



Illinois Environmental Protection Agency

Bureau of Water • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control

ANNUAL FACILITY INSPECTION REPORT

for NPDES Permit for Storm Water Discharges from Separate Storm Sewer Systems (MS4)

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Compliance Assurance Section at the above address. Complete each section of this report.

Report Period: From March, 2019 _____ To March, 2020 _____

Permit No. ILR40 0339

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

Name: Village of Fox Lake Mailing Address 1: _____
Mailing Address 2: _____ County: Lake _____
City: Fox Lake State: IL Zip: 60020 Telephone: 847-587-2151
Contact Person: Donny Schmit (Person responsible for Annual Report) Email Address: 847-587-2151

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

Village of Fox Lake _____

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:

5/20/2020

Date:

Donny Schmit

Mayor

Printed Name:

Title:

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

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

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.

IL 532 2585

WPC 691 Rev 6/10

**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 17: March 1, 2019 to March 1, 2020

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

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

Note: "X" indicates BMPs that were implemented in accordance with the MS4's SMPP

✓ indicates BMPs that were changed during Year 17

Year 17		Year 17	
MS4			
A. Public Education and Outreach			D. Construction Site Runoff Control
X	A.1 Distributed Paper Material	X	D.1 Regulatory Control Program
	A.2 Speaking Engagement	X	D.2 Erosion and Sediment Control BMPs
	A.3 Public Service Announcement	X	D.3 Other Waste Control Program
X	A.4 Community Event	X	D.4 Site Plan Review Procedures
X	A.5 Classroom Education Material	X	D.5 Public Information Handling Procedures
X	A.6 Other Public Education	X	D.6 Site Inspection/Enforcement Procedures
			D.7 Other Construction Site Runoff Controls
B. Public Participation/Involvement			E. Post-Construction Runoff Control
	B.1 Public Panel		E.1 Community Control Strategy
X	B.2 Educational Volunteer	X	E.2 Regulatory Control Program
X	B.3 Stakeholder Meeting	X	E.3 Long Term O&M Procedures
X	B.4 Public Hearing	X	E.4 Pre-Const Review of BMP Designs
X	B.5 Volunteer Monitoring	X	E.5 Site Inspections During Construction
X	B.6 Program Coordination	X	E.6 Post-Construction Inspections
X	B.7 Other Public Involvement	X	E.7 Other Post-Const Runoff Controls
C. Illicit Discharge Detection and Elimination			F. Pollution Prevention/Good Housekeeping
X	C.1 Storm Sewer Map Preparation	X	F.1 Employee Training Program
X	C.2 Regulatory Control Program	X	F.2 Inspection and Maintenance Program
X	C.3 Detection/Elimination Prioritization Plan	X	F.3 Municipal Operations Storm Water Control
X	C.4 Illicit Discharge Tracing Procedures	X	F.4 Municipal Operations Waste Disposal
X	C.5 Illicit Source Removal Procedures		F.5 Flood Management/Assess Guidelines
X	C.6 Program Evaluation and Assessment		F.6 Other Municipal Operations Controls
X	C.7 Visual Dry Weather Screening		
X	C.8 Pollutant Field Testing		
X	C.9 Public Notification		
	C.10 Other Illicit Discharge Controls		

Additional information about the changes that were made to the BMPs described in the MS4's SMPP during Year 17 is provided below.

B.6 Program Coordination

Measurable Goal(s):

- Continue to attend and participate in MAC meetings.

Year 17 MS4 activities:

- Staff attended several MS4 events and meetings that were facilitated by SMC during year 17. Meeting materials were obtained and reviewed for all MAC meetings or obtained and reviewed for any meetings that were missed. During Year 18 of the MS4 staff anticipates continue participation in MAC meetings.

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

Stormwater Management Activities, Year 17

Please note that IEPA issued a new version of its General NPDES Permit No. ILR40 (Permit), effective on March 1, 2016. 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 for this MS4 Program can be viewed at the following link: <https://www.foxlake.org/>
- The previous five years of Annual Reports for this MS4 Program can be viewed at the following link: <https://www.foxlake.org/>

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 17, the MS4 reviewed and revised its SMPP. As the revised SMPP document wasn't complete at the beginning on Year 17, the stormwater management activities that the MS4 performed during Year 17, including the MS4's BMPs and measurable goals, were completed in accordance with the previous SMPP. Year 17 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.

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 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 16 staff updated paper materials for distribution and introduced new brochures and pamphlets for distribution to the public. Staff will continue to work 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 17.
- 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 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 17.
- 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, was re-evaluated in year 16 and 17 and will continue to be monitored in year 18. 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 and Public Works.

During Year 17, the use of the E-Newsletter has proved to be beneficial in providing updates to the community on stormwater related events. We publish news that is happening around town and updates related to stormwater such as potential flooding hazards, registration for our community garden planters, and events such as Pelican Palooza. 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. In year 17 the Village along with the community members planted new trees on earth day at a Village park to help increase our tree canopy and benefit stormwater runoff. The Village also publishes activities going on throughout the Village such as construction projects that will reduce flooded areas, increase drainage capacity, or improve water quality.

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 waste 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.

-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. In Year 17, the Village renewed a lease for the community Garden area. 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 18 with continued interest from the public. This programs peaks more interest each year with a waiting list of people to contribute to its purpose. In Year 18 a renewed long term lease for this area provided future long term benefits, with gardeners for years to come.

With the renewed lease at the Community Garden, the Village took initiative to regrade and hydro seed the area. This improvement was meant to help stormwater management, with the area previously having higher areas and low lying areas, storm water runoff was not draining towards a drainage system. The new graded area with new grass, allows proper drainage with groundwater percolation and filtration before entering the storm sewer system.

During Year 17 the Village worked with SWALCO in the electronic recycling program. This program successfully collected over 2,959,415 pounds of electronics between four host sites. This is a 3.5% decrease over the previous year at 3,065,168 pounds. It is believed the decrease in the weight received is mainly due to flushing out more of the CRT's. The success of this program keeps recycling waste out of our water system and away from stormwater drainage.

Each year the Village partners with the local school district for a community day of service event. In Year 17 the Village worked with students from the local surrounding grade schools to clean surrounding parks, and nearby waterways, install plantings, clean garbage and beautify the Village. During Year 17 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 flowers, mulched flower beds, and weeded the community garden center 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 17 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.

Staff attended an MS4 implementation seminar in Year 17 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.

The Community Development Director and Building Inspector attended Designated Erosion Control Inspector training. In 2013 the Village had 53 floodplain conformance issues to resolve with IDNR and FEMA, from flow through vents in crawlspaces, fills, new decks, pools, woodpiles, and substantial improvements. Since then, the Village has been able to virtually resolve all of those conformance issues with good management practices. 15 Elevation Certificates shot (some above FPE), 7 crawlspaces vented, all comp storage calculations determined, 8 utilities elevated, all fill removed and 3 buyouts. This effort has been remarkable and has forged a new partnership with SMC and IDNR.

BMP No. A.6: Other Public Education

The Village provides additional materials to the general public. In addition, in Year 17 the Village renewed a lease on a vacant property and has continued to use this open space as 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 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. This community garden area was regraded in year 16 to help improve stormwater drainage, increase filtration. With proper drainage and groundwater recharge, the area is used for summer events, such as a farmer's market and summer art series.

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.*

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 17, the Village addressed a number of stormwater related concerns from residents. With Lakes and streams surrounding the Village, during times of high water, storm drains are inspected for blockages or debris and cleaned as necessary. As the water recedes, inspections take place again to ensure drains are clean and clear, and cleaning is complete where necessary.

Year 17 proved again to be a year of high water during several summer months. Each high water event, the Village monitored the needs of the residents and passed information along to assist in

keeping clean water. Sandbagging stations were available to residents who were in danger of structural damage, and information was posted on the village website, newsletters, or Facebook to keep residents informed on changes to water levels.

In Year 16 the Village applied and was awarded a Grant from Lake County storm water management in order to improve a stormwater sight near the Villages Millennium Park. The Grant will allow the Village to improve the stormwater quality, replace impervious pavement with pervious ground, and stabilize the shoreline. The goal is to add a pervious walking trail though the nearby wooded area, along the walking trail would have informative signs that discuss the importance of stormwater management. This project was awarded in year 17 and is expected to take place in years 17 and 18. A preconstruction meeting for this project will be taking place in the coming weeks to discuss best practices for keeping waters clean and clear during construction.

In Year 17 the roadway in the downtown district was closed in order to improve the area with a park area. This involved many members of the public as well as a local business to install a sustainable water feature. Several surrounding property owners worked with the Village to make this park building project take place. The impervious roadway was replaced with a permeable surface and plantings. A collection basin underground gathers stormwater runoff to distribute the waters to the surrounding plantings. A sustainable water feature was also installed that uses snow, and rain water to fill the fountain for recreational pleasure.

Measurable Goal(s):

- Implement BMPs and track progress of BMP implementation, as described in the SMPP.
- Install permeable surface at Millennium Park

Year 17 MS4 activities:

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

B. Public Participation/Involvement

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 17.*

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 streams preservation, education, and restoring waterways for environmental flood management and erosion control. Education groups now hope to have bigger projects such as dredging.

Since the start of the Champion of the Chains, the Village has started to raise funds through various events and activities in order to use those funds for the preservation of lakes and streams and the ability to keep clean stormwater runoff. During Year 17 the Village has continued to move forward with this organization in hopes to have a broad impact on the Chain O Lake’s and the Fox River by improving water quality in each of these areas.

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 3 homes demolished in Year 17 at 125 Nippersink Blvd. This area has been left as open space. One home was demolished at 50 N. Pistakee Lake Rd. One home was raised out of the floodplain at 125 Manor Ave. One home was raised out of the floodplain at 123 Bay Ln. One home was raised out of the floodplain at 609 Oak. Staff will continue to monitor the need for property acquisition in order to accommodate the needs of storm water management. In Year 18 we will continue to monitor and evaluate needs such as raising homes or demolition.

As the Village investigates projects, and goes through phase I studies on infrastructure improvements, stakeholders are invited to an open house meeting to see the improvements being made. Stakeholder involvement is important in these projects, and all comments are reviewed and sent to the state as part of the final project development report. In Year 16 stakeholder meetings took place for upcoming roadway projects that included drainage improvements. The Village is working on several future projects to improve flooded areas. The Village has received several concerns of flooding in the Knollwood subdivision over the past year with high water events. The Village had a stakeholder meeting with public involvement from that subdivision at Village Hall and invited members of Lake County Stormwater Management, Lake County Board Members, and State Representatives to participate and assist in finding alternatives for that subdivision. We were able to work with Lake County Stormwater Management to borrow their drone, which takes topography of the land in order to find the low points of the subdivisions roadways. This allowed us to start

planning to build the road to an elevation that would remove stormwater from interfering with life safety and health. The Village is working with Stormwater Management on the best course of actions to take to reduce flooding in that area and improve water quality, as well as possible funding opportunities that would assist in completing the improvements.

BMP No. B.3: 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 17.
- 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.

At each board meeting updates are given to the board regarding projects taking place with drainage improvements. There are several locations in various areas throughout the Village that are located in and around floodplains. We have worked with the residents to solve very complex drainage issues in order to help provide proper drainage and quality storm water runoff.

In Year 16 we assisted the Dunn's Lake homeowners by providing tools they needed to replant vegetation along the Lake that was killed due to the 100year flood that took place in July of 2017. By providing some tools to allow them to complete their work, the Village assisted in cleaning the lake of debris, fallen tree limbs, and dead vegetation surrounding the shoreline.

In Year 17 we worked with the Knollwood subdivision HOA to assist with drainage needs. We have met with members of the subdivision and their board of directors to find ways to relieve flood prone areas. The Village worked with Lake County SMC to obtain drone footage and find low lying roadways to bring those out of the floodplain in order to ensure emergency services have access to each home. The Village hopes to find a way to improve the area from consistent flooding.

Under the Infrastructure Strategic Planning Team committee several board directors and staff update on projects taking place in the Village each month and discuss improvements to stormwater management. In Year 17 several projects took place to improve stormwater management such as stormsewer replacements, park improvements, stormsewer installations, and preventative maintenance measures to ensure best practices are being maintained.

BMP No. B.4: 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 17.

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 17.*

Village staff attended all meetings of the MAC as well as other meetings from Lake County SMC. 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 Village was cited by the IDNR during their community assessment visit with 150 potential floodplain violations in Year 16. The types of violations consisted of construction activities in a floodplain not in compliance with FEMA regulations. To date, the Village has successfully abated all 150 floodplain and plans to continue this in Year 18.

The Village in partnership with LCSWM and FEMA has six 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.

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 18.

BMP No. B.5: 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, listed on our website, to call for reporting stormwater compliance issues or concerns and they are investigated and tracked by our Community Development Department.

In Year 17 the Village worked with local homeowners associations in order to improve stormwater retention areas. This past year the village assisted multiple Homeowners Associations with difficult storm water management projects which included improvements to the quality of stormwater runoff in the area. The Village works with many HOA's and residents to find solutions to stormwater issues. In Year 17 the Village worked with a HOA that had recurring flooding issues, to come up with viable options to reduce flooding. Additionally, the Public Works staff has worked

with residents to replace, or repair culverts, and easement drainage to prevent standing water in ditch lines.

C. Illicit Discharge Detection and Elimination

Measurable Goal(s):

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

Year 17 MS4 activities:

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

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.

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 17. 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.

The Village continues to monitor and improve the GIS inventory list by training staff to make any necessary changes to the storm drains. In Year 17 we inspected outfalls of the storm drains after required rainfalls of two inches or more and document what was observed at the outfalls. The GIS inventory has the capability to outline where the storm inlets are and what condition they are in. In Year 17 staff incorporated flow lines into the storm drain GIS system to improve our knowledge of the system and ability to assist in creating proper drainage. The flow line project took several weeks to incorporate and was completed during year 17. This will allow staff to clean the system, track maintenance, and keep contaminants from entering surrounding lakes and streams.

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 17.

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 17. All violations were reported to the Community Development Department and were investigated by our WDO Enforcement Officer and remedied immediately in full 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 17.

In Year 17 the Village continued to inspect all drainage basins including cleaning and clearing of debris near catch basins. All outlets were inspected and checked, detention basins were checked and all debris cleared out. Any structures with dirt or debris in them were cleared using a vactor truck and the debris taken to the public works facility to be properly disposed. Any repairs are noted and scheduled for repair.

Dry weather screening was completed in Year 17 with staff inspecting outfalls after a one inch rainfall for flow and debris. All inspection records are kept at the Villages Public Works Facility. After each heavy rainfall staff inspects the storm sewer inlets and outfalls throughout the Village to ensure the integrity of the fixtures for proper drainages.

A repair was made to an existing culvert on Greenwood Avenue in Year 17. The culvert allowed water to pass through from the north side of Greenwood's wetland area to Nippersink and Fox Lake. The metal culvert had deteriorated and failed. Staff removed the existing culvert and replaced it with a new culvert and flared end section eliminating flooding and damage within the properties to the north and allowed the water to flow freely again. Through this work we were able to stabilize the banks of the roadway and clean around the culvert to improve the quality of water directly surrounding the area.

*Annual Facility Inspection Report
Village of Fox Lake
Permit Year 17: Mar. 2019 to Mar. 2020*



*Annual Facility Inspection Report
Village of Fox Lake
Permit Year 17: Mar. 2019 to Mar. 2020*





In Year 17 the Village completed several stormsewer improvement projects as part of larger roadway work. Sayton Road was finished in Year 17 with improvements to curb and gutter, a new watermain, and new stormsewer system to collect water on the roadway. Two drywells were installed near areas commonly known to have standing water. This project was part of a long term project for the Village with Phase II of Sayton Road extending the storm sewer to collect water from other flood prone areas of land. In Year 17 the Village also completed storm sewer spot replacements as part of the Grand Avenue project. This increased storm sewer capacity to relieve drainage on the Village's main thoroughfare.

A large project took place in Year 17 with Grace Avenue. Grace Avenue was closed in Year 16 in preparation for a park to replace the narrow roadway. As part of this project we removed an asphalt surface roadway and replaced it with a permeable paver surface and plantings. In the area a catch basin collects water at the top of the hill and disburses rainwater to the planting beds in the

park area. This project was used to promote the direction the Village is headed and to be mindful with new construction.

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 17.

The tracking procedures are outlined in the Villages IDDE Ordinance 2014-17 and there were no illicit discharges reported in Year 17. 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 17.

Although no illicit discharges were reported in Year 17, the Village has worked closely with private entities to help eliminate discharges associated with private developments. The Village is working with these entities to receive a “No Further Remediation” certification through the IEPA by looking at the possibility of installing water mains where discharges took place in past years in order to remove potential contaminants entering private wells.

The Village had two SSO's reported in Year 17. One occurred on May 2, 2019 and the other on December 23, 2019. The SSO's were reported to the IEPA. The SSO that occurred in May 2019 was estimated to be approximately 200 gallons. This was caused by a backup in a sewer main, once the SSO was discovered; it was immediately inspected and rectified by using a vactor to clean the area. This was located at 19 N Holly. The SSO that occurred in December 2019 was estimated to be approximately 25 gallons. This was also caused by a backup in a sewer main, once discovered; it was immediately inspected and rectified by using a vactor to clean the area. This was located at 40 Atwater.



19 N Holly SSO
Signed report.pdf



40 Atwater Pkwy
SSO Report signed.pdf



Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Sanitary Sewer Overflow or Bypass Notification Summary Report

- Within 24 hours of the occurrence, notify the Illinois EPA regional wastewater staff by telephone, FAX, email or voice mail, if staff are unavailable.
- Within 5 days of the occurrence, provide a written report describing the overflow or bypass, including all information requested on this form. The permittee is required to submit this form or other equivalent written notification to the Illinois EPA at:

Bureau of Water/Compliance Assurance Section - MC #19
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

NOTE: You may complete this form online, save a copy locally, print, sign and submit it to the BOW/CAS MC #19, at the above address. You may also print the form before completing it by hand, signing and submitting it.

Failure to notify the Illinois EPA as specified may result in fines up to \$10,000 for each day of violation.

Instructions: Use this form to report all unscheduled sanitary sewer overflow or bypass occurrences. Attach additional information as necessary to explain or document the overflow or bypass. For the purpose of this report, an overflow or bypass is defined as the discharge of untreated sewage from the sanitary sewer collection system to a surface water and/or ground due to circumstances such as those identified by the check boxes in the overflow or bypass details section of this form.

Use one form per occurrence. A single occurrence may be more than one day if the circumstances causing the overflow or bypass results in a discharge duration of more than 24 hours. If there is a stop and restart of the overflow or bypass within 24 hours, but it is caused by the same circumstances, report it as one occurrence. If the discharges are separated by more than 24 hours, they should be reported as separate occurrences.

24 Hour Notification Information

Permittee (Municipality or Facility Name): Village of Fox Lake	Permit Number: IL0020958	Person Representing Permittee Who Contacted IEPA: Matthew Vasey
Date: 05-03-19	Time: 10:20 AM <input checked="" type="checkbox"/> PM <input type="checkbox"/> IEPA Office Contacted: Compliance-Wastewater	Name of IEPA Employee Contacted: Roger Callaway

Sanitary Sewer Overflow or Bypass Details

Date and Duration of Overflow or Bypass Occurrence (complete a separate form for each occurrence):

Start Date: 05-02-19	Time: 9 AM <input type="checkbox"/> PM <input checked="" type="checkbox"/> Duration of the overflow or bypass (hours and minutes): 1 hour	
Estimated Volume of Wastewater Discharged (gallons): 200	WWTP Flow During bypass (report in MGD): Not applicable for a collection system SSO.	Location of the Overflow or Bypass: 19 N Holly Ave, Fox Lake, IL, 60020

Circumstances Causing the Overflow or Bypass (check all that apply)

WPC 733
11/2011 Rain Power Outage Equipment Failure Other (explain below)
 Snow Melt Broken Sewer Widespread Flooding

Provide a narrative description to further explain why the overflow or bypass occurred. For example, describe what equipment failed. What caused the power outage, or what plugged the sewer. Flooding should only be indicated, as a cause if there is significant flooding that is caused by high river, stream, or lake water levels, not just localized high water in the street.

A blockage of household debris appeared to create a blockage of the "T" in the sewer main affecting a 200 foot stretch of sewer main.



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Sanitary Sewer Overflow or Bypass Notification Summary Report

- Within 24 hours of the occurrence, notify the Illinois EPA regional wastewater staff by telephone, FAX, email or voice mail, if staff are unavailable.
- Within 5 days of the occurrence, provide a written report describing the overflow or bypass, including all information requested on this form. The permittee is required to submit this form or other equivalent written notification to the Illinois EPA at:

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1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

NOTE: You may complete this form online, save a copy locally, print, sign and submit it to the BOW/CAS MC #19, at the above address. You may also print the form before completing it by hand, signing and submitting it.

Failure to notify the Illinois EPA as specified may result in fines up to \$10,000 for each day of violation.

Instructions: Use this form to report all unscheduled sanitary sewer overflow or bypass occurrences. Attach additional information as necessary to explain or document the overflow or bypass. For the purpose of this report, an overflow or bypass is defined as the discharge of untreated sewage from the sanitary sewer collection system to a surface water and/or ground due to circumstances such as those identified by the check boxes in the overflow or bypass details section of this form.

Use one form per occurrence. A single occurrence may be more than one day if the circumstances causing the overflow or bypass results in a discharge duration of more than 24 hours. If there is a stop and restart of the overflow or bypass within 24 hours, but it is caused by the same circumstances, report it as one occurrence. If the discharges are separated by more than 24 hours, they should be reported as separate occurrences.

24 Hour Notification Information

Permittee (Municipality or Facility Name): Village of Fox Lake	Permit Number: IL0020958	Person Representing Permittee Who Contacted IEPA: Matthew Vasey
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Date: 12-23-19	Time: 10:15	AM <input checked="" type="checkbox"/> PM <input type="checkbox"/>	IEPA Office Contacted: Elgin	Name of IEPA Employee Contacted: Roger Callaway
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Sanitary Sewer Overflow or Bypass Details

Date and Duration of Overflow or Bypass Occurrence (complete a separate form for each occurrence):

Start Date: 12-23-19	Time: 7:00	AM <input checked="" type="checkbox"/> PM <input type="checkbox"/>	Duration of the overflow or bypass (hours and minutes): 45 minutes
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Estimated Volume of Wastewater Discharged (gallons): less than 25 gallons	WWTP Flow During bypass (report in MGD): Not applicable for a collection system SSO.	Location of the Overflow or Bypass: In front of 40 Atwater Pkwy
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Circumstances Causing the Overflow or Bypass (check all that apply)

WPC 733
11/2011 Rain Power Outage Equipment Failure Other (explain below)
 Snow Melt Broken Sewer Widespread Flooding

Provide a narrative description to further explain why the overflow or bypass occurred. For example, describe what equipment failed. What caused the power outage, or what plugged the sewer. Flooding should only be indicated, as a cause if there is significant flooding that is caused by high river, stream, or lake water levels, not just localized high water in the street.

It appeared during the process of breaking free the clog in the sewer main that a grease build up was released.

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 17.

The Village receives complaints through the Community Development Department who investigates with our WDO Enforcement Officer and tracks the corresponding resolutions. Staff attended Lake County Ice and Snow Removal Training for salt in Year 17. Ice and snow removal procedures and alternative resources for removal have been investigated. The Village has stopped the use of bird's eye and sand mixtures with salting roadways and has started using a more environmentally friendly pre-wetting system. This system helps activate salt when spreading on the roadways and reduces the amount of salt needed for snow and ice events. As funds become available, and new trucks are purchased, we are initiating installing pre-wetting systems on all trucks as well as calibrating salt spreaders to reduce the amount of salt used.

The Village proactively participated in McHenry Counties Water Resources Action Planning (WRAP) Committee. These meetings took place over the course of several months to review best practices for stormwater management and water conservation. In Year 18 we anticipate using the information obtained by attending these meetings to come up with an action plan that fits the Village. At these meeting, items such as best salting practices, and best practices for wetlands and rain gardens were reviewed for municipalities and counties.



WRAP Meetings



McHenry County Department of Planning and Development

OFFICE: McHenry County Admin. Bldg.
667 Ware Road, Woodstock, Illinois

MAIL: 2200 N. Seminary Ave.
Woodstock, Illinois 60098

www.mchenrycountyl.gov/plandev

EMAIL: plandev@mchenrycountyl.gov
Ph: 815-334-4560 Fax: 815-334-4546

WATER RESOURCE ACTION PLAN (WRAP) TASK FORCE

AGENDA

April 10, 2019

2:00 P.M. to 4:00 P.M.

County Administration Building
Conference Rooms A and B (2nd floor)

1. WELCOME and INTRODUCTIONS

Kim Kolner, Manager of Planning Division

2. REVIEW OF WRAP WORKPLAN, TIMELINE AND PROCESS

Scott Kuykendall, Water Resources Specialist

3. PRESENTATIONS

Dr. Jason Thomason, Hydro-Geologist (Illinois State Water Survey)

Geology and Water Resources of McHenry County

Ed Collins, Director of Land Preservation and Natural Resources

(McHenry County Conservation District)

Natural Systems, Surface Waters and Anthropogenic Changes in McHenry Co.

4. CURATED DISCUSSION

Task Force discussion and brainstorming

(i.e. water resource issues, best management practices, land-uses)

5. PLAN REVIEW

Task Force review of opening sections of the draft WRAP



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WATER RESOURCE ACTION PLAN (WRAP) TASK FORCE

AGENDA

May 8, 2019
2:00 P.M. to 4:00 P.M.

County Administration Building
Conference Rooms A and B (2nd floor)

1. WELCOME AND INTRODUCTIONS

Kim Kolner, Meeting Facilitator and Manager of Planning Division

2. PRESENTATIONS

Walt Kelly, Groundwater Geochemist and Director of the Groundwater Science Section
(Illinois State Water Survey)

Water Quality in McHenry County

Daniel Abrams, Groundwater Flow Modeler (Illinois State Water Survey)

Water Quantity in McHenry County

Donald Hey, Executive Director, and Kathy Paap, Senior Ecologist
(Wetlands Research, Inc.)

Use of Wetlands to Reduce Effects of Sodium Chloride from Winter Road Maintenance

3. CURATED DISCUSSIONS

Task Force discussion and brainstorming
(i.e. water resource issues, best management practices, land-uses)

4. PLAN REVIEW

Task Force review of opening sections of the draft WRAP



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WATER RESOURCE ACTION PLAN (WRAP) TASK FORCE

AGENDA

June 12, 2019
2:00 P.M. to 4:00 P.M.

County Administration Building
Conference Rooms A and B (2nd floor)

1. WELCOME AND INTRODUCTIONS

2. PRESENTATIONS

Amy Gahala, Hydrologist (U.S. Geological Survey)
Monitoring Groundwater Quantity and Quality in McHenry County

Robert Kay, Hydrologist (U.S. Geological Survey)
Study of Water Use in McHenry and Nunda Townships

Nora Beck, Senior Planner (Chicago Metropolitan Agency for Planning)
Changing water demand: Projecting water use in the Chicago region to 2050

Sarah Zack, Pollution Prevention Specialist (Illinois-Indiana Sea Grant)
Contaminants of Emerging Concern

3. CURATED DISCUSSION

- Training Session: How to access and use the U.S. Geological Survey on-line monitoring well network
- Comparison of Projections by Municipalities and CMAP for Growth and Water Use
- Water Demand in Sand/Gravel, Shallow Bedrock, and Deep Bedrock Aquifers
- Water Quality Concerns from Municipalities and Residents
- Task Force discussion and brainstorming
(i.e. water resource issues, best management practices, land-uses)

4. PLAN REVIEW

Discuss Demographics and Elements of WRAP Opening Chapters.



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WATER RESOURCE ACTION PLAN (WRAP) TASK FORCE

AGENDA

July 10, 2019
2:00 P.M. to 4:00 P.M.

County Administration Building
Conference Rooms A and B (2nd floor)

1. WELCOME AND INTRODUCTIONS

2. PRESENTATIONS

Rick Cobb (IEPA)
Water Pollution and Prevention

Jeff Freeman (Engineering Enterprises, Inc.)
Waste Water Treatment Systems

Kristin Lodygowski, Hydrologist (Water Quality Association)
Contaminants and Water Quality Treatment

3. CURATED DISCUSSION

Pollution Concerns/Experiences from Municipalities and Residents

4. PLAN REVIEW

Presentation - Overview of WRAP Information to date

Outline Review and Discussion

Discuss Elements of WRAP Introduction



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WATER RESOURCE ACTION PLAN (WRAP) TASK FORCE

AGENDA

August 14, 2019
2:00 P.M. to 4:00 P.M.

County Administration Building
Conference Rooms A and B (2nd floor)

1. WELCOME AND INTRODUCTIONS

2. PRESENTATIONS

Gary Clark (IDNR Retired)
Illinois Water Laws

Karen Katamay (IEPA)
NPDES and MS4 Permitting

Joanna Colletti (McHenry Co. P&D)
McHenry County Stormwater Management Ordinance

3. CURATED DISCUSSION

Water Law Questions/Concerns from Municipalities and Residents

4. PLAN REVIEW

Discuss Elements of WRAP Introduction and Opening Chapters



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WATER RESOURCE ACTION PLAN (WRAP) TASK FORCE

AGENDA

October 9, 2019
2:00 P.M. to 4:00 P.M.

County Administration Building
Conference Rooms A and B (2nd floor)

1. WELCOME AND INTRODUCTIONS

2. PRESENTATIONS

Scott Kuykendall (McHenry Co. Planning and Development)
Sensible Salting and Water Resources

Bryan Wagner (Illinois Toll Highway Authority)
Illinois Tollway Stormwater Best management Practices and Environmental Initiatives

Scott Hennings and Ernest Varga (McHenry Co. Division of Transportation)
MCDOT, Moving 19th Century Infrastructure Toward 21st Century Green

Jim Condon and David Kattner (McHenry Township)
Native Pollinator Plants in Road Right-of-Ways

3. CURATED DISCUSSION

Transportation issues

CoCoRaHS Rain Gage Website

SPEAKER BIOGRAPHIES

WRAP TASK FORCE MEETING - OCTOBER 9, 2019



Scott Kuykendall, Water Resources Specialist

“Sensible Salting and Water Resources”

Scott Kuykendall is the Water Resources Specialist for McHenry County. He oversees the County's scientific studies on groundwater, helps develop water resources policy, maintains the County's environmental compliance, and provides education and outreach. Scott also provides training assistance with McHenry County's annual Sensible Salting Workshops and is Chairman of the Sensible Salting Committee for the Northwest Water Planning Alliance which is working to reduce chloride pollution in the region from the excessive use of roadsalt. Prior to joining the County, Scott had over 20 years of experience as an environmental scientist for firms specializing in environmental engineering and ecology. Scott is a member of many organizations dedicated to water resources management, natural areas restoration, and sustainability. Scott earned a Bachelor's Degree in Geography from Southern Illinois University and a Graduate Certificate in Environmental Management and Sustainability from the Illinois Institute of Technology.



Bryan Wagner, Environmental Policy & Program Manager

“Stormwater and Green Infrastructure Initiatives”

Bryan began his career with the Illinois Tollway in 2007 as an Environmental Planner. During his tenure, his responsibilities have evolved from permit compliance oversight to be the agency's lead on Clean Water Act permitting, traffic noise, solid waste and all other potential environmental subjects. As part of his efforts, he has permitted over \$10 billion in roadway construction projects, established over 900 acres of land to be protected and restored along with over 16,000 linear feet of stream restoration via permittee responsible wetland and stream mitigation projects. Additionally, he has led planning and design efforts for the construction of over 67 linear miles of stormwater BMPs. Further, Bryan is the Tollway's lead for all sustainability initiatives, which includes the development of a sustainability policy for the agency along with overseeing the Tollway's implementation of the FHWA's INVEST program.

SPEAKER BIOGRAPHIES

WRAP TASK FORCE MEETING - OCTOBER 9, 2019



Ernest J. Varga, Design Engineer

“Moving 19th Century Transportation Infrastructure Towards 21st Century Green”

With Family ties in McHenry back to the early 1950's, Ernest has participated in the construction industry of McHenry County for over 40 years, The past 11 have been while serving at the MCDOT as one of the Design Engineers. Drawing on knowledge from education, agricultural participation, construction involvement, Military experience (U.S. Navy), wetland and drain tile certifications, and real estate acumen, Ernest works within the MCDOT and other McHenry County Departments in an attempt to assist in resolving, suggesting alternatives, arriving at creative solutions, retrieving relevant historic data, and serving as a Government Employee where matters of transportation, drainage, and land are involved.



Scott Hennings, AICP, Principle Transportation Planner

“Moving 19th Century Transportation Infrastructure Towards 21st Century Green”

Scott Hennings is the Principal Transportation Planner for the McHenry County Division of Transportation where he has worked for the last seven years. In addition to conducting long range planning activities for the department, his team also administers the McHenry County Council of Mayors and oversees transit coordination efforts in partnership with Pace and Metra. Scott is passionate about building a more sustainable and equitable transportation system and brings that passion to work each and every day.

SPEAKER BIOGRAPHIES

WRAP TASK FORCE MEETING - OCTOBER 9, 2019



James E. Condon, P.E., Highway Commissioner

“Native Pollinator Plants in McHenry Township Right-of-Ways”

Jim Condon is the Highway Commissioner of the McHenry Township Road District and a licensed Professional Engineer. Jim's responsibilities include the planning, budgeting and implementation of an annual budget of approximately \$2.5 million dollars. He also manages 16 staff and oversees maintenance and improvements to 120 miles of roadway. Additionally, Jim's Road District implements a recycling program that averages approximately 20,000 pounds of material a month and has initiated a native plant right-of-way revegetation program that helps improve stormwater management, reduces winter snow drifting, and provides habitat for pollinators. Prior to his current role, Jim was the President and founder of J. Condon and Associates, Inc. a professional design firm specializing in civil engineering for land development from initial concept phase through the construction of the project. With over 30 years as a leader in the fields of engineering, construction, land planning, and business, Jim Condon has a unique wealth of knowledge and experience about the county and township he serves.



David A. Kattner, Foreman

“Native Pollinator Plants in McHenry Township Right-of-Ways”

David Kattner is Foreman for the McHenry Township Road District and has worked with the Road District for 18 years. Under his direction, Road District crew members operate the equipment and provide the labor to maintain and repair the town roads by providing a variety of tasks that include, but not limited to: tree trimming, culvert replacement, snow plowing, patching broken or eroded pavement, shoulder graveling, roadside mowing, and street sign maintenance and replacement. David is in charge of inspecting of outfalls throughout the Road District and recording/filing of findings annually for National Pollutant Discharge Elimination System. Additionally, he assists in implementing initiated a native plant right-of-way revegetation program including selecting the sites to be revegetated, selection and ordering of seed, execution of installation, and maintenance of the right-of-way habitat.



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WATER RESOURCE ACTION PLAN (WRAP) TASK FORCE

AGENDA

November 13, 2019
2:00 P.M. to 4:00 P.M.

County Administration Building
Conference Rooms A and B (2nd floor)

1. WELCOME AND INTRODUCTIONS

2. PRESENTATIONS

Dan Salsinger (Hanes Geo Components)
Soil Erosion and Sediment Control BMPs

Jason Cooper (Environmental Consulting & Technology, Inc.)
Green Infrastructure and BMPs for Residential and Commercial Development

Lee Hauser and Bryan Valleskey (Geosyntec Consulting)
BMPs for Industrial Development

Q/A

3. CURATED DISCUSSION

Interactive BMP discussion

SPEAKER BIOGRAPHIES

WRAP TASK FORCE MEETING – NOVEMBER 13, 2019



Dan Salsinger, CPESC/CISEC, SESC Supplier

“Soil Erosion and Sediment Control BMPs”

Dan Salsinger, CPESC, CISEC is a local sales representative for Hanes Geo-Components, a supplier of storm water practices, textiles, bioengineering tools and erosion and sediment control products. Dan is one of the regions foremost experts in the field of soil erosion and sediment control. He is also a highly respected public speaker on the topic.



Jason Cooper, PLA, Landscape Architect

“BMPs and Green Infrastructure for Residential and Commercial Developments”

Jason Cooper is a Senior Manager and landscape architect with Environmental Consulting and Technology, Inc. (ECT). Mr. Cooper is versed in a broad range of green technologies, with significant practice in applications such as bioretention, rainwater harvesting systems, permeable paving, LED lighting, and clean energy delivery systems. He is a recognized authority on the design of green and complete streets, green roofs, green infrastructure, and green schoolyards and is a frequent presenter at conferences and workshops. His design portfolio is comprised of headquarters for Fortune 500 companies, more than 50 park and recreation facilities, numerous downtown streetscapes, and many natural area restoration projects. His work has also been recognized with awards of excellence from the American Society of Landscape Architects (ASLA) – Illinois and Iowa Chapters, Wisconsin Landscape Contractors Association (WLCA), 1000 Friends of Iowa, and the U.S. Green Building Council (USGBC).

SPEAKER BIOGRAPHIES

WRAP TASK FORCE MEETING - OCTOBER 9, 2019



Lee Hauser, Environmental Professional

“BMPs for Industrial and Industrial Related Properties”

Lee is an Environmental Professional whose experience includes integrated modeling and stormwater planning and design. He has assisted in building hydraulic models to identify and analyze issues pertaining to stormwater flooding and using Geographic Information Systems and CAD to provide conceptual images of potential solutions. Additionally, he has provided design and engineering support services as identified stormwater management and green infrastructure solutions go to construction. Mr. Hauser’s current responsibilities include hydrologic and hydraulic model development, green infrastructure design calculations and performance criteria analysis, GIS mapping, CAD drafting, and NPDES permitting and Storm Water Maintenance Agreements compliance conformance.



Bryan Valleskey, Senior Scientist

“BMPs for Industrial and Industrial Related Properties”

Brian is Senior Scientist who has spent the last 20 years working in NE IL and Southern WI, specializing in water resources topics such as stormwater, Best Management Practices, flooding, Clean Water Act compliance and watershed management. He has had significant stints on the Technical Advisory Committees in both McHenry and Lake Counties and served as the primary stormwater reviewer in many local communities in Lake and McHenry County. He works within Geosyntec as their Lakes specialist in the Great Lakes Region working in both Oak Brook, IL and Mequon, WI.



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WATER RESOURCE ACTION PLAN (WRAP) TASK FORCE

AGENDA

December 11, 2019

2:00 P.M. to 4:00 P.M.

County Administration Building
Conference Rooms A and B (2nd floor)

1. WELCOME AND INTRODUCTIONS

2. PRESENTATIONS - Water Conservation

The availability, reliability, and cost of water are some of the most important issues people around the world will face in the future. Water conservation is one of the most powerful and effective tools we have to address those issues.

Bill Christiansen

Director of Programs (Alliance for Water Efficiency)

“Water Conservation in a Nutshell”

Bill's presentation will share policies and programs that can empower communities to conserve water and help you evaluate the potential of each option.

Susan Heinking, AIA, LEED Fellow

Vice President of High Performance & Sustainable Construction (Pepper Construction)

“Saving Water One Building at a Time”

Susan's presentation will highlight many of the water conservation practices that can be used to improve the performance, and return on investment, of buildings that are being built today, and tomorrow.

Q/A

3. CURATED DISCUSSION

Interactive Water Conservation discussion

SPEAKER BIOGRAPHIES

WRAP TASK FORCE MEETING – DECEMBER 11, 2019



Bill Christiansen

“Water Conservation in a Nutshell”

Bill Christiansen is the Director of Programs at the Alliance for Water Efficiency, a nonprofit organization dedicated to the efficient and sustainable use of water. Bill has been in the water industry since 2002 when he got his start working for Planning and Management Consultants, Ltd. in Carbondale, IL. Bill joined the Alliance for Water Efficiency in 2007.

Bill’s work has included research related to many facets of water resource management such as policy analysis, water conservation program planning and evaluation, benefit-cost analysis, drought planning, and water rate evaluation. He has worked with water utilities throughout the United States and Canada.

Pepper

Susan Heinking, AIA, LEED Fellow

“Saving Water One Building at a Time”

Susan Heinking is the Vice President of High Performance and Sustainable Construction for Pepper Construction. Her work at Pepper enables her to put design into action, provide decision making tools that determine investment paybacks and reduced operating costs, lead Pepper's projects to their sustainability goals, assist clients with their corporate environmental compliance during construction, and put existing buildings on a path to sustainability. Her vision for Pepper includes expanding the high-performance perspective to create greater value through building performance and human performance. This includes enhancing existing efforts with energy modeling, ROI analysis and local utility incentives as well as building on Pepper's healthy jobsite initiative "Nothing Hits the Floor" program and promoting the use of healthy building materials and construction practices.

As a licensed architect and LEED Fellow, Susan has over a decade of experience designing, managing, and advocating for sustainability programs and initiatives in the Chicagoland building industry and other regional markets. Her many accomplishments include leading over 1.5 billion in completed high performance projects, designing the first biophilic Walgreens flagship store, and managing the Google Chicago headquarters sustainability efforts. In addition, Susan currently serves on the USGBC Illinois Green Alliance Board of Directors, the Associated General Contractors of America Environmental Steering Committee, and as an advisor for AIA Chicago's COTE Knowledge Group. Susan holds a Master of Architecture degree from the University of Oregon and is an active presenter at multiple national sustainable conventions.



McHenry County Department of Planning and Development

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WATER RESOURCE ACTION PLAN (WRAP) TASK FORCE

AGENDA

January 8, 2020
2:00 P.M. to 4:00 P.M.

County Administration Building
Conference Rooms A and B (2nd floor)

1. WELCOME AND OVERVIEW

2. PRESENTATIONS - Agriculture

Lauren Lurkins

Director of Environmental Policy (Illinois Farm Bureau)

"Agricultural Conservation Practices to protect Soil and Water"

Julie Armstrong

Executive Director (Illinois Nutrient Research and Education Council)

"Research on methods to enhance nutrient utilization, increase crop production, and protect water quality"

Q/A

3. CURATED DISCUSSION

Review and discussion on draft sections of the WRAP

SPEAKER BIOGRAPHIES

WRAP TASK FORCE MEETING – JANUARY 8, 2020



Lauren Lurkins

Director of Environmental Policy, Illinois Farm Bureau

Presentation: “Agricultural Conservation Practices to protect Soil and Water”

Lauren Lurkins is the Director of Environmental Policy in the Governmental Affairs and Commodities Division of the Illinois Farm Bureau and has held that position since 2013. In that position, Lauren is responsible for advocating on behalf of the organization in the promulgation, implementation and enforcement of environmental regulation impacting Illinois agriculture. Lauren maintains liaison with various state and federal agencies, and develops and coordinates the organization’s environmental programs, communications and information.

Beginning in 2006, Lauren practiced environmental law with the law firm of Hodge Dwyer & Driver in Springfield, IL. Her previous experience includes both enforcement defense and legislative/regulatory work in all areas of environmental law on behalf of a variety of clients, including agricultural businesses and individual farmers. Lauren and her husband, Matt, have one daughter, Caroline and one son, Julian. They live in Bloomington, IL.



Julie Armstrong

Executive Director, Illinois Nutrient Research and Education Council

“Research on methods to enhance nutrient utilization, increase crop production, and protect water quality”

Julie Armstrong is the Executive Director of the Illinois Nutrient Research and Education Council (NREC). With a background in agronomy, marketing and public relations, Julie joined Illinois NREC in 2015 and is the organization's first Executive Director. In this role, Julie's main focus is to identify opportunities to advance research into nutrient efficiency and to share the outcomes of this research so that farmers and other members of the agriculture industry can incorporate these practices on their farms. Julie graduated from Illinois State University with a degree in AgBusiness and has spent the last 17 years working in various aspects of the industry.



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WATER RESOURCE ACTION PLAN (WRAP) TASK FORCE

AGENDA

February 12, 2020
2:00 P.M. to 4:00 P.M.

County Administration Building
Conference Rooms A and B (2nd floor)

1. WELCOME AND OVERVIEW

2. REVIEW AND DISCUSSION OF COMPLETED SECTIONS OF THE WRAP
 - Climate Change
 - Industrial Development
 - Open Space
 - Transportation

SPEAKER BIOGRAPHIES

WRAP TASK FORCE MEETING – JANUARY 8, 2020



Lauren Lurkins

Director of Environmental Policy, Illinois Farm Bureau

Presentation: "Agricultural Conservation Practices to protect Soil and Water"

Lauren Lurkins is the Director of Environmental Policy in the Governmental Affairs and Commodities Division of the Illinois Farm Bureau and has held that position since 2013. In that position, Lauren is responsible for advocating on behalf of the organization in the promulgation, implementation and enforcement of environmental regulation impacting Illinois agriculture. Lauren maintains liaison with various state and federal agencies, and develops and coordinates the organization's environmental programs, communications and information.

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Presentation: "Research on methods to enhance nutrient utilization, increase crop production, and protect water quality"

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*Annual Facility Inspection Report
Village of Fox Lake
Permit Year 17: Mar. 2019 to Mar. 2020*

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 17.

The Village receives complaints through the Community Development Department who investigates with our WDO Enforcement Officer and tracks the corresponding resolutions. Staff attended Lake County Ice and Snow Removal Training for salt in Year 17. Ice and snow removal procedures and alternative resources for removal have been investigated. The Village has stopped the use of bird's eye and sand mixtures with salting roadways and has started using a more environmentally friendly pre-wetting system. This system helps activate salt when spreading on the roadways and reduces the amount of salt needed for snow and ice events. As funds become available, and new trucks are purchased, we are initiating installing pre-wetting systems on all trucks as well as calibrating salt spreaders to reduce the amount of salt used.

The Village proactively participated in McHenry Counties Water Resources Action Planning (WRAP) Committee. These meetings took place over the course of several months to review best practices for stormwater management and water conservation. In Year 18 we anticipate using the information obtained by attending these meetings to come up with an action plan that fits the Village. At these meeting, items such as best salting practices, and best practices for wetlands and rain gardens were reviewed for municipalities and counties.



The Villages Public Works department completes street sweeping of every mile within the Village twice a year with sporadic sweepings taking place after large rainfalls or at the request of an HOA, business owner, or resident. The debris and waste collected through street sweeping events allows us to clear areas surrounding storm sewers, the curbs and gutters, and prevents refuse from entering the inlets and outfalls within our storm water system. We keep track of the times staff goes out street sweeping and how much waste, silt, and spoils are removed from the street sweeping methods. That spreadsheet can be found below:



Street Sweeping

Date	Streets	Yards of Debris	Operator

The Villages Public Works department completes street sweeping of every mile within the Village twice a year with sporadic sweepings taking place after large rainfalls or at the request of an HOA, business owner, or resident. The debris and waste collected through street sweeping events allows us to clear areas surrounding storm sewers, the curbs and gutters, and prevents refuse from entering the inlets and outfalls within our storm water system. We keep track of the times staff goes out street sweeping and how much waste, silt, and spoils are removed from the street sweeping methods. That spreadsheet can be found below:



Record of Street
Sweeping Y17.pdf

Street Sweeping

Date	Streets	Yards of Debris	Operator
3-1-2019	Grand Ave, Forest Ave	6	Danny
3-4-2019	Forest, Arthur, Catheryn, Glen, Highland, Lakewood, North Ave, Cora, Mineola, Maude, N. Cora, Edison, Lakeview, Hillside	9	Danny
3-5-2019	Oak, Riverview, Bennetts Alley, Nippersink, Ernest	9	Danny
3-6-2019	S. Holly, Medina, Siloam, Rand, Troy, Hill, Cottage, Columbia, S. York	9	Danny
3-7-2019	Menards Frontage Rd, Cambridge, Crystal Springs, Scott, Key Largo, Blue Springs, W. Bayou, E. Bayou	6	Danny
3-11-2019	Hollow Way, Fox Trail, Rabbit Run, Quail Path, White Tail, Willow, Cherry, Chris Larkin, Reserve, Talisman, W. Lake, Longwood, Wildwood	9	Danny
3-12-2019	Windsor, Foxridge, Frontage, Eagle Pt, Matts, Arlington, Corington, Fairfax, Tremont, Lake Ln, Manor, Union, Bay, Cross, Scenic Rd & Ln.	9	Danny
4-1-2019	Monterrey, Kingston, Livingston, Castle, Hooks, Fortress Dr & Ct.	3	Danny

*Annual Facility Inspection Report
Village of Fox Lake
Permit Year 17: Mar. 2019 to Mar. 2020*

4-15-2019	Marrin, South St, McKinley, School, Glenview, Cypress, Hillcrest, Highview, Woodland, Pine, Ridgeland	9	Danny
4-15-2019	Hillcrest, Spruce, Highview, S. Maple, Pine, Hickory, S. Lake	6	Danny
4-17-2019	Lilac, Grand, Elm, Maple	6	Drew
4-23-2019	Hawthorn, Woodstock, Lind, Center, Shady, Devlin, Grand, Rushmore, W. Grand Ave	6	Danny
5-1-2019	Hawthorn, Woodlock, Lind, Center, Shady, Devlin, Grand, Rushmore, W. Grand	6	Danny
5-2-2019	N. Rushmore, Tweed	3	Danny
5-24-2019	Grand Ave, Nippersink, Keystone, Forest	6	Danny
6-7-2019	Matts, Arlington, Covington, Fairfax, Tremont, Eagle Point, Scenic, Hilldale	9	Danny
6-10-2019	Nippersink, May, Benjamin, W. Shore, Deerpath, Mallard, E. Shore, Dunns, N. Shore, W. Greenwood	9	Danny
6-11-2019	Lincolnwood, Viscaya, W. Lakeshore, Brightwater, Hickory, Shore Cove, Elm, N. Shore, Cedar	9	Danny
6-12-2019	Evergreen, Balsam, Magnolia, Redwood, Birch, Cedar, Sycamore, Oak, Trudy	9	Danny
6-13-2019	Sundail, Countyshire, Carriage, Appalosa, Heather Ridge, Ridge, Steeple, Surrey, Morgan Circle, Chelsey, Laurine, Knollwood, Park, Oak, S. Knollwood, Channel, Spring,	9	Danny

Annual Facility Inspection Report
 Village of Fox Lake
 Permit Year 17: Mar. 2019 to Mar. 2020

	Crestview, Frazier		
8-6-2019	School, Grand (from School St. to Rollins Rd.)	1	Drew
8-25-2019	Hickory, E. Shore, W. Shore, Woodland Green, Viscaya	6	Blake/Jody
11-21-2019	Grand, Forest, Oak, Earnest, Orchard, Lakeview, Lakeside, Lippencott, School, Arther, Devlin, Helios	15	Jody
11-22-2019	Lippencott, Mack, Tweed, Eagle Pt, Arlington, Covington, Fairfax, Tremont, Bay, Manor	10	Jody
12-9-2019	Hickory, Cedar, Birch, Redwood, Balsam, Sycamore, Everygreen, Magnolia, E. Shore, Trudy, Dunns, W. Shore, Mallard, Deerpath	10	Jody
12-26-2019	Point Place Subdivision, Grand, Rushmore, Tweed, Lippencott, Orchard, Hazel, Helios, Fern, Cedar, N. Lake, S. Lake, Poplar, Linden, N. Maple, Attwater, Lakeside	10	Jody
12-27-2019	York, Forest, School, Venice, Rushmore	5	Jody

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.

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 17 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 Village continues to improve on their IDDE training working with staff to detect and discharge or potential hazards while working around inlets and outfalls. This includes during snow removal operations, mowing, street water and wastewater maintenance. Staff is instructed to report any hazards to their immediate supervisor to resolve those issues within a timely manner.

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.*

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.

The GIS system has given the Village the capability to keep information updated, and available for viewing. When inspecting the Village storm sewers we are able to input the condition of the inlets and outfalls in order to note what areas may need maintenance soon as well as the maintenance that was completed. Notes are taken and put into the GIS for data entry purposes. 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.

During Year 17, flow lines were installed on the GIS storm sewer page. This assists the Village in cleaning storm sewers and finding any repairs needed to address improving storm sewer flow. The flow lines allow new employees to quickly learn the storm sewer system and find where stormwater enters the system and where it is discharged.

BMP No. C.8: 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.*

All information regarding Village projects and stormwater management is posted on the website 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 this proved particularly important during the July 2017 flooding event and recurring flooding in recent years. 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. We continue to monitor any potential flooding events through Lake County Storm Water Management, by receiving updates and passing that to all department heads and Village residents. During potential flood events, sandbagging stations are placed at the Public Works Facility for residents to protect storm water runoff of the property and stabilize the surrounding properties.

During the Year 17 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. At the town hall meeting, pamphlets were available to the public to gain knowledge on best management practices and what the Village is doing to improve water quality and stormwater runoff.

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 17 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.

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.1: Regulatory Control Program

See QLP description.

Measurable Goal(s):

- Enforce WDO.
- Review revise SMPP language related to this provision by end of year 17.

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 started a large project in Year 16 in Millennium Park for a new pedestrian path; all required permits were obtained. The project will include several earth excavations, pavement removal, shoreline/wetland plantings and clearing and grubbing. This project is currently underway starting in Year 17 and expected to be completed in Year 18. The improvements required permits from USACOE and detention requirements which will be addressed during construction.

BMP No. E.2 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 enforcement 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 17.

The WDO was enforced in Year 17. The Village passed on information to the Home Owners Associations regarding stormwater ponds. The Village continues to work closely with several residential homeowners, SMC, and FEMA onsite to give direction on several stormwater and flooding issues.

The Village is constantly filling avenues on how to distribute information. As new information becomes available this information is passed on via electronically or paper distribution methods. 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 Dunn's 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. Dunn's 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 had been awarded additional grants for Year 15.

In Year 16, the Village applied for several grants to improve the quality and aesthetics of stormwater management in our downtown district. The Village was successful in obtaining a grant for the renovation of Millennium Park in year 16. This project has started in Year 17. Construction includes, removal of an invasive species surrounding the stormwater pond, the installation of a walking path through a property abutting our park and waterway, cleaning of the stream connecting the pond, and shoreline stabilization along the outer rim of the pond to ensure its integrity as well as the waters cleanliness. The grant awarded was in excess of \$21,000 and is matched with a Village contribution. We look forward to the completion of this project in Year 18 and have positive impact on the surrounding waterways.

The Villages Public Works department maintains the Village's stormwater drainage system. After large rainfalls or flooding events such as the event that took place in Year 15, staff inspects and jets out any blocked pipes. This year staff was able to help clean various areas throughout the Village by using the vactor truck to dispose of debris. This practice has helped ensure blockages do not occur and water can flow freely. This year staff had the ability to use our newly adopted GIS system to make notes and changes of work being done on our stormwater system, we use this information 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.3: Pre-construction Review of BMP Designs
See QLP description.

Measurable Goal(s):
-Enforce WDO.

Before any construction project begins, a preconstruction meeting is held in order for the Village staff, 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, and inlet filters are measures that are often taken in construction projects within the Village to keep stormwater from being disturbed from construction activities. On Village projects, the resident engineer or designated project manager inspects the job site on a daily basis to ensure rules are adhered to. If corrections are needed within a job site, the contractor is notified and action is taken within a timely manner. The Village takes storm water issues seriously, and can issue deficiencies to the contractor for negligence within a jobsite.

BMP No. E.4: 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 17.

The WDO was enforced in year 17. 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 17:

WDO Permits-38

Demolition-4 (Accessory Structures)

New Commercial-0

New Residential-25

Commercial Addition-2

Residential Addition-1

Alterations – 26

Code Enforcement Violations - 6 (Erosion Control, Illegal Fill, and Drainage).

All were inspected and made to be in compliance.

In Year 17 the Village started a large multi-year, multi-phase water and sewer interconnect project. The Village currently operates two separate water and sewer systems separated by the Chain of Lakes. This project will combine these systems into one operating system by drilling water and sewer lines under the Nippersink Channel. During the first Phase of construction which started in Year 17 several inspections took place by Lake County Storm Water Management to ensure compliance of erosion control measures. The reports showed compliance, and when the contractor's methods failed they were immediately rectified and re-inspected to come into compliance. These reports can be seen below:



LCR-2016-117



2020.01.09



2020.01.10



IM_SMC_Field_Obs_IIM_SMC_Field_Obs_IIM_SMC_Field_Obs_I
Drilling Inspect 2020.lRC-2016-117 DrillingLRC-2016-117 Drillingnspection.rpt 2019.1nspection.rpt-Passednspection-4-20-2020



SMC Feild



LCR-2016-117



LCR-2016-117



LRC-2016-117



LRC-2016-117



LRC-2016-117



Project DocumentatioObservation 2020.01



SMC Field



SMC Field



SMC Field



SMC Field



SMC Field



(Wed A|



SMC Field

Observation (Wed A|

During several other Village projects, including Sayton Road, Grace Avenue Gathering Area, Frontage Road, and Grand Avenue resurfacing, erosion control methods were required by the Village. These included silt fence, and inlet protection. When inlet blankets were used they were inspected daily and cleaned when necessary.

BMP No. E.5: Post-Construction Inspections

See QLP description.

Measurable Goal(s):

- Enforce WDO.
- Review revise SMPP template language related to this provision by end of year 17.

The WDO was enforced in Year 17. A Grading Certificate is required for all new construction and is reviewed by the enforcement officer provided by the project engineer.

BMP No. E.6: 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 17.

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 17 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.

F. 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.

The Village sends employees to all training as time permits. Over the past several years, the Village has attended certain training events to benefit our employee's knowledge of stormwater management. These training events include the Illinois MS4 Seminar, Snow and Ice Control Best Practices Training, and Herbicide and Pesticide control measures. In Year 17 employees received the following certifications:

Hazardous Materials Training and Testing (All Public Works employees attended).

Snow and Ice Control Best Practices Training

2020 Illinois MS4 Implementation Seminar

IDOT certified Flagger Training

IDOT Implementing Safe Work zone Operations

IDOT Traffic Work Zone Safety

IDOT ADA Self Evaluation and Transition Plans

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 schedule 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 17.

In Year 17 the Village inspected the stormwater 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. All culvert cross overs were inspected for obstructions which would restrict the ability of groundwater to flow. All obstructions were cleared, and repairs were made as necessary. 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 capital projects for Year 17.

Interconnect

In the beginning of Year 17, the bid for the Interconnect project was awarded to JKC. Phase I of this project began in Year 17. The Village operates two separate water and sewer systems-North System and South System. This project will combine the two systems into one water system and one sewer system-Both. All sewers will be treated at the NWR and Tall Oaks will no longer be needed. By decommissioning the smaller treatment plant, this will reduce the number of bodies of water that treated water is discharged to. There will be many operational benefits for staff by maintaining lift stations and sewer mains. There will be no local treatment plant; all treatment goes to NWR and instead of two systems we can utilize N or S supply to supply water to our system. We anticipate that this project will continue into Year 18 with phases I and II.

Sayton Road South

The Village has engineered plans to continue improvements on the southern portion of Sayton Road. In Year 17 the Village worked on engineering plans to improve the southern limits of Sayton Road including the continuation of the newly installed 36" storm sewer, new curb and gutter, and an outfall into a nearby wetland. The Village is seeking future funding opportunities to start this project.

Grand Avenue

Existing metal storm sewers are being replaced, spot repairs to sidewalks, and curb work is being completed to improve safety and drainage. Grand Avenue is a vital part of the town with the road going through the downtown district. We finished the design of the storm water improvements in Year 16 and construction started in Year 17. The Grand Avenue project will also entail storm sewer spot repairs. Grand Avenue was completed in Year 17 with repairs to drainage and storm sewers, during construction stormwater management best practices were used to keep erosion from construction from occurring.

TIF Improvements

The TIF improvements include clearing brush and overgrown from entering the nearby waterway, and highway area. Grading on site was completed and growth was removed with aqua-friendly remover. Native vegetation was used to restore the area and reduce the amount of grow-back. The surrounding area will be graded in order for a sidewalk to be placed within the right of way.

Grace Avenue

Grace Avenue project will incorporate new drainage and a garden area, and will allow for positive outfall of storm water runoff through impervious pavers to try to reduce the amount of storm water runoff into Grand Avenue. The Grace Avenue project will help with drainage along the area and is expected to get under construction in Year 17. The Grace Avenue project was used to help drainage on a steep sloping area. The Project was under construction in Year 17 and completed. The project allowed for positive discharge to take place, by removing the existing asphalt surface and replacing it with permeable pavers. A water feature and native plantings were installed as well as some trees to help with stormwater runoff. At the top of the existing roadway, a catch basin was installed with underground pipelines to move the precipitation to the newly installed plantings. The water feature uses rain and snow to fill it for recreational use in the warmer months.

Frontage Road

Frontage Road was reconstructed along with Hartigan Road resurfacing project. These two roads were in poor condition with several pothole repairs needed on a regular basis. This caused stormwater to build up on the roadway and collect debris which regularly needed to be maintained. In year 17 this project was completed and spot storm sewer repairs were made. The completion of this project allowed for better and cleaner stormwater runoff and discharge into the surrounding area.

Storm Sewer

In Year 17 we have started the Storm Sewer Lining project. The cleaning and lining of sanitary sewer pipe along Nippersink Blvd, Riverview Ave, E Oak St and Marvin Street was carried out by Hoerr Construction. This project helped with the function of the storm sewer.

In Year 17 staff inspected and cleaned 628 storm sewer structures. 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, updated in year 16, and was maintained during Year 17. We will continue to maintain in Year 18 as well and update as needed. During Year 17 we completed inspections after rainfall events and documentation of those inspections

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



GIS Storm Sewer
Data.xlsx

Street sweeping was performed on streets in Year 17 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 17 street sweeping was performed a total of 26 days which collected a total 87 loads of sweeping debris, totaling 204 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 18.

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 pre-wetting 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, other operations for storm water control projects include:

- 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.
- Sealing Station 1 and Motor Pool brick buildings to prevent stormwater from causing structural damage.
- Installation of new roof and downspouts on Station 1 facility to prevent standing water and rooftop structural damage.

The Village uses best practices in order to preserve storm water management assets as part of the ongoing procedures. The Village has stored used motor oil from its fleet maintenance department in several totes with secondary containment; those totes are then pumped into a large container used to burn the use motor oil via a garage furnace. This benefit prevents used oil from potentially entering the waterways and allows the Village to reduce their carbon footprint on the surrounding area, it's a reduction of gas used through the winter months and an increase in efficiency through the department.

The Village continues to improve Best Management Practices and increases the need for safe stormwater runoff. During Year 17 the Village took on the following in order to improve to minimize stormwater exposure:

- Use of a Tire Bin in order to reduce used or new tires to stormwater contact with runoff
- New deicing system to eliminate gravel or sand being used and entering the stormwater system.
- Stored all vehicles and equipment indoors to prevent stormwater contamination
- Street sweeping of Village Roads and Parking lots
- Parking lot improvements to remove standing water
- Roadway improvements to eliminate excessive ponding

The Village stores all equipment including, the lawn mowing and snow plowing equipment in doors under a roof to prevent storm water exposure. This helps keep the surrounding areas, storm sewers, and inlets clear of disturbances caused from equipment. The Village also started a roadway reconstruction project Year 17 which included long term drainage solutions. The Sayton Road reconstruction project included a 36" storm sewer, two 10x10 dry wells, and improvements to a storm water retention pond. The drainage improvements allowed ponding water within the Village right of way, as well as on a surrounding private parking lot, to drain into the new storm sewer reducing the excessive exposure it previously had. This road previously did not have a storm sewer system and had significant ponding and flooding complaints from residents and motorists. Another project that included drainage solutions was Grand Avenue Resurfacing. This project involved improvements on storm sewers and drainage along a main thorofare of Fox Lake. Storm sewers

were increased in size to allow standing water to drain quicker, as well as redefining intersections with curb to allow roadway runoff to drain properly.

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 17.

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. By completing the brush pickup we can reduce the amount of branches or limbs entering the storm sewers and causing blockage for running water. 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 vactor's the storm sewers as well.

The Village started implementing a new salt pre-wetting system in Year 16 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 contaminates getting into storm drains and into our water system. We have seen significant benefits from using this system such as removing the need to go through and vactor the storm sewer system of sand and gravel during the spring months. The system implemented uses a liquid deicing product that reduces the need for salt, is 90% less corrosive than salt, and more environmentally friendly. This has been successfully used in Year 17.

In Year 17 the Village installed a public gathering area on a closed portion of roadway. This roadway was narrow and steep and caused issues with drainage entering our downtown district. The new gathering area was built on a tiered system with permeable pavers to allow stormwater to percolate the ground and feed plantings and other natural habitats.

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 17.

The Village continues to work closely with several homeowners and SMC onsite to give direction on several storm water and flooding issues. The Village continues to work closely with SMC to coordinate repairs and improvements to the community's storm water management. In Year 17, we are working with SMC on the millennium park water quality improvement project.

The Village works with HOA's and different subdivisions to resolve storm water issues. In Year 17 Village staff met on site with several residents and HOA's to solve drainage problems. Under one circumstance residents had complained of ponding in their ditch along the right of way that didn't allow the water to flow keeping standing water within their property. The Village was able to rectify this issue and allow the water to flow downstream. Under another circumstance an HOA found that a nearby storm sewer was not collecting water and they thought the sewer had collapsed. The Village went in and was able to find it was not collapsed but in good condition, the pipe had a blockage that was cleared with the vactor truck and drainage was restored to the area.

The Village has been working with a homeowners association in Knollwood subdivision on flooding occurring in roadways and properties. The Village worked with Lake County Stormwater Management to discuss options to help assist these residents. We were able to use drone footage to get elevations of the current roadways to see if settling was occurring. With that information we could find where the best elevation to alleviate flooding in the roadway was and start trying to find funding opportunities to bring the roadway to an elevation that would drain properly allowing people to access homes, and emergency services the ability to access all parts of the subdivision.

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 16.*
- Create a Unified Development Ordinance (UDO) outlining the building and development processes located within a flood plain.*
- Implement a Green Infrastructure Plan*
- 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. Since the implementation of the storm sewer atlas in our GIS system, we have been able to update notes and changes within the system and work to improve the system exponentially, by editing the locations to accurately reflect location and needs within the Village.

Measurable Goal(s):

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

Year 17 MS4 activities:

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

Code Enforcement List

05/12/2020

CE Number	Owner Name Address	Violation	Notice Issued	Current Status	Citation Date	Citation #	Date Complied
EN18-1180	510 LIVINGSTON ST	WDO	03/06/2019	Closed			05/31/2019
EN19-0270	10 MATTS RD	WDO	09/04/2019	Complied			03/11/2020

Total: 2

Population: All Records

Enforcement.DateFiled Between 3/1/2019 12:00:00 AM AND 3/1/2020

11:59:59 PM AND

Enforcement.Category = WDO

Code Enforcement List

05/12/2020

CE Number	Owner Name Address	Violation	Notice Issued	Current Status	Citation Date	Citation #	Date Complied
EN19-0042	45 S ROUTE 12	Drainage	05/24/2019	Complied			05/31/2019
EN19-0316	24 SOUTH ST	Drainage	10/29/2019	Closed			05/12/2020

Total: 2

Population: All Records

Enforcement.DateFiled Between 3/1/2019 12:00:00 AM AND 3/1/2020

11:59:59 PM AND

Enforcement.Category = Drainage

Code Enforcement List

05/12/2020

CE Number	Owner Name Address	Violation	Notice Issued	Current Status	Citation Date	Citation #	Date Complied
EN-20-0055	31 RIVERVIEW AVE	Retaining Wall/Seawall	02/20/2020	Notice of Violation			
EN18-1231	31 RIVERVIEW AVE	Retaining Wall/Seawall	04/03/2019	Notice of Violation			
EN19-0154	43 RIVERVIEW AVE	Retaining Wall/Seawall	07/18/2019	Closed			11/25/2019
EN19-0202	31 ROLLAND PL	Retaining Wall/Seawall	08/08/2019	Notice of Violation			
EN19-0226	172 FOREST AVE	Retaining Wall/Seawall	08/16/2019	Closed			09/18/2019
EN19-0242	508 CASTLE RD	Retaining Wall/Seawall	08/30/2019	Closed			12/10/2019
EN19-0313	62 S HICKORY AVE	Retaining Wall/Seawall	10/24/2019	Closed			01/16/2020

Total: 7

Population: All Records

Enforcement.DateFiled Between 3/1/2019 12:00:00 AM AND 3/1/2020

11:59:59 PM AND

Enforcement.Category = Retaining Wall/Seawall

Category Detail Report

05/12/2020

Commercial Alteration

Permit #	Owner	Address	Fee Total
P1912-028	Fox Waterway Agency	45 S PISTAKEE LAKE RD	\$0.00
Total Fees For Type:			\$0.00
Total Permits For Type:			1

Demolition

Permit #	Owner	Address	Fee Total
P1910-045		513 PARK AVE	\$150.00
P1912-004		191 EAGLE POINT RD	\$100.00
Total Fees For Type:			\$250.00
Total Permits For Type:			2

Driveway

Permit #	Owner	Address	Fee Total
P1907-092		17 ATWATER PKWY	\$150.00
P1910-046		23 COVINGTON RD	\$150.00
P1909-048		34350 N US HWY 12	\$478.00
Total Fees For Type:			\$778.00
Total Permits For Type:			3

Fence

Permit #	Owner	Address	Fee Total
P1906-064		186 EAGLE POINT RD	\$150.00
P1906-083		10 MATT'S RD	\$50.00
P1908-005		187 EAGLE POINT RD	\$150.00
P1908-022		625 MONTERREY TER	\$150.00
P1909-038		607 KINGSTON BLVD	\$150.00
P1909-067		21 N HOLLY AVE	\$150.00
P1911-039		27 LAKESIDE LN	\$150.00

P1912-012	166 EAGLE POINT RD	\$150.00
P2002-050	154 EAGLE POINT RD	\$150.00

Total Fees For Type: 1,250.00
Total Permits For Type: 9

Major Development

Permit #	Owner	Address	Fee Total
P1907-133	Edge Water Manner Property Owner	7209 VISCAYA DR	\$1,058.00

Total Fees For Type: 1,058.00
Total Permits For Type: 1

Patio

Permit #	Owner	Address	Fee Total
P1907-106		709 KINGSTON BLVD	\$150.00

Total Fees For Type: \$150.00
Total Permits For Type: 1

Res, Accessory Structure

Permit #	Owner	Address	Fee Total
P1907-105		9 S PISTAKEE LAKE RD	\$200.00
P1912-002		187 EAGLE POINT RD	\$240.00

Total Fees For Type: \$440.00
Total Permits For Type: 2

Seawall

Permit #	Owner	Address	Fee Total
P1907-037		515 MONTERREY TER	\$150.00
P1910-094		503 WHITTEN ST	\$438.00
P1911-036		240 LIPPINCOTT LN	\$150.00
P1912-010		617 KINGSTON BLVD	\$150.00
P2001-011		6800 N STATE PARK RD	\$250.00
P2001-023		13 N YORK ST	\$150.00

Total Fees For Type: **1,288.00**

Total Permits For Type: **7**

Septic

Permit #	Owner	Address	Fee Total
P1908-021		625 MONTERREY TER	\$140.00

Total Fees For Type: **\$140.00**

Total Permits For Type: **1**

Site Work

Permit #	Owner	Address	Fee Total
P1810-047		501 KINGSTON BLVD	\$444.00
P1908-058		84 LAKE LN	\$150.00
P1908-026		975 WESTSHORE DR	\$150.00
P1909-072		10 MATT'S RD	\$290.00
P1902-015		36 S ROUTE 12 PARCEL A	\$586.00

Total Fees For Type: **1,620.00**

Total Permits For Type: **5**

Report Summary

Grand Total Fees: **6,974.00**

Grand Total Permits: **32**

Category Detail Report

05/12/2020

Alteration

Permit #	Owner	Address	Fee Total
P1902-025		17 ST THOMAS COL 02	\$50.00
P1903-012		150 EAGLE POINT RD M	\$250.00
P1903-014		8749 COUNTRY SHIRE LN	\$250.00
P1904-021		116 EAGLE POINT RD	\$250.00
P1901-019		63 HIGHVIEW AVE	\$250.00
P1903-033		21 N HOLLY AVE	\$966.00
P1904-023		982 EASTSHORE DR	\$250.00
P1904-080		28692 W GOLF VIEW DR	\$250.00
P1906-069		504 MADISON AVE	\$252.50
P1907-096		188 E GRAND AVE	\$250.00
P1907-030		15 W GRAND AVE	\$250.00
P1907-019		65 ASPEN COLONY 06	\$75.00
P1909-012		94 LIPPINCOTT RD	\$50.00
P1909-025		40 S LAKE AVE	\$250.00
P1909-060		131 WASHINGTON ST	\$250.00
P1909-037		17 ST THOMAS COL 06	\$500.00
P1910-006		614 SPRING RD	\$250.00
P1911-043		529 CIRCLE DR	\$250.00
P1907-016		39402 N HICKORY ST	\$1,598.68
P1912-018		42 HILLCREST AVE	\$250.00
P1912-013		250 LIPPINCOTT LN	\$250.00
P1912-001		528 KINGSTON BLVD	\$500.00
P1912-020		20 HILLCREST AVE	\$374.00
P1912-025		8111 MAGNOLIA CT	\$250.00
P2001-044		4 S WASHINGTON ST	\$250.00
P2002-030		519 PARK AVE	\$1,250.00

Total Fees For Type: 9,616.18

Total Permits For Type: 26

Report Summary

Grand Total Fees: 9,616.18

Grand Total Permits: 26

Category Detail Report

05/12/2020

Addition

Permit #	Owner	Address	Fee Total
P1907-006		28 N LAKE AVE	\$310.00
P1909-054		27253 W NIPPERSINK RD	\$250.00
P1911-044		529 CIRCLE DR	\$250.00

Total Fees For Type: **\$810.00**

Total Permits For Type: **3**

Report Summary

Grand Total Fees: **\$810.00**

Grand Total Permits: **3**

Flood Repair

Permit #	Owner	Address	Fee Total
P1904-057		103 MANOR AVE	\$100.00
Total Fees For Type:			\$100.00
Total Permits For Type:			1

Report Summary

Grand Total Fees: \$100.00
Grand Total Permits: 1

Retaining Wall

Permit #	Owner	Address	Fee Total
P1904-064		112 E GRAND AVE	\$150.00
P1906-042		60 S MAPLE AVE	\$115.00
P1911-001		7313 LEISURE VILLAGE AVE	\$250.00
P1909-056		508 CASTLE RD	\$65.00

Total Fees For Type: **\$580.00**

Total Permits For Type: **4**

Report Summary

Grand Total Fees: **\$580.00**

Grand Total Permits: **4**

Category Detail Report

05/12/2020

Com, Addition

Permit #	Owner	Address	Fee Total
P1903-039		33 S ROUTE 12 B	\$368.00
P1908-012		1294 S ROUTE 12	\$522.50
Total Fees For Type:			\$890.50
Total Permits For Type:			2

Report Summary

Grand Total Fees: \$890.50
Grand Total Permits: 2

Category Detail Report

05/12/2020

Com, Alteration

Permit #	Owner	Address	Fee Total
P1903-018		111 TOWNE CENTRE	\$250.00
P1903-020		19 S ROUTE 12	\$1,075.00
P1903-003		1258 S ROUTE 12	\$32,730.00
P1904-089		400 E GRAND AVE	\$250.00
P1901-016		7221 STATE PARK RD	\$1,090.00
P1905-033		7313 LEISURE VILLAGE AVE	\$250.00
P1905-091		816 E GRAND AVE	\$250.00
P1906-006		1258 S ROUTE 12	\$13,869.00
P1907-104		125 TOWNE CENTRE	\$250.00
P1909-015		21 S ROUTE 12	\$250.00
P1912-041		5 MEADE CT	\$250.00

Total Fees For Type: **0,514.00**

Total Permits For Type: **11**

Report Summary

Grand Total Fees: **0,514.00**

Grand Total Permits: **11**

Category Detail Report

05/12/2020

Seawall

Permit #	Owner	Address	Fee Total
P1903-036		116 BAY RD	\$300.00
P1904-058		510 LIVINGSTON ST	\$192.00
P1906-082		39 RUSHMORE RD	\$150.00
P1907-037		515 MONTERREY TER	\$150.00
P1908-059		191 HOWARD CT #4	\$65.00
P1910-094		503 WHITTEN ST	\$438.00
P1911-036		240 LIPPINCOTT LN	\$150.00
P1912-010		617 KINGSTON BLVD	\$150.00
P2001-011		6800 N STATE PARK RD	\$250.00
P2001-023		13 N YORK ST	\$150.00
P2001-048		45 S PISTAKEE LAKE RD	\$0.00

Total Fees For Type: **1,995.00**

Total Permits For Type: **11**

Report Summary

Grand Total Fees: **1,995.00**

Grand Total Permits: **11**

Pool Aboveground

Permit #	Owner	Address	Fee Total
P1906-011		1230 N HICKORY ST	\$150.00
P1908-113		63 LIPPINCOTT RD	\$50.00

Total Fees For Type: **\$200.00**

Total Permits For Type: **2**

Report Summary

Grand Total Fees: **\$200.00**

Grand Total Permits: **2**

Pool Inground

Permit #	Owner	Address	Fee Total
P1910-036		1007 FORTRESS DR	\$100.00
Total Fees For Type:			\$100.00
Total Permits For Type:			1

Report Summary

Grand Total Fees: \$100.00
Grand Total Permits: 1

Category Detail Report

05/12/2020

New Home Attached

Permit #	Owner	Address	Fee Total
P1903-008		7045 HIDDEN GREEN CIR	\$13,657.23
P1903-009		7047 HIDDEN GREEN CIR	\$13,431.23
P1903-010		7049 HIDDEN GREEN CIR	\$13,646.03
P1903-027		7027 COUNTRY CLUB HILLS DR	\$13,528.40
P1903-028		7029 COUNTRY CLUB HILLS DR	\$13,754.40
P1906-013		7001 BOGIE LN	\$12,875.30
P1906-014		7003 BOGIE LN	\$13,230.30
P1906-073		7037 HIDDEN GREEN CIR	\$13,705.90
P1906-074		7039 HIDDEN GREEN CIR	\$13,619.70
P1906-075		7041 HIDDEN GREEN CIR	\$13,479.90
P1906-076		7043 HIDDEN GREEN CIR	\$13,619.70
P1906-070		7031 COUNTRY CLUB HILLS DR	\$13,274.80
P1906-071		7033 COUNTRY CLUB HILLS DR	\$13,364.60
P1906-072		7035 COUNTRY CLUB HILLS DR	\$13,364.60

Total Fees For Type: 8,552.09

Total Permits For Type: 14

Report Summary

Grand Total Fees: 8,552.09

Grand Total Permits: 14

Category Detail Report

05/12/2020

New Home Detached

Permit #	Owner	Address	Fee Total
P1908-098		531 DEER RUN	\$16,094.50

Total Fees For Type: 6,094.50

Total Permits For Type: 1

Report Summary

Grand Total Fees: 6,094.50

Grand Total Permits: 1

Major Development

Permit #	Owner	Address	Fee Total
P1907-133		7209 VISCAYA DR	\$1,058.00
Total Fees For Type:			1,058.00
Total Permits For Type:			1

Report Summary

Grand Total Fees: 1,058.00
Grand Total Permits: 1

Stormwater Management Program Assessment, Year 17

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.

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 implement 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 revise the SMPP in Year 16 and believe the BMP's are appropriate to gain progress towards achieving the regulatory goal of reducing the discharge of pollutants.

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

Annual Monitoring and Data Collection, Year 17

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>).
 - 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. 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.

Part D. MS4 Summary of Year 17 Stormwater Activities

The table below indicates the stormwater management activities that the MS4 plans to undertake during Year 18. Additional information about the stormwater management activities that the MS4 will perform is provided in the section following the table.

Note: "X" indicates BMPs that will be implemented during Year 18
 ✓ indicates BMPs that were changed during Year 18

Year 18		Year 18	
MS4		MS4	
A. Public Education and Outreach			D. Construction Site Runoff Control
X	A.1 Distributed Paper Material	X	D.1 Regulatory Control Program
	A.2 Speaking Engagement	X	D.2 Erosion and Sediment Control BMPs
	A.3 Public Service Announcement	X	D.3 Other Waste Control Program
X	A.4 Community Event	X	D.4 Site Plan Review Procedures
	A.5 Classroom Education Material	X	D.5 Public Information Handling Procedures
X	A.6 Other Public Education	X	D.6 Site Inspection/Enforcement Procedures
			D.7 Other Construction Site Runoff Controls
B. Public Participation/Involvement			E. Post-Construction Runoff Control
	B.1 Public Panel		E.1 Community Control Strategy
	B.2 Educational Volunteer	X	E.2 Regulatory Control Program
X	B.3 Stakeholder Meeting	X	E.3 Long Term O&M Procedures
X	B.4 Public Hearing	X	E.4 Pre-Const Review of BMP Designs
X	B.5 Volunteer Monitoring	X	E.5 Site Inspections During Construction
X	B.6 Program Coordination	X	E.6 Post-Construction Inspections
X	B.7 Other Public Involvement	X	E.7 Other Post-Const Runoff Controls
C. Illicit Discharge Detection and Elimination			F. Pollution Prevention/Good Housekeeping
X	C.1 Storm Sewer Map Preparation	X	F.1 Employee Training Program
X	C.2 Regulatory Control Program	X	F.2 Inspection and Maintenance Program
X	C.3 Detection/Elimination Prioritization Plan	X	F.3 Municipal Operations Storm Water Control
X	C.4 Illicit Discharge Tracing Procedures	X	F.4 Municipal Operations Waste Disposal
X	C.5 Illicit Source Removal Procedures		F.5 Flood Management/Assess Guidelines
X	C.6 Program Evaluation and Assessment	X	F.6 Other Municipal Operations Controls
X	C.7 Visual Dry Weather Screening		
X	C.8 Pollutant Field Testing		
X	C.9 Public Notification		
	C.10 Other Illicit Discharge Controls		

Stormwater Management Activities, Year 18

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

During Year 18, the MS4 plans to continue to support and supplement QLP efforts, as described in detail in the MS4's SMPP and in brief below. The MS4's NPDES Program 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).

The Village will continue to provide SMC announcements and information on the Village's website which was recently updated with a newsflash feature. This feature allows us to highlight important updates on the website. The Village was scheduled to host a SWALCO event in Year 17, but the event was cancelled due to the COVID-19 Pandemic. We plan to assist and work on future events with SWALCO in Year 18. The Village also prohibited the leaf burning in Year 17 due to the pandemic; this allowed the Village to educate the public on the use of waste management to remove yard waste debris.

The SMPP will be reviewed and updated as needed in Year 18. The Village also publishes stormwater information in its newsletter "The Anchor" as well as on the Village's Facebook page. This information can be best practices and has information about seasonal change, including being a good neighbor and ensuring storm drains near residential homes or businesses are clear from winter debris, falling leaves, brush pickup, or standing water.

Measurable Goal(s):

- Support QLP efforts.

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

B. Public Participation/Involvement

In addition to the extensive QLP efforts, the 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 the following: 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.

The Village provides additional materials to the general public. In Year 17, 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 updated the lease of the lot from the Fire Protection

District and instead of a building being placed there it will continue to have a large pervious surface along with 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 completed two beneficial projects to improve drainage in the downtown district. As part of those projects, a known flooding area that was causing damage to a nearby business during rain events was engineered and constructed with drainage, and a rainwater retention area that was both useful and aesthetically pleasing to our downtown area. The retention area acts as a gathering area for the public when walking through downtown, filled with plantings, trees, and benches. The Village also took action in Year 17 to get the public involved in our upcoming street projects. These projects included new and or improved storm sewers. During constructions, we used proper erosion control measures.

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. In Year 17 we worked with the Knollwood Subdivision HOA to discuss options for flood mitigation in the roadway. Together we partnered with Lake County Storm Water Management to use their drone to find low lying elevations of the roadway and alternatives to repair the repeatedly flooded areas. We also worked with Lake County Storm Water Management to find possible funding avenues to complete this project.

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. This information is shared via the newsletter, board meetings, town hall meetings, Facebook, and discussions at community events. During meetings the mayor will typically update the board and the public of any new or ongoing stormwater issues such as flooding events, or forecasted flooding events for the area.

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. We have worked with local groups to raise money, and awareness in order to try to fund projects such as dredging the lakes. Staff and Elected officials have been lobbying with Lake County Storm Water Management in order to get state representatives to take action on the increasing need of our surrounding lakes and streams. Education groups now hope to have bigger projects such as dredging.

The Village bid out a project in our Millennium Park near the downtown district which abuts the Chain O Lakes bike trail. This project is part of a grant from Lake County Stormwater Management.

Measurable Goal(s):

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

C. Illicit Discharge Detection and Elimination

In addition to the extensive QLP 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.
- Ensure vegetative growth after project completion to assist in stormwater runoff.

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.

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

Part E. Notice of Qualifying Local Program

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

- **Part E1** identifies changes to Best Management Practices (BMPs) that occurred during Year 17 and includes information about how these changes affected the QLP's stormwater management program.
- **Part E2** describes the stormwater management activities that the QLP performed during Year 17.
- **Part E3** summarizes the information and data collected by the QLP during Year 17.
- **Part E4** describes the stormwater management activities that the QLP plans to undertake during Year 18.
- **Part E5** lists the construction projects conducted by the QLP during Year 17.

Part E1. QLP Changes to Best Management Practices, Year 17{ XE "Part E1. QLP Changes to Best Management Practices, Year 13" }

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

Year 17		Year 17	
QLP		QLP	
A. Public Education and Outreach		D. Construction Site Runoff Control	
X	A.1 Distributed Paper Material	X	D.1 Regulatory Control Program
	A.2 Speaking Engagement	X	D.2 Erosion and Sediment Control BMPs
X	A.3 Public Service Announcement	X	D.3 Other Waste Control Program
X	A.4 Community Event	X	D.4 Site Plan Review Procedures
X	A.5 Classroom Education Material	X	D.5 Public Information Handling Procedures
X	A.6 Other Public Education	X	D.6 Site Inspection/Enforcement Procedures
			D.7 Other Construction Site Runoff Controls
B. Public Participation/Involvement		E. Post-Construction Runoff Control	
X	B.1 Public Panel		E.1 Community Control Strategy
	B.2 Educational Volunteer	X	E.2 Regulatory Control Program
X	B.3 Stakeholder Meeting	X	E.3 Long Term O&M Procedures
	B.4 Public Hearing	X	E.4 Pre-Const Review of BMP Designs
	B.5 Volunteer Monitoring	X	E.5 Site Inspections During Construction
X	B.6 Program Coordination	X	E.6 Post-Construction Inspections
	B.7 Other Public Involvement	X	E.7 Other Post-Const Runoff Controls
C. Illicit Discharge Detection and Elimination		F. Pollution Prevention/Good Housekeeping	
	C.1 Storm Sewer Map Preparation	X	F.1 Employee Training Program
X	C.2 Regulatory Control Program		F.2 Inspection and Maintenance Program
	C.3 Detection/Elimination Prioritization Plan		F.3 Municipal Operations Storm Water Control
	C.4 Illicit Discharge Tracing Procedures		F.4 Municipal Operations Waste Disposal
	C.5 Illicit Source Removal Procedures	X	F.5 Flood Management/Assess Guidelines
	C.6 Program Evaluation and Assessment		F.6 Other Municipal Operations Controls
	C.7 Visual Dry Weather Screening		
	C.8 Pollutant Field Testing		
	C.9 Public Notification		
X	C.10 Other Illicit Discharge Controls		

Part E2. QLP Status of Compliance with Permit Conditions, Year 17{ XE "Part E2. QLP Status of Compliance with Permit Conditions, Year 13" }

IEPA issued its General NPDES Permit No. ILR40 effective March 1, 2016 (the first day of Year 14). SMC has reviewed the new permit, compared it to the previous permit, summarized the changes, and evaluated what the changes appear to mean for Lake County MS4s. Based on these findings, SMC revised its SMPP template and provided it to communities in August 2016; the final draft was provided in November 2016.

The Lake County Stormwater Management Commission (SMC) serves as a Qualifying Local Program (QLP) for MS4s in Lake County. In accordance with IEPA's NPDES General Permit No. ILR40, as a QLP, SMC performs activities related to each of the six minimum control measures. The stormwater management activities that the QLP performed during Year 17 are described below.

A. Public Education and Outreach

A.1 Distributed Paper Material

Measurable Goal(s):

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

Year 17 QLP activities:

- SMC distributes a variety of informational materials related to stormwater management through its “take away” rack and website.
- Upon request, informational materials are distributed directly to Lake County MS4s in PDF format for use on community websites, in community newsletters, and in community “take away” racks.
- Provided NPDES related information via Facebook.

A.3 Public Service Announcement

Measurable Goal(s):

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

Year 17 QLP activities:

- SMC includes announcements highlighting community accomplishments related to IEPA's NPDES Stormwater Program on its website, in its newsletter, and through other media outlets (URL hyperlink).
- Watershed identification signage is located throughout the county.
- SMC continues to make available “The Big Picture: Water Quality, Regulations & NPDES” presentation to Lake County MS4s, (URL hyperlink).

A.4 Community Event

Measurable Goal(s):

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

Year 17 QLP activities:

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

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

A.5 Classroom Education

Measurable Goal(s):

- Develop and compile information for stormwater educational kit for distribution upon request.
- Provide materials and training on storm sewer inlet stenciling kits to teachers upon request.

Year 17 QLP activities:

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

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

A.6 Other Public Education

Measurable Goal(s):

- Maintain and update the portion of the SMC website dedicated to IEPA's NPDES Stormwater Program with resource materials such as model ordinances, case studies, brochures, and web links.
- Make "The Big Picture: Water Quality, Regulations & NPDES" presentation available to Lake County MS4s.

Year 17 QLP activities:

- As new information and resource materials become available, they are posted to the SMC website and/or distributed directly to Lake County MS4s, ([URL hyperlink](#)).
- SMC continues to make available "The Big Picture: Water Quality, Regulations & NPDES" presentation to Lake County MS4s, ([URL hyperlink](#)).
- SMC continues to update and maintain an ArcGIS geospatial web tool for Lake County MS4 programs that indicates TMDL statuses, 303(b), 305(d), HUC 12 watershed information and other information within an MS4 defined boundary, ([URL hyperlink](#)).
- SMC maintains an ArcGIS geospatial web tool for Lake County watersheds where inventoried, allowing the public to see an Inventory of Ravine, Stream and Detention Basin Information, ([URL hyperlink](#)).
- SMC maintains an ArcGIS geospatial web tool for Lake County Des Plaines River Watershed Water Quality Improvement Project recommendations, allowing the public to see, ([URL hyperlink](#)).

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

B. Public Participation/Involvement

B.1 Public Panel

Measurable Goal(s):

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

Year 17 QLP activities:

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

B.3 Stakeholder Meeting

Measurable Goal(s):

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

Year 17 QLP activities:

- Notice of all stakeholder meetings continues to be provided on the SMC website and through direct mailings and e-mailings to stakeholder lists.
- SMC tracked the number of stakeholder meetings conducted for the various watershed planning committees during the reporting period. The list below summarizes the watershed planning committee meetings that were conducted during Year 17:
 - Des Plaines River Watershed Workgroup (11) meetings (excluding executive board meetings)
 - North Branch Chicago River Watershed Workgroup (7) meetings (excluding executive board meetings)
 - Des Plaines River Planning Committee (1) meeting on 10/23/2019.

- SMC continues to establish and/or assist watershed planning committees for each new watershed planning effort.

B.6 Program Coordination

Measurable Goal(s):

- Track number of MAC meetings conducted during Year 17.
- Prepare annual report on Qualifying Local Program activities at end of Year 17.

Year 17 QLP activities:

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

C. Illicit Discharge Detection and Elimination

C.2 Regulatory Control Program

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.
- Lake County continues to provide the Lake County Illicit Discharge Detection and Elimination (IDDE) Manual on the SMC website, [\(URL hyperlink\)](#).

C.10 Other Illicit Discharge Controls

Measurable Goal(s):

- Sponsor or co-sponsor and track the number of attendees at an Illicit Discharge Detection and Elimination workshop or other training workshop related to IEPA's NPDES Stormwater Program.

Year 17 QLP activities:

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

D. Construction Site Runoff Control

D.1 Regulatory Control Program

Measurable Goal(s):

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

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.
- SMC continues to administer the Designated Erosion Control Inspector (DECI) program as outlined by the WDO, [\(URL hyperlink\)](#).

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

D.2 Erosion and Sediment Control BMPs

Measurable Goal(s):

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

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.
- SMC continues to provide technical guidance and reference materials to support the administration and enforcement of the countywide WDO.
- SMC staff distributed 100 precipitation weather notifications. The rainfall reports indicate county rain events with observed precipitation for guidance on construction site runoff SE/SC inspections.

D.3 Other Waste Control Program

Measurable Goal(s):

- Enforce WDO provisions regarding the control of waste and debris at construction sites.

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.

D.4 Site Plan Review Procedures

Measurable Goal(s):

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

Year 17 QLP activities:

- SMC continues to track the number of enforcement officers (EOs) who have passed the EO exam and have become EOs. Per records, as of the end of Year 17, there are 91 EOs certified in Lake County.
- The list of EOs representing Certified Communities is continually updated and is maintained on the SMC website, ([URL hyperlink](#)).
- In accordance with the amended countywide WDO, the certification process is every 5 years, ([URL hyperlink](#)). The community re-certification process, which includes a performance review of all 53 certified and non-certified communities for permitted development compliance.
- The SMC website includes guidance information to supplement the TRM related to WDO interpretation as well as ordinance administration and enforcement.

D.5 Public Information Handling Procedures

Measurable Goal(s):

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

Year 17 QLP activities:

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

D.6 Site Inspection/Enforcement Procedures

Measurable Goal(s):

- Track number of site inspections conducted by SMC.

Year 17 QLP activities:

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

E. Post-Construction Runoff Control

E.2 Regulatory Control Program

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.

E.3 Long Term O&M Procedures

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.

E.4 Pre-Construction Review of BMP Designs

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.

E.5 Site Inspections During Construction

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.

E.6 Post-Construction Inspections

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.

E.7 Other Post-Construction Runoff Controls

Measurable Goal(s):

- Conduct annual Watershed Management Board (WMB) meeting.
- Contribute funding to flood reduction and water quality improvement projects, including stormwater retrofits, through the WMB.

Year 17 QLP activities:

- The annual WMB meeting was held on Dec. 4, 2019.
- At the annual WMB meeting 6 Projects were selected to receive \$162,276 of funding through the SMC grant program. These projects including planning and in the ground project efforts that support flood reduction, water quality improvement, and stormwater retrofit projects.
 - 12 WMB project grants awarded.
 - 1 Watershed Management Assistance (WMAG) project grant awarded.
- SMC staff attended the EWRI, ASCE Illinois Section “2019 Illinois MS4 Implementation Seminar” on 3/7/2019.

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

F. Pollution Prevention/Good Housekeeping

F.1 Employee Training Program

Measurable Goal(s):

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

Year 17 QLP activities:

- SMC continues to provide information on training opportunities and training resources to Lake County MS4s.
- SMC sponsored or co-sponsored a number of workshops and events on stormwater-related topics. Such workshops and events are described above.
- SMC continues to make available the Excal Visual Storm Watch Municipal Stormwater Pollution Prevention software to Lake County MS4s. According to records, (2) MS4 Programs borrowed the Excal Visual software.
- SMC continues to make available the Excal Visual “IDDE - A Grate Concern” software to Lake County MS4s. According to records, (2) MS4 Programs borrowed the Excal Visual software.

F.5 Flood Management/Assess Guidelines

Measurable Goal(s):

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

Year 17 QLP activities:

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

F.6 Other Municipal Operations Controls

Winter Roadway Deicing

Measurable Goal(s):

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

Year 17 QLP activities:

- SMC co-sponsored 3 de-icing workshops:
 - Deicing Workshop for Parking Lots and Sidewalks 09/30/2019.
 - Deicing Workshop for Roads (2 days) 10/01/2019 and 10/02/2019.
 - In total 144 attendees participated in these three workshops.
 - Since 2009 the deicing workshops have had a cumulative attendance of roughly 1,514 attendees.
- A de-icing certification process to promote trained vendors is offered
 - Preferred Providers that successfully completed a Lake County Deicing Training Workshop and passed the Course Exam can be referenced on a Preferred Provider List ([URL hyperlink](#)).
 - Certification is through a third-party vendor, Fortin Consulting, Inc.

- In 2019, 117 preferred providers have been identified based on certification.
- A Deicing Summit (target audience is winter maintenance decision makers): In total 52 attendees participated in the Summit.
- SMC continues to make available chloride reduction documents
 - Too Much Salt in Our Winter Maintenance Recipe - Tips for Managing Snow and Ice at Home, ([URL hyperlink](#)).
 - Lake County Winter Parking Lot and Sidewalk Maintenance Manual, ([URL hyperlink](#)).
 - Less Salt Equals Less Money, Clean Water, Safe Conditions - Tips for Effective Road Salting, ([URL hyperlink](#)).

Part E3. QLP Information and Data Collection Results, Year 17{ XE "Part E3. QLP Information and Data Collection Results, Year 13" }

The QLP did not collect any monitoring data on behalf of Lake County's MS4s during Year 17. However, SMC has reviewed information presented by the [Illinois EPA \(IEPA\) in the 2016 Illinois Integrated Water Quality Report and 303\(d\) List](#) and has developed the brief "State of Lake County's Waters" report provided below.

State of Lake County's Waters February 2020

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

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

Streams

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

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

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

Table E3.1 2014 303(d) streams removed from 2016 303(d) list					
Assessment ID	Name	Miles	Assessment ID	Name	Miles
IL_G-08	Des Plaines River	0.98	IL_QE-01	Dead Dog Creek	4.02
IL_GV-01	Bull Creek	2.33	IL_DTZS-01	Flint Creek	9.66

IL_RGZB	Hastings Lake	0.34	IL_RTJ	Long Lake	2.85
IL_DT-35	Fox River	5.03	IL_RHK	Eleanor Lake	0.36
IL_HCCB-05	West Fork North Branch	5.73	IL_GWA	North Mill Creek	6.62
IL_GST	Buffalo Creek	8.77	IL_RGZE	Slough Lake	0.42
IL_RGZA	Crooked Lake	1.00			

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

Table E3.2 Stream Segments added to 2016 303(d) list not previously listed in 2014					
Assessment ID	Name	Miles	Assessment ID	Name	Miles
IL_HCCB-05	West Fork North Branch Chicago River	0.002	IL_QC-03	Waukegan River	1.47
IL_DTRA-W-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.

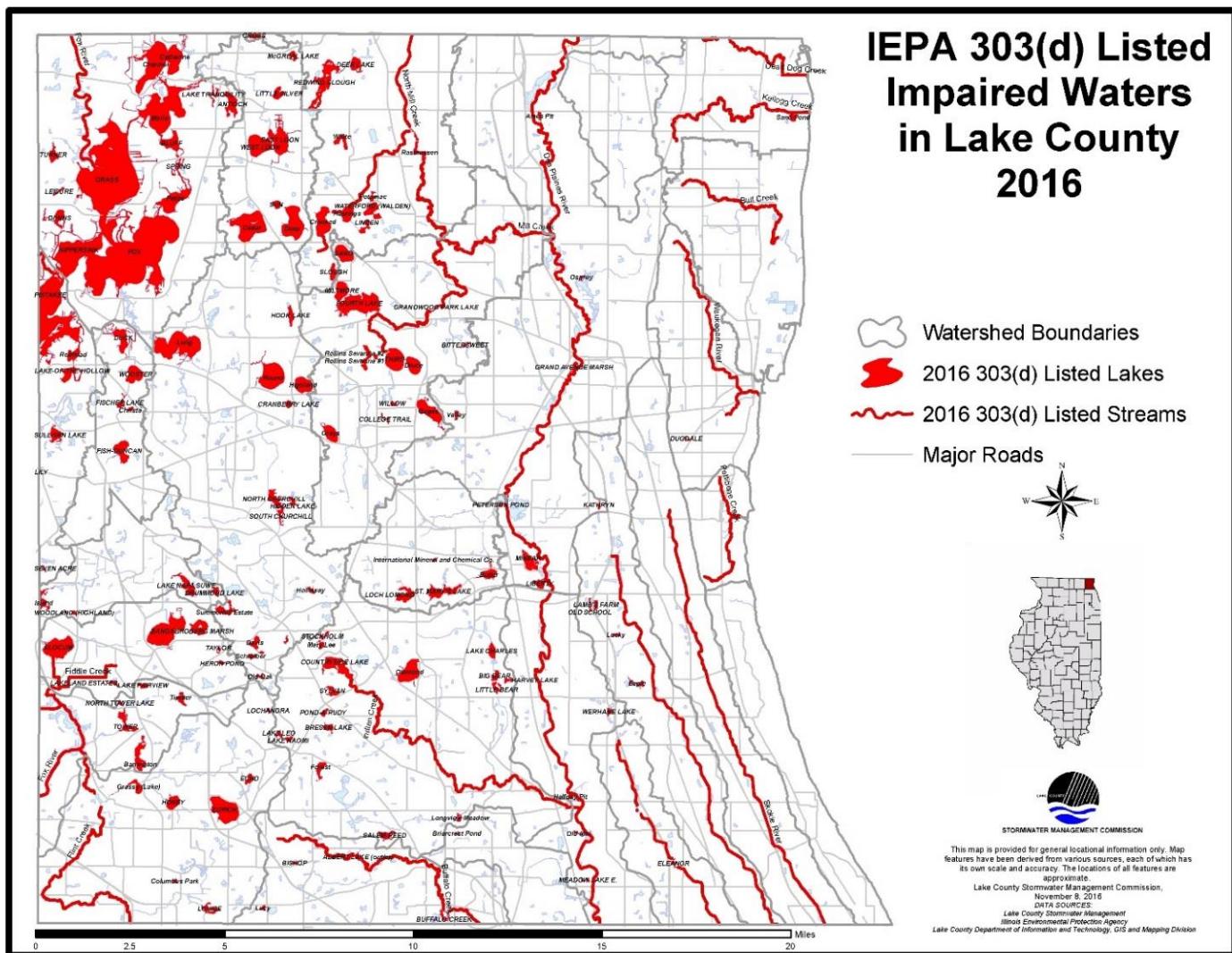


Figure E3.1

Monitoring

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

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

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

Part E4. QLP Summary of Year 18 Stormwater Activities{ XE "Part E4. QLP Summary of Year 14 Stormwater Activities" }

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

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

Year 18		Year 18	
QLP		QLP	
A. Public Education and Outreach			D. Construction Site Runoff Control
X	A.1 Distributed Paper Material	X	D.1 Regulatory Control Program
X	A.2 Speaking Engagement	X	D.2 Erosion and Sediment Control BMPs
X	A.3 Public Service Announcement	X	D.3 Other Waste Control Program
X	A.4 Community Event	X	D.4 Site Plan Review Procedures
X	A.5 Classroom Education Material	X	D.5 Public Information Handling Procedures
X	A.6 Other Public Education	X	D.6 Site Inspection/Enforcement Procedures
			D.7 Other Construction Site Runoff Controls
B. Public Participation/Involvement			E. Post-Construction Runoff Control
X	B.1 Public Panel		E.1 Community Control Strategy
	B.2 Educational Volunteer	X	E.2 Regulatory Control Program
X	B.3 Stakeholder Meeting	X	E.3 Long Term O&M Procedures
	B.4 Public Hearing	X	E.4 Pre-Const Review of BMP Designs
	B.5 Volunteer Monitoring	X	E.5 Site Inspections During Construction
X	B.6 Program Coordination	X	E.6 Post-Construction Inspections
	B.7 Other Public Involvement	X	E.7 Other Post-Const Runoff Controls
C. Illicit Discharge Detection and Elimination			F. Pollution Prevention/Good Housekeeping
	C.1 Storm Sewer Map Preparation	X	F.1 Employee Training Program
X	C.2 Regulatory Control Program		F.2 Inspection and Maintenance Program
	C.3 Detection/Elimination Prioritization Plan		F.3 Municipal Operations Storm Water Control
	C.4 Illicit Discharge Tracing Procedures		F.4 Municipal Operations Waste Disposal
	C.5 Illicit Source Removal Procedures	X	F.5 Flood Management/Assess Guidelines
	C.6 Program Evaluation and Assessment	X	F.6 Other Municipal Operations Controls
	C.7 Visual Dry Weather Screening		
	C.8 Pollutant Field Testing		
	C.9 Public Notification		
X	C.10 Other Illicit Discharge Controls		

The Lake County Stormwater Management Commission (SMC) is a Qualifying Local Program for MS4s in Lake County. SMC has been providing services under four of the six minimum control categories since it began implementing a comprehensive, countywide stormwater program in 1991. The revised SMPP template clarifies and emphasizes the significant efforts by SMC related to each of the six minimum control measures. These QLP commitments provide Lake County with a baseline Countywide stormwater management program that can be built upon by each of the individual MS4s.

During Year 18, SMC remains committed to performing a variety of stormwater management activities across the County, these commitments are now specifically outlined in the SMPP template. SMC program is continually evolving, to better assist Lake County MS4s in meeting the requirements of the 2016-2021 MS4 Permit.

A. Public Education and Outreach

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

A.1 Distributed Paper Material

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

Measurable Goal(s):

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

A.2 Speaking Engagement

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

Measurable Goal(s):

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

A.3 Public Service Announcement

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

Measurable Goal(s):

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

A.4 Outreach Events

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

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

Measurable Goal(s):

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

A.5 Classroom Education Material

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

Measurable Goal(s):

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

A.6 Other Public Education

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

Measurable Goal(s):

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

B. Public Participation/Involvement

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

B.1 Public Panel

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

Measurable Goal(s):

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

B.3 Stakeholder Meeting

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

Measurable Goal(s):

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

B.6 Program Involvement

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

Measurable Goal(s):

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

C. Illicit Discharge Detection and Elimination

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

Measurable Goal(s):

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

C.2 Regulatory Control Program

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

Measurable Goal(s):

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

C.10 Other Illicit Discharge Controls

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

Measurable Goal(s):

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

D. Construction Site Runoff Control

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

D.1 Regulatory Control Program

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

Measurable Goal(s):

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

D.2 Erosion and Sediment Control BMPs

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

Measurable Goal(s):

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

D.3 Other Waste Control Program

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

Measurable Goal(s):

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

D.4 Site Plan Review Procedures

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

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

Measurable Goal(s):

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

D.5 Public Information Handling Procedures

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

Measurable Goal(s):

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

D.6 Site Inspection/Enforcement Procedures

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

Measurable Goal(s):

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

E. Post-Construction Runoff Control

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

E.2 Regulatory Control Program

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

E.3 Long Term O&M Procedures

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

E.4 Pre-Construction Review of BMP Designs

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

E.5 Site Inspections During Construction

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

E.6 Post-Construction Inspections

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

Measurable Goal(s):

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

E.7 Other Post-Construction Runoff Controls

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

Measurable Goal(s):

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

F. Pollution Prevention/Good Housekeeping

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

F.1 Employee Training Program

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

Measurable Goal(s):

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

F.5 Flood Management/Assess Guidelines

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

Measurable Goal(s):

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

F.6 Other Municipal Operations Controls

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

Measurable Goal(s):

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

*Annual Facility Inspection Report
Village of Fox Lake*

Part E5. QLP Construction Projects Conducted During Year 17{ XE "Part E5. QLP Construction Projects Conducted During Year 13" }

Part F. MS4 Construction Projects Conducted During Year 17