



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, 2017 To March, 2018

Permit No. ILR40 0339

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

Name: Village of Fox Lake Mailing Address 1: 66 Thillen Drive

Mailing Address 2: County: ☒

City: Fox Lake State: IL Zip: 60020 Telephone: 847-587-2151

Contact Person: Mayor Donny Schmit Email Address: schmidt@foxlake.org
(Person responsible for Annual Report)

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

Village of Fox Lake, 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 <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))


Owner Signature:

Donny Schmit

Printed Name:


Date:

Mayor

Title:

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

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

IL 532 2585

WPC 691 Rev 6/10

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

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

Village of Fox Lake
Permit No. ILR40 0339
Permit Year 15: March 1, 2017 to February 28, 2018

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Part A. MS4 Changes to Best Management Practices, Year 15

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 15

Year 15	
MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
	A.3 Public Service Announcement
X	A.4 Community Event
X	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
	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 15	
MS4	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
X	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
X	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
X	F.1 Employee Training Program
X	F.2 Inspection and Maintenance Program
X	F.3 Municipal Operations Storm Water Control
X	F.4 Municipal Operations Waste Disposal
	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

Additional information about the changes that were made to the BMPs described in the MS4's SMPP during Year 15 is provided below.

B.6 Program Coordination

Measurable Goal(s):

- Continue to attend and participate in MAC meetings.

Year 15 MS4 activities:

- Due to scheduling conflicts, the MS4 was unable to attend and participate in several of the MAC meetings facilitated by SMC during Year 15. Meeting materials were obtained and reviewed for all MAC meetings that were missed. During Year 16, the MS4 anticipates that it will be able to resume its participation in MAC meetings.

Part B. MS4 Status of Compliance with Permit Conditions, Year 15

Stormwater Management Activities, Year 15

Please note that IEPA issued a new version of its General NPDES Permit No. ILR40 (Permit), effective on March 1, 2016. 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 SMPP can be viewed at the following link: www.foxlake.org

The stormwater management activities that the MS4 performed during Year 15, including the MS4's BMPs and measurable goals, are described in detail in the MS4's SMPP and summarized below. A copy of the annual tracking form is included at the end of Part B of this report.

Stormwater Management Activities, Year 15

The stormwater management activities the Village of Fox Lake performed during Year 15 are described in detail below.

In response to the new ILR40 permit, effective March 1, 2016, the QLP issued a revised SMPP template in November of 2016 (near the end of Year 14). During Year 15, the MS4 reviewed and revised its SMPP. As the revised SMPP document wasn't complete at the beginning on Year 15, the stormwater management activities that the MS4 performed during Year 15, including the MS4's BMPs and measurable goals, were completed in accordance with the previous SMPP. Year 16 commitments will be completed in accordance with the revised SMPP. A copy of the annual tracking form is included at the end of Part B of this report. Due to the flooding event and natural disaster that took place during July 2017 we were unable to update the SMPP.

A. Public Education and Outreach

The Village of Fox Lake conducted Public Education and Outreach as part of its permit. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The MS4's Public Education and Outreach program includes: the distribution of educational material to the community or 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 efforts; and, supporting SWALCO events.

BMP No. A.1: Distributed Paper Material

- The SMC develops and distributes a variety of materials related to stormwater management in Lake County. A number of pamphlets and brochures related to BMP's and stormwater management have been produced. In year 15 staff continued to evaluate all paper materials for updates and introduction of new brochures and pamphlets for distribution to the public. Also staff will worked with our HOA's to ensure their BMP's are in place.

Measurable Goal(s): -Provide new information on BMPs to homeowners associations known to have BMPs in place, as they become available.
-Make information from LC-SMC available for pick-up at Village Hall and/or electronically on the Village website.
-Review and revise enhanced SMPP template, provided by QLP, language related to the provision by end of Year 16.
Implement, and track progress, of BMPs as described in the SMPP.

BMP No. A.3: Public Service Announcement

The SMC issues a public service announcement annually related to the NPDES Phase II in the Quarterly Newsletter, “Mainstream”.

Measurable Goal(s): -Make announcements provided by LC-SMC available through a link on Villages website, newsletters and Facebook.
-Review and revise enhanced SMPP template, provided by the QLP, language related to the provision by end of Year 16.
-Implement, and track progress, of BMPs as described in the SMPP.

The Village provided SMC announcements on the Village’s website.

The SMPP was reviewed and incorporated in Year 14. Review of the SMPP was incorporated in year 15 and will be re-evaluated in year 16. The Village also publishes information in its newsletter “The Anchor” as well as on the Village’s Facebook page. Information such as the newsletter and stormwater management were also available at Village Hall.

During the Flooding events that occurred during Year 15 the Village incorporated an emergency E-news blast system that was sent to residents informing them of flood updates and what to expect in the coming hours, days, weeks. The E-News gave information to residents about sandbagging locations around town and how to keep storm drains clear to allow flooding to dissipate as well as direct numbers to call for information or assistance..

BMP No. A.4: Community Event

Solid Waste Agency of Lake County (SWALCO) Holds household waste collection events in various communities throughout Lake County, which assist in collecting waster before it enters the storm sewer system.

Measurable Goal(s): -Publicize SWALCO events or provide a link on Village website, at a minimum.
-Cooperate with SWALCO to host solid waste collection events within the Village on an occasional basis.
-Attend annual technical training and public awareness workshops as sponsored by SMC regarding soil erosion and sediment control.

training by key Building Department and Public Work staff.

-Review and revise enhanced SMPP template provided by QLP language related to this provision to implement in Year 15.

-Reintroduce the SMC Rain Barrel Program and introduce at public events.

The Village continues to work with SWALCO on all events and has designees on the Board to ensure we are up to date on all events. In Year 13, the Village entered into an agreement to lease property for a Community Garden. In Year 14, the Garden sold out and had a waiting list. The Village was able to get a Master Gardener from the University of Illinois Extension who is available every Saturday to answer questions regarding planting, soil, watering and composting. This program continues into year 15 with continued interest from the public. This programs peaks more interest each year with a waiting list of people to contribute to its purpose.

During Year 15 the Village worked with SWALCO in the electronic recycling program. This program successfully collected over 3,809,931 pounds of electronics between four host sites. This is a 3.5% increase over the previous year at 3,672,398 pounds. The success of this program keeps recycling waste out of our water system and away from stormwater drainage.

During Year 15 the Village partnered with a community group called Promote Fox Lake during a community volunteer day to place plantings around the Village. During this event volunteers from the local schools planted 3,000 daffodils in order to assist with stormwater management.

BMP No. A.5: Classroom Education

The SMC develops stormwater educational materials for local teachers. The Village of Fox Lake will, at a minimum, make this information available to all citizen groups and local classrooms upon request. The Village of Fox Lake has begun testing different stormwater inlet stenciling products. The Village will continue to look for opportunities to involve citizen groups in a stenciling program.

Measurable Goal(s): *-Make educational materials available for teachers upon request.*
-Continue implementation of stenciling program utilizing citizen groups (such as school children) in the activities.
-Get information to schools and other groups for the SMC Rain Barrel Program.
-Host an Education Outreach Class for HOA's regarding BMP and stormwater issues.

Staff attended an MS4 implementation seminar in Year 15 hosted by the American Society of Civil Engineers Illinois Section. This included information from ASCE IL section Environmental and Water Resources Institute chairperson. This informative seminar went over reporting for the MS4 and ideas for improving on existing MS4 reports.

Other staff members attended and spoke at a two day seminar hosted by the Illinois Association of Floodplain and Stormwater Management. The Community Development Director was invited to co-present by Paul Osman, State of Illinois Water Resource Chief Statewide Floodplain Section/National Flood Insurance Program of the Illinois Office of Water Resources he presentation delivered was titled "From Worst to First" and highlighted Fox Lakes efforts to bring the Village into compliance with the Illinois Department of Natural Resources and FEMA flood plain regulations. . Fox Lake began with over 200 violations and within the last two years, all have been abated and the village is now in compliance. Fox Lake is now being used as an example across the state on how to affectively enforce floodplaine regulations and how when government agencies combine resources to educate area residents on the importance of

floodplain management everyone benefits. The Village will be working on creating a CRS Program in Year 16 and the creation of this program will decrease residential flood insurance up to 25%.

BMP No. A.6: Other Public Education

The Village provides additional materials to the general public. In addition, in Year 13, the Village has leased a vacant property and has begun a Community Garden. This garden exposes citizens to Master Gardeners and works with the University of Illinois Extension to provide information about composting, run-off, planting, soil and drainage. The Village leases the lot from the Fire Protection District and instead of a building being placed there we will have a garden complete with plants, vegetables, parks and open areas which assist in reducing stormwater run-off. The Community Garden is entering another season of activism and interest in the storm water best practices. The Garden is full to capacity and the master gardeners are on site to share and spread information.

Measurable Goal(s):

- Post pertinent Village of Fox Lake stormwater related information on the Village website, in newsletter and Facebook.*
- Post NPDES Phase II and BMP resources on the Village website.*
- Continue to work with SMC and HOA's for drainage information and erosion control solutions.*
- Continue to work closely with the community on education and the importance of reducing run-off and planting.*
- Review and advise enhanced SMPP template provided by QLP language related to this provision by the end of Year 16.*

The Village continues to work with our HOA's on stormwater management and assists them through public meetings and working with Lake County Storm Water Management to obtain grants for their plans.

In Year 15 the Village applied for a Grant in order to improve a stormwater sight near the Villages Millennium Park. The Grant would allow the Village implement a pollinator garden in the open areas of the park as well as clear out debris and invasive species in a stormwater retention area. Through this Grant application we would create informative walking path through the park with informational kiosks noting the importance of pollinator gardens and stormwater management. We are waiting to hear which Grant applications were accepted.

Measurable Goal(s):

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

Year 15 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

The Village of Fox Lake committed to implementing the Public Participation/Involvement component of its Stormwater Management Program as described below.

BMP No. B.1: Public Panel

The SMC conducts public meetings and committee meetings including the Technical Advisory Committee (TAC), the Municipal Advisory Committee (MAC) and the Watershed Managements Boards (WMBs). The Village of Fox Lake currently attends all MAC meetings, and monitors additional meetings as they arise.

Measurable Goal(s): -Continue to send a representative to MAC meetings hosted by LC-SMC and Watershed Management Board meetings which are relevant to the Village of Fox Lake.

- Continue to attend the Upper Fox River meetings for updates and information.
- Review and revise enhanced SMPP template, provided by QLP language related to this provision in Year 15.

Staff attends all MAC meetings and continues to work with other Boards and committees regarding our storm water management planning and programs. Mayor Donny Schmit is on the Lake County Stormwater Management Board of Directors.

In February 2018 the Village created a 501(C)3 called “Champions of the Chain” which involves cleaning up the Chain of Lakes from Fox Lake to Elgin. This group focuses on storm water management, lakes and streamspreservation, education, and restoring waterways for environmental flood management and erosion control. Education groups now hope to have bigger projects such as dredging.

BMP No. B.3: Stakeholder Meeting

Stakeholder meetings are conducted throughout the county for ongoing planning and project implementation efforts. When stakeholder groups (such as watershed planning committees) include the jurisdictional area of Fox Lake, the Village will publicize stakeholder meetings locally and participate by being represented at the stakeholder meetings.

- Measurable Goal(s):*
- Continue to monitor all stakeholder meetings and send a representative to all meetings which are relevant to the Village of Fox Lake.
 - Continue to attend the Upper Fox River meetings for updates and information.

Staff attends all meetings regarding our regional storm water planning. The Village participates in various groups such as the Upper Fox River Discovery meetings. We have worked closely with Lake County Storm Water Management and FEMA regarding programs and tools that are available for mitigation plans and forecasting. Staff continues to provide flood prone areas information according to the FEMA maps and have had 1 home demolished in Year in Year 15 at 200 Park. This area has been left as open space per the FEMA agreement. Staff will continue to monitor the need for property acquisition in order to accommodate the needs of storm water management. In Year 16 we will continue to monitor and evaluate needs such as raising homes or demolition.

The Village was cited by the IDNR during their community assessment visit with over 200 potential floodplain violations. The types of violations generally consist of construction activities in a floodplain not in compliance with FEMA regulations. To date the Village has successfully abated a majority of these violations and is in the process the last six violations into compliance. Once these violations are abated the village will then be qualified to apply into the community ratings services program which will reduce the cost of flood insurance for our residents.

BMP No. B.4: Public Hearing

The Village of Fox Lake presented updated information at Village Board Meetings, when applicable, regarding any stormwater regulation changes and/or SMPP development.

- Measurable Goal(s):*
- Present stormwater related updates at public Board meetings.

-Present NPDES Report to the Village Board and provide updates regarding BMPs and enhancements to programming.

-Conduct a Water Quality Meeting for all residents.

-Review and revise enhanced SMPP language, provided by QLP, related to the provision by end of Year 15.

-Upon completion of the SMPP updates present to Village Board for review and approval.

The NPDES Report is presented yearly, in June, to the Village Board describing all activities that went on throughout the year. The report is then posted onto our website at www.foxlake.org. The Village hosted a meeting for the Chain-O-Lakes with the Lake County Health Department in Year 13 for presentation of their Water Quality Report which was well attended. The Village will continue to work with other agencies to hold informational public hearings in Year 15.

In Year 15 Duck Lake Storm Water management project was highlighted at a village board meeting and an award was presented due to excellence in storm water management. The Village will continue to work with the Public for storm water management updates.

BMP No. B.6: Program Coordination

SMC has developed the Municipal Advisory Committee (MAC) to facilitate the coordination of the NPDES Phase II stormwater program in Lake County. The Village of Fox Lake has been involved in the MAC meetings through a representative. The Village continues to participate in MAC meetings and review any guidance and reports as presented by SMC. The Village staff or a representative attended meetings in Year 15.

Measurable Goal(s): *-Continue to attend all MAC meetings and monitor NPDES Phase II stormwater guidance presented by LC-SMC.*
-Continue to work closely with LCSMC for FEMA grants on home demolitions creating park lands and compensatory storage for flood relief.
-Review and revise enhanced SMPP, provided by QLP, related to the provision by end of Year 15.

Village staff attended all meetings of the MAC as well as other meetings from Lake County SWM. We continue to work closely with them on the current FEMA grants for home demolitions that were purchased by SWM in Year 13 and 2 were demolished in Year 14.

In addition, the Village has worked closely with SMC to coordinate the Community Assessment Visit (CAV) with IDNR and FEMA. The Action Plan currently has 4 properties listed for demolition and 2 were demolished in Year 14; 98 Keystone and 37 Medinah.

The Village was cited by the IDNR during their community assessment visit with 150 potential floodplain violations. The types of violations generally consist of construction activities in a floodplain not in compliance with FEMA regulations. To date the Village has successfully abated a majority of these violations and is in the process the last six violations into compliance. Once these violations are abated the

village will then be qualified to apply into the community ratings services program which will reduce the cost of flood insurance for our residents.

The Village in partnership with LCSWM and FEMA has five properties in the Village on the Action Plan that were in the flood plain and have been deemed “sever repetitive loses”. They were demolished and returned to a natural green state in perpetuity per the FEMA agreement. They are:

200 Park Lane-Year 14 Completed
95 Keystone-Year 14 completed
98 Keystone* Year 14-completed
37 Medinah* Year 14-completed

The Village was asked to present at the Annual IAFSM conference on how the Village has successfully abated violations on properties within the floodplain. The presentation was given at the request of Paul Osman, the Manager of Statewide Floodplains Program/National Flood Insurance Program, out of the Illinois Office of Water Resources. This presentation highlighted the Villages path and ability to bring properties within floodplain into compliance. Additionally, the Villages hopes to enter into the CRS program in Year 16

BMP No. B.7: Other Public Involvement

The Village of Fox Lake maintained and publicized illicit discharge/illegal dumping contact numbers for citizens to report illegal dumping and suspicious discharges.

*Measurable Goal(s): -Publish a compliant telephone number on Village website for public reporting of any stormwater compliance issues. Track these complaints and their corresponding resolutions.
-Review and revise enhanced SMPP language, provided by QLP, related to the provision by end of Year 15.*

The Village is preparing a Public Outreach program to continue to educate HOA’s, schools and flood prone areas within the Village on stormwater issues and BMP’s. We currently have a phone number to call for reporting stormwater compliance issues or concerns and they are investigation and tracked by our Community Development Department. The number is listed on our website. Staff has worked with our HOA’s and in Year 15 2 grants will be issued for stormwater planning. Dunn’s Lake and Woodhill’s Bay subdivisions are currently working with SMC and the Village on the future plans for Year 15.

In Year 15 the Village worked with local homeowners associations in order to improve stormwater retention areas. This past year the village assisted a local HOA in a storm water management project that was completed on Duck Lake which improved the quality of stormwater runoff in the area while clearing out the lake of dead trees and debris. The project also worked to beautify the area with new plantings around the retention area as well. The Village also spent some time working with another local HOA on runoff and drainage issues that were flooding basements and private property due to another properties runoff. With the assistance of the village we were able to provide the residents in our Woodland Green townhomes a safe and reliable alternative for storm water drainage.

Measurable Goal(s):

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

Year 15 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

The MS4 conducted activities related to the Illicit Discharge Detection and Elimination (IDDE) 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 (annual is recommended) inspection of storm sewer outfalls for detection of non-stormwater discharges and illegal dumping.

Measurable Goal(s): Implement BMPs and track progress of BMP implementation.

BMP No. C.1: Storm Sewer Map Preparation

The Village of Fox Lake has prepared an outfall map under the original NOI, to allow for tracking of dry weather flow inspections and outfall maintenance. In Year 14 the Village budgeted for a GIS program to track all outfalls and record the conditions and maintenance needed or performed. Village staff is currently working with our IT department to complete the maps and information. We expect to have this portion done in Year 15.

*Measurable Goal(s): -Review and revise enhanced SMPP template language, provided by QLP, related to the provision by end of Year 15.
_Implement Tracking Program of Outfalls in GIS.
-Implement, and track progress, of BMPs as described in the SMPP.*

The Village reviewed the current outflow maps and made no changes in Year 14. The village purchased a GIS system in Year 14 and has completed mapping of the water and sewer system. The stormwater maps will be converted to the GIS system in Year 15 showing outfalls, status of the areas and if any maintenance was performed.

The Village underwent a major project to incorporate stormwater drains into our GIS inventory during Year 15. This successfully gave the village instant information on over 600 storm drain inlets telling us the existing condition of the inlets, the future needs, damage, clogged or dirty pipes, and any maintenance that may need to be completed. The importance of the inventory of storm inlets allows maintenance staff to

continually add to the GIS and view any previous work that was completed to each structure, giving us the ability to keep structures safe, clean, and clear.

BMP No. C.2: Regulatory Control Program

The Village of Fox Lake continued to prohibit non-storm water discharges into the storm sewer or drainage system through enforcement of the Lake County WDO and Village Code. The WDO includes provisions, which prohibit illegal dumping into the storm sewer or drainage systems.

*Measurable Goal(s): -Continue to enforce ordinances and issue citations as necessary.
-Review, revise and accept SMPP template language related to the provision by end of year 15.*

The Village passed an Ordinance in Year 12 prohibiting illicit discharges and connections giving authority to the Village for appropriate enforcement procedures and actions. (Ordinance 2014-17). The village also adopted an Ordinance in Year 13 prohibiting the use of fertilizer containing phosphorus. (Ordinance 2015-13). In addition, the Village adopted the Amended Lake County WDO in Year 13 (Ordinance 2016-13).

The Village enforced all ordinances in Year 14 and there were 40 inspections completed where 10 were WDO code violations. These violations were reported to the Community Development Department and were investigated by our WDO Enforcement Officer and remedied immediately in full compliance.

The Village worked with a new business in town during Year 15 that was building a new structure. During the construction phase for a new dealership at 27 N US Highway 12 Benchmark Environmental Services, Inc. did an environmental assessment and discovered contamination within the soils and potential groundwater in an area of approximately 5,000 square feet and a depth of approximately 4-6ft. A scope of work was established and remediation was performed by a qualified remediation company. The Village worked with the businesses to ensure proper remediation and compliance.

BMP No. C.3: Detection/Elimination Prioritization Plan

The Village of Fox Lake will continue to implement the schedule developed under the original NOI regarding illicit discharges. Detection methods include dry-weather screening during daily maintenance activities, regular storm sewer maintenance and catch basin cleaning. Storm sewer sand catch basin cleaning will continue to be completed at least once every 2 years. Perform dry-weather screening during regular maintenance activities of all outfalls on a rotating basis with each outfall being inspected at least once every 2 years.

*Measurable Goal(s): -Perform outfall inspections at least once every year.
-Continue storm sewer and catch basin cleaning once every 2 years to help in detection of illicit discharges.
-Document all inspections and record potential illicit discharges.
-Review revise and accept SMPP language related to this provision by end of year 15.*

In Year 15 the Village inspected all drainage basins including the cleaning and clearing of debris, all catch basins were checked and cleaned; all outlets were checked and cleaned all detention ponds were checked,

mowed and all debris cleared out. All stormwater structures were inspected and repairs of all failures were noted and scheduled for repair in Year 15. Dry weather screening was completed during this time and staff inspects all outflows after a 1-inch rainfall for flow and debris. All inspection records are kept at the Village's Public Works Facility. After each heavy rainfall, staff inspects storm sewer inlets throughout the village to ensure the integrity of the fixtures for proper drainage.

Repairs were made to failing drainage structures in Year 15 including a culvert repair at Grand Ave and Devlin Avenue. The existing metal structure was corroding and was repaired with a new plastic structure to ensure future integrity. Storm sewers were camera and inspected to insure pipes were safe and clean when thought to be in jeopardy. After the flooding events in FY 15 storm sewer pipes were thoroughly inspected to insure there were no clogged drains and there was no debris in any pipes.

BMP No. C.4: Illicit Discharge Tracking Procedures

The Village of Fox Lake continued implementing the schedule developed under the SMPP regarding illicit discharges. Detection methods include dry-weather screening during maintenance activities, regular storm sewer maintenance, and catch basin cleaning. Storm sewer and catch basin cleaning will continue to be completed at least once every 2 years. Perform dry weather screening of all outfalls on a rotating basis with each outfall being inspected at least once every 5 years.

Measurable Goal(s):

- Continue to utilize storm sewer map for illicit discharge tracing, as Applicable and in GIS for tracking.
- Start water sampling at outflows and upstream and downstream locations.
- Document all illicit discharges discovered and the actions taken for resolution.
- Review revise and accept SMPP language related to this provision by end of year 15.

The tracking procedures are outlined in the Villages IDDE Ordinance 2014-17 and there were one illicit discharges reported in Year 15. The Village has a Stormwater Pollution Prevention Plan developed in 2010. The Village has incorporated this into our SMPP with tracking procedures outlined in Year 15.

The Village incurred one incident of Illicit Discharge during Year 15. On February 19 dispatch was called for a fuel spill on Hilldale Rd from a truck that had a broken fuel line. The Fire Districts HAZMAT team was deployed to the scene. The Fire District requested the assistance of Village Public Works personnel to inspect sanitary and storm sewers. Public Works worked with the Fire Department to ensure no fuel entered the sanitary system, and there were no stormwater inlets nearby the spill. Sand was used to control the approximately 20-25 gallons of fuel that spilled and was cleaned up by a professional remediation company. The full Fire Districts report can be found by clicking the link below



Fire Report.pdf

BMP No. C.5: Illicit Source Removal Procedures

The Village of Fox Lake continued implementing the scheduled developed under the NOI regarding illicit discharges. Detection methods include dry-weather screening during maintenance activities, regular storm sewer maintenance, and catch basin cleaning. Storm sewer and catch basin cleaning will continue to be completed at least once every 2 years. Perform dry weather screening of all outfalls on a rotating basis with each outfall being inspected at least once every 5 years.

Measurable Goal(s): -Track complaints received and corresponding resolutions.
- Review revise and accept SMPP template language related to this provision by end of year 15.

The Village receives complaints through the Community Development Department who investigates with our WDO Enforcement Officer and tracks the corresponding resolutions. Staff has been certified in Hazardous Material Training and Testing in Year 15 and attended Lake County Ice and Snow Removal Training for salt, ice and snow removal procedures and alternative resources for removal. The Villages Community Development Director attended and presented at a two day seminar for the Illinois Association for Floodplain and Stormwater Management. The title of the presentation was “Fox Lake Worst to First” which highlighted Fox Lakes efforts to bring the village into compliance with the Illinois Department of Natural Resources and FEMA flood plain elevations.

The Powerpoint presentation can be viewed by clicking the below icon



Powerpoint
presented at Event.p

BMP No. C.6: Program Evaluation and Assessment

Periodically evaluate and assess the IDDE portion of the program. Collaborate and share information about IDDE program and results through MAC (sponsored by LC-SMC).

Measurable Goal(s): -Continue to enforce ordinances.
- Review revise and accept SMPP template language related to this provision by end of year 15.

The Village continues to review and assess all ordinances, policies and programming for illicit discharges and enforces all ordinances as well as the County WDO. Updates and enhancements will continue throughout Year 16 to the SMPP. Year 12 led to the passage of the IDDE Ordinance 2014-17 and the Prohibition of Phosphorous Ordinance in Year 13 (2015-13) giving authority to the village for appropriate enforcement procedures and actions. The SMPP was reviewed and updated per the new IEPA permit in Year 15.

BMP No. C.7: Visual Dry Weather Screening

The Village of Fox Lake continued implementing the scheduled developed under the original NOI regarding illicit discharges. Detection methods include dry-weather screening during maintenance activities, regular storm sewer maintenance, and catch basin cleaning. Storm sewer and catch basin cleaning will continue to be completed at least once every 2 years. Perform dry weather screening of all outfalls on a rotating basis with each outfall being inspected at least once every 2 years.

Measurable Goal(s): -Perform outfall inspections at least once every 2 years.
-Continue storm sewer and catch basin cleaning once every 2 years to help in detection of illicit discharges.
- Review revise and accept SMPP template language related to this provision by end of year 15.

Public Works conducts dry weather screening and maintenance throughout the year to ensure there are no debris and that the outflows are clear and basins and detention are operational. Inspection records of the monitoring, cleaning and repairs of all work completed are kept at the Public Works Facility.

In Year 14 the Village inspected drainage systems including the cleaning and clearing of all debris, all catch basins were checked and cleaned, all outlets were checked and cleaned, all detention ponds were checked, mowed and all debris cleared. All storm sewer structures were inspected and repairs off all failures were completed. Dry weather screening was completed during this time and staff inspects all outflows after a 1-inch rainfall for flow and debris. All inspection records are kept at the Public Works Facility.

With the newly initiated GIS system for stormwater outfalls and inlets, the ability to update stormwater needs electronically has given the village an ability to streamline necessary repairs and maintenance. All maintenance, inspections, and repairs can be kept electronically and allow the users to see what repairs have been completed to date to better investigate situations when issues arrive.

BMP No. C.9: Public Notification

In order to promote compliance with the EPA NPDES program within the Village of Fox Lake, informational material was distributed to all permitted dischargers within the Village in coordination with the business renewal licenses. This informational packet will contain literature regarding illicit discharges and other stormwater related topics.

Measurable Goal(s) -Make illicit discharge information available on the Village website for commercial/industrial businesses which are permitted stormwater discharges.
-Notify property owners of any illicit discharges detected from their property.

The Village redesigned its website in Year 8 and posted all information in Year 11. In Year 12 and 13 the website was again updated and all information posted accordingly. Additionally, all marinas were required to show verification that they have applied for individual NPDES permits through the IEPA. This was conducted by the Building and Zoning Department in Year 8. The Village continues to supply information to businesses, residents and HOAs through meetings, grant opportunities, public meetings, website, business licensing and continued effort to update all hand-outs, packets and brochures.

The Village continues to improve the technological and direct outreach such as implementing an emergency E-news letter regarding flood updates during the July 2017 flooding event. This E-news letter was sent out to give residents information on what to expect in coming hours, days, and weeks. Updates were also presented through the Villages Facebook page and website. This gave residents the information needed to protect them from flood damage and give information on where to get resources such as sandbags, volunteer opportunities, and post hazard mitigation.

During the Year 15 town hall meeting the Village, staff, and elected officials addressed questions from the public regarding stormwater management and the flood response. This event was open to the public and allowed staff to address questions from both residents and business owners on BMP and stormwater management.

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, which is administered and enforced within the community by the MS4 establishes standards for construction site runoff control.

Measurable Goal(s):

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

Year 15 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):

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

Year 15 MS4 activities:

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

E. Post-Construction Runoff Control

As described above, 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 new development or redevelopment resulting in over 0.5 acres of new impervious area. The enforcement of the WDO implements BMPs as described below.

BMP No. E.2: Regulatory Control Program

See QLP description.

Measurable Goal(s): -Enforce WDO.

-Review revise SMPP language related to this provision by end of year 15.

The Village enforced the WDO in Year 15. In Year 12 the Village passed the IDDE Ordinance regarding illicit discharges giving authority to the Village for appropriate enforcement procedures and actions. In addition, the Village passed a Phosphorous Ordinance 2015-13 giving authority to the Village for appropriate enforcement procedures and actions regulating the sale of phosphorous in fertilizers.

Our enforcement officer inspects all job sites for any development disturbing more than 0.5 acres of new impervious area. The Village had a large road construction project in Year 13 Nippersink Road, and submitted the required NOI to the IEPA for permit and notified when the project was completed and stabilization reached.

BMP No. E.3 Long Term O&M Procedures

See QLP description. Continue to inspect and enforce all complaints of structural BMPs maintenance compliance with the Village of Fox Lake. Take enforcements measures as necessary.

Measurable Goal(s): -Enforce WDO.

-Continue providing new information to Homeowner's Associations as it becomes available.

-Investigate all reported complaints regarding structural BMP maintenance and enforce if necessary.

-Review revise SMPP template language related to this provision by end of year 15.

The WDO was enforced in Year 15. The Village passed on information to the Home Owners Associations regarding stormwater ponds. The Village continues to work closely with several residential homeowners and SMC and FEMA onsite to give direction on several stormwater and flooding issues.

As new information becomes available this information will be passed on via electronic or paper distribution methods. There was 1 complaint reported regarding structural BMP maintenance in Year 10. One permit was issued to an HOA in Year 11 (Woodland Green) for shoreline maintenance of a detention pond. There was 1 complaint in Year 12 from Dunns Lake in regard to lack of maintenance for detention ponds. The Village worked with engineers from LCSMC to identify and prepare a BMP report that the HOA can use to prioritize improvements to their storm water management system in order to be in compliance with the BMPs. Dunns Lake received a \$10,000 grant that the Village assisted in obtaining for them in partnership with LCMC. The Village continues to work with our HOA's on stormwater management compliance and two groups have been awarded additional grants for Year 15.

The Village continued to work with LCSMC in Year 14 on flooding issues and the CAV and worked with them to acquire the purchase of several homes that experienced continued flooding.

One home was purchased in Year 15 which included demolition at 200 Park. The property was demoed due to damage sustained by the flooding events which occurred during Year 15. The Village was

successful in reducing the CAV list or properties and properly mitigating any future issues that could have a negative impact on stormwater management.

The Villages Public Works department maintains the Village's stormwater drainage system. After the flooding events during Year 15 pipes were jet out after inspection if blockage was found. This year staff was able to inspect over 600 inlets and incorporated them into our GIS system, during those inspections we found needed repairs which the data was collected and comments could be made for a long term O&M procedures can be followed. Repairs are then made to time sensitive issues others not interrupting the integrity of the system are scheduled as time permits.

BMP No. E.4: Pre-construction Review of BMP Designs

See QLP description.

Measurable Goal(s): -Enforce WDO.
-Review revise SMPP template language related to this provision by end of year 15.

Before any construction project begins, a preconstruction meeting is held in order for the Village, Engineers, and Contractors to gather information and assess the stormwater needs of the project. Erosion and sediment control measures are taken to ensure that nearby streams, rivers, and lakes are not affected by the construction project. Silt Fence is a measure that is often taken in construction projects within the Village to keep stormwater from being disturbed from construction activities.

BMP No. E.5: Site Inspections During Construction

See QLP description.

Measurable Goal(s): -Enforce WDO.
-Continue periodic site visits of construction sites and follow-up visits in response to complaints received.
-Review revise and accept SMPP template language related to this provision by end of year 15.

The WDO was enforced in year 15. Construction sites were inspected for ordinance compliance. Fox Lake has a full-time inspector for erosion control enforcement on construction sites to ensure all controls such as silt fencing are being observed. Additionally, the Village contracts and certified plumbing inspector for all plumbing services and inspections on all sites. All construction sites were inspected and reports are available in our Community Development Department. The following construction took place in Year 15:

WDO Permits-20
Demolition-18
New Commercial-2
New Residential-22
Commercial Addition-1
Residential Addition-3

Code Enforcement Violations-7 (Erosion Control, Illegal Fill, and Drainage). All were inspected and made to be in compliance.

BMP No. E.6: Post-Construction Inspections

See QLP description.

*Measurable Goal(s): -Enforce WDO.
-Review revise SMPP template language related to this provision by end of year 15.*

The WDO was enforced in Year 15. A Grading Certificate is required for all new construction and is reviewed by the enforcement officer provided by the project engineer.

BMP No. E.7: Other Post-Construction Runoff Controls

See QLP description.

*Measurable Goal(s): -Enforce WDO.
-Review revise SMPP template language related to this provision by end of year 15.*

Inspectors ensure that the property is top-soiled and seeded right away or other types of erosion controls are in place such as silt fencing.

Measurable Goal(s):

- Implement BMPs and track progress of BMP implementation, as described in the SMPP.
- Enforce WDO in ensuring that all applicable developments regulated pursuant to the WDO.

Year 15 MS4 activities:

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

- **Pollution Prevention/Good Housekeeping**

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants for municipal operations. This program includes a training program for municipal employees. The Village of Fox Lake commits to implementation of BMPs as described below.

BMP No. F.1: Employee Training Program

Implement training program, established under original NOI for select municipal employees. SMC, the Qualifying Local Program will serve as the clearinghouse of these materials.

Measurable Goal(s): -Conduct Public Works new hire employee training regarding waste disposal, silt clean up, and facilities operation and maintenance.

- Attend LC-SMC sponsored training events as applicable for all key Building Department and Public Works staff.*
- Review, revise and accept SMPP template language related to this provision by end of year 15.*

The Village sends employees to all training as time permits. In Year 15 employees received the following certifications:

**Hazardous Materials Training and Testing (All Public Works employees attended).
Snow and Ice Control Best Practices Training
Herbicide and Pesticide control measures and proper use**

BMP No. F.2 Inspection and Maintenance Program

The Pollution Prevention/ Good Housekeeping program completed under the original NOI includes measures to reduce the type of pollution that: (1) collects on streets, parking lots, open spaces and storage and vehicle maintenance areas and is discharged into local waterways; and (2) results from actions such as environmentally damaging land development and flood management practices or poor maintenance of sewer systems. Street sweeping is performed on all streets at the beginning of the Spring season and major streets and streets with storm sewers are swept regularly through the Spring, Summer and Fall seasons. Conduct storm sewer and catch basin cleaning at least once every 2 years and dry weather screening of all outfalls at least once every 5 years.

*Measurable Goal(s): -Continue street sweeping at the scheduled developed in the original NOI
-Perform outfall inspections and storm sewer and catch basin cleaning at the schedule developed in the SMPP.
-Review revise the SMPP template language related to this provision by the end of year 15.*

In Year 14 the Village inspected all drainage systems including the cleaning and clearing of all debris; all catch basins were checked and cleaned; all outlets were checked and cleaned; All detention ponds were checked, mowed and debris cleared out. All storm sewer structures were inspected and repairs made as needed. Dry weather screening was completed during this time and staff inspects all outflows after a 1-inch rainfall for flow and debris. All inspection records are kept at the Public Works Facility.

The following list represents storm water related improvements completed during sewer and water capital projects for Year 14.

Holiday Park Water Tower 27240 Nippersink

A catch basin and storm water line were installed at this site. Existing ditches on site were graded to the correct slope to connect to existing drainage. Stone rip rap was added. Native vegetation was used to restore the area.

North Avenue

North Avenue was regraded and repaved to improve drainage after water main installation. Shoulder ditches were regraded. Existing catch basins were cleaned and adjusted to proper elevations.

Lakewood Avenue

Lakewood Avenue was regraded and repaved to improve drainage after water main installation. 1 existing catch basin was replaced and a new storm water outfall was installed.

Glen Avenue

Glen Avenue was repaved and shouldered to improve drainage. A collapsed culvert was removed and the area regraded.

Grand Avenue Valve Replacement

A broken culvert was repaired at Glenview Place and Grand Avenue.

In Year 15 staff inspected 628 storm sewer structures were cleaned and inspected. Staff entered and is monitoring all information into our GIS system and creating a repair program for any structures found to be in need. The program was instituted in Year 15 and will be maintained during Year 16

Storm Sewer Collection information can be found by clicking the link below:



Storm Sewer
collection.xlsx

Street sweeping was performed on streets in Year 15 at the beginning of spring. Street sweeping also takes place after major storms which can cause debris and blockage to enter our storm drains. During Year 15 street sweeping was performed a total of 27 days which collected a total of 288 yards of debris. Being able to sweep and keeping the debris out of our storm water collection system has benefited the Village tremendously. We plan to continue our sweeping program into Year 16

BMP No. F.3: Municipal Operations Storm Water Control

The program completed under the original NOI identifier where maintenance and washing of Village fleet is done, how lubricant and oil spills are handled, how/where road salt and chemicals are used and stored, etc.

Measurable Goal(s): -Continue periodic evaluation of municipal facilities.

-Update facilities with necessary stormwater controls, if applicable.

-Continue minimizing the use of road salt applicable by utilizing salt/sand application mix.

-Continue the implementation of SWPPP for Public Works.

-Review revise and accept the SMPP template language related to this provision by the end of year 15.

The Village built a salt barn in Year 11 for storage of all salt and a SWPP Plan which has a Maximize Exposure Section 3.1 which includes:

- A triple basin located in the Motor Pool Maintenance Garage.
- All floors in Motor Pool Garage slope towards the triple basin.
- All vehicle and equipment are stored inside.

- Refueling Station is covered to protect any runoff washing away fuel for other items which may present in the area.
- Used motor oil (hydraulic, transmission, diesel) are collected and stored in covered 275-gallon drums.
- Used motor oil is burned for heating of Motor Pool facility.
- Used anti-freeze is collected and stored in covered containers and hauled off site for disposal by a licensed waste hauler to a licensed facility.

The Village continues to improve Best Management Practices and increases the need for safe stormwater runoff. During Year 15 the Village took on the following in order to improve to minimize stormwater exposure:

- Development of a Tire Bin in order to reduce used or new tires to stormwater contact
- New deicing system to reduce gravel or sand being used and entering the stormwater system.

BMP No. F.4: Municipal Operations Waste Disposal

The program completed during the original NOI helps ensure a reduction in the amount and type of pollution that results from waste disposal operations, such as separate storm sewer systems, roads and parking lots, maintenance and storage yards (including salt/sand storage and snow disposal areas), and waste transfer stations.

Measurable Goal(s): -Review and revise SMPP template language related to this provision by end of year 15.

The Villages salt storage shed was completed in Year 11 which is a contained storage and is sloped inward so no leaching occurs. The Village has a Brush Pick-Up Program to collect branches and bush trimmings only. The trimmings are chipped and used for local businesses and residents for mulch. Our contract with Waste Management allows homeowners to contract with them for landscape waste pick up. The Village conducts street sweeping three times per year and vacuums the streets as well.

The Village invested in a new liquid deicing system during year 15 which resulted in eliminating the need to use sand, or gravel, in snow storms. This elimination of other products such as sand or gravel results in less contaminants getting into storm drains and into our water system. The system implemented uses a liquid deicing product that reduces the need for salt, is 90% less corrosive than salt, and more environmentally friendly.

BMP No. F.5 Flood Management/Assess Guidelines

See QLP Description. The program currently implemented includes permit review processes in accordance with WDO regulation related to Floodplain Management. Additionally, the Village works closely with SMC regarding flood mitigation and flood control projects.

*Measurable Goal(s): -Monitor progress of SMC
-Continue to work on the FEMA Community Assessment Visit list and gain compliance on all homes located within the flood plain.
-Schedule home demolitions within the flood plain working with SMC and FEMA to create park land and compensatory storage.
-Enforce WDO
-Review and revise SMPP template language related to this provision by end of year 15.*

The WDO was enforced in Year 14. In addition, as discussed previously, the Village representatives attended all MAC meetings in Year 14. In Year 12, the Village hosted an informational event in partnership with SMC and our Dunn's Lake HOA to resolve detention issues. In Year 13 the Village continued to work closely with Dunn's Lake and Woodhill's Bay HOA to assist in a plan for drainage through a grant from SMC for a survey and design of drainage corrections and installation throughout the subdivision.

The Village continues to work closely with several homeowners and SMC onsite to give direction on several stormwater and flooding issues. The Village continues to work closely with SMC to coordinate the Community Assessment Visit (CAV) with IDNR and FEMA. 15 homes were identified with violations within the flood plain. In Year 12 the Village began a corrective action plan and surveyed and worked with FEMA and SMC for corrections. Two homes were removed from the list in year 14 and purchased by SMC and were demolished in Year 14.

The Village in partnership with SMC was able to obtain FEMA grants for 4 homes within the Village that were in the flood plain and deemed "severe repetitive losses":

200 Park Lane
35 Medinah
98 Keystone
37 Medinah

Although these four homes were slated for demolition in Year 13, due to state budget constraints all 4 were demolished in Year 14.

The flooding that occurred during Year 15 required assistance from Rapid Assist Flood Team also known as RAFT. RAFT came out and assisted the Village in inspecting homes with post flood mitigation. With the assistance of RAFT the Village was able to inspect 300 homes that were flooded or damaged due to high waters. At this point in time there has been no demolition of homes due to the flooding events that occurred during Year 15.

BMP No. F.6: Other Municipal Operations Control

It is anticipated that the enhanced SMPP template may include measures beyond the current program scope.

Measurable Goal(s):

- Consider additional language in SMPP template language and incorporate into program by end of year 15.
- Create a Unified Development Ordinance (UDO) outlining the building and development processes located within a flood plain.
- Adopt a Green Infrastructure Plan through the UDO process
- -Implement BMPs and track progress of BMP implementation, as described in the SMPP.

The ability for the Village to utilize GIS for stormwater purposes allow us to get better tracking and immediate information on stormwater needs. The integration of technology into our system has given us the ability to label areas that need immediate attention or areas that could use attention in the near future. Along with the needs of repairs, this program has allowed the Village to identify storm inlets and outlets

that are problematic to keep maintenance logs or identify alternative solutions to the problem due to continued maintenance logs.

Measurable Goal(s):

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

Year 15 MS4 activities:

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

Stormwater Management Program Assessment, Year 15

The MS4 revised their SMPP to coincide with the March 2016 ILR40 permit. As described in the revised SMPP there are extensive monitoring efforts already underway across the County, refer to Part C of this report for additional information. The QLP section of the report describes the Status of Lake County waters using information gathered by active workgroups and the Lake County Health Department along with a discussion on TMDL status within the County. The Status of Lake County Waters provides insight as to the overall effectiveness of countywide efforts to improve water quality. As an active MS4 within the County, the countywide findings reflect the individual efforts of each MS4. Additionally, the SMPP identified impaired waters based on the July 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 expected to be provided in the Year 16 annual report (after the next 303(d) list is published).

The Village of Fox Lake will continue to utilize our GIS system as well as the Lake County Storm Water Management Commission and partner with them on any upcoming projects. We will continue to implements BMP's and work closely with the Lake County Stormwater Management team regularly to ensure proper drainage and safe stormwater detention. Staff will review GIS annually so it can be a helpful tool for our storm water management guide. We will review and revised the SMPP in Year 16 and believes the BMP's are appropriate to gain progress towards achieving the regulatory goal of reducing the discharge of pollutants.



Annual Reports.pdf

Category Detail Report

05/14/2018

Com, Addition

Permit #	Owner	Address	Fee Total	Amount Paid
P1609-084	Metra Railroad	14 Sayton RD	\$3,984.75	\$3,984.75

Total Fees For Type: \$3,984.75
Total Permits For Type: 1

Report Summary

Population: All Records

Grand Total Fees:

Grand Total

1

Category Detail Report

05/14/2018

Com, Major Building

Permit #	Owner	Address	Fee Total	Amount Paid
P1709-055	Ray Chrysler Dodge Jeep Ram	23 N ROUTE 12	\$0.00	\$0.00
P1709-021	FNC Real Estate Entity LLC Fox La	8 S ROUTE 12	\$150.00	\$150.00

Total Fees For Type: \$150.00
Total Permits For Type: 2

Com, Minor Building

Permit #	Owner	Address	Fee Total	Amount Paid
P1704-009	Bigelow, Tim	16 E GRAND AVE	\$50.00	\$50.00
P1705-009	Khan, Aga	1388 S ROUTE 12	\$50.00	\$50.00
P1708-042	Hasani, Naile	44 S ROUTE 12	\$50.00	\$50.00
P1711-013	Dr. Dam	46 E GRAND AVE	\$50.00	\$50.00

Total Fees For Type: \$200.00
Total Permits For Type: 4

Res, Interior Demo

Permit #	Owner	Address	Fee Total	Amount Paid
P1708-083	Fulk, Steve	511 PARK AVE	\$0.00	\$0.00
P1708-089	Wicinski, Josh	51 LIPPINCOTT RD	\$0.00	\$0.00
P1802-018	Abromova, Marina	49 N LAKE AVE	\$100.00	\$100.00

Total Fees For Type: \$100.00
Total Permits For Type: 3

Res, Major Building

Permit #	Owner	Address	Fee Total	Amount Paid
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P1710-040	Liebe, Kevin & Sandra	125 MANOR AVE	\$0.00	\$0.00
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Total Fees For Type:	\$0.00
Total Permits For Type:	1

Res, Minor Building

Permit #	Owner	Address	Fee Total	Amount Paid
P1703-038	Timan, Helen F	39 FAIRFAX RD	\$50.00	\$50.00
P1706-105	Cada, Robert & Kelly	179 WALTONIAN TER	\$500.00	\$500.00
P1709-074	Wichman, Bob	98 VENICE AVE	\$50.00	\$50.00
P1706-080	Svinland, Darren	35 S HOLLY AVE	\$500.00	\$500.00
P1710-056	Susan McClaughry	534 DEER RUN	\$50.00	\$50.00
P1712-014	Evanson, Bonnie	612 E GRAND AVE	\$100.00	\$100.00
P1712-033	Figgins, Craig	20 MATTS RD	\$0.00	\$0.00
P1802-026	Smutney, Karl	27470 W ROUTE 134	\$100.00	\$100.00

Total Fees For Type: \$1,350.00

Total Permits For Type:

Report Summary

Grand Total Fees:

Grand Total	18
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Category Detail Report

05/14/2018

Com, New Structure

Permit #	Owner	Address	Fee Total	Amount Paid
P1703-010	Steffens, Zachary	100 S ROUTE 12	\$6,205.00	\$6,205.00
P1710-048	FNC Real Estate Entity LLC Fox La	8 S ROUTE 12	\$16,754.00	\$16,754.00

Report Summary

Total Fees For Type:	\$22	Grand Total Fees:	
Total Permits For Type:	2	Grand Total	2

Category Detail Report

05/14/2018

New Home Attached

Permit #	Owner	Address	Fee Total	Amount Paid
P1712-016	CalAtlantic Homes	7072 HIDDEN GREEN CIR	\$13,636.35	\$13,636.35
P1712-017	CalAtlantic Homes	7074 HIDDEN GREEN CIR	\$13,636.35	\$13,636.35
P1712-018	CalAtlantic Homes	7077 HIDDEN GREEN CIR	\$14,583.03	\$14,583.03
P1712-019	CalAtlantic Homes	7079 HIDDEN GREEN CIR	\$14,594.23	\$14,594.23
P1712-020	CalAtlantic Homes	7081 HIDDEN GREEN CIR	\$14,594.23	\$14,594.23

Total Fees For Type: \$71,044.19
Total Permits For Type: 5

Report Summary

Grand Total Fees:

Grand Total

5

Category Detail Report

05/14/2018

Res, Addition

Permit #	Owner	Address	Fee Total	Amount Paid
P1611-012	Dikow-Iwanow, Stanislaw	100 HILLDALE RD	\$763.52	\$763.52
P1608-046	Wasilewski, Frank	22 HAWTHORNE LN	\$1,314.56	\$1,314.56
P1707-043	Strobot, Gerald	1175 DEERPATH CT	\$260.00	\$260.00

Total Fees For Type:	\$2,338.08
Total Permits For Type:	3

Report Summary

Grand Total Fees:

Grand Total

3

Category Detail Report

05/14/2018

Commercial New Construction

Permit #	Owner	Address	Fee Total	Amount Paid
P1702-006	Double D Ranch, LTD.	23 N ROUTE 12	\$18,642.50	\$18,642.50

Total Fees For Type: \$18,642.50

Total Permits For Type:

1

Commercial Alteration

Permit #	Owner	Address	Fee Total	Amount Paid
P1705-097	Woodhills Bay Colony	WOODHILLS BAY	\$558.40	\$558.40
Total Fees For Type:			\$558.40	
Total Permits For Type:				1

Concrete

Permit #	Owner	Address	Fee Total	Amount Paid
P1706-005	Miller, Murry	147 ARTHUR AVE	\$190.00	\$190.00
Total Fees For Type:			\$190.00	
Total Permits For Type:				1

Deck

Permit #	Owner	Address	Fee Total	Amount Paid
P1702-034	Tobutt, Andy	250 LIPPINCOTT LN	\$255.00	\$255.00
P1704-062	Liebe, Kevin & Sandra	125 MANOR AVE	\$255.00	\$255.00
P1710-037	Swanson, Alan	13 ATWATER PKWY	\$150.00	\$150.00

Total Fees For Type: \$660.00
Total Permits For Type: 3

Driveway

Permit #	Owner	Address	Fee	Total Amount Paid
P1705-072	Faul, Duane	165 EAGLE POINT RD	\$255.00	\$255.00
P1705-033	Richard Wieczorek	521 PARK AVE	\$255.00	\$255.00

P1706-016	Miglio, Rose	25 LAKESIDE LN	\$195.00	\$195.00
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Total Fees For Type: \$705.00

Total Permits For Type: 3

Fence

Permit #	Owner	Address	Fee	Total Amount Paid
P1703-048	Manke, Todd	184 RIVERSIDE ISLAND DR	\$210.00	\$210.00
P1610-073	Short, Patrick	184 EAGLE POINT RD	\$185.00	\$185.00
P1706-075	Tison, Michael	42 FAIRFAX RD	\$240.00	\$240.00

Total Fees For Type: \$635.00

Total Permits For Type: 3

Garage

Permit #	Owner	Address	Fee	Total Amount Paid
P1702-046	Rosone, Nick	508 WHITTEN ST	\$703.80	\$703.80

Total Fees For Type: \$703.80

Total Permits For Type: 1

Parking Lot

Permit #	Owner	Address	Fee	Total Amount Paid
P1704-039	Transwestern	21 TOWNE CENTRE	\$6,267.50	\$6,267.50

Total Fees For Type: \$6,267.50

Total Permits For Type: 1

Res. Accessory Structure

Permit #	Owner	Address	Fee	Total Amount Paid
P1707-063	Nedved, Thomas	119 BAY RD	\$190.00	\$190.00

Total Fees For Type: \$190.00

Total Permits For Type: 1

Site Work

Permit # Owner

Address Fee Total Amount Paid

P1708-015	Schild, Randy	515 OAK LN	\$150.00	\$150.00
P1708-051	Snopek, Scott	112 E GRAND AVE	\$195.00	\$195.00
P1709-013	Dopp, Joe	531 KINGSTON BLVD	\$249.00	\$249.00
P1710-018	Kelly Kelleher	48 N LAKE AVE	\$150.00	\$150.00
P1709-050	Belinger, Michael	34 LAKESIDE LN	\$272.00	\$272.00

Total Fees For Type: \$1,016.00

Total Permits For Type:

Report Summary

Grand Total Fees:

Grand Total	20
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Part C. MS4 Information and Data Collection Results, Year 15

Annual Monitoring and Data Collection, Year 15

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

The MS4 revised their SMPP to coincide with the March 2016 ILR40 permit. As described in the revised SMPP there are extensive monitoring efforts already underway across the County. The MS4 supports Lake County Health Department (LCHD) efforts. The QLP section of the report describes the status of Lake County waters using information gathered by these workgroups, the LCHD and IEPA. The following is a brief summary of the efforts described in more detail in the SMPP.

- 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](https://www.lakecountyil.gov/2400/Lake-Reports)).
- Lake Michigan Beaches have a significant portion of the Lake Michigan Beaches listed as impaired. The LCHD samples beaches from approximately Memorial Day to Labor Day. These results are used by the LCHD, 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 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.
- A portion of the community is located outside of these monitoring efforts. A total of 2 locations were selected to perform supplemental water quality monitoring: Route 12 Bridge (upstream) and Chapel Hill Bridge (downstream). The data collected from these water quality sampling locations will be compared with subsequent years sampling to assist in determining if the BMPs and stormwater management program are appropriate. During Year 15 staff will review and select additional areas to be monitored to ensure the Village is capturing the appropriate flows.

Part D. MS4 Summary of Year 16 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 16

Year 16	
MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
	A.3 Public Service Announcement
X	A.4 Community Event
	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
X	B.4 Public Hearing
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
	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 16

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 16, 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 at www.foxlake.org.

A. Public Education and Outreach

In addition to the extensive QLP efforts, the MS4 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 MS4's Public Education and Outreach program includes: the distribution of educational material via take-away racks, municipal newsletters, website, at outreach events and by supporting efforts of the Solid Waste Agency of Lake County (SWALCO).

Measurable Goal(s):

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

The Village will continue to provide SMC announcements and information on the Village's website.

The SMPP will be reviewed and updated as needed in Year 16. The Village also publishes stormwater information in its newsletter "The Anchor" as well as on the Village's Facebook page.

B. Public Participation/Involvement

In addition to the extensive QLP efforts, the MS4 utilizes a variety of methods to allow input from citizens during the development and implementation of the SMPP. The MS4's Public Participation/Involvement program includes: maintaining a process for receiving and processing citizen input/complaints; attending and publicizing 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.

The Village provides additional materials to the general public. In Year 16, the Village continued the Community Garden. This garden exposes citizens to Master Gardeners and works with the University of Illinois Extension to provide information about composting, run-off, planting, soil and more. The Village leases the lot from the Fire Protection District and instead of a building being placed there we will have a garden complete with plants, vegetables, parks and open areas which assist in reducing stormwater run-off. The village is working in the downtown area to improve drainage

and had engineering completed on the addition of a rain garden as well as drain structures installed into a newly added parking lot.

The Village will continue to work with our HOA's in assisting with stormwater planning and funding with SMC and FEMA for our CAV program.

Our current Mayor, Donny Schmit, is on the Lake County Stormwater Management Board of Directors and attends all meetings and shares information with staff and the public on programs and issues.

In February 2018 the Village created a 501(C)3 called "Champions of the Chain" which involves cleaning up the Chain of Lakes from Fox Lake to Elgin. This group focuses on storm water management, lakes and stream, preservation, education, and restoring waterways for environmental flood management and erosion control. Education groups now hope to have bigger projects such as dredging.

In Year 15 the Village adopted both the McHenry and Lake County's All natural Hazard Mitigation Plan which was presented to the Board of Trustees and passed a roll call vote unanimously in September. Both the McHenry and Lake County Hazard Mitigation resolutions can be found below



2017-R-40 Providing
for Adoption of the 21



2017-R-44 Adopting
of the McHenry Coun

The Village passed several resolutions In year 15 that will benefit stormwater management. These resolutions include the passing of the Mayor to Endorse the Metropolitan Mayors Caucus; Greenest Region Compact 2, the passing and approving of a Bike Path Easement and Crossing Improvement agreement with Metra for Sayton Road, and a resolution to Join the Lake County Brownfield Coalition. The passing of each of these resolutions has some beneficial impact on stormwater management.



2017-R-42
Authorizing the Mayo



2017-R-47
Approving a Bike Patf



2017-R-48 To Join
the Lake County Brov

C. Illicit Discharge Detection and Elimination

In addition to the extensive QLP efforts, the MS4 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.

- An outfall map showing the locations of outfalls and the names and locations of all waters that receive discharges from those outfalls;

- An ordinance 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, 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.

Measurable Goal(s):

- Support QLP Efforts.
- 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 within the community by the MS4, establishes standards for construction site runoff control.

Measurable Goal(s):

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

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):

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

F. Pollution Prevention/Good Housekeeping

In addition to the QLP efforts to provide training materials and opportunities, the MS4 is committed to implementing the Pollution Prevention/Good Housekeeping component of

its SMPP. The MS4 is responsible for the care and upkeep of the general facilities, municipal roads, its general facilities and associated maintenance yards. The MS4's Pollution Prevention/Good Housekeeping program includes: the evaluation and improvement of municipal policies and procedures to reduce the discharge of pollutants from municipal activities and operations; and, a training program for municipal employees.

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 15 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 15.
- **Part E3** summarizes the information and data collected by the QLP during Year 15.
- **Part E4** describes the stormwater management activities that the QLP plans to undertake during Year 16.
- **Part E5** lists the construction projects conducted by the QLP during Year 15.

Part E1. QLP Changes to Best Management Practices, Year 15

Note: “X” indicates BMPs that were implemented as planned

✓ indicates BMPs that were changed during Year 15

Year 15	
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 15	
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
	F.6 Other Municipal Operations Controls

Part E2. QLP Status of Compliance with Permit Conditions, Year 15

IEPA issued a new version of 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 15 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 15 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
- Provided a Watershed E-News in March 2017.
- SMC Developed a Voluntary Floodplain Buyout Program Handout in 2017, available as a PDF or in print (<https://lakecountyil.gov/DocumentCenter/View/20510>).
- SMC developed in June 2017 a Landowner's Monitoring and Maintenance Guide for the Bull Creek Restoration Project Area in Beach Park, IL.

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](https://lakecountyil.gov/DocumentCenter/View/16533)” to Lake County MS4s, (<https://lakecountyil.gov/DocumentCenter/View/16533>).

Year 15 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: <http://www.lakecountyil.gov/2331/Newsletters-Annual-Reports>).
- 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.

- SMC developed a Flood Response Report in July 2017 covering the rain event impacts from July 11 and July 12, 2017.

A.4 Community Event

Measurable Goal(s):

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

Year 15 QLP activities:

- SMC sponsored or co-sponsored many workshops and events on stormwater-related topics between March 1, 2017 and February 28, 2018, including:
 - SMC sponsored a Designated Erosion Control Inspector (DECI) Workshop held on Jan. 5/2017.
 - SMC co-sponsored a river cleanup for Chicago River Day on May 13, 2017 throughout the watershed.
 - SMC co-sponsored a Rain Barrel, Compost Bin, and Native Plant Sale held in Libertyville, IL on May 13, 2017.
 - SMC co-sponsored a Workshop for Homeowners Associations: Maintenance (Techniques and Practices) for Subdivision Drainage Systems in Kildeer, IL on May 15, 2017.
 - SMC sponsored a Lake Michigan Plan Info Meeting for Communities on May 31, 2017 in North Chicago, IL.
 - SMC co-sponsored Parking Lots & Sidewalks De-Icing Workshop held in Libertyville, IL on September 25, 2017.
 - SMC co-sponsored Roadway De-Icing Workshop held in Libertyville, IL on September 26, and 27, 2017.
 - SMC sponsored a Homeowners Floodproofing Expo and Workshop held in Libertyville, IL on October 19, 2017.
 - SMC co-sponsored a Community Fall Workday at Mike Rylko Park in Buffalo Grove, IL within the Farrington Ditch on October 21, 2017.
 - SMC sponsored a Closeout Project Tour for the Bull Creek Streambank Restoration Project in Beach Park, IL within the Dead River subwatershed on November 28, 2017.

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 15 QLP activities

- Stormwater educational materials were compiled for use at several public education events that were held between March 1, 2017 and February 28, 2018, including:
 - Loch Lomond Property Owners Association's Loch Fest held in Mundelein, IL on July 29, 2017
 - SMC presented as part of a career panel at the College of Lake County's Career Day on September 09, 2017.

- Homeowners Floodproofing Expo and Workshop held in Libertyville, IL on October 19, 2017.
- SMC presented as part of a career panel at Round Lake High School on November 14, 2017.
- SMC provided technical assistance with the Round Lake High School Student Group Flood Project on February 22, 2018. The group chose their topic and wanted to focus on flooding because many of them were affected by the July 2017 flood. They created a presentation to talk about flood hazards, why it occurs, and what can be done before, during, and after a flood event.

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 15 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:<https://lakecountyil.gov/2479/NPDES-Phase-II>).
- SMC continues to make available "The Big Picture: Water Quality, Regulations & NPDES" presentation to Lake County MS4s, (url:<https://lakecountyil.gov/DocumentCenter/View/16533>).
- SMC developed an ArcGIS geospatial web tool for Lake County MS4 programs that indicates TMDL statuses, 303(b), 305(d), HUC 12 watershed information and urbanized area information within an MS4 defined boundary, (url:<https://lakecountyil.maps.arcgis.com/apps/webappviewer/index.html?id=0d60824433734de3bb7905c1113a8539>).
- 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:<https://lakecountyil.maps.arcgis.com/apps/webappviewer/index.html?id=918c4042dcec431ba46b5c1a7030b46c&extent=-9835848.6057,5176480.893,-9738009.2095,5239847.1894,102100>).
- SMC maintains reference documents for stormwater best practices, BMPs and green infrastructure practices on its website, (url: <https://lakecountyil.gov/2261/Stormwater-Best-Practices>).
- SMC presented on the "Lake County's Wetland Restoration and Preservation Plan, part 1: Approach", on February 21, 2018 at the Wisconsin Wetlands Association 2018 Wetland Science Conference.
- SMC presented on the "Lake County's Wetland Restoration and Preservation Plan, part 2: GIS & decision support tool", on February 21, 2018 at the Wisconsin Wetlands Association 2018 Wetland Science Conference.
- SMC presented an overview of the "Lake County SMC sUAS Program" at Lake County GIS day on November 1, 2017 in Libertyville IL.

- SMC presented an “Overview of Flood Response Activities 2017 Flood Event – The Role of GIS” and an overview of “Lake County SMC’s sUAS Program” for the Lakes Region of the American Public Works Association on November 2, 2017.

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 15 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 15, between March 1, 2017 and February 28, 2018.
 - 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, 2017 and February 28, 2018, 16 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 15 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 15:
 - North Branch Chicago River Planning Committee – 3
 - Bull Creek/Bull’s Brook Watershed Council – 2
 - Buffalo Creek Clean Water Partnership – 0
 - Des Plaines Watershed Planning Committee – 10
 - Des Plaines River Watershed Workgroup – 4 (excluding executive board meetings)
 - North Branch Chicago River Watershed Workgroup– 2 (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 15.
- Prepare annual report on Qualifying Local Program activities at end of Year 15.

Year 15 QLP activities:

- SMC tracked the number of Municipal Advisory Committee (MAC) meetings conducted during Year 15: According to records, there were 4 MAC meetings conducted during this reporting period. 3/8/17, 6/14/17, 9/13/17, and 12/13/17.
- The stormwater management activities that SMC performed as a QLP during Year 15 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 15 QLP activities:

- SMC continues to enforce the countywide WDO.
- Lake County continues to provide [the Lake County Illicit Discharge Detection and Elimination \(IDDE\) Manual](https://lakecountyil.gov/DocumentCenter/View/17264) on the SMC website, (url: <https://lakecountyil.gov/DocumentCenter/View/17264>)

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 15 QLP activities:

- SMC sponsored or co-sponsored many workshops and events on stormwater-related topics between March 1, 2017 and February 28, 2018. Such workshops and events are described above.

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 15 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: <https://lakecountyil.gov/2470/Designated-Erosion-Control-Inspector-Pro>).

- Total DECIs who have passed the exam (to date): 703.
- DECIs who have passed the exam between 03/01/2017 – 02/28/2018: 99.
- Total listed DECIs (to date): 190 (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 15 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 81 rainfall weather notifications. The rainfall reports indicate county rain events with observed precipitation for 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 15 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 15 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 15, there are 99 EOs certified in Lake County.
- The list of EOs representing Certified Communities is continually updated and is maintained on the SMC website:
(url:<https://lakecountyil.gov/DocumentCenter/View/14412>).
- SMC is in the current 5-year cycle of the community re-certification process, which includes a performance review of all 53 certified and non-certified communities for permitted development compliance from February 2, 2012 to October 1, 2017. The last recertification process occurred during a previous reporting period (i.e., Year 9). In accordance with the amended countywide WDO, the certification process is every 5 years, the next cycle of the community re-certification process is scheduled to begin in Year 20. (url: <https://lakecountyil.gov/2459/Community-Certification>)
- 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 15 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, 2017 and February 28, 2018, 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 15 QLP activities:

- SMC continues to track the number of site inspections conducted by SMC staff.
- According to records, between March 1, 2017 and February 28, 2018, 779 site inspections were conducted by SMC staff.
- SMC staff distributed 81 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 15 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 15 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 15 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 15 QLP activities:

- SMC continues to enforce the countywide WDO.

E.6 Post-Construction Inspections

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 15 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 15 QLP activities:

- The annual WMB meeting was held on Dec. 6, 2017.
- At the annual WMB meeting 13 Projects were selected to receive \$173,253 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.
 - 8 WMB project grants awarded
 - 2 Stormwater Infrastructure Repair Fund (SIRF) project grant awarded
 - 1 Watershed Management Assistance (WMAG) project grant awarded

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 15 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, 2017 and February 28, 2018. 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, 2017 and February 28, 2018, Zero MS4 borrowed the Excal Visual software. (url: <http://lakecountyil.gov/2479/NPDES-Phase-II>)

F.5 Flood Management/Assess Guidelines

Measurable Goal(s):

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

Year 15 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 15 QLP activities:

- SMC co-sponsored 3 de-icing workshops:
 - Deicing for Parking Lots and Sidewalks 9/25/2017.
 - Deicing Roads 9/26/2017 and 9/27/2017.
 - In total 184 attendees participated in these three workshops.
 - Since 2009 the deicing workshops have had a cumulative attendance of 1,200 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: <https://www.lakecountyl.gov/DocumentCenter/Home/View/10767>).
 - Certification is through a third-party vendor, Fortin Consulting, Inc.
 - In 2017, 151 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 (PDF) (url: <https://lakecountyl.gov/DocumentCenter/Home/View/3047>).
 - Lake County Winter Parking Lot and Sidewalk Maintenance Manual (2015) (PDF) (url: <https://lakecountyl.gov/DocumentCenter/Home/View/3044>).
 - Less Salt Equals Less Money, Clean Water, Safe Conditions - Tips for Effective Road Salting (PDF) (url: <https://lakecountyl.gov/DocumentCenter/Home/View/3045>).

Part E3. QLP Information and Data Collection Results, Year 15

The QLP did not collect any monitoring data on behalf of Lake County's MS4s during Year 15. However, SMC has reviewed information presented by the [Illinois EPA \(IEPA\) in the 2016 Illinois Integrated Water Quality Report and 303\(d\) List](#) and has developed the brief "State of Lake County's Waters" report provided below.

State of Lake County's Waters March 2018

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

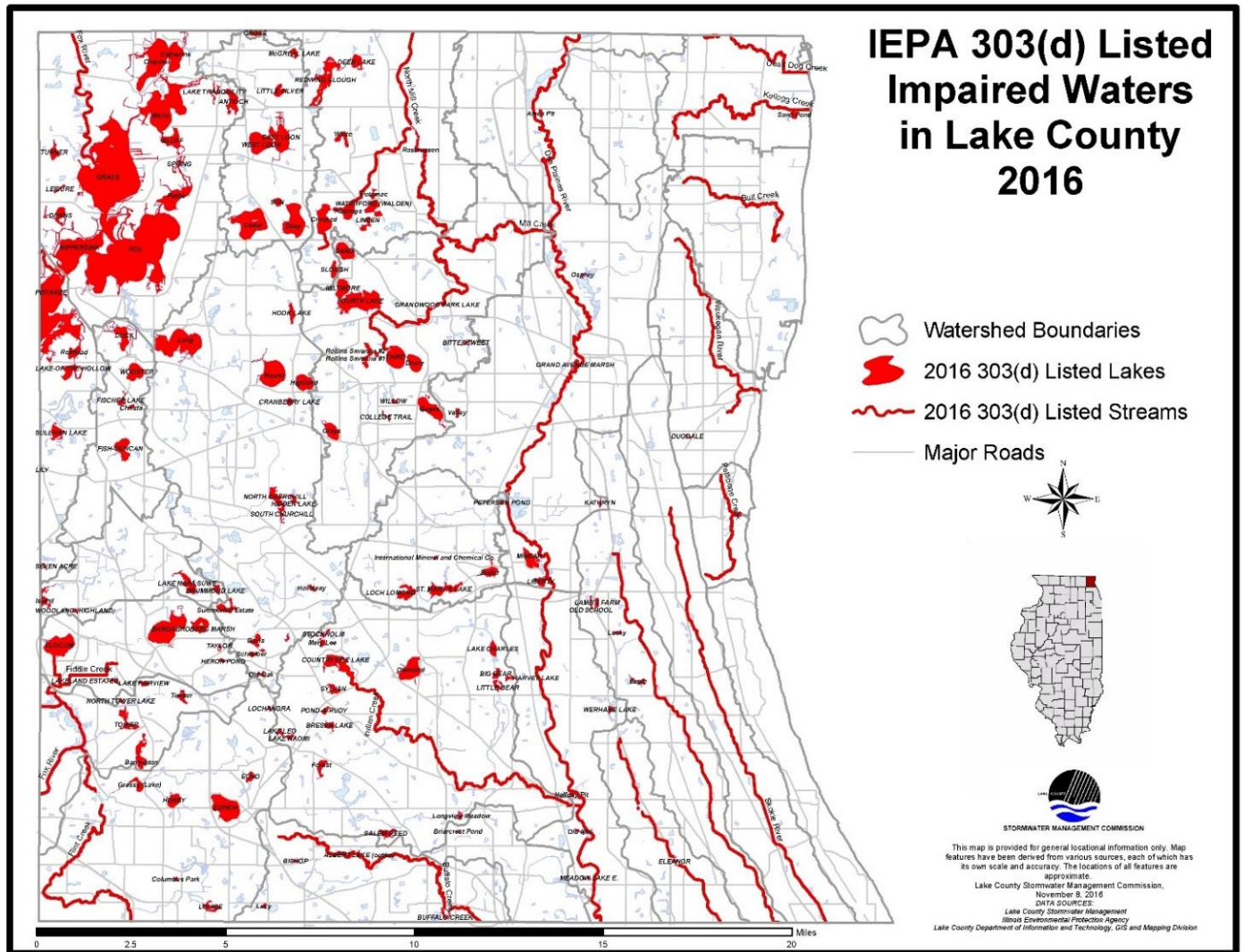


Figure E3.1

In addition to the information contained within the 303(b) and 303(d) reports, the Des Plaines River Watershed Workgroup (DRWW) founded in 2015, on behalf of its members, monitors water quality in the Des Plaines River and tributaries, prioritize and implement water quality improvement projects, and secure grant funding to offset the cost. 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. An annual water chemistry monitoring report was submitted to IL EPA in March 2017, which covers the NPDES II monitoring requirements for MS4 communities that are DRWW members. A Des Plaines River Watershed monitoring strategy was completed in February 2016 and updated in March 2017; a monitoring program report was submitted to IEPA in January 2018. DRWW's comprehensive monitoring program includes chemical, physical and biological assessments during the current YR15 reporting period, DRWW's monitoring program includes: Water/Sediment sampling and analysis at 50 Monitoring Locations for 2017; Bioassessment monitoring at 23 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 IL EPA in March 2017, which covers the NPDES II monitoring requirements for MS4 communities that are DRWW members.

The NBWW is a newly developed watershed workgroup (1/17/2018) developing a monitoring program for 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 will begin in 2018 and NBWW members will be able to include chemical, physical and biological components monitored by the workgroup.

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 <https://www.lakecountyil.gov/2400/Lake-Reports>. 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 16 Stormwater Activities

The table below indicates the stormwater management activities that the QLP plans to undertake during Year 16. Additional information about the BMPs and measurable goals that the QLP will implement during Year 16 is provided in the section following the table.

Note: X indicates BMPs that will be implemented during Year 16

Year 16	
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 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

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 16, 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 new 2016 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 (e.g., “[The Big Picture: Water Quality, Regulations & NPDES](#)”) 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.

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 quarterly 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.

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.
- 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.

Annual Facility Inspection Report
The Village of Fox Lake
Permit Year 15: March 1, 2017 to February 28, 2018

Part E5. QLP Construction Projects Conducted During Year 15

Project Name	Project Size (acres)	Construction Start Date	Construction End Date
Bull Creek Restoration Project - Beach Park, IL	1.87	5/2016	11/2017
Jamie Phase III – City of North Chicago	2.15	9/2017	ongoing

Part F. MS4 Construction Projects Conducted During Year 15

Project Name	Project Size (acres)	Construction Start Date	Construction End Date
Culvers 100 S Route 12	2.62 Acres	8/17/17	1/4/18
Country Club Hills Subdivision	20.3 acres	02/2016	In Progress