



# 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, 2019 To March, 2020

Permit No. ILR40 0074

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

Name: Lake Villa Township Highway Department Mailing Address 1: 37908 North Fairfield Road  
Mailing Address 2: \_\_\_\_\_ County: \_\_\_\_\_  
City: Lake Villa State: IL Zip: 60046 Telephone: 847-356-5831  
Contact Person: Jim Jorgensen Email Address: lvthwy@comcast.net  
(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

#### 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             | <input type="checkbox"/> | 4. Construction Site Runoff Control       | <input type="checkbox"/> |
| 2. Public Participation/Involvement          | <input type="checkbox"/> | 5. Post-Construction Runoff Control       | <input type="checkbox"/> |
| 3. Illicit Discharge Detection & Elimination | <input type="checkbox"/> | 6. Pollution Prevention/Good Housekeeping | <input type="checkbox"/> |

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))**

Jim Jorgensen  
Owner Signature:

Jim Jorgensen, Highway Commissioner  
Printed Name:

6-1-20  
Date:  
Highway Commissioner  
Title

EMAIL COMPLETED FORM TO: [epa.ms4annualinsp@illinois.gov](mailto: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

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

**Lake Villa Township Highway Department  
Permit No. ILR400074  
Permit Year 17: March 1, 2019 to March 1, 2020**

## Table of Contents

<b><u>Part A. Changes to Best Management Practices.....</u></b>	<b><u>A-1</u></b>
<b><u>Part B. Status of Compliance with Permit Conditions.....</u></b>	<b><u>B-1</u></b>
<b><u>Part C. Information and Data Collection Results.....</u></b>	<b><u>C-1</u></b>
<b><u>Part D. Summary of Year 18 Stormwater Activities.....</u></b>	<b><u>D-1</u></b>
<b><u>Part E. Notice of Qualifying Local Program.....</u></b>	<b><u>E-1</u></b>
<u>Part E1. QLP Changes to Best Management Practices, Year 17</u>	
<u>Part E2. QLP Status of Compliance with Permit Conditions, Year 17</u>	
<u>Part E3. QLP Information and Data Collection Results, Year 17</u>	
<u>Part E4. QLP Summary of Year 18 Stormwater Activities</u>	
<u>Part E5. QLP Construction Projects Conducted During Year 17</u>	
<b><u>Part F. Construction Projects Conducted During Year 17.....</u></b>	<b><u>F-1</u></b>

## Part A. MS4 Changes to Best Management Practices, Year 17

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 17**

Year 17	
MS4	
<b>A. Public Education and Outreach</b>	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
	A.3 Public Service Announcement
X	A.4 Community Event
	A.5 Classroom Education Material
X	A.6 Other Public Education
<b>B. Public Participation/Involvement</b>	
	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
X	B.4 Public Hearing
	B.5 Volunteer Monitoring
X	B.6 Program Coordination
X	B.7 Other Public Involvement
<b>C. Illicit Discharge Detection and Elimination</b>	
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	
<b>D. Construction Site Runoff Control</b>	
	D.1 Regulatory Control Program
	D.2 Erosion and Sediment Control BMPs
	D.3 Other Waste Control Program
	D.4 Site Plan Review Procedures
	D.5 Public Information Handling Procedures
	D.6 Site Inspection/Enforcement Procedures
<b>E. Post-Construction Runoff Control</b>	
	E.1 Community Control Strategy
	E.2 Regulatory Control Program
	E.3 Long Term O&M Procedures
	E.4 Pre-Const Review of BMP Designs
	E.5 Site Inspections During Construction
	E.6 Post-Construction Inspections
X	E.7 Other Post-Const Runoff Controls
<b>F. Pollution Prevention/Good Housekeeping</b>	
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

Note BMPs D and E are completed on behalf of the LVTHD by the LCPBD, as enforcement officers of the WDO. For LVTHD projects, BMPs D and E are under the jurisdiction of the QLP (LCSMC).

## Part B. MS4 Status of Compliance with Permit Conditions, Year 17

### Stormwater Management Activities, Year 17

Please note that IEPA issued a new version of its General NPDES Permit No. ILR40 (Permit), effective on March 1, 2016. In Early 2017, LVTHD revised their SMPP to coincide with the new permit. On behalf of all MS4s within the county, SMC performs activities related to each of the six minimum control measures which are described in detail in the SMPP. These BMPs, implemented at the county level, make significant strides in achieving the statutory goal of reducing the discharge of pollutants to the MEP as watershed boundaries are not constrained by municipal borders. The stormwater management activities that the MS4 performed during Year 17, including the MS4's BMPs and measurable goals, are described in detail the SMPP and summarized below. The SMPP can be viewed at the following link: <http://www.lakevillatownship.org/npds-stormwater-management/>. A copy of the annual tracking form is included at the end of Part B of this report.

#### A. Public Education and Outreach

##### Measurable Goal(s):

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

##### Year 17 MS4 activities:

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

#### B. Public Participation/Involvement

##### Measurable Goal(s):

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

##### Year 17 MS4 activities:

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

#### C. Illicit Discharge Detection and Elimination

##### Measurable Goal(s):

- Support QLP Efforts.
- Support LCPBD enforcement of WDO and illicit discharge regulations.
- Implement BMPs and track progress of BMP implementation, as described in the SMPP.

##### Year 17 MS4 activities:

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

#### D. Construction Site Runoff Control

##### Measurable Goal(s):

- Assist LCPBD with WDO compliance as appropriate.

##### Year 17 MS4 activities:

- LCPBD efforts were supported by the Township Highway Department.

**E. Post-Construction Runoff Control**

Measurable Goal(s):

- Assist LCPBD with WDO compliance as appropriate.
- Encourage private property owners to implement watershed plan recommendations.

Year 17 MS4 activities:

- LCPBD efforts were supported by the Township Highway Department.

**F. Pollution Prevention/Good Housekeeping**

Measurable Goal(s):

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

Year 17 MS4 activities:

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

LVTHD SMPP Summary of Commitments, Year 17 (2019-2020)

BMP	Task	Date Compl'd	SMPP Section	Comments
A.1, A.6	Maintain take-a-way rack and provide other appropriate outreach efforts. Provide information such as safe vehicle maintenance, car washing, healthy lawn care, green infrastructure, pool dewatering.	✓	3.2.A, 3.2.F-I	
A.4	Support and publicize SWALCO events	✓	3.2.D	
A.4	Maintain Special Collection Service, At Your Door	✓	3.2.D, 3.2.E	
A.6	Post NOI, SMPP and 5 years worth of Annual Reports on website	✓	3.2.B	
A.6	Maintain and update the portion of the website dedicated to the stormwater management program including links to SMC, IEPA and SWALCO. Provide information such as safe vehicle maintenance, car washing, healthy lawn	✓	3.2.B, 3.2.E-I	
B.3	Participate in stakeholder/watershed groups, as appropriate	✓	3.3.A	
B.4	Present annual report during open meeting	Jun-19	3.2.B	
B.6, C.6	Participates in MAC meetings and events hosted by the QLP	✓	3.3.C	Bleck attended on behalf of Township
B.7	Encourage submission of of complaints, suggestions, requests through paper materials and website	✓	3.3.B.2	
C.1, C.3, C.8	Coordinate with the County and watershed work groups to ensure high priority outfall locations are being monitored.	✓	1.4.A, 3.4.D.2.b	discussions with Lake County coordinator ongoing.
C.1	Maintain outfall inventory, searching for new outfalls every five (5) years, 2022	✓	1.4.A, 3.4.D.2.a	next screening planned for 2021
C.2	Support LCPBD enforcement of WDO	✓	3.4.A.1	
C.3	Track efforts related to indirect illicit discharges	NA	3.4.C	
C.3, C.7	Complete outfall identification and pre-screening for receiving streams; rescreen every 5 years	NA	3.4.D.2.a	next screening planned for 2021
C.3, C.8	Complete outfall inspection procedure for outfalls with observed dry weather flow, document	NA	3.4.D.2.b-c	
C.4	Complete source id/tracing procedures for identified illicit discharges. Document.	NA	3.4.D.3	
C.5, C.8	Document removal efforts and coordination with other MS4 for outfalls with illicit discharges	NA	3.4.D.4	
C.7	Inspect catch basins, attempt to clean all catch basins annually	✓	3.7.A.2.c	
D.1-D.6	Support LCPBD enforcement of WDO (plan review, permitting, inspections and enforcement)	✓	3.5	

<b>BMP</b>	<b>Task</b>	<b>Date Compl'd</b>	<b>SMPP Section</b>	<b>Comments</b>
E.2-E.5	Support LCPBD enforcement of WDO	✓	3.6	
E.7	Encourage property owners to implement watershed plan recommendations (streambank, shoreline, detention basin etc)	✓	3.6.A	
E.7 F.2-F.4	Implement SMPP (Street Sweeping, Drainageways, Landscape Maintenance, Snow Removal/Ice Control, Vehical Eq/Op, Waste Management, Special Events etc.)	✓	3.7.A	
F.1	Attend QLP offered training. Provide program information to staff	✓	3.7.C	
C.9, F.6	Implement Spill Response Plan and provide notice for observed discharges	NA	3.7.B	No spills occurred during Year 16
A-F	Support QLP Efforts	✓		
A-F, C.6	Evaluate SWPP. Include findings in Annual Report. Revise plan, as necessary.	✓	4.2	SMPP last revised in 2017
	Review EJA determination annually, target EJA communities with outreach information as appropriate	✓	3.3.B.1	Evaluation included in 2017 SMPP
	Support Lake County's membership in DRWW. Support FRSG and LCHD monitoring efforts.	✓	4.1	



# Fox River Study Group

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[www.foxriverstudygroup.org](http://www.foxriverstudygroup.org)

## 2019 IEPA Annual Report

### **Board of Directors**

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### **Background**

For nearly two decades, a diverse coalition of stakeholders (see Directors sidebar and Supporters list) has been leading a watershed-wide effort to understand and improve the water quality of the Fox River and its tributaries for the Fox River Study Group (FRSG). This undertaking has received widespread financial and in-kind support from watershed communities, water reclamation districts, environmental organizations and foundations. Our efforts have been backed by the USEPA, IEPA, Chicago Metropolitan Agency for Planning and engaged the scientific expertise of the Illinois State Water Survey (ISWS) and private consultants. Throughout 2019, the FRSG continued to meet on a monthly basis and the group's activities were supplemented by committee actions.

### **Modeling**

To make informed decisions about how best to maintain and improve the quality of the Fox River in our urbanizing watershed, the FRSG has developed two computer models of the Fox River watershed – an HSPF model and a QUAL2K model. These models are currently being updated by Geosyntec Consultants to assess management scenarios to address the low dissolved oxygen and nuisance algae problems in the Fox River. Geosyntec's work was greatly assisted by Sierra Club volunteers to format the data for input into the HSPF model. Accordingly, the HSPF model update was substantially complete in 2018.

The QUAL2k model relies on the HSPF model inputs. Geosyntec began calibration of QUAL2k model in October 2018. The QUAL2k model for the was updated to QUAL2kw, a dynamic version of QUAL2k. The model update was delayed due to inconsistencies in the data set, but was completed in December 2019. Model results will be used to help evaluate and determine the most cost-effective measures to improve the overall health of the river with respect to these impairments.

### **Monitoring**

2019 concluded the 17th year of all-volunteer water quality monitoring efforts of the FRSG. The data collection includes monthly monitoring of 7 mainstem locations and 7 tributary locations along an 80-mile stretch of the Fox River from McHenry to Yorkville. Laboratory analysis and data

management is donated as in-kind services by the City of Elgin, the Fox River Water Reclamation District, and the Fox Metro Water Reclamation District. These data have been utilized to support the modeling efforts over the years. The Illinois State Water Survey (ISWS) updates the FoxDB for the FRSG, which is the publicly available, online water quality monitoring database. ISWS completed a full update in 2019.

Additional monitoring is conducted in support of the modeling efforts. In 2016, the FRSG contracted the United States Geological Survey (USGS) to install and maintain a water quality monitoring station at the existing Algonquin gaging station ([USGS Station #05550001](#)) from spring through fall for three years. Dissolved oxygen, temperature, specific conductance, and pH were added to the existing stage and discharge measurements and provided real-time, publicly available data. The USGS contract ended in October 2018. After discussions with Geosyntec on data needed for their modeling updates, a new water quality monitoring station was installed by USGS in August 2018 at the Stratton Dam ([USGS Station #05549500](#)). All of the same parameters listed above plus chlorophyll *a* and turbidity are collected at the new station. The USGS is also collecting *in-situ* measurements at the Stratton Dam to characterize the upstream boundary condition. The discrete samples are collected on a monthly basis during station equipment calibration and are analyzed for chlorophyll *a*, Nitrogen-Ammonia, Nitrogen Nitrate + Nitrite, Total Nitrogen (includes filtered organics), Phosphate-Orthophosphate, and Total Phosphorus. This contract is for another spring through fall sampling and will conclude in September 2021.

## Reports

The FRSG was involved with three reports during 2019. First, the modeling work being conducted by Geosyntec will be utilized to amend the Fox River Implementation Plan (FRIP). This work is proceeding.

Second, the FRSG continued to work with the U.S. Army Corps of Engineers (Corps) to resume the Fox River Habitat & Connectivity Study that was placed on hold in August 2015 due to the lack of a State of Illinois budget. The FRSG has continued to communicate with the Corps and Illinois Department of Natural Resources (IDNR) to discuss the best path forward and remind the agencies of the FRSG's prioritization of the project. A new IDNR project liaison was hired in 2019 and it is anticipated that the project will restart soon. Once the project is restarted, the timeline is one year to complete the original study, one year to complete the public outreach associated with the study, and one year to finalize the study and issue the final report.

Finally, the ISWS issued the Fox River Water Quality Trends report in February 2019. This report evaluated the water quality trends on the Fox River mainstem and a number of tributaries for the group. Based on all of the available data collected by the FRSG and other agencies since 1998, the purpose of this report is to assess if progress has been made to improve ambient conditions in the Fox River and to inform the public on the state of the Fox River. The Fox River Water Quality Trends report is a follow-up to the FRSG Phase I Report prepared by the ISWS in 2004 and is available online at <http://hdl.handle.net/2142/103009>. Over the last decade, the ISWS analysis found that most nutrient-related pollutants levels are declining or show no trend in the Fox River.

Specifically, the ISWS found that over the decade 2006-2016 flow-normalized loads decreased for all parameters, by 11% for organic nitrogen, 14% for ammonia, 16% for nitrate, 7.8% for total Kjeldahl nitrogen (TKN), 21% for total phosphorus, 25% for dissolved phosphorus, and 6.3% for suspended solids on an annual basis. Loads of chlorophyll *a*, a measure of the amount of algae in the water column, dropped by 8.8% on an annual basis.

## Public Outreach

The FRSG has continued public outreach and participation as work has been completed to update the Fox River Implementation Plan (FRIP). The FRIP will detail specific steps to be taken to improve the quality of the Fox River. The outreach focuses on the direct impacts of Fox River water quality on the members of the public, specifically on adverse impacts of high algae levels on drinking water, and on the efforts that the FRSG and wastewater treatment facilities are taking to reduce nuisance algae blooms. 2019 outreach efforts included:

- Nutrient Panel Discussion and Presentation – Illinois Wastewater Professionals Conference, Springfield, February 13
- Display and FRSG Board Volunteers Outreach – One Earth Film Festival, Waubensee Community College, Aurora Downtown Campus, March 4
- Display – Fox River Summit, Burlington, March 22
- Soil Erosion & Sediment Control Workshop-March 22
- Nutrient Workshop – Illinois Water Environment Association, Itasca, March 6
- Technical Session Presentation – WEFTEC, Chicago, September 24
- [Three presentations](#) - Fox River Study Group Annual Meeting, October 24

Based on preliminary information received from the U.S. Army Corps of Engineers from the Fox River Habitat & Connectivity Study of the river's dams, a focus group was completed in December 2018 by Bluestem Communications to assess public opinion on dam removal. In 2019, the group wanted to prioritize public outreach efforts by using professional services, so a Request for Qualifications was issued to evaluate local communication firms. Aileron was ultimately selected to perform public outreach messaging, branding, and a survey. Aileron's work began in January 2020.

The FRSG board and membership has continued to work with entities throughout the Fox River watershed to build community support and to find the resources needed to implement the identified projects.

## Point Source Nutrient Reductions

The major (discharge > 1 mgd) wastewater treatment facilities were issued permits with phosphorus reduction requirements during the previous permit cycle. In late 2018 and extending into 2019, the Fox River permits were issued with updated phosphorus compliance schedules. Most wastewater treatment facilities are on schedule to meet their phosphorus limit of 1.0 mg/l annual average by various dates in 2019 to 2022.

Phosphorus discharge optimization plan (PDOP) requirements were added to most major permits during this permit cycle, requiring a comprehensive study of potential phosphorus input reductions and operational improvements at the wastewater treatment plants. These PDOPs are proceeding.

## Financial Solvency

The FRSG is a 501c3 not for profit organization. Independent audits are performed annually to ensure proper financial management and a copy of the 2018 audit is available upon request. FRSG continues to be funded by member agencies in the watershed at the rate of 25¢ per capita. At the beginning of each year, a contribution request is sent to communities. The FRSG currently has two grants from the Kane County Riverboard Fund that help fund group activities. FRSG maintains a sufficient balance to fund activities and these funds are allocated to completing the action items described above: modeling, monitoring, public outreach, and the U.S. Army Corps of Engineers Fox River Habitat & Connectivity Study.

## Financial and In-Kind Supporters

The Fox River Study Group greatly appreciates the continued support from:

### Financial Support

Village of Algonquin  
City of Aurora  
Village of Barrington  
City of Batavia  
Village of Cary  
Village of East Dundee  
Village of Elburn  
City of Elgin  
Fox River Water Rec. District  
City of Geneva  
Village of Gilberts  
Kane County

Lake in the Hills Sanitary District  
City of Plano  
Village of Sandwich  
City of St. Charles  
Illinois EPA  
USEPA  
Village of Wauconda  
City of Yorkville  
Yorkville-Bristol Sanitary District

### In-Kind Support

Village of Algonquin  
City of Crystal Lake

City of Elgin  
Deuchler Engineering Corporation  
Environmental Defenders of McHenry  
County  
Fox Metro Water Reclamation District  
Fox River Water Reclamation District  
Friends of the Fox River  
Gardner Carton & Douglas  
Illinois EPA  
Illinois State Water Survey  
Northern Moraine Water Reclamation  
District  
Sierra Club

## **Stormwater Management Program Assessment, Year 17**

As described in the SMPP there are extensive monitoring efforts already underway across the County, refer to Part C of this report for additional information. The QLP section of the report describes the Status of Lake County waters using information gathered by active workgroups and the Lake County Health Department along with a discussion on TMDL status within the County. The Status of Lake County Waters provides insight as to the overall effectiveness of countywide efforts to improve water quality. As an active MS4 within the County, the countywide findings are a reflection of the individual efforts of each MS4. Additionally, the SMPP identified impaired waters based on the July 2016 303(d) list. The inclusion or exclusion of water bodies on the IEPAs 303(d) list, published bi-annually, is a direct reflection of the program's effectiveness. This comparison is provided in part E3 of this report.

## Part C. MS4 Information and Data Collection Results, Year 17

### Annual Monitoring and Data Collection, Year 17

The MS4 revised their SMPP, in 2017, to coincide with the March 2016 ILR40 permit. As described in the revised SMPP there are extensive monitoring efforts already underway across the County. As described in the SMPP, Lake Villa Township is located within the jurisdictional limits of the Lake County Planning, Building and Development Division (LCPBD). The County is a member of the DRWW and actively participates in the DRWW on behalf of its Townships. The WTHD also supports Lake County Health Department (LCHD) and the Fox River Implementation Plan (FRIP) efforts. 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 the efforts described in more detail in the SMPP.

- 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 County is a member, for the reporting year, of the DRWW and actively participates in the DRWW on behalf of its Townships (url <http://www.drww.org/members>).
- 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 LCHD Lakes Management Unit has been collecting water quality data on Lake County lakes since the late 1960s. Since 2000, 176 different lakes each year have been studied and data collected on temperature, dissolved oxygen, phosphorus, nitrogen, solids, pH, alkalinity, chloride, conductivity, water clarity, the plant community and shoreline characteristics. Lake summary reports can be found (URL: <https://www.lakecountyil.gov/2400/Lake-Reports>).
- Inland Beaches are monitored bimonthly from May to September by Lake County Health Department's Lake Management Unit (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 or not the beaches support designated uses for primary contact recreation.

## Part D. MS4 Summary of Year 18 Stormwater Activities

The table below indicates the stormwater management activities that the MS4 plans to undertake during Year 18. 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 18**

**✓ indicates BMPs that were changed during Year 18**

Year 18	
MS4	
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	E.2 Regulatory Control Program
	E.3 Long Term O&M Procedures
	E.4 Pre-Const Review of BMP Designs
	E.5 Site Inspections During Construction
	E.6 Post-Construction Inspections
X	E.7 Other Post-Const Runoff Controls
<b>F. Pollution Prevention/Good Housekeeping</b>	
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

Note BMPs D and E are completed on behalf of the LVTHD by the LCPBD, as enforcement officers of the WDO.

### **Stormwater Management Activities, Year 18**

As described in Part B above, a significant enhancement to the SMPP is the inclusion of Chapter 3.1 Qualified Local Program. On behalf of all MS4s within the county, SMC performs activities related to each of the six minimum control measures which are described in detail in the SMPP. These BMPs, implemented at the county level, make significant strides in achieving the statutory goal of reducing the discharge of pollutants to the MEP as watershed boundaries are not constrained by municipal borders. As such, a significant portion of the stated MS4 measurable goals are to “support QLP efforts.”

During Year 18, the MS4 plans to continue to support and supplement QLP efforts, as described in detail in the MS4’s SMPP and in brief below. The MS4’s SMPP can be viewed <http://www.lakevillatownship.org/npds-stormwater-management/>.

#### **A. Public Education and Outreach**

In addition to the extensive QLP efforts, the LVTHD 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. Public Education and Outreach program efforts include: the distribution of educational material via take-away racks and the website, supporting efforts of the Solid Waste Agency of Lake County (SWALCO), and offering Waste Management “At Your Door” service.

##### Measurable Goal(s):

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

#### **B. Public Participation/Involvement**

In addition to the extensive QLP efforts, the LVTHD utilizes a variety of methods to allow input from citizens during the development and implementation of the SMPP. Public Participation/Involvement program efforts include: maintaining a process for receiving and processing citizen input/complaints; attending stakeholder meetings and the Lake County Municipal Advisory Committee, identification of environmental justice areas, and presenting program information at a public meeting at least once annually.

##### Measurable Goal(s):

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

#### **C. Illicit Discharge Detection and Elimination**

In addition to the extensive QLP and LCPBD efforts, the LVTHD will conduct activities toward the identification and removal of direct connections of pollutants into the storm water management systems (including wetlands and receiving waters). The program includes the following primary components.

- A outfall map showing the locations of outfalls and the names and locations of waters;
- Prohibition all non-storm water discharges into the storm sewer system and the authority for appropriate enforcement procedures and actions as administered by the LCPBD;
- A plan to detect and address all non-stormwater discharges, into the storm sewer system;
- Periodic inspection of outfalls for detection of non-stormwater discharges and illegal dumping (5-yr rescreening schedule).
- Annual inspection of all High Priority Outfalls through coordination with watershed work groups and the LCPBD.



Measurable Goal(s):

- Support QLP Efforts.
- Support LCPBD enforcement of WDO and illicit discharge regulations.
- Implement BMPs and track progress of BMP implementation, as described in the SMPP.

**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. The WDO establishes countywide standards for runoff maintenance, detention sites, soil erosion and sediment control, inspections, water quality, wetlands and floodplains. The WDO, which is administered and enforced by the Lake County Planning Building and Development Division, establishes standards for construction site runoff control.

Measurable Goal(s):

- Assist LCPBD with WDO compliance as appropriate.

**E. Post-Construction Runoff Control**

As described above, the countywide WDO establishes the minimum stormwater management requirements for development in Lake County. BMP standards are incorporated into the WDO to implement stormwater management strategies that minimize increases in stormwater runoff rates, volumes, and pollutant loads from development sites. The SMPP also includes support of adopted Watershed Plan recommendations and inspection procedures for pre-WDO developments, streambanks and shorelines, streambeds, and detention/retention ponds.

Measurable Goal(s):

- Assist LCPBD with WDO compliance as appropriate.
- Encourage private property owners to implement watershed plan recommendations.

**F. Pollution Prevention/Good Housekeeping**

In addition to the QLP efforts to provide training materials and opportunities, the LVTHD is committed to implementing the Pollution Prevention/Good Housekeeping component of its SMPP. The LVTHD is responsible for the care and upkeep of the general facilities, municipal roads, its general facilities and associated maintenance yards. Pollution Prevention/Good Housekeeping program efforts include: the evaluation and improvement of municipal policies and procedures to reduce the discharge of pollutants from municipal activities and operations; and, a training program for municipal employees.

Measurable Goal(s):

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

## **Part E. Notice of Qualifying Local Program**

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

- **Part E1** identifies changes to Best Management Practices (BMPs) that occurred during Year 17 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 17.
- **Part E3** summarizes the information and data collected by the QLP during Year 17.
- **Part E4** describes the stormwater management activities that the QLP plans to undertake during Year 18.
- **Part E5** lists the construction projects conducted by the QLP during Year 17.

## Part E1. QLP Changes to Best Management Practices, Year 17

**Note: “X” indicates BMPs that were implemented as planned**  
**✓ indicates BMPs that were changed during Year 17**

Year 17	
QLP	
<b>A. Public Education and Outreach</b>	
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>B. Public Participation/Involvement</b>	
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
<b>C. Illicit Discharge Detection and Elimination</b>	
	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	
<b>D. Construction Site Runoff Control</b>	
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
<b>E. Post-Construction Runoff Control</b>	
	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
<b>F. Pollution Prevention/Good Housekeeping</b>	
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 17

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 NPDES 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 17 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 17 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 17 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 17 QLP activities:

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

- SMC sponsored (2) Designated Erosion Control Inspector (DECI) Workshop held on 4/11/2019 and 2/26/2020.
- SMC co-sponsored a river cleanup for Chicago River Day on 5/11/2019 throughout the watershed.
- SMC co-sponsored Parking Lots & Sidewalks De-Icing Workshop held in Libertyville, IL on 9/30/2019.
- SMC co-sponsored Roadway De-Icing Workshop held in Libertyville, IL on October 1 and 2, 2019.
- SMC co-sponsored a De-Icing Summit held in Libertyville, IL on 4/17/2019.
- SMC co-sponsored an Earth Day Event at a Lake County Public Facility on 4/23/2019 with 52 attendees.

#### **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 17 QLP activities:

Stormwater educational materials were compiled for use at several public education events, including:

- SMC held a General Presentation about SMC Public Stormwater Program at UW Parkside on 2/22/2020.
- SMC sponsored a Cool Learning Experience for Lake County high school students on 7/26/2019.
- SMC published in Wetland Science & Practice on Lake County, IL wetlands- Crane, J.E., G.H. Westman, and M.E. Prusila. 2019. Using Landscape-Level Wetland Assessment to Aid in Local Management of Wetlands for Lake County, Illinois. Wetland Science & Practice, January 2019, pp. 33-43.

#### **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 17 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 watersheds where inventoried, allowing the public to see an Inventory of Ravine, Stream and Detention Basin Information, ([URL hyperlink](#)).
- SMC maintains an ArcGIS geospatial web tool for Lake County Des Plaines River Watershed Water Quality Improvement Project recommendations, allowing the public to see, ([URL hyperlink](#)).

- SMC maintains reference documents for stormwater best practices, BMPs and green infrastructure practices on its website, ([URL hyperlink](#)).
- SMC continues to make available via the Lake County SMC website, Community Awareness Illicit Discharge Education and Elimination Videos. The online videos are available in English and Spanish; English version, ([URL hyperlink](#)); Spanish version ([URL hyperlink](#)).
- SMC continue to maintain website outreach. In YR17 SMC had the following visitors:
  - Stormwater Management Commission | Lake County, IL- 8,386 visitors
  - Watersheds | Lake County, IL- 1,813 visitors
  - Watershed Development Ordinance | Lake County, IL- 1,542 visitors
  - Stormwater Best Practices | Lake County, IL- 169 visitors
  - National Pollution Discharge Elimination System (NPDES) Phase II | Lake County, IL- 78 visitors

## **B. Public Participation/Involvement**

### **B.1 Public Panel**

#### Measurable Goal(s):

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

#### Year 17 QLP activities:

- Notice of all public meetings continues to be provided on the SMC website and through 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 17.
- Per records, there were (9) SMC meetings, (11) TAC meetings, (2) MAC meetings, and (1) WMB meeting conducted.
- According to records (8) CIRS community inquiries were received and processed by SMC staff.
- SMC held (3) Increased Rainfall Public Information Meetings based on “J. R. Angel, and M. Markus, 2019. Frequency Distributions of Heavy Precipitation in Illinois: Updated Bulletin 70, Illinois State Water Survey”: 7/16/2019 (Highland Park), 7/24/2019 (Barrington), and 8/8/2019 (Round Lake).
- SMC held a Floodproofing and Rainfall Public Information Meeting on 9/17/2019 (Gurnee).

### **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 17 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 17:
  - Des Plaines River Watershed Workgroup (11) meetings (excluding executive board meetings)
  - North Branch Chicago River Watershed Workgroup (7) meetings (excluding executive board meetings)
  - Des Plaines River Planning Committee (1) meeting on 10/23/2019.

- 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 17.
- Prepare annual report on Qualifying Local Program activities at end of Year 17.

### Year 17 QLP activities:

- SMC tracked the number of Municipal Advisory Committee (MAC) meetings: According to records, there were (2) MAC meetings conducted during this reporting period. 4/4/19, and 12/11/19.
- The stormwater management activities that SMC performed as a QLP are described in the Annual Facility Inspection Report (i.e., Annual Report) template provided to Lake County MS4s.
- The stormwater management activities that SMC plans to perform as a QLP during Year 18 are described in Part E4 of the Annual Report template.
- SMC conducted a survey in November 2019 of Lake County's 67 Municipality and Township MS4 program permit metrics and QLP topics. The survey received (35) responses.

## **C. Illicit Discharge Detection and Elimination**

### **C.2 Regulatory Control Program**

#### Measurable Goal(s):

- Continue to enforce the countywide WDO.

#### Year 17 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 17 QLP activities:

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

## **D. Construction Site Runoff Control**

### **D.1 Regulatory Control Program**

#### Measurable Goal(s):

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

#### Year 17 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 DECI's who have passed the exam (to date): 825.
- DECI's who have passed the exam between 03/01/2019 – 02/29/2020: 48.
- Total listed DECI's (to date): 282 (DECI completed certification process).
- DECI's have a recertification process every (3) years. Current cycle 2020-2023.

## **D.2 Erosion and Sediment Control BMPs**

### Measurable Goal(s):

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

### Year 17 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 100 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 17 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 17 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 17, 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 17 QLP activities:

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

## **D.6 Site Inspection/Enforcement Procedures**

### Measurable Goal(s):



- Track number of site inspections conducted by SMC.

Year 17 QLP activities:

- SMC continues to track the number of site inspections conducted by SMC staff.
- According to records, 1074 site inspections were conducted by SMC staff.

**E. Post-Construction Runoff Control**

**E.2 Regulatory Control Program**

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 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 17 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 17 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 17 QLP activities:

- SMC continues to enforce the countywide WDO.

**E.6 Post-Construction Inspections**

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 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 17 QLP activities:

- The annual WMB meeting was held on Dec. 4, 2019.
- At the annual WMB meeting 6 Projects were selected to receive \$162,276 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.
  - 12 WMB project grants awarded.
  - 1 Watershed Management Assistance (WMAG) project grant awarded.
- SMC staff attended the EWRI, ASCE Illinois Section “2019 Illinois MS4 Implementation Seminar” on 3/7/2019.

- SMC staff achieved certification with the National Green Infrastructure Certification Program (NGICP) on 3/20/2019.
- SMC staff attended the DuPage County Green Infrastructure “Green Infrastructure Seminar for MS4 Communities” on 12/4/2019.

## **F. Pollution Prevention/Good Housekeeping**

### **F.1 Employee Training Program**

#### Measurable Goal(s):

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

#### Year 17 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. 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, (2) MS4 Programs borrowed the Excal Visual software.
- SMC continues to make available the Excal Visual “IDDE - A Grate Concern” software to Lake County MS4s. According to records, (2) MS4 Programs 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 17 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 17 QLP activities:

- SMC co-sponsored 3 de-icing workshops:
  - Deicing Workshop for Parking Lots and Sidewalks 09/30/2019.
  - Deicing Workshop for Roads (2 days) 10/01/2019 and 10/02/2019.
    - In total 144 attendees participated in these three workshops.
    - Since 2009 the deicing workshops have had a cumulative attendance of roughly 1,514 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 2019, 117 preferred providers have been identified based on certification.
- A Deicing Summit (target audience is winter maintenance decision makers): In total 52 attendees participated in the Summit.
- 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 17

The QLP did not collect any monitoring data on behalf of Lake County’s MS4s during Year 17. 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 2020

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- CI	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.

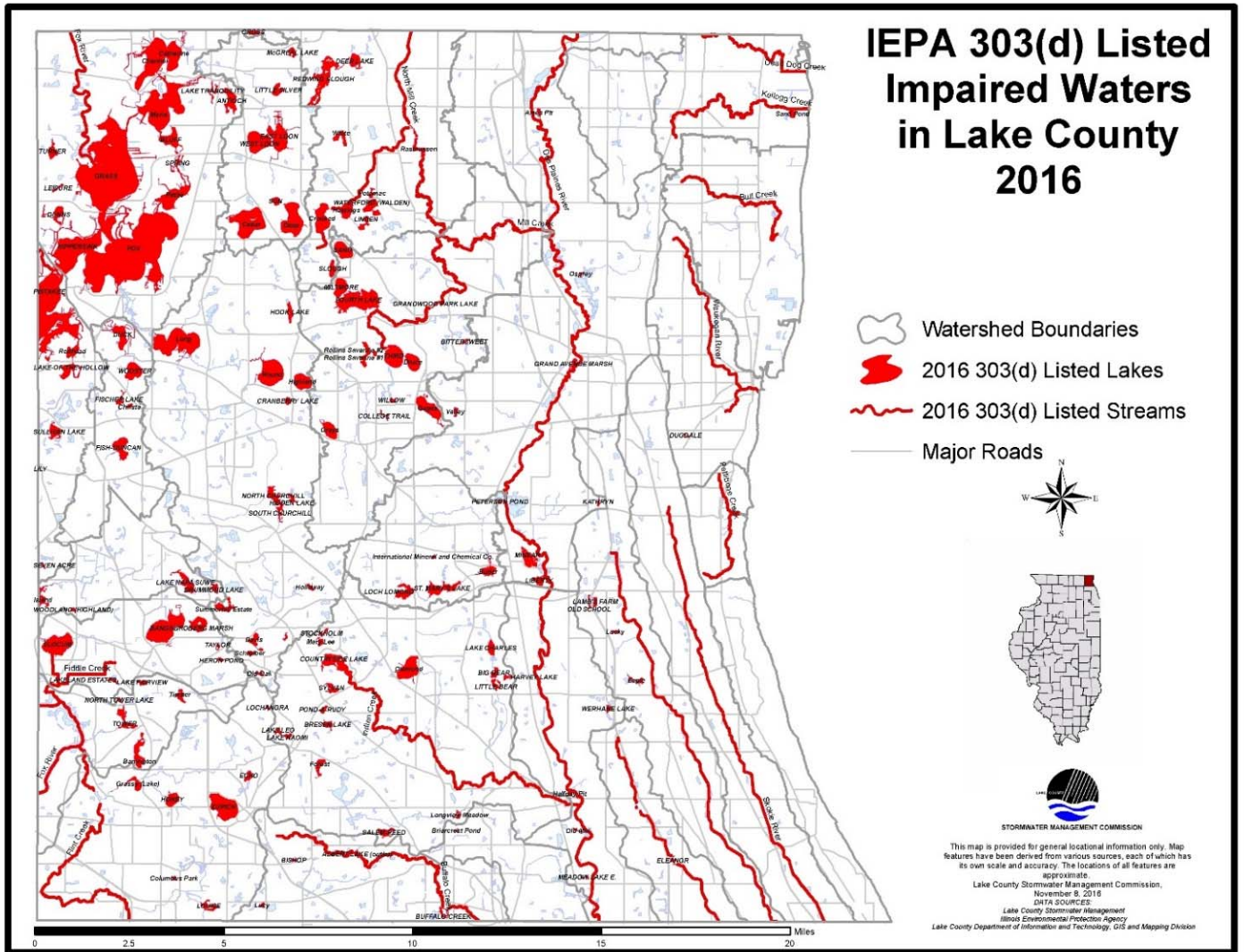


Figure E3.1

### **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 YR17 reporting period, DRWW's monitoring program includes: Water/Sediment sampling and analysis at 73 Monitoring Locations for 2019; Bioassessment monitoring at 31 monitoring locations; Continuous water quality monitoring with data sondes and Chlorophyll a sampling and analysis at 14 Monitoring Locations; and Flow Monitoring data collection at 22 sites. An annual water chemistry monitoring report was submitted to Illinois EPA on behalf of DRWW members in March 2020, which covers the NPDES II monitoring requirements for MS4 communities that are DRWW members. The Des Plaines River Watershed Monitoring Strategy was also updated and submitted to Illinois EPA in March 2020. Current DRWW member list is located at (URL: <http://www.drww.org/members>).

The North Branch Watershed Workgroup (NBWW) monitors water quality in the North Branch Chicago River and tributaries to accurately identify the quality of the river ecosystems as well as stressors associated with non-attainment of water quality standards and designated uses. Monitoring data will allow for a greater understanding of the water quality impairments, identify priority restoration activities, and track water quality improvements. The Workgroup is committed to an approach for attaining water quality standards that focuses on stakeholder involvement, monitoring, and locally led decision-making based on sound science. Comprehensive baseline monitoring has been completed at all 25 sites for water column chemistry and sampled 14 sites for fish, habitat, macroinvertebrate, and sediment chemistry. Data sondes were deployed at 7 sites in the Middle and West Forks for collection of dissolved oxygen (D.O), pH, temperature, and specific conductance. The NBWW will continue to support the North Branch Watershed Planning Committee and the North Branch Watershed Consortium through regular discussion at general meetings. Current NBWW member list is located at (URL: [www.nbwwil.org](http://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 18 Stormwater Activities

The table below indicates the stormwater management activities that the QLP plans to undertake during Year 18. Additional information about the BMPs and measurable goals that the QLP will implement during Year 18 is provided in the section following the table.

**Note: “X” indicates BMPs that will be implemented during Year 18**

Year 18		Year 18	
QLP		QLP	
<b>A. Public Education and Outreach</b>		<b>D. Construction Site Runoff Control</b>	
X	A.1 Distributed Paper Material	X	D.1 Regulatory Control Program
X	A.2 Speaking Engagement	X	D.2 Erosion and Sediment Control BMPs
X	A.3 Public Service Announcement	X	D.3 Other Waste Control Program
X	A.4 Community Event	X	D.4 Site Plan Review Procedures
X	A.5 Classroom Education Material	X	D.5 Public Information Handling Procedures
X	A.6 Other Public Education	X	D.6 Site Inspection/Enforcement Procedures
			D.7 Other Construction Site Runoff Controls
<b>B. Public Participation/Involvement</b>		<b>E. Post-Construction Runoff Control</b>	
X	B.1 Public Panel		E.1 Community Control Strategy
	B.2 Educational Volunteer	X	E.2 Regulatory Control Program
X	B.3 Stakeholder Meeting	X	E.3 Long Term O&M Procedures
	B.4 Public Hearing	X	E.4 Pre-Const Review of BMP Designs
	B.5 Volunteer Monitoring	X	E.5 Site Inspections During Construction
X	B.6 Program Coordination	X	E.6 Post-Construction Inspections
	B.7 Other Public Involvement	X	E.7 Other Post-Const Runoff Controls
<b>C. Illicit Discharge Detection and Elimination</b>		<b>F. Pollution Prevention/Good Housekeeping</b>	
	C.1 Storm Sewer Map Preparation	X	F.1 Employee Training Program
X	C.2 Regulatory Control Program		F.2 Inspection and Maintenance Program
	C.3 Detection/Elimination Prioritization Plan		F.3 Municipal Operations Storm Water Control
	C.4 Illicit Discharge Tracing Procedures		F.4 Municipal Operations Waste Disposal
	C.5 Illicit Source Removal Procedures	X	F.5 Flood Management/Assess Guidelines
	C.6 Program Evaluation and Assessment	X	F.6 Other Municipal Operations Controls
	C.7 Visual Dry Weather Screening		
	C.8 Pollutant Field Testing		
	C.9 Public Notification		
X	C.10 Other Illicit Discharge 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 18, SMC remains committed to performing a variety of stormwater management activities across the County, these commitments are now specifically outlined in the SMPP template. SMC program is continually evolving, to better assist Lake County MS4s in meeting the requirements of the 2016-2021 MS4 Permit.

#### **A. Public Education and Outreach**

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

##### **A.1 Distributed Paper Material**

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

###### Measurable Goal(s):

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

##### **A.2 Speaking Engagement**

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

###### Measurable Goal(s):

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

##### **A.3 Public Service Announcement**

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

###### Measurable Goal(s):

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

##### **A.4 Outreach Events**

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

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

Measurable Goal(s):

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

**A.5 Classroom Education Material**

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

Measurable Goal(s):

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

**A.6 Other Public Education**

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

Measurable Goal(s):

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

**B. Public Participation/Involvement**

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

**B.1 Public Panel**

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

Measurable Goal(s):

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

### **B.3 Stakeholder Meeting**

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

Measurable Goal(s):

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

### **B.6 Program Involvement**

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

Measurable Goal(s):

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

## **C. Illicit Discharge Detection and Elimination**

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

Measurable Goal(s):

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

### **C.2 Regulatory Control Program**

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

Measurable Goal(s):

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

#### **C.10 Other Illicit Discharge Controls**

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

Measurable Goal(s):

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

#### **D. Construction Site Runoff Control**

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

##### **D.1 Regulatory Control Program**

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

Measurable Goal(s):

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

##### **D.2 Erosion and Sediment Control BMPs**

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

Measurable Goal(s):

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

##### **D.3 Other Waste Control Program**

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

Measurable Goal(s):

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

##### **D.4 Site Plan Review Procedures**

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

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

Measurable Goal(s):

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

**D.5 Public Information Handling Procedures**

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

Measurable Goal(s):

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

**D.6 Site Inspection/Enforcement Procedures**

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

Measurable Goal(s):

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

**E. Post-Construction Runoff Control**

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

**E.2 Regulatory Control Program**

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

**E.3 Long Term O&M Procedures**

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

**E.4 Pre-Construction Review of BMP Designs**

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

**E.5 Site Inspections During Construction**

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

**E.6 Post-Construction Inspections**

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

Measurable Goal(s):

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

**E.7 Other Post-Construction Runoff Controls**

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

Measurable Goal(s):

- Conduct annual WMB meeting.
- Contribute funding to flood damage reduction and water quality improvement projects through the WMB.
- Contribute green infrastructure support as a certified professional in the National Green Infrastructure Certification Program (NGICP).

**F. Pollution Prevention/Good Housekeeping**

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

**F.1 Employee Training Program**

SMC will assist Lake County MS4s with the development and implementation of their employee training programs by maintaining a list of known employee training resources and opportunities, making available a software-based employee training program, and providing technical assistance to local MS4s. In addition, each year, SMC will sponsor or co-sponsor training workshops.

Measurable Goal(s):

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

**F.5 Flood Management/Assess Guidelines**

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

Measurable Goal(s):

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

**F.6 Other Municipal Operations Controls**

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

Measurable Goal(s):

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



**Part E5. QLP Construction Projects Conducted During Year 17**

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

## Part F. MS4 Construction Projects Conducted During Year 17

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