and the North Branch of the Chicago River watersheds to form the Des Plaines River Watershed Workgroup (DRWW) and the North Branch Chicago River Watershed Workgroup (NBWW), respectively. The primary purpose of these workgroups is to design and implement a stormwater monitoring program within the watershed for the collection of water quality data that will meet current and anticipated future monitoring and wet weather sampling requirements.

MS4 program evaluation is performed on an annual basis. The primary mechanism for evaluating the program and ensuring that staff has adequate knowledge is supervision by responsible department managers. Management support tasks include observing and evaluating design, construction and field personnel as they implement the requirements of the SMPP on both municipal and private projects, and operations/maintenance personnel as they conduct their assigned activities. Additionally, the Lake County MS4 Program Coordinator, who serves as the lead contact for Lake County's NPDES No. ILR40 permit, works with County departments to ensure compliance with IEPA permit requirements as outlined in the SMPP. This is achieved through support activities, technical guidance, field inspections, and continual evaluation of existing programmatic components.

The IEPA issued a new version of its General NPDES Permit No. ILR40, effective on March 1, 2016. A significant portion of Lake County's efforts during Year 15 consisted of reviewing and evaluating the Lake County MS4 program which began in YR14. The YR14 evaluation of the County's existing MS4 program determined program enhancements to fulfill program requirements of the IEPA ILR40 Permit that took effect on March 1, 2016. This review produced a set of recommendations based on the current Permit and the SMPP to comply with the new permit conditions. Lake County began implementing several of these recommendations in Year 15 (including the creation of a dedicated MS4 Program Coordinator position) and continued this effort in Year 16. Through these efforts, Lake County remains committed to maintaining its current MS4 program and to continue to work to update and enhance its program, as needed, to comply with the requirements of the current ILR40 Permit.

Part C. MS4 Information and Data Collection Results, Year 16

Annual Monitoring and Data Collection, Year 16

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

Lake County MS4 is located within and participates in both the Des Plaines River Watershed Workgroup (DRWW), North Branch Chicago River Watershed Workgroup (NBWW), and the Fox River Study Group (FRSG). Lake County also provides for Lake County Health Department (LCHD) monitoring and data collection efforts across Lake County. The QLP section of the report describes the status of Lake County waters using information gathered by these workgroups, the LCHD and IEPA. Following is a brief summary of these efforts:

- The Des Plaines River Watershed Workgroup's (DRWW) primary mission is to bring together a coalition of local stakeholders to preserve and enhance water quality in the Des Plaines River and its tributaries within Lake County, IL. Since 2015, DRWW has implemented a comprehensive monitoring program that includes chemical, physical and biological assessments to accurately identify the quality of the river ecosystems as well as stressors associated with non-attainment of water quality standards and designated uses and point and nonpoint source pollution issues. The overall comprehensive monitoring strategy objectives are to identify and locate water quality impairments, provide data input for project planning, and to develop and implement viable management and implementation strategies that accurately address water quality problems. During the current YR16 reporting period, DRWW's monitoring program included:

    - Water/Sediment sampling and analysis at 71 Monitoring Locations for 2017; Bioassessment monitoring at 20 monitoring locations; Continuous water quality monitoring with data sondes and Chlorophyll *a* sampling and analysis at 14 Monitoring Locations; and Flow Monitoring data collection at 21 sites.
    - This monitoring data is currently being used to develop both a Nutrient Assessment and Reduction Plan (NARP) as well as an Integrated Prioritization System; the former of which is required by the Illinois EPA of the members of the DRWW that are POTWs. The IPS, once in place, will help the DRWW to make informed, scientifically based decisions on where to implement projects in the watershed.
    - In addition to the above monitoring efforts in 2018, 3 lakes in the watershed were studied as part of a nutrient source (internal vs. external) project to better calibrate models that can be used in the future to make management decision for lakes within the watershed.
    - An annual water chemistry monitoring report was submitted to Illinois EPA on behalf of DRWW members in March 2018, which covers the NPDES II monitoring requirements for MS4 communities that are DRWW members during Year 16. Additionally, the Des Plaines River Watershed Monitoring Strategy was also updated and submitted to IEPA in March 2018.
    - In addition to its comprehensive monitoring program, the DRWW also sponsored a Green Infrastructure maintenance workshop for its members in November 2018. The MS4 is currently a DRWW member with staff serving on the Executive Board, Monitoring/Water Quality Improvement Committee, and Lakes Committee for the reporting year (http://www.drww.org/members).

The North Branch Watershed Workgroup (NBWW) monitors water quality in the North Branch of the 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. During Year 16, NBWW activities included:

- Comprehensive baseline monitoring has been completed at all 25 sites for water column chemistry and sampled 11 sites for fish, habitat, macroinvertebrate, and sediment chemistry. Data sondes were deployed at 7 sites in the Middle Fork and Skokie River for collection of dissolved oxygen (D.O), pH, temperature, and specific conductance.
- The NBWW will continue to support the North Branch Watershed Planning Committee and the North Branch Watershed Consortium through regular discussion at general meetings. MS4 communities that are currently NBWW members for the reporting year are located at (URL: www.nbwwil.org).

- The Fox River Implementation Plan (FRIP) takes the place of a traditional TMDL for dissolved oxygen and nuisance algae in the Fox River. The FRSG directly coordinates with the IEPA on the efforts described in the FRIP.

- The Lake County Health Department - Lakes Management Unit (LCHD-LMU) 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 (https://www.lakecountyil.gov/2400/Lake-Reports). During Year 16, 10 lakes were monitored as part of this ongoing program. The LCHD-LMU also conducted a three-lake nutrient source study in conjunction with its involvement with the DRWW. Additionally, the LCHD-LMU acts as the Lake County coordinator for the IEPA's Volunteer Lake Monitoring Program. This network of 40 lakes within Lake County provides ongoing, basic water quality data, which is used to help monitor long term trends in lake quality.

- Lake Michigan Beaches have a significant portion of the Lake Michigan Beaches listed as impaired. The LCHD-LMU samples beaches from approximately Memorial Day to Labor Day. These results are used by the LCHD-LMU, in concert with other data collected by IEPA, to determine if TMDL implementation recommendations have resulted in load reductions and improved overall beach health.

- Inland Beaches are monitored bimonthly from May to September by the LCHD-LMU. Bacteria concentrations at inland beaches and recreational areas resulting in high concentrations of E coli bacteria are the basis of swim bans. The IEPA uses the number and duration of swim bans to assess whether the beaches support designated uses for primary contact recreation.

Part D. MS4 Summary of Year 17 Stormwater Activities

The table below indicates the stormwater management activities that the MS4 plans to undertake during Year 16. 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 17

Year 17 MS4	
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
	A.5 Classroom Education Material
	A.6 Other Public Education
B. Public Participation/Involvement	
X	B.1 Public Panel
X	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
X	B.4 Public Hearing
X	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 17 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
X	F.4 Municipal Operations Waste Disposal
	F.5 Flood Management/Assess Guidelines
X	F.6 Other Municipal Operations Controls

Stormwater Management Activities, Year 17

The stormwater management activities that Lake County MS4 will perform during Year 16, will include working to implement the remaining recommendations included in the Year 14 program evaluation and to ensure the Lake County MS4 program is in full compliance with the requirements of the new IEPA ILR40 permit.

A. Public Education and Outreach

Lake County is committed to implementing the Public Education and outreach component of its SMPP. Lake County's Public Education and outreach program includes the distribution of educational materials to the community, conducting equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce those impacts, supporting classroom education, supporting storm drain stenciling, watershed delineation and planning efforts and supporting the Solid Waste Agency of Lake County (SWALCO) events and programs. Lake County, in cooperation with the Lake County Stormwater Management Commission (QLP), utilizes a variety of methods to educate and provide outreach to the public about the importance of managing pollutants that potentially could enter the stormwater system.

The specific program activities and Lake County Departments responsible are outlined and discussed in detail in Section 3.1 of the SMPP.

Measurable Goal(s): Implement BMPs and track progress of BMP implementation, as described in the Stormwater Management Program Plan.

Examples of planned work items for Year 17 include:

- Continue to expand the County's NPDES resources through development of Lake County specific MS4 educational materials. (A.1, A.3))
- Expand Environmental Justice education outreach/activities in conjunction with LCDOT projects. (A.3)
- Presentation on MS4 Program/Green Infrastructure at SMC's annual DECI workshop (A.2, A.6)
- Presentations on Lake County's MS4 program at regional meetings. (A.2)

B. Public Participation/Involvement

Lake County is committed to implementing the Public Participation/Involvement component of its SMPP. Lake County's Public Participation/Involvement Program includes maintaining a process for receiving and processing citizen input, attending and publicizing stakeholder input meetings, presenting program-related information at public meetings throughout the year, and publicizing IDDE reporting contact numbers.

The specific program activities and Lake County Departments responsible are outlined and discussed in detail in Section 3.2 of the SMPP.

Measurable Goal(s): Implement Public Participation and Involvement BMPs and track progress of BMP implementation, as described in Section 3.2 of the SMPP. Continue participation in DRWW and NBWW boards and committees.

Examples of planned work items for Year 17 include:

- Online reporting of MS4 related issues more accessible. (B.7)

- Lake County DOT, along with LCHD, SMC, DRWW, and NBWW will host a Deicing Leadership Summit in April of 2019. This will serve as an open forum for decision makers to discuss regional advancements in innovative deicing strategies with a focus on reducing road salt usage and deicing impacts on water quality. (B.1, B.3, B.4)

C. Illicit Discharge Detection and Elimination

Lake County recognizes that illicit discharges can contribute considerable pollutant loads to receiving waters and is committed to identifying and eliminating these sources of pollution from its storm sewer system. Lake County will conduct activities related to the Illicit Discharge Detection and Elimination minimum control measure. According to IEPA's General NPDES Permit No. ILR40, the MS4's IDDE program must include:

- A storm sewer system map showing the locations of all outfalls and the names and locations of all waters that receive discharges from those outfalls;
- An ordinance or other regulatory mechanism that prohibits all non-storm water discharges into the storm sewer system and provides the authority for appropriate enforcement procedures and actions;
- A plan to detect and address all non-stormwater discharges, including illegal dumping, into the storm sewer system;
- A program to educate public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste; and,
- Periodic inspection of storm sewer outfalls for detection of non-stormwater discharges and illegal dumping.

The specific program activities and Lake County Departments responsible are outlined and discussed in detail in Section 3.3 of the SMPP.

Measurable Goal(s): Implement BMPs and track progress of BMP implementation, as described in Section 3.3 of the SMPP.

Examples of planned work items for Year 17 include:

- Outfall screening of approximately 540 outfalls associated with LCDOT's storm sewer system (C.7)
- Inventory and inspection and of all County parking lots and associated storm sewer systems (C.7)
- Revised countywide IDDE training for all applicable personal (C.6)

D. Construction Site Runoff Control

It is the goal of Lake County to minimize the discharge of pollutants for new development projects. Lake County has a well-established regulatory program and enforcement procedures in place to prevent the discharge of sediment from active construction sites, to protect receiving waters, natural areas and adjacent properties from damage, to reduce runoff volumes, and to ensure compliance with required erosion and sediment control practices. The specific program activities, regulatory requirements and Lake County Departments responsible are outlined and discussed in detail in Section 3.4 of the Lake County SMPP.

Measurable Goal(s): Implement BMPs and track progress of BMP implementation, as described in detail in Section 3.4 of the SMPP. Enforce the Watershed Development Ordinance or assist SMC in ensuring that all applicable developments are compliant with the WDO.

Examples of planned work items for Year 17 include:

- MS4 Program Coordinator, in conjunction with LCDOT staff, will increase stormwater BMP monitoring on project sites to provide another layer of inspections in addition to full time, on site LCODT staff.

E. Post-Construction Runoff Control

Lake County complies with NPDES permit requirements by incorporating ordinance and BMP standards to minimize the discharge of pollutants for new development projects. The Lake County WDO establishes the minimum stormwater management requirements for development in Lake County. The WDO establishes standards for post-construction site runoff control. These standards apply to any new development or redevelopment resulting in over 0.5 acres of new impervious area. In unincorporated areas of Lake County, the WDO has been incorporated into the Unified Development Ordinance and is enforced by the Lake County Department of Planning, Building and Development. As an applicant, Lake County is responsible for the post-construction inspection of its own facilities, including the County Highway System for compliance with this post-construction portion of the program. The specific program activities, regulatory requirements and Lake County Departments responsible are outlined and discussed in greater detail in Section 3.5 of the Lake County SMPP.

Measurable Goal(s): Implement BMPs and track progress of BMP implementation, as described in detail in Section 3.5 of the SMPP. Enforce the minimum standards of the WDO or assist SMC in ensuring that all applicable developments are in compliance with the WDO.

Examples of planned work items for Year 17 include:

- MS4 Program Coordinator, in conjunction with LCDOT staff, will increase stormwater BMP monitoring on project sites to provide another layer of inspections in addition to full time, on site LCODT staff. (D.2, D.6)
- Detention basin inspections at all County properties (D.2, D.6)

F. Pollution Prevention/Good Housekeeping

Lake County is responsible for the implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. Lake County is committed to implementing the Pollution Prevention/Good Housekeeping component of its SMPP Lake County's Pollution Prevention/Good Housekeeping program includes: the evaluation and improvement of municipal policies and procedures to reduce the discharge of pollutants from municipal activities and operations; and, a training program for municipal employees. The specific program activities and Lake County Departments responsible are outlined and discussed in detail in Section 3.6 of the SMPP.

An example of a work activity planned for Year 17

Measurable Goal(s): Implement BMPs and track progress of BMP implementation, as described in Section 3.6 of the SMPP.

Examples of planned work items for Year 17 include

- Expand yearly Stormwater/Pollution Prevention facility inspection program to include all County detention basins. (F.2)
- Pervious pavement pilot project at LCDOT offices (F.3)
- Revise Lake County stormwater awareness/pollution prevention training (F.1)
- Continue to evaluate the effectiveness of LCDOT chloride capture field (F.3)
- Lake County DOT, along with LCHD, SMC, DRWW, and NBWW will host a Deicing Leadership Summit in April of 2019. This will serve as an open forum for decision makers to discuss regional advancements in innovative deicing strategies with a focus on reducing road salt usage and deicing impacts on water quality. (F.3, F.6)
- Implement green infrastructure inspections at all applicable County properties. (F.2)

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 16 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 16.
- **Part E3** summarizes the information and data collected by the QLP during Year 16.
- **Part E4** describes the stormwater management activities that the QLP plans to undertake during Year 17.
- **Part E5** lists the construction projects conducted by the QLP during Year 16.

Part E1. QLP Changes to Best Management Practices, Year 16

Note: "X" indicates BMPs that were implemented as planned
✓ indicates BMPs that were changed during Year 16

Year 16 QLP	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	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 16 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 16

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 16 are described below.

A. Public Education and Outreach

A.1 Distributed Paper Material

Measurable Goal(s):

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

Year 16 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.
- Provided NPDES related information via Facebook.

A.3 Public Service Announcement

Measurable Goal(s):

- Include public service announcement highlighting community accomplishments related to IEPA's NPDES Stormwater Program in "Watershed E-News";
- Post watershed identification signage with LCDOT;
- Upon request or download "The Big Picture: Water Quality, Regulations & NPDES" to Lake County MS4s.

Year 16 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.
- SMC continues to make available "The Big Picture: Water Quality, Regulations & NPDES" presentation to Lake County MS4s, (URL hyperlink).

A.4 Community Event

Measurable Goal(s):

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

Year 16 QLP activities:

SMC sponsored or co-sponsored many workshops and events on stormwater-related topics between March 1, 2018 and February 28, 2019, including:

- SMC sponsored a Designated Erosion Control Inspector (DECI) Workshop held on April 5, 2018.
- SMC co-sponsored a river cleanup for Chicago River Day on May 12, 2018 throughout the watershed.
- SMC co-sponsored Parking Lots & Sidewalks De-Icing Workshop held in Libertyville, IL on October 1, 2018.
- SMC co-sponsored Roadway De-Icing Workshop held in Libertyville, IL on October 2 and 3, 2018.
- SMC co-sponsored a Project Tour for the Bull Creek Streambank Restoration Project in Beach Park, IL within the Dead River subwatershed on July 1, 2018.

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 16 QLP activities:

Stormwater educational materials were compiled for use at several public education events that were held between March 1, 2018 and February 28, 2019, including:

- Loch Lomond Property Owners Association's Loch Fest held in Mundelein, IL on July 28, 2018.

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.
- Make "The Big Picture: Water Quality, Regulations & NPDES" presentation available to Lake County MS4s.

Year 16 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 make available "The Big Picture: Water Quality, Regulations & NPDES" presentation 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 statuses, 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 within the Des Plaines River watershed, allowing the public to see an Inventory of Stream and Detention Basin Information, (URL hyperlink).
- SMC maintains reference documents for stormwater best practices, BMPs and green infrastructure practices on its website, (URL hyperlink).
- SMC made available via the Lake County SMC website, Community Awareness Illicit Discharge Education and Elimination Videos.
    - The online videos are available in English and Spanish.
        - Illicit Discharge Education and Elimination (English), (URL hyperlink).
        - Illicit Discharge Education and Elimination (Spanish), (URL hyperlink).

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 16 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 16, between March 1, 2018 and February 28, 2019.
- Per records, there were 9 SMC meetings, Zero TAC meetings, 4 MAC meetings, and 1 WMB meeting conducted during this reporting period.
- According to records, between March 1, 2018 and February 28, 2019, 4 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 16 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 16:
    - Des Plaines River Watershed Workgroup – 3 (excluding executive board meetings)
    - North Branch Chicago River Watershed Workgroup– 4 (excluding executive board 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 16.
- Prepare annual report on Qualifying Local Program activities at end of Year 16.

Year 16 QLP activities:

- SMC tracked the number of Municipal Advisory Committee (MAC) meetings conducted during Year 16: According to records, there were 4 MAC meetings conducted during this reporting period. 4/8/18, 6/6/18, 9/5/18, and 12/5/18.
- The stormwater management activities that SMC performed as a QLP during Year 16 are described in the Annual Facility Inspection Report (i.e., Annual Report) template provided to Lake County MS4s.
- The stormwater management activities that SMC plans to perform as a QLP during Year 16 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 16 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 16 QLP activities:

- SMC sponsored or co-sponsored many workshops and events on stormwater-related topics between March 1, 2018 and February 28, 2019. Such workshops and events are described above.
- SMC made available via the Lake County SMC website, Community Awareness Illicit Discharge Education and Elimination Videos.
    - The online videos are available in English and Spanish.
        - Illicit Discharge Education and Elimination (English), (URL hyperlink).
        - Illicit Discharge Education and Elimination (Spanish), (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 16 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): 741.
    - DECIs who have passed the exam between 03/01/2018 – 02/28/2019: 54.
    - Total listed DECIs (to date): 139 (DECI completed certification process).
    - DECIs have a recertification process every (3) years. Current cycle 2017-2020.

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 16 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 112 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 16 QLP activities:

- SMC continues to enforce the countywide WDO.

D.4 Site Plan Review Procedures

Measurable Goal(s):

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

Year 16 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 16, there are 91 EOs certified in Lake County.
- The list of EOs representing Certified Communities is continually updated and is maintained on the SMC website, (URL hyperlink).
- In accordance with the amended countywide WDO, the certification process is every 5 years, (URL hyperlink). The community re-certification process, which includes a performance review of all 53 certified and non-certified communities for permitted development compliance.
- The SMC website includes guidance information to supplement the TRM related to WDO interpretation as well as ordinance administration and enforcement.

D.5 Public Information Handling Procedures

Measurable Goal(s):

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

Year 16 QLP activities:

- SMC continues to track the number of complaints received and processed related to soil erosion and sediment control.
- According to records, between March 1, 2018 and February 28, 2019, 8 SE/SC complaints were received and processed by SMC staff.

D.6 Site Inspection/Enforcement Procedures

Measurable Goal(s):

- Track number of site inspections conducted by SMC.

Year 16 QLP activities:

- SMC continues to track the number of site inspections conducted by SMC staff.
- According to records, between March 1, 2018 and February 28, 2019, 655 site inspections were conducted by SMC staff.
- SMC staff distributed 113 rainfall weather notifications. The rainfall reports indicate county rain events with observed precipitation for construction site runoff SE/SC inspections.

E. Post-Construction Runoff Control

E.2 Regulatory Control Program

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 16 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 16 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 16 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 16 QLP activities:

- SMC continues to enforce the countywide WDO.

E.6 Post-Construction Inspections

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 16 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 16 QLP activities:

- The annual WMB meeting was held on Dec. 5, 2018.
- At the annual WMB meeting 6 Projects were selected to receive $170,760 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.
    - 6 WMB project grants awarded.
    - 3 Stormwater Infrastructure Repair Fund (SIRF) project grant awarded.
    - 1 Watershed Management Assistance (WMAG) project grant awarded.
- SMC staff attended the Des Plaines River Watershed Workgroup green infrastructure training seminar on 11/7/18.
- SMC staff attended the Green Alleys: An Innovative Approach to Stormwater Manage webinar on 3/7/18 (Sustainable City Network).

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.

Year 16 QLP activities:

- SMC continues to provide information on training opportunities and training resources to Lake County MS4s.
- SMC sponsored or co-sponsored a number of workshops and events on stormwater-related topics between March 1, 2018 and February 28, 2019. Such workshops and events are described above.
- SMC continues to make available the Excal Visual Storm Watch Municipal Stormwater Pollution Prevention software to Lake County MS4s. According to records, between March 1, 2018 and February 28, 2019, six (6) MS4s borrowed the Excal Visual software.
- SMC made available in 2018, the Excal Visual "IDDE - A Grate Concern" DVD. The 14¼ minute video focuses on the hazards of illicit discharges and shows and trains government employees and contractors on IDDE and how to spot them. Four (4) MS4s borrowed the Excal Visual software.

F.5 Flood Management/Assess Guidelines

Measurable Goal(s):

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

Year 16 QLP activities:

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

F.6 Other Municipal Operations Controls

Winter Roadway Deicing

Measurable Goal(s):

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

Year 16 QLP activities:

- SMC co-sponsored 3 de-icing workshops:
  - Deicing for Parking Lots and Sidewalks 10/01/2018.
  - Deicing Roads 10/02/2018 and 10/03/2018.
  - In total 171 attendees participated in these three workshops.
  - Since 2009 the deicing workshops have had a cumulative attendance of roughly 1,370 attendees.
- A de-icing certification process to promote trained vendors is offered
  - Preferred Providers that successfully completed a Lake County Deicing 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 2018, 149 preferred providers have been identified based on certification.
- 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 16

The QLP did not collect any monitoring data on behalf of Lake County's MS4s during Year 16. However, SMC has reviewed information presented by the Illinois EPA (IEPA) in the 2016 Illinois Integrated Water Quality Report and 303(d) List and has developed the brief "State of Lake County's Waters" report provided below.

State of Lake County's Waters
February 2019

This brief report is based on information contained in the Illinois EPA's 2016 Illinois Integrated Water Quality Report (IIWQR) and Section 303(d) List, dated July 2016. Its purpose is to provide basic information to Lake County's MS4 communities on the condition of surface waters within Lake County. More detailed information about the condition of surface waters in Lake County can be found in the Illinois EPA's 2016 Illinois Integrated Water Quality Report and Section 303(d) List.

The Illinois EPA's 2016 IIWQR and Section 303(d) List assesses the condition of surface water within streams, inland lakes, and Lake Michigan waters. The IEPA assessment of surface water conditions is based on a degree of support (attainment) of a designated use within a stream segment, inland lake or within Lake Michigan. Determination designation is through an analysis of various types of information: including biological, physicochemical, physical habitat, and toxicity data. Illinois waters are designated for various uses including aquatic life, wildlife, agricultural use, primary contact (e.g., swimming, water skiing), secondary contact (e.g., boating, fishing), industrial use, public and food-processing water supply, and aesthetic quality. When sufficient data is available the IEPA assesses each applicable designation as Fully Supporting (Good resource quality), Not Supporting (Fair or Poor resource quality), Not Assessed or Insufficient Information. Uses determined to be Not Supporting are called "impaired," and waters that have at least one-use assessment as Not Supporting are also called impaired as designated within the 303(d) list.

Streams

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

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

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

Table E3.1 2014 303(d) streams removed from 2016 303(d) list

Assessment ID	Name	Miles		Assessment ID	Name	Miles
IL_G-08	Des Plaines River	0.98		IL_QE-01	Dead Dog Creek	4.02
IL_GV-01	Bull Creek	2.33		IL_DTZS-01	Flint Creek	9.66
IL_RGZB	Hastings Lake	0.34		IL_RTJ	Long Lake	2.85
IL_DT-35	Fox River	5.03		IL_RHK	Eleanor Lake	0.36

IL_HCCB-05	West Fork North Branch	5.73		IL_GWA	North Mill Creek	6.62
IL_GST	Buffalo Creek	8.77		IL_RGZE	Slough Lake	0.42
IL_RGZA	Crooked Lake	1.00				

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

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

Lakes

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

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

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

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

Lake Michigan

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

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

exceedances do not necessarily indicate that there are offensive conditions in Lake Michigan due to excessive algal or aquatic plant growth.

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

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

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

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

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

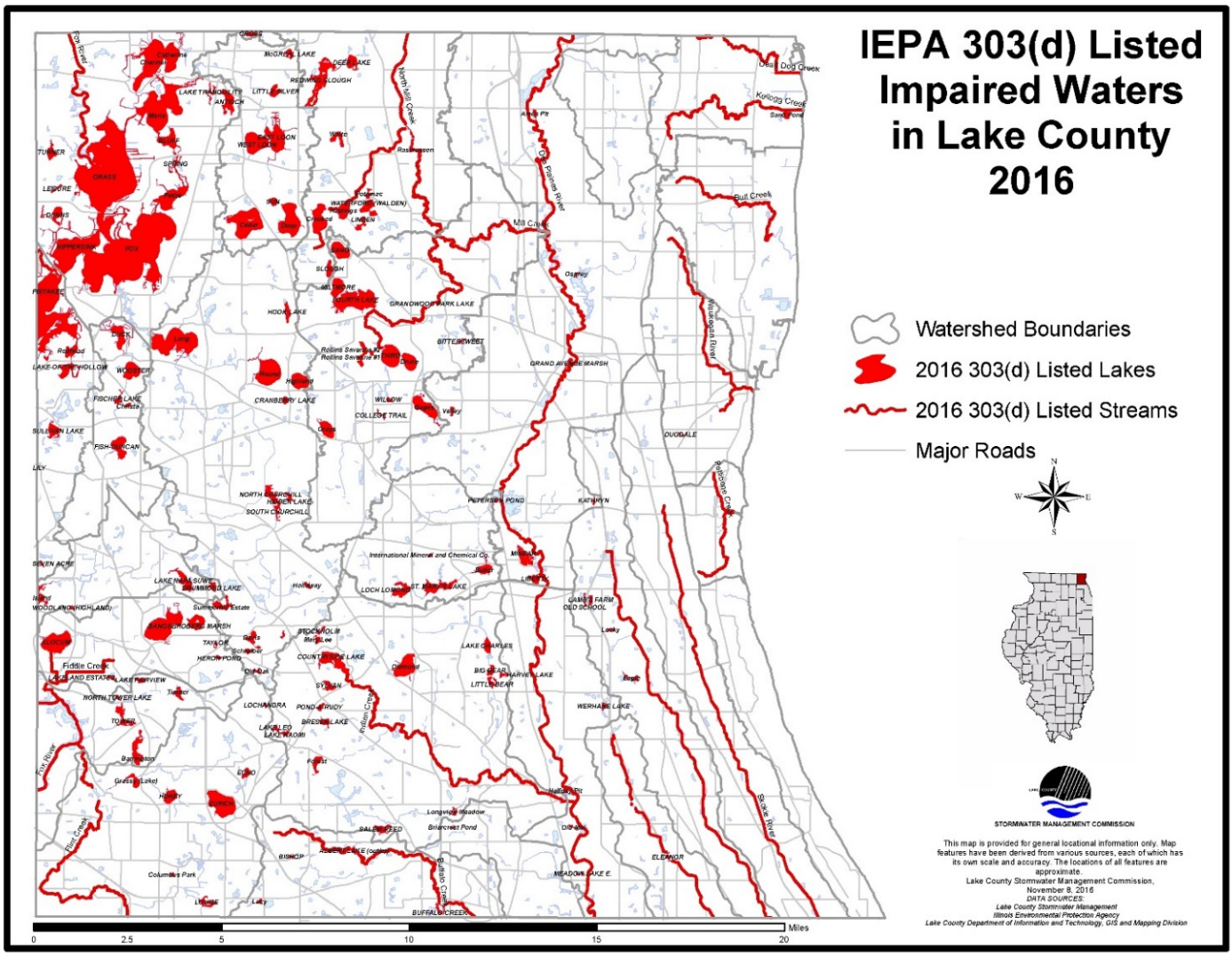
IEPA 303(d) Listed Impaired Waters in Lake County 2016
Watershed Boundaries
2016 303(d) Listed Lakes
2016 303(d) Listed Streams
Major Roads
STORMWATER MANAGEMENT COMMISSION
This map is provided for general locational information only. Map features have been derived from various sources, each of which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

Figure E3.1

Monitoring

The Des Plaines River Watershed Workgroup (DRWW) monitors water quality in the Des Plaines River and tributaries to accurately identify the quality of the river ecosystems as well as stressors associated with non-attainment of water quality standards and designated uses. During the current YR16 reporting period, DRWW's monitoring program includes: Water/Sediment sampling and analysis at 71 Monitoring Locations for 2018; Bioassessment monitoring at 20 monitoring locations; Continuous water quality monitoring with data sondes and Chlorophyll a sampling and analysis at 14 Monitoring Locations; and Flow Monitoring data collection at 21 sites. An annual water chemistry monitoring report was submitted to Illinois EPA on behalf of DRWW members in March 2019, 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 2018. The MS4 is currently a DRWW member for the reporting year (URL: http://www.drww.org/members).

The North Branch Watershed Workgroup (NBWW) monitors water quality in the North Branch of the 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 11 sites for fish, habitat, macroinvertebrate, and sediment chemistry. Data sondes were deployed at 7 sites in the Middle Fork and Skokie River for collection of dissolved oxygen (D.O), pH, temperature, and specific conductance. The NBWW will continue to support the North Branch Watershed Planning Committee and the North Branch Watershed Consortium through regular discussion at general meetings. MS4 communities that are currently NBWW members for the reporting year are located at (URL: www.nbwwil.org).

The LCHD Lakes Management Unit has been collecting water quality data on Lake County lakes since the late 1960s. Since 2000, 176 different lakes 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 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 17 Stormwater Activities

The table below indicates the stormwater management activities that the QLP plans to undertake during Year 17. Additional information about the BMPs and measurable goals that the QLP will implement during Year 17 is provided in the section following the table.

Note: "X" indicates BMPs that will be implemented during Year 17

Year 17 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 17 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 17, SMC remains committed to performing a variety of stormwater management activities across the County, these commitments are now specifically outlined in the SMPP template. SMC program is continually evolving, to better assist Lake County MS4s in meeting the requirements of the 2016-2021 MS4 Permit.

A. Public Education and Outreach

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

A.1 Distributed Paper Material

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

Measurable Goal(s):

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

A.2 Speaking Engagement

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

Measurable Goal(s):

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

A.3 Public Service Announcement

SMC performs extensive Social Media Outreach & Announcement Activities. Public service announcement related to IEPA's NPDES Stormwater Program or Stormwater BMPs are included in SMC's watershed E-News. SMC also utilizes social media and coordinates with the Lake County Department of Transportation (LCDOT) to post watershed identification signage in watersheds where watershed planning activities have occurred or are occurring.

Measurable Goal(s):

- Include public service announcements related to IEPA's NPDES Stormwater Program or stormwater BMPs in watershed E-News at least once each year.
- Post watershed identification signage in cooperation and collaboration with LCDOT.
- Provide information via social media (Facebook and Twitter).

A.4 Outreach Events

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

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

Measurable Goal(s):

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

A.5 Classroom Education Material

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

Measurable Goal(s):

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

A.6 Other Public Education

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

Measurable Goal(s):

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

B. Public Participation/Involvement

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

B.1 Public Panel

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

Measurable Goal(s):

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

B.3 Stakeholder Meeting

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

Measurable Goal(s):

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

B.6 Program Involvement

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

Measurable Goal(s):

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

C. Illicit Discharge Detection and Elimination

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

Measurable Goal(s):

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

C.2 Regulatory Control Program

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

Measurable Goal(s):

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

C.10 Other Illicit Discharge Controls

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

Measurable Goal(s):

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

D. Construction Site Runoff Control

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

D.1 Regulatory Control Program

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

Measurable Goal(s):

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

D.2 Erosion and Sediment Control BMPs

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

Measurable Goal(s):

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

D.3 Other Waste Control Program

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

Measurable Goal(s):

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

D.4 Site Plan Review Procedures

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

using the results of such review to evaluate the performance of certified communities and designated enforcement officers.

Measurable Goal(s):

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

D.5 Public Information Handling Procedures

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

Measurable Goal(s):

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

D.6 Site Inspection/Enforcement Procedures

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

Measurable Goal(s):

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

E. Post-Construction Runoff Control

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

E.2 Regulatory Control Program

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

E.3 Long Term O&M Procedures

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

E.4 Pre-Construction Review of BMP Designs

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

E.5 Site Inspections During Construction

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

E.6 Post-Construction Inspections

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

Measurable Goal(s):

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

E.7 Other Post-Construction Runoff Controls

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

Measurable Goal(s):

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

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 16

Project Name	Project Size (acres)	Construction Start Date	Construction End Date

Part F. MS4 Construction Projects Conducted During Year 16

Project Name	Project Size (acres)	Construction Start Date	Construction End Date
Washington St Grade Separation w/CNRR – Haryan Way to Lake Street	14.3 Acres	Jan. 2015	May 2018
Grass Lake Rd Resurfacing – Access Improvement east of IL 83 to Deep Lake Rd	3.0 Acres	July 2017	May 2018
Buffalo Creek Wetland Mitigation Bank	63.79 Acres	Sept. 2017	June 2018
Cedar Lake Rd Reconstruction – IL Rte. 120 to Nippersink Rd	56.3 Acres	July 2017	Sept 2018
Des Plaines River WRF Phases 2B & 3	3.5 Acres	April 2015	Jan 2019
Wilson Rd @ Nippersink Rd Intersection Improvement	11.35 Acres	Sept. 2017	June 2019
Old McHenry Rd – IL Rt 53 to Cuba Rd Reconstruction/Improvement	7.71 Acres	March 2018	July 2019
Quentin Rd Reconstruction – White Pine Rd to IL Rte. 22	33.4 Acres	July 2018	July 2020