

President Martin J. McLaughlin
Trustee Colleen Konicek Hannigan
Trustee Fritz Gohl
Trustee Michael Harrington
Trustee Bryan C. Croll
Trustee Michelle Nagy Maison
Trustee Brian D. Cecola



112 Algonquin Road
Barrington Hills, IL 60010

847.551.3000

village@vbhil.gov
www.vbhil.gov

May 16, 2016

Illinois Environmental Protection Agency
Bureau of Water
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Re: NPDES Phase II – Year Thirteen Annual Report
Village of Barrington Hills MS4

To Whom it May Concern:

On behalf of the Village of Barrington Hills, please find attached a completed IEPA Annual Facility Inspection Report NPDES Permit for Storm Water Discharges from Municipal Separate Storm Sewer Systems (MS4) with supplemental information.

If you should have any questions or require additional information, please call our Village Engineer, Mr. Dan Strahan, P.E., at (847) 478-9700.

Sincerely,
Village of Barrington Hills

A handwritten signature in dark ink, appearing to read "Robert Kosin".

Robert Kosin
Village Administrator

cc: Dan Strahan, Gewalt Hamilton Associates, Inc.

encl: Annual Facility Inspection Report
Year 13 Annual Report & Attachments



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, 2015 To March, 2016

Permit No. ILR40 0514

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

Name: Village of Barrington Hills Mailing Address 1: 112 Algonquin Road
Mailing Address 2: _____ County: Cook
City: Barrington Hills State: IL Zip: 60010 Telephone: (847) 551-3004
Contact Person: Robert Kosin Email Address: rkosin@barringtonhills-il.gov
(Person responsible for Annual Report)

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

Lake County McHenry County
Kane County Cook County

THE FOLLOWING ITEMS MUST BE ADDRESSED.

A. Changes to best management practices (check appropriate BMP change(s) and attach information regarding change(s) to BMP and measurable goals.)

- | | |
|---|--|
| 1. Public Education and Outreach <input type="checkbox"/> | 4. Construction Site Runoff Control <input type="checkbox"/> |
| 2. Public Participation/Involvement <input type="checkbox"/> | 5. Post-Construction Runoff Control <input type="checkbox"/> |
| 3. Illicit Discharge Detection & Elimination <input type="checkbox"/> | 6. Pollution Prevention/Good Housekeeping <input type="checkbox"/> |

B. Attach the status of compliance with permit conditions, an assessment of the appropriateness of your identified best management practices and progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, and your identified measurable goals for each of the minimum control measures.

C. Attach results of information collected and analyzed, including monitoring data, if any during the reporting period.

D. Attach a summary of the storm water activities you plan to undertake during the next reporting cycle (including an implementation schedule.)

E. Attach notice that you are relying on another government entity to satisfy some of your permit obligations (if applicable).

F. Attach a list of construction projects that your entity has paid for during the reporting period.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Owner Signature:

Robert Kosin

Printed Name:

MAY 16, 2016

Date:

Director of Administration

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

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

**Village of Barrington Hills
Permit Year 13: March 2015 to February 2016**

Contents

Part A. Changes to Best Management Practices A-1

Part B. Status of Compliance with Permit ConditionsB-1

Part C. Information and Data Collection Results C-1

Part D. Summary of Year 14 Stormwater ActivitiesD-1

Part E. Notice of Qualifying Local ProgramE-1

 Part E1. Changes to Best Management Practices E-2

 Part E2. Status of Compliance with Permit Conditions E-3

 Part E3. Information and Data Collection Results E-10

 Part E4. Summary of Year 14 Stormwater Activities..... E-13

 Part E5. Construction Projects Conducted During Year 13..... E-26

Part F. Construction Projects Conducted During Year 13 F-1

Part A. MS4 Changes to Best Management Practices, Year 13

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 13

Year 13	
MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
	A.3 Public Service Announcement
X	A.4 Community Event
	A.5 Classroom Education Material
	A.6 Other Public Education
B. Public Participation/Involvement	
	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
X	B.4 Public Hearing
	B.5 Volunteer Monitoring
	B.6 Program Coordination
	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
X	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
	C.3 Detection/Elimination Prioritization Plan
X	C.4 Illicit Discharge Tracing Procedures
X	C.5 Illicit Source Removal Procedures
X	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
X	C.8 Pollutant Field Testing
X	C.9 Public Notification
	C.10 Other Illicit Discharge Controls

Year 13	
MS4	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
X	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
	F.1 Employee Training Program
X	F.2 Inspection and Maintenance Program
	F.3 Municipal Operations Storm Water Control
	F.4 Municipal Operations Waste Disposal
	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

No changes were made to the BMPs described in the MS4's SMPP during Year 13.

Part B. MS4 Status of Compliance with Permit Conditions, Year 13

Stormwater Management Activities, Year 13

The stormwater management activities that the MS4 performed during Year 13, including the MS4's BMPs and measureable goals, are described in detail in the MS4's SMPP. A brief summary of the status of the MS4's stormwater management program, as of the end of Year 13, is provided below. The MS4's SMPP can be viewed at www.gha-engineers.com/ms4. It is also attached for reference.

A. Public Education and Outreach

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

The SMC develops and distributes a variety of materials related to storm water management in Lake County. A number of pamphlets and brochures related to BMPs and storm water management have been produced. The Village makes these publications, at a minimum, available on their website.

A draft SWMP has been prepared that includes language related to this provision and will be accepted by the Village in Year 13. The Village of Barrington Hills provided informational material developed by SMC related to storm water, storm water management and a variety of storm water related materials on a "take away" rack at the Village Offices. In addition, the Village included educational information in the Village Newsletter and website.

The Village of Barrington Hills provides a convenient location where the general public can dispose of common household pollutants. The Village holds household waste collection events which assist in collecting waste before it enters the storm sewer system. These events are publicized in the Village Newsletter and on the Village Website. The Village works with Recycling Avenue to collect used cell phones, cameras, computers, and other used items that contain compounds or materials that can be harmful to the environment if they are not properly disposed. Residents may drop off used small electronics to Village Hall during normal business hours, 8:30am to 5:00pm M-F, 8:30am to Noon Saturday.

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

B. Public Participation/Involvement

*Measurable Goal(s): Present summary of ongoing program implementation (annual report) at public meeting.
Implement BMPs and track progress of BMP implementation, as described in the SMPP.*

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 the Village of Barrington Hills, the Village will publicize stakeholder meetings locally and participate by being represented at the stakeholder meetings

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

C. Illicit Discharge Detection and Elimination

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

The MS4 implements a dry weather screening program, established during original NOI. The MS4 also provides regular cleaning and maintenance of storm sewer structures. The MS4 plans to continue to investigate citizen illicit discharge/illegal dumping hotline reports in the field.

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

D. Construction Site Runoff Control

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

**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.**

E. Post-Construction Runoff Control

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

**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.**

F. Pollution Prevention/Good Housekeeping

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

The Pollution Prevention/Good Housekeeping program includes measures to reduce the amount and type of pollution that: (1) collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and (2) results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems. Clean, correct, or otherwise address identified storm and sanitary sewer trouble areas.

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

Stormwater Management Program Assessment, Year 13

An overall assessment of the MS4's stormwater management program and the appropriateness of its BMPs is provided below.

The MS4 collected water quality sampling data during Year 13, as described below, and reviewed the data to determine whether or not it provides any evidence of reduced pollutant loads or improved water quality. The data collected from water quality sampling locations upstream and downstream of the MS4's stormwater discharges show either no change or a decrease in the concentrations of a number of water quality parameters between the upstream and downstream sampling locations. These findings may be attributable to the MS4's stormwater management activities and indicate that the MS4's BMPs and stormwater management program are appropriate.

Part C. MS4 Information and Data Collection Results, Year 13

Annual Monitoring and Data Collection, Year 13

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.

Water quality sampling was conducted within the receiving waters, both upstream and downstream of the MS4's stormwater discharges. A total of 5 sampling points are included in the MS4's annual monitoring program. At these locations, the physical characteristics of the sampling point were observed and water quality samples (i.e., grab samples) were collected. Collected water quality samples were tested for:

1. Ammonia
2. Biochemical Oxygen Demand (BOD)
3. Chloride
4. Fecal Coliform
5. Fluoride
6. Oil & Grease
7. Total Dissolved Solids (TDS)
8. Total Kjeldahl Nitrogen (TKN)
9. Total Phosphorous (TP)
10. Total Suspended Solids (TSS)
11. Phenolics
12. Potassium
13. Conductivity
14. Dissolved Oxygen (DO)
15. Temperature
16. pH

The level of fecal coliform was high at the Flint Creek South site, and dissolved oxygen was high at the Spring Creek Middle and Flint Creek South sites. Investigation into the possible cause of this issue is planned.

IDDE Monitoring and Data Collection, Year 13

Information and data that the MS4 collected as part of its illicit discharge detection and elimination program are summarized below.

Out of 27 outfalls, a total of 9 dry weather flows were investigated at stormwater outfalls. No potential illicit discharges were identified at any of these locations.

Part D. MS4 Summary of Year 14 Stormwater Activities

The table below indicates the stormwater management activities that the MS4 plans to undertake during Year 14. Additional information about the stormwater management activities that the MS4 will perform during Year 13 is provided in the section following the table.

Note: X indicates BMPs that will be implemented during Year 14

Year 14	
MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
	A.3 Public Service Announcement
X	A.4 Community Event
	A.5 Classroom Education Material
	A.6 Other Public Education
B. Public Participation/Involvement	
	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
X	B.4 Public Hearing
	B.5 Volunteer Monitoring
	B.6 Program Coordination
	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
X	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
	C.3 Detection/Elimination Prioritization Plan
X	C.4 Illicit Discharge Tracing Procedures
X	C.5 Illicit Source Removal Procedures
X	C.6 Program Evaluation and Assessment
X	C.7 Visual Dry Weather Screening
X	C.8 Pollutant Field Testing
X	C.9 Public Notification
	C.10 Other Illicit Discharge Controls

Year 14	
MS4	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
X	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
	F.1 Employee Training Program
X	F.2 Inspection and Maintenance Program
	F.3 Municipal Operations Storm Water Control
	F.4 Municipal Operations Waste Disposal
	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

Please note that IEPA has issued a new version of its General NPDES Permit No. ILR40 (Permit). The new version of the Permit became effective on March 1, 2016. According to the new Permit, MS4s have 180 days from the effective date of the Permit to comply with any changes or new provisions contained in the Permit.

Barrington Hills is committed to maintaining its current stormwater management program, which is described in more detail below, and will work to update and enhance its program, as needed, over the coming months, to comply with the requirements of the new Permit. Next year's annual report will contain information regarding the changes that have been made to the Village's stormwater management program to comply with the requirements of the new Permit.

Stormwater Management Activities, Year 14

During Year 14, the MS4 plans to continue to perform a variety of stormwater management activities, as described in detail in the MS4's SMPP and in brief below. The MS4's SMPP can be viewed at www.gha-engineers.com/ms4. It is also attached for reference.

A. Public Education and Outreach

The MS4 is committed to implementing the Public Education and Outreach component of its SMPP. 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.

Measurable Goal(s): Review and revise draft SMPP language related to this provision by end of Year 14.

Implement BMPs and track progress of BMP implementation.

B. Public Participation/Involvement

The MS4 is committed to implementing the Public Participation/Involvement component of its SMPP. The MS4's Public Participation/Involvement program includes: maintaining a process for receiving and processing citizen input; attending and publicizing stakeholder meetings; presenting program information at a public meeting at least once annually; and, publicizing IDDE reporting contact numbers.

Measurable Goal(s): Review and revise draft SMPP language related to this provision by end of Year 14.

Implement BMPs and track progress of BMP implementation.

C. Illicit Discharge Detection and Elimination

The MS4 will conduct activities related to the Illicit Discharge Detection and Elimination (IDDE) minimum control measure. According to IEPA's General NPDES Permit No. ILR40, the MS4's IDDE program must include:

- A storm sewer system map showing the locations of all outfalls and the names and locations of all waters that receive discharges from those outfalls;
- An ordinance or other regulatory mechanism that prohibits all non-storm water

discharges into the storm sewer system and provides the authority for appropriate enforcement procedures and actions;

- A plan to detect and address all non-stormwater discharges, including illegal dumping, into the storm sewer system;
- A program to educate public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste; and,
- Periodic (annual is recommended) inspection of storm sewer outfalls for detection of non-stormwater discharges and illegal dumping.

*Measurable Goal(s): Review and revise draft SMPP language related to this provision by end of Year 14.
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, 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.*

E. Post-Construction Runoff Control

As described above, the countywide WDO establishes the minimum stormwater management requirements for development in Lake County. The WDO establishes standards for post-construction site runoff control. These standards apply to any new development or redevelopment resulting in over 0.5 acres of new impervious area. The MS4's SMPP also includes 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.*

F. Pollution Prevention/Good Housekeeping

The MS4 is committed to implementing the Pollution Prevention/Good Housekeeping component of its SMPP. 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): 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 13 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 13.
- **Part E3** summarizes the information and data collected by the QLP during Year 13.
- **Part E4** describes the stormwater management activities that the QLP plans to undertake during Year 14.
- **Part E5** lists the construction projects conducted by the QLP during Year 13.

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 13

Year 13	
QLP	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
X	A.3 Public Service Announcement
X	A.4 Community Event
X	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
X	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
	B.4 Public Hearing
	B.5 Volunteer Monitoring
X	B.6 Program Coordination
	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
	C.3 Detection/Elimination Prioritization Plan
	C.4 Illicit Discharge Tracing Procedures
	C.5 Illicit Source Removal Procedures
	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
	C.9 Public Notification
X	C.10 Other Illicit Discharge Controls

Year 13	
QLP	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
X	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
X	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
X	F.1 Employee Training Program
	F.2 Inspection and Maintenance Program
	F.3 Municipal Operations Storm Water Control
	F.4 Municipal Operations Waste Disposal
X	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

Part E2. QLP Status of Compliance with Permit Conditions, Year 13

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 13 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.*

SMC distributes a variety of informational materials related to stormwater management through its “take away” rack and website.

Upon request, informational materials are distributed directly to Lake County MS4s in .PDF format for use on community websites, in community newsletters, and in community “take away” racks.

A.3 Public Service Announcement

*Measurable Goal(s): Include public service announcement highlighting community accomplishments related to IEPA's NPDES Stormwater Program in “Mainstream” once annually.
Post watershed identification signage with LCDOT.
Upon request, present “The Big Picture: Water Quality, Regulations & NPDES” to Lake County MS4s.*

SMC includes announcements highlighting community accomplishments related to IEPA's NPDES Stormwater Program on its website, in its newsletter, and through other media outlets.

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.

A.4 Community Event

Measurable Goal(s): Sponsor or co-sponsor workshop on a topic related to IEPA's NPDES Stormwater Program.

SMC sponsored or co-sponsored a number of workshops and events on stormwater-related topics between March 1, 2015 and February 28, 2016, including:

- **Presentation from Conserve Lake County on the Conservation@Home Program at Mar. 11, 2015 MAC meeting**
- **Presentation from SMC about its Public Education, Outreach and Engagement activities at Mar. 11, 2015 MAC meeting**
- **Webcast on The Runoff Reduction Method and Its Applications on Mar. 18, 2015**
- **Homeowners Association (HOA) Stormwater Maintenance Workshop held in Grayslake, IL on May 19, 2015**
- **Fox River/Chain O'Lakes river clean-up in Fox Lake, Port Barrington & Antioch, IL on May 9, 2015**
- **Chicago River clean-up (Chicago River Day) in Lincolnshire, Highland Park, Lake Forest & Deerfield, IL on May 9, 2015**
- **Rain Barrel, Compost Bin, and Native Plant Sale held in Libertyville, IL on May 9, 2015**
- **Buffalo Creek clean-up (Rylko Community Park Workday) in Buffalo Grove, IL on May 16, 2015**
- **Webcast on Green Infrastructure and Green Jobs on May 20, 2015**
- **Riparian Landowner Workshop held in Beach Park, IL on May 26, 2015**
- **Lake County Green Conference held in Grayslake, IL on May 27, 2015**
- **Presentation on Post-Construction Stormwater BMP Maintenance at Jun. 10, 2015 MAC meeting**
- **Webcast on Multi-Sector and Industrial Stormwater Permits on Jun. 10, 2015**
- **Des Plaines River clean-up in Vernon Hills, IL on Sep. 12, 2015**
- **Webcast on What To Do About Trashy Watersheds on Sep. 16, 2015**
- **Presentation from IDNR about its Urban Flood Awareness Act Report at Sep. 26, 2015 MAC meeting**
- **Roadway De-Icing Workshop held in Libertyville, IL on Oct. 6 & 7, 2015**
- **Webcast on Checking In On Post-Construction Stormwater Management on Nov. 18, 2015**
- **Presentation from SMC on its Stream and Detention Basin Inventories at Dec. 9, 2015 MAC meeting**
- **Presentation on Post-Construction Stormwater BMP Maintenance at Dec. 9, 2015 MAC meeting**

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.

Stormwater educational materials were compiled for use at several public education events that were held between March 1, 2015 and February 28, 2016, including:

- **Rain Barrel, Compost Bin, and Native Plant Sale held on May 9, 2015**
- **Lake County Green Living Fair held in Libertyville, IL on Mar. 14, 2015**
- **Homeowners Association (HOA) Stormwater Maintenance Workshop held on May 19, 2015**
- **Riparian Landowner Workshop held in Beach Park, IL on May 26, 2015**
- **Loch Lomond Property Owners Association's Loch Fest held in Mundelein, IL on Aug. 8, 2015**
- **Village of Vernon Hills Public Works Week Celebration held in Vernon Hills, IL on Sep. 15, 2015**

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.*

**As new information and resource materials become available, they are posted to the SMC website and/or distributed directly to Lake County MS4s.
SMC continues to make available "The Big Picture: Water Quality, Regulations & NPDES" presentation to Lake County MS4s.**

B. Public Participation/Involvement

B.1 Public Panel

*Measurable Goal(s): Provide notice of public meetings on SMC website.
Track number of meetings conducted.*

**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 13. According to records, there were 10 SMC meetings, 1 TAC meetings, 4 MAC meetings, and 1 WMB meeting conducted during this reporting period.**

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.*

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 13:

- North Branch Chicago River Planning Committee – 2
- North Branch Watershed Consortium – 1
- Bull Creek/Bull's Brook Watershed Council – 3
- Buffalo Creek Clean Water Partnership – 3
- Tower Lake Drain Watershed Partnership – 10

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 12.

Prepare annual report on Qualifying Local Program activities at end of Year 12.

SMC tracked the number of Municipal Advisory Committee (MAC) meetings conducted during Year 13. According to records, there were 4 MAC meetings conducted during this reporting period.

The stormwater management activities that SMC performed as a QLP during Year 13 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 14 are described in Part E4 of the Annual Report template.

C. Illicit Discharge Detection and Elimination

C.2 Regulatory Control Program

Measurable Goal(s): Continue to enforce the countywide WDO.

SMC continues to enforce the countywide WDO.

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.

SMC sponsored or co-sponsored a number of workshops and events on stormwater-related topics between March 1, 2015 and February 28, 2016. Such workshops and events are described above.

D. Construction Site Runoff Control

D.1 Regulatory Control Program

Measurable Goal(s): Continue to enforce the countywide WDO.

Administer the Designated Erosion Control Inspector (DECI) program outlined by the WDO.

SMC continues to enforce the countywide WDO.

SMC continues to administer the Designated Erosion Control Inspector (DECI) program as outlined by the WDO.

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.

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.

D.3 Other Waste Control Program

Measurable Goal(s): Enforce WDO provisions regarding the control of waste and debris at construction sites.

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.

SMC continues to track the number of enforcement officers (EOs) who have passed the EO exam and have become EOs. According to records, as of the end of Year 13, there were 69 EOs in Lake County.

SMC last completed a cycle of the community re-certification process, which included a performance review of all 53 certified and non-certified communities, during a previous reporting period (i.e., Year 9). In accordance with the amended countywide WDO, the next cycle of the community re-certification process is scheduled to be completed in 2017.

The TRM is currently being updated to include guidance on the WDO amendments 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.

SMC continues to track the number of complaints received and processed related to soil erosion and sediment control. According to records, between March 1, 2015 and February 28, 2016, 3 SE/SC complaints were received and processed by SMC staff.

D.6 Site Inspection/Enforcement Procedures

Measurable Goal(s): Track number of site inspections conducted by SMC.

SMC continues to track the number of site inspections conducted by SMC staff. According to records, between March 1, 2015 and February 28, 2016, 873 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.

SMC continues to enforce the countywide WDO.

E.3 Long Term O&M Procedures

Measurable Goal(s): Continue to enforce the countywide WDO.

SMC continues to enforce the countywide WDO.

E.4 Pre-Construction Review of BMP Designs

Measurable Goal(s): Continue to enforce the countywide WDO.

SMC continues to enforce the countywide WDO.

E.5 Site Inspections During Construction

Measurable Goal(s): Continue to enforce the countywide WDO.

SMC continues to enforce the countywide WDO.

E.6 Post-Construction Inspections

Measurable Goal(s): Continue to enforce the countywide WDO.

SMC continues to enforce the countywide WDO.

E.7 Other Post-Construction Runoff Controls

Measurable Goal(s): Conduct annual WMB meeting.

Contribute funding to flood reduction and water quality improvement projects, including stormwater retrofits, through the WMB.

The annual WMB meeting was held on Dec. 10, 2016.

At the annual WMB meeting, 13 flood reduction and water quality improvement

projects, including stormwater retrofit projects, were selected to receive \$177,000 of funding through the WMB.

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 software.

SMC continues to provide information on training opportunities and training resources to Lake County MS4s.

SMC sponsored or co-sponsored a number of workshops and events on stormwater-related topics between March 1, 2015 and February 28, 2016. Such workshops and events are described above.

SMC continues to make available the Excal Visual Storm Watch Municipal Stormwater Pollution Prevention software to Lake County MS4s. According to records, between March 1, 2015 and February 28, 2016, 1 MS4 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.

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

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 13. However, SMC has reviewed information presented by the Illinois EPA in the 2014 Illinois Integrated Water Quality Report and 303(d) List and has developed the brief "State of Lake County's Waters" report provided below. Please note that, as of the writing of this report, Illinois EPA has released a draft of the 2016 Illinois Integrated Water Quality Report and 303(d) List, but the 2014 report is the current Integrated Water Quality Report and 303(d) List for the State of Illinois.

State of Lake County's Waters April 2016

This brief report is based on information contained in the Illinois EPA's 2014 Illinois Integrated Water Quality Report and Section 303(d) List, dated March 24, 2014. Its purpose is to provide basic information to Lake County's MS4 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 2014 Illinois Integrated Water Quality Report and Section 303(d) List.

Streams

An analysis of data accompanying the Illinois EPA's 2014 Illinois Integrated Water Quality Report and Section 303(d) List shows that 183 stream miles in Lake County have been assessed by the Illinois EPA for attainment of at least one designated use. The degree of support (attainment) of a designated use in a particular stream segment is determined by the Illinois EPA through an analysis of various types of information, including biological, physicochemical, physical habitat, and toxicity data. When sufficient data are available, the Illinois EPA assesses each applicable designated use in a particular stream segment as Fully Supporting (good), Not Supporting (fair), or Not Supporting (poor). Waters in which at least one applicable use is not fully supported are called "impaired."

An analysis of data accompanying the Illinois EPA's 2014 Illinois Integrated Water Quality Report and Section 303(d) List shows that 139 stream miles (of the 183 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.

Lakes

An analysis of data accompanying the Illinois EPA's 2014 Illinois Integrated Water Quality Report 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. As with streams, the degree of support (attainment) of a designated use in a particular lake is determined by the Illinois EPA through an analysis of various types of information, including biological, physicochemical, physical habitat, and toxicity data. When sufficient data are available, the Illinois EPA assesses each applicable designated use in a particular lake as Fully Supporting (good), Not Supporting (fair), or Not Supporting (poor). Waters in which at least one applicable use is not fully supported are called "impaired."

An analysis of data accompanying the Illinois EPA's 2014 Illinois Integrated Water Quality Report and Section 303(d) List shows that 135 inland lakes in Lake County are considered impaired by the Illinois EPA. These lakes have been mapped and are shown in Figure E3.1.

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.

196 square miles of open water of Lake Michigan, or about thirteen percent of the total open water located within Illinois, were assessed for the Illinois EPA's 2014 Illinois Integrated Water Quality Report 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 use 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.

4 of the 13 harbors along Illinois' Lake Michigan shoreline were assessed for the Illinois EPA's 2014 Illinois Integrated Water Quality Report and Section 303(d) List for several different designated uses. 66.7 percent of the square miles of harbors assessed for aesthetic quality (i.e., 0.12 of 0.18 sq. mi.) were rated as Fully Supporting, while the remaining 33.3 percent (i.e., 0.06 of 0.18 sq. mi.) were rated as Not Supporting. 97.6 percent of the square miles of harbors assessed for aquatic life use (i.e., 2.52 of 2.58 sq. mi.) were rated as Fully Supporting, while the remaining 2.4 percent (i.e., 0.06 of 2.58 sq. mi.) were rated as Not Supporting. 100 percent of the square miles of bays and harbors assessed for fish consumption (i.e., 2.62 of 2.62 sq. mi.), were rated as Not Supporting. Potential causes of impairment in the harbors of Lake Michigan located in Illinois include contamination from polychlorinated biphenyls (PCBs), mercury, bottom deposits, lead, zinc, cadmium, arsenic, phosphorus, copper, and chromium.

A portion of all 64 shoreline miles of Lake Michigan located in Illinois were assessed for the Illinois EPA's 2014 Illinois Integrated Water Quality Report and Section 303(d) List for several different designated uses. All 64 of the shoreline miles assessed for fish consumption and primary contact use were rated as Not Supporting due to contamination from polychlorinated biphenyls (PCBs) and mercury and bacterial contamination from *Escherichia coli* (*E. coli*) bacteria.

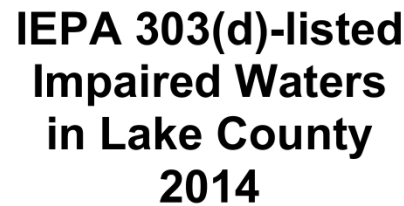


Figure E3.1

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 14. Additional information about the BMPs and measurable goals that the QLP will implement during Year 14 is provided in the section following the table.

Note: X indicates BMPs that will be implemented during Year 14

Year 14	
QLP	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
X	A.3 Public Service Announcement
X	A.4 Community Event
X	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
X	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
	B.4 Public Hearing
	B.5 Volunteer Monitoring
X	B.6 Program Coordination
	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
	C.3 Detection/Elimination Prioritization Plan
	C.4 Illicit Discharge Tracing Procedures
	C.5 Illicit Source Removal Procedures
	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
	C.9 Public Notification
X	C.10 Other Illicit Discharge Controls

Year 14	
QLP	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
X	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
X	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
X	F.1 Employee Training Program
	F.2 Inspection and Maintenance Program
	F.3 Municipal Operations Storm Water Control
	F.4 Municipal Operations Waste Disposal
X	F.5 Flood Management/Assess Guidelines
	F.6 Other Municipal Operations Controls

Please note that IEPA has issued a new version of its General NPDES Permit No. ILR40 (Permit). The new version of the Permit became effective on March 1, 2016. According to the new Permit, MS4s have 180 days from the effective date of the Permit to comply with any changes or new provisions contained in the Permit.

During Year 14, SMC plans to continue to perform a variety of stormwater management activities across the county, as described in more detail below. In addition to the stormwater management activities described below, SMC will work to update and enhance its stormwater management activities, as needed, over the coming months, to assist Lake County MS4s in meeting the requirements of the new 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. SMC has produced a number of pamphlets and brochures related to stormwater management and prepares a quarterly newsletter, “Mainstream,” as well as an Annual Report, which highlight successful stormwater management activities conducted throughout Lake County. SMC also prepares project fact sheets that provide information about ongoing and recently completed stormwater management projects. In addition, SMC has developed or collaborated on a number of manuals related to stormwater management, such as “Riparian Areas Management: A Citizen’s Guide,” “A Citizen's Guide to Maintaining Stormwater Best Management Practices,” and the “Streambank Stabilization Manual,” and will continue to develop or collaborate on such manuals or manual updates on an as-needed basis.

Measurable Goal(s): Distribute informational materials from “take away” rack at SMC. Upon request, distribute informational materials directly to Lake County MS4s for local distribution.

A.2 Speaking Engagement

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

Measurable Goal(s): Provide educational presentations related to IEPA’s NPDES Stormwater Program at MAC meetings. Upon request, provide educational presentations related to IEPA’s NPDES Stormwater Program (e.g., “The Big Picture: Water Quality, Regulations & NPDES”) to Lake County MS4s.

A.3 Public Service Announcement

A public service announcement related to IEPA's NPDES Stormwater Program will be included in SMC's Quarterly Newsletter, "Mainstream," at least once each year. SMC will coordinate 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 announcement related to IEPA's NPDES Stormwater Program in its quarterly newsletter, "Mainstream," at least once each year.
Post watershed identification signage in cooperation and collaboration with LCDOT.*

A.4 Community Event

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 a topic related to IEPA's NPDES Stormwater Program.

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 includes webpages such as "National Pollutant Discharge Elimination System Stormwater Program," "Best Management Practices," "Projects," "Publications," "Watershed Management Plans," "Partnerships," and "Advisory Committees." These webpages provide 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, 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.

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.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.4 Public Hearing

SMC coordinates and conducts public meetings as well as committee meetings that are open to the public. A monthly Stormwater Management Commission meeting is open to the public and involves the SMC Board of Commissioners, which includes six municipal representatives and six county board members.

The Technical Advisory Committee (TAC) was created in 1992 to assist in the development, review, and revision of the Watershed Development Ordinance (WDO) and the associated administrative policies and procedures. TAC is made up of representatives from the development, environmental, municipal, and consulting engineering fields. TAC meetings are held monthly or on an as-needed basis.

The Municipal Advisory Committee (MAC) is made up of municipal, township, drainage district, consulting firm, and county representatives. MAC has worked to discuss, coordinate, and collaborate on the implementation of IEPA's NPDES Stormwater Program. MAC will continue to meet quarterly or as needed to assist Lake County MS4s with the implementation of IEPA's Stormwater Program.

The Watershed Management Board (WMB) meets annually to make recommendations on stormwater BMP project funding. WMB members include chief municipal elected officials, township supervisors, drainage district chairs, and county board members from each district within each of Lake County's four major watersheds.

*Measurable Goal(s): Provide notice of public meetings on SMC website.
Track number of meetings conducted.*

B.6 Program Coordination

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

*Measurable Goal(s): Track number of MAC meetings conducted.
Prepare annual report on Qualifying Local Program stormwater management activities.
Prepare template for use by Lake County MS4s in creating their own annual reports.*

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.

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. Each year, SMC will sponsor or co-sponsor an illicit discharge detection and elimination workshop or other training workshop related to IEPA's NPDES Stormwater Program and track the number of attendees that attend the workshop.

Additionally, as part of its public education and outreach efforts, SMC distributes informational materials throughout Lake County about the hazards associated with illegal discharges and the improper disposal of waste.

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. SMC will continue to support Lake County MS4s in the implementation of the Construction Site Runoff Control minimum control measure by administering and enforcing the WDO and performing other stormwater management activities, as described below. Note, however, that the primary responsibility for the implementation of the Construction Site Runoff Control minimum control measure in certified communities (i.e., communities certified by SMC to administer and enforce the provisions of the WDO) lies with the MS4.

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. The soil erosion and sediment control provisions of the WDO are included in Article IV, Section B.1.j. of the ordinance. At a minimum, these standards apply to any development project that hydrologically disturbs 5,000 square feet of land or more.

SMC has also created a Designated Erosion Control Inspector (DECI) program. The purpose of the program is to facilitate positive communication between the permit issuing agency, whether such agency be SMC or a certified community, and the permit holder, by creating a single point of contact for the discussion and resolution of site soil erosion and sediment control issues and concerns. Furthermore, the program is intended to improve site conditions, minimize environmental impacts, and educate contractors, developers, and inspectors about the use of soil erosion and sediment control BMPs. It is worth noting that the DECI program was 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

Article IV, Section B.1.j 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. It specifies the use of a variety of soil erosion and sediment control BMPs, including: minimize soil disturbance; protect adjoining properties from erosion and sedimentation; complete installation of soil erosion and sediment control features prior to commencement of hydrologic disturbance; stabilize disturbed areas within 7 days of active disturbance; avoid disturbance of streams whenever possible; use controls that are appropriate for the size of the tributary drainage area; protect functioning storm sewers from sediment; prevent sediment from being tracked onto adjoining streets; limit earthen embankments to slopes of 3H:1V; identify soil stockpile areas; and, utilize statewide standards and specifications as guidance for soil erosion and sediment control.

SMC has also prepared a Technical Reference Manual (TRM) to accompany the WDO. The TRM is used to guide the creation of development plans that are in compliance with the provisions of the WDO and provides detailed information on the use of soil erosion and sediment control BMPs. It is currently being updated by the Technical Advisory Committee (TAC).

*Measurable Goal(s): Continue to administer and enforce the WDO.
Continue to work on updates to the Technical Reference Manual (TRM) and toward publication of the updated document.*

D.3 Other Waste Control Program

Article IV, Section B.1.j. of the WDO includes provisions related to the control of waste and debris during construction on development sites.

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 (i.e., communities certified by SMC to administer and enforce the provisions of the WDO), responsibility for reviewing and permitting development plans and for administering and enforcing the provisions of the WDO lies with the MS4; within non-certified communities, the designated enforcement officer is SMC's chief engineer. All designated enforcement officers must pass an exam in order to qualify to act as such. SMC administers this enforcement officer program, providing training on an as-needed basis to all enforcement officers to assist them in passing the exam, and maintains an up-to-date list identifying each community's designated enforcement officer. In addition to administering the enforcement officer program, SMC periodically reviews each community's WDO administration and enforcement records, using the results of such review to evaluate the performance of certified communities and designated enforcement officers.

SMC has also prepared a Technical Reference Manual (TRM) to accompany the WDO. The TRM is used to guide the creation of development plans that are in compliance with the provisions of the WDO and provides additional guidance on the administration and

enforcement of the ordinance. It is currently being updated by the Technical Advisory Committee (TAC).

*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.
Continue to work on updates to the Technical Reference Manual (TRM) and toward publication of the updated document.*

D.5 Public Information Handling Procedures

SMC provides a number of opportunities for the receipt and consideration of information submitted by the public. SMC's Citizen Inquiry Response System (CIRS) documents and tracks the resolution of problems and complaints reported by the public. SMC's website provides information on "who to call" for various stormwater-related problems and concerns. An Interagency Coordination Agreement between SMC, the US Army Corps of Engineers, and the Natural Resources Conservation Service specifies that if any of these agencies receive a report of a soil erosion and sediment control issue, they will relay such report to SMC. SMC will then investigate the report and prescribe appropriate corrective actions, sharing the results of such investigation with the property owner and any applicable local, state, or federal agencies. Within certified communities, such investigations are coordinated with the community's designated enforcement officer.

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 VI 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. Per the ordinance, these inspections may be conducted by a community's designated enforcement officer at any stage in the construction process. For major developments, as defined by the WDO, the enforcement officer conducts site inspections, at a minimum, upon completion of installation of soil erosion and sediment controls, prior to the start of any other land disturbing activities, and after final stabilization and landscaping, prior to the removal of soil erosion and sediment controls.

Article VII 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. If development activities on a development site are not in compliance with the requirements of the WDO, the enforcement officer may issue a stop work order on all development activity on the development site or on the development activities that are in direct violation of the WDO. In addition, failure to

comply with any of the requirements of the WDO constitutes a violation of the WDO, and any person convicted of violating the WDO may be fined.

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. SMC will continue to support Lake County MS4s in the implementation of the Post-Construction Runoff Control minimum control measure by administering and enforcing the WDO and performing other stormwater management activities, as described below. Note, however, that the primary responsibility for the implementation of the Post-Construction Runoff Control minimum control measure in certified communities (i.e., communities certified by SMC to administer and enforce the provisions of the WDO) lies with the MS4.

E.2 Regulatory Control Program

The WDO requires all applicants to adopt stormwater management strategies for controlling post-construction stormwater runoff on development sites. As outlined in Article IV, Section B.1 of the WDO, all applicants must adopt stormwater management strategies that minimize increases in stormwater runoff rates, volumes, and pollutant loads from development sites. Proposed stormwater management strategies must address the runoff volume reduction requirements described in Article IV, Section B.1.d. 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

The WDO requires that maintenance plans be developed for all stormwater management systems designed to serve major developments, as defined by the WDO. Such maintenance plans must include: a description of all maintenance tasks; an identification of the party or parties responsible for performing such maintenance tasks; a description of all permanent maintenance easements or access agreements, overland flow paths, and compensatory storage areas; and, a description of dedicated sources of funding for the required maintenance. The WDO also requires that all stormwater management systems be located within a deed or plat restriction (e.g., easement) to ensure that the system remains in place in perpetuity and that access to the system is maintained in perpetuity for inspection and maintenance purposes.

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.

Measurable Goal(s): Continue to administer and enforce the WDO.

E.5 Site Inspections During Construction

As described above, Article VI of the WDO contains both recommended and minimum requirements for the inspection of development sites. Per the ordinance, these inspections may be conducted by a community's designated enforcement officer at any stage in the construction process. For major developments, as defined by the WDO, the enforcement officer conducts site inspections, at a minimum, upon completion of installation of soil erosion and sediment controls, prior to the start of any other land disturbing activities, and after final stabilization and landscaping, prior to the removal of soil erosion and sediment controls.

Measurable Goal(s): Continue to administer and enforce the WDO.

E.6 Post-Construction Inspections

As described above, Article VI of the WDO contains both recommended and minimum requirements for the inspection of development sites. Per the ordinance, these inspections may be conducted by a community's designated enforcement officer at any stage in the construction process, including after final stabilization and landscaping, after the removal of soil erosion and sediment controls. For major developments, as defined by the WDO, the enforcement officer conducts site inspections, at a minimum, upon completion of installation of soil erosion and sediment controls, prior to the start of any other land disturbing activities, and after final stabilization and landscaping, prior to the removal of soil erosion and sediment controls.

Measurable Goal(s): Continue to administer and enforce the WDO.

E.7 Other Post-Construction Runoff Controls

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

*Measurable Goal(s): Conduct annual WMB meeting.
Contribute funding to flood damage reduction and water quality improvement projects through the WMB.*

F. Pollution Prevention/Good Housekeeping

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

F.1 Employee Training Program

SMC will assist Lake County MS4s with the development and implementation of their employee training programs by maintaining a list of known employee training resources and opportunities, making available a software-based employee training program, and providing, upon request, technical assistance to local MS4s in developing and implementing their employee training programs. In addition, each year, SMC will sponsor or co-sponsor a training workshop related to pollution prevention/good housekeeping or other training workshop related to IEPA's NPDES Stormwater Program.

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

F.5 Flood Management/Assess Guidelines

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

Measurable Goal(s): Track number of SMC-sponsored projects that are reviewed for multi-objective opportunities.

Part E5. QLP Construction Projects Conducted During Year 13

[illegible]

Part F. MS4 Construction Projects Conducted During Year 13

[illegible]

Appendix:

Year 13 Tracking Form

Outfall Inspection Summary

Water Quality Results & Graphs

1. SWALCO event dates, location, and amount collected:

2. Catch basins cleaned*: _____ Amount of material removed : _____
3. Catch basins repaired*: _____
4. Outfalls inspected*: **27 outfalls inspected (ID#s 11, 21-30, 34-37, 44-46, 48-58)**
5. Outfalls repaired*: _____
6. Miles of roadway cleaned: _____ Amount of material removed: _____
7. New township projects >1 acre (name, location, size): _____
8. Vehicle maintenance – Amount of material removed:
 - a. Oil: _____
 - b. Antifreeze: _____
 - c. Other Fluids: _____
 - d. Tires: _____
 - e. Batteries: _____
9. Ice removal equipment maintenance and calibration:
 - a. Vehicle Description: _____ Date maintenance performed: _____
 - b. Vehicle Description: _____ Date maintenance performed: _____
10. Quantities of salt, brine, beet juice and sand used:
 - a. Salt: _____
 - b. CaCl mix: _____
11. Employee training: (employee name, date, location and subject matter)

12. Distribution of paper materials: (title of document, date and number distributed)
 - a. **Winter, Fall and Summer Newsletters – info about recycling, well water testing**
 - b. _____
13. Workshops/watershed planning and stakeholder meetings: (date, location, subject matter and who attended)
MAC Meetings attended by Caitlin Burke (Gewalt Hamilton Associates)
Bob Kosin and Anna Paul (Village) attend watershed meetings (Spring and Flint Creek)
14. Illicit discharge complaints (phone, email, walk in, mail):

Newsletter, handouts at meetings, flyers, handouts at Twp offices.
--

**Outfall Inspection Summary
Year 13 (2015)
Barrington Hills**

ID #	Sub-Watershed	Date	Past 72 hrs Precipitation	Land Use	Type	Material	Size	Submerged	Possible Illicit Discharge	Flow	Physical Indicators (Flowing Outfalls)	Non-Illicit Discharge Concerns
11	Spring Creek- Fox River	6/30/15	0.21"	Open Space	StormSewer	RCP	12"	Partially (water, sediment)	No	None	N/A	Trash present. Sink holes are appearing in the roadway over the pipe.
21	Flint Creek	6/29/15	None	Residential	StormSewer	RCP	12"	Partially (sediment)	No	None	N/A	None
22	Flint Creek	6/29/15	None	Residential	StormSewer	CMP	10"	Partially (water)	No	None	N/A	Pipe is corroded.
23	Spring Creek- Fox River	6/29/15	None	Residential	StormSewer	RCP	18"	No	No	None	N/A	Erosion downstream and underneath outfall pipe. A sinkhole is forming where FES is seperating from pipe.
24	Spring Creek- Fox River	6/29/15	None	Residential	StormSewer	RCP	24"	No	No	None	N/A	Vegetation in front of outfall may impede flow.
25	Spring Creek- Fox River	6/29/15	None	Residential	StormSewer	RCP	18"	No	No	None	N/A	None
28	Flint Creek	6/30/15	0.21"	Open Space	StormSewer	RCP	15"	Partially (water, sediment)	No	None	N/A	Sediment may impede flow.
29	Flint Creek	6/29/15	None	Open Space	StormSewer	RCP	18"	No	No	None	N/A	Major chipping/cracking of outfall. Erosion under pipe. Trash present.
30	Flint Creek	6/29/15	None	Residential	StormSewer	RCP	12"	Partially (water)	No	Trickle	None	Excessive vegetating may impede flow.
34	Spring Creek- Fox River	6/29/15	None	Residential	StormSewer	RCP	18"	No	No	Trickle	None	None
35	Spring Creek- Fox River	6/29/15	None	Residential	StormSewer	RCP	15"	No	No	None	N/A	Grate over pipe is missing.
36	Spring Creek- Fox River	6/29/15	None	Residential	StormSewer	RCP	12"	Partially (water, sediment)	No	None	N/A	Outfall blocked by leaves. Erosion behind outfall pipe.
37	Flint Creek	6/29/15	None	Residential	StormSewer	RCP	21"	Partially (sediment)	No	None	N/A	Some erosion under outfall, and minor chipping damage. There is scouring downstream.
44	Flint Creek	6/30/15	0.21"	Residential	StormSewer	CMP	15"	Partially (water)	No	Trickle	Minor suds	Outfall could still be corroded, difficult to tell because it is submerged.
45	Flint Creek	6/30/15	0.21"	Residential	StormSewer	RCP	18"	Partially (water)	No	Trickle	None	Some algae present in pool. Slight erosion over pipe.
46	Flint Creek	6/30/15	0.21"	Residential	StormSewer	PVC	12"	No	No	Moderate	None	None

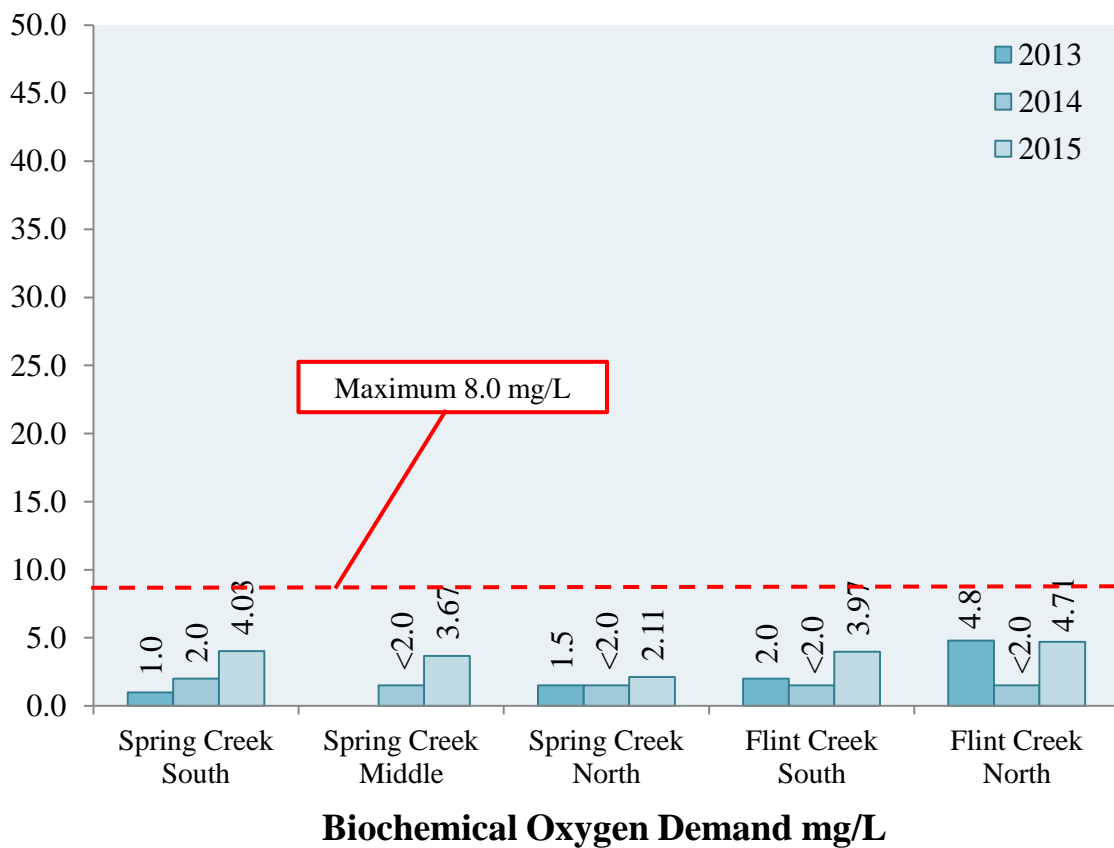
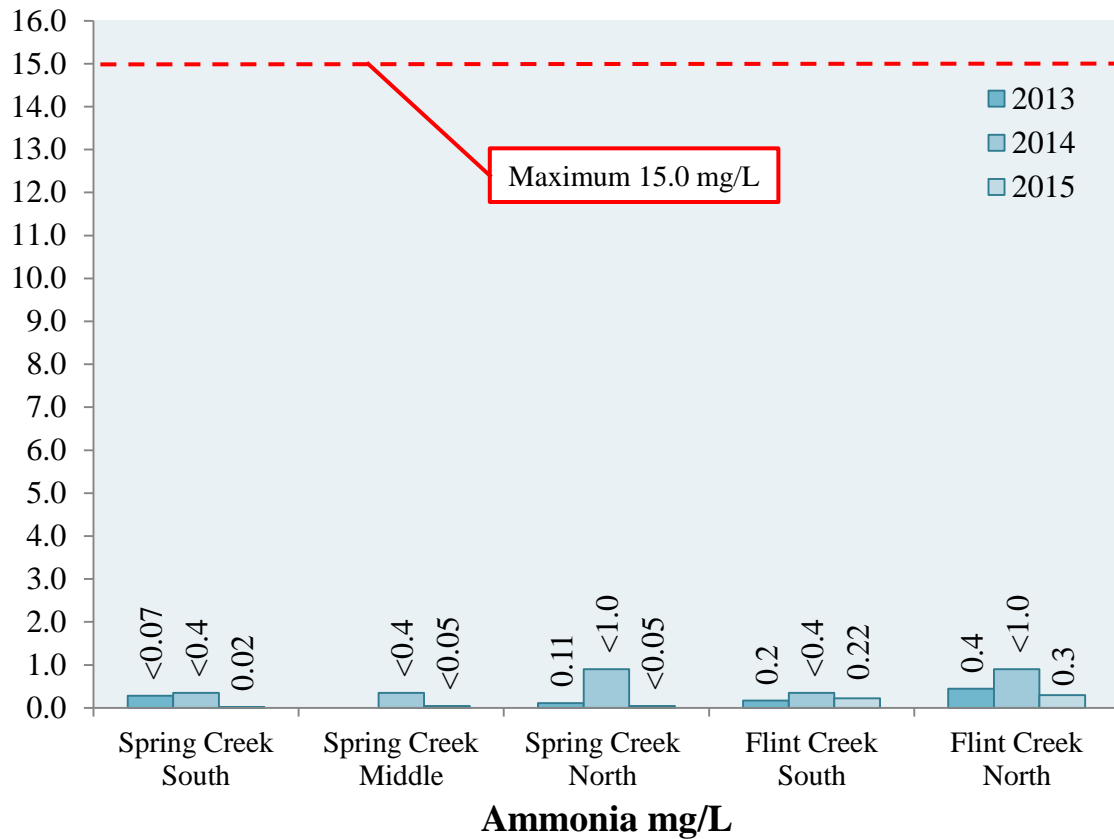
**Outfall Inspection Summary
Year 13 (2015)
Barrington Hills**

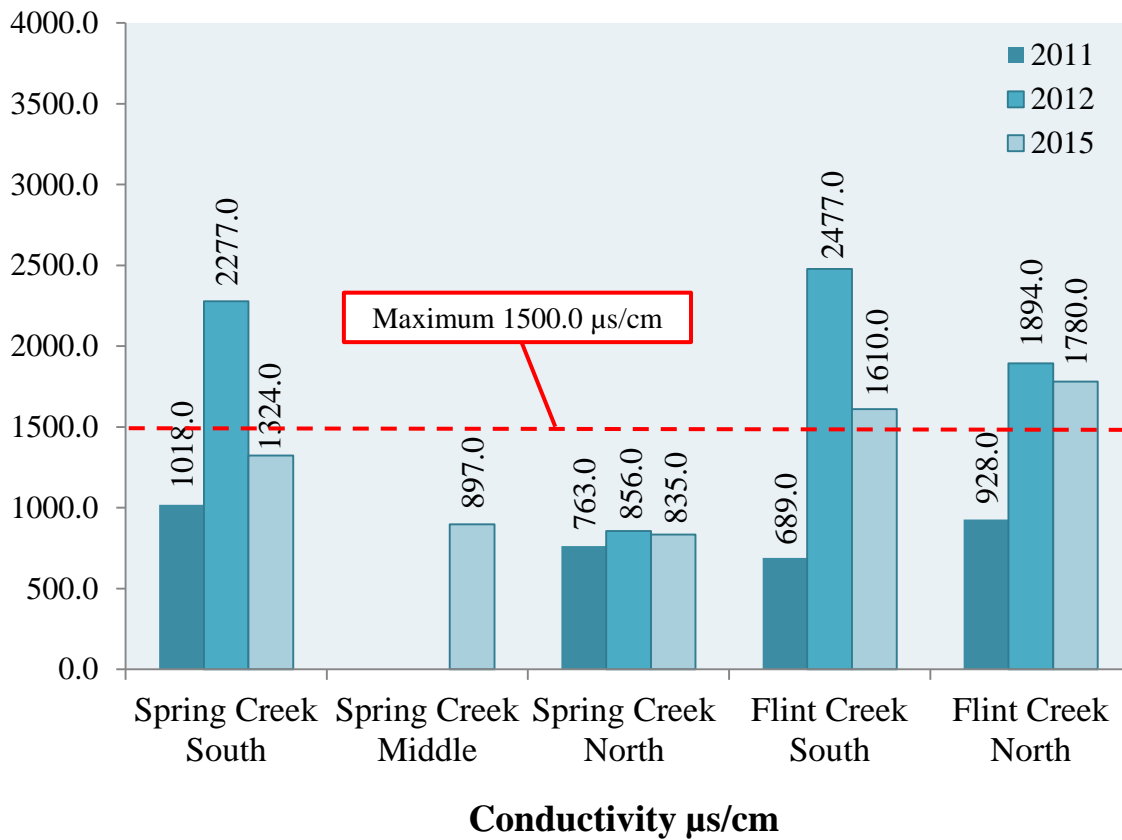
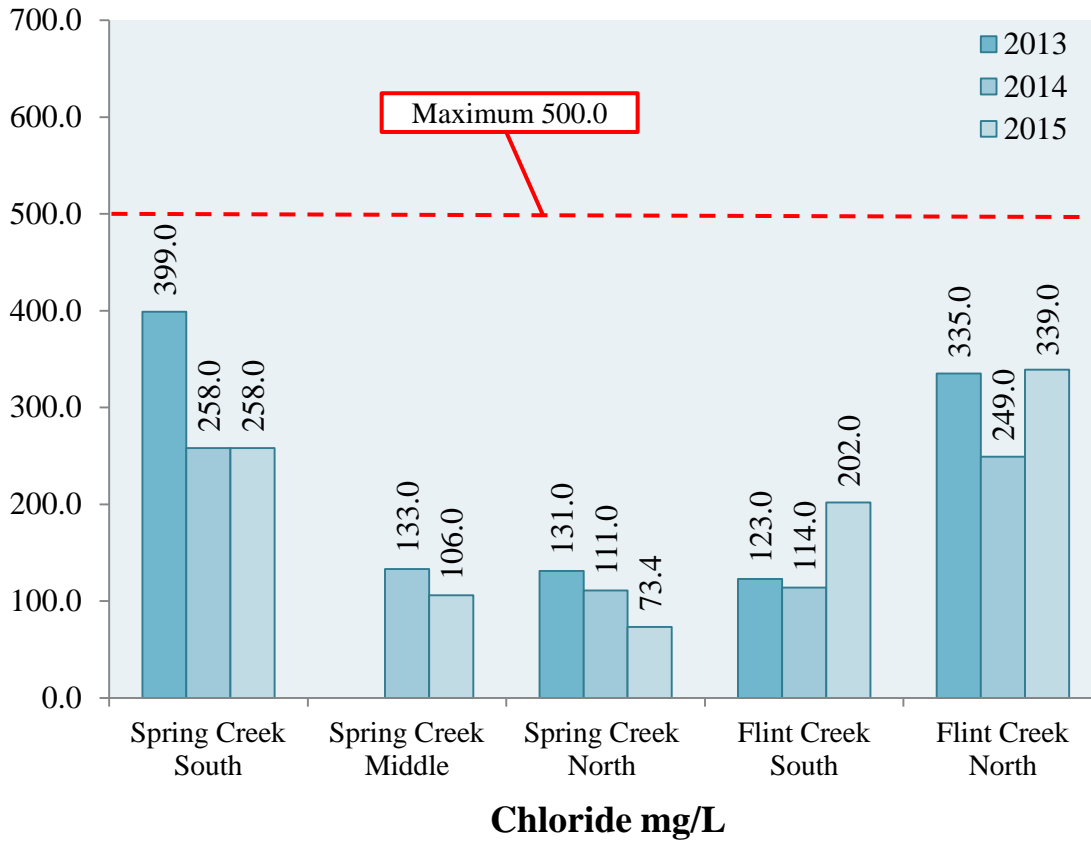
ID #	Sub-Watershed	Date	Past 72 hrs Precipitation	Land Use	Type	Material	Size	Submerged	Possible Illicit Discharge	Flow	Physical Indicators (Flowing Outfalls)	Non-Illicit Discharge Concerns
48	Flint Creek	6/30/15	0.21"	Residential	StormSewer	RCP	15"	Partially (sediment)	No	None	N/A	Pipe should be cleared out.
49	Flint Creek	6/30/15	0.21"	Residential	StormSewer	RCP	36"	No	No	Trickle	None	A tree is growing in between the two pipes.
50	Flint Creek	6/30/15	0.21"	Residential	StormSewer	CMP	12"	No	No	Trickle	None	Excessive vegetation and debris/leaves blocking outfall flow.
51	Flint Creek	6/30/15	0.21"	Residential	StormSewer	RCP	12"	No	No	None	N/A	None
52	Spring Creek- Fox River	6/30/15	0.21"	Residential	StormSewer	RCP	24"	Partially (water, sediment)	No	None	N/A	None
53	Spring Creek- Fox River	6/30/15	0.21"	Residential	StormSewer	RCP	36"	Partially (water, sediment)	No	None	N/A	Vegetation creeping in front of outfall. Some pipe algae present.
54	Flint Creek	6/30/15	0.21"	Residential	StormSewer	RCP	15"	No	No	None	N/A	None
55	Flint Creek	6/30/15	0.21"	Residential	StormSewer	RCP	15"	No	No	None	N/A	There is some cracking on the top of the pipe. Vegetation is growing in front of the outfall, could impede flow.
56	Flint Creek	6/30/15	0.21"	Residential	StormSewer	RCP	12"	Partially (water, sediment)	No	None	N/A	None
57	Flint Creek	6/30/15	0.21"	Residential	StormSewer	RCP	15"	Partially (water, sediment)	No	Trickle	Minor suds	None
58	Flint Creek	6/30/15	0.21"	Residential	StormSewer	CMP	12"	Partially (sediment)	No	Trickle	None	Minor rust and vegetation is inhibiting outfall.

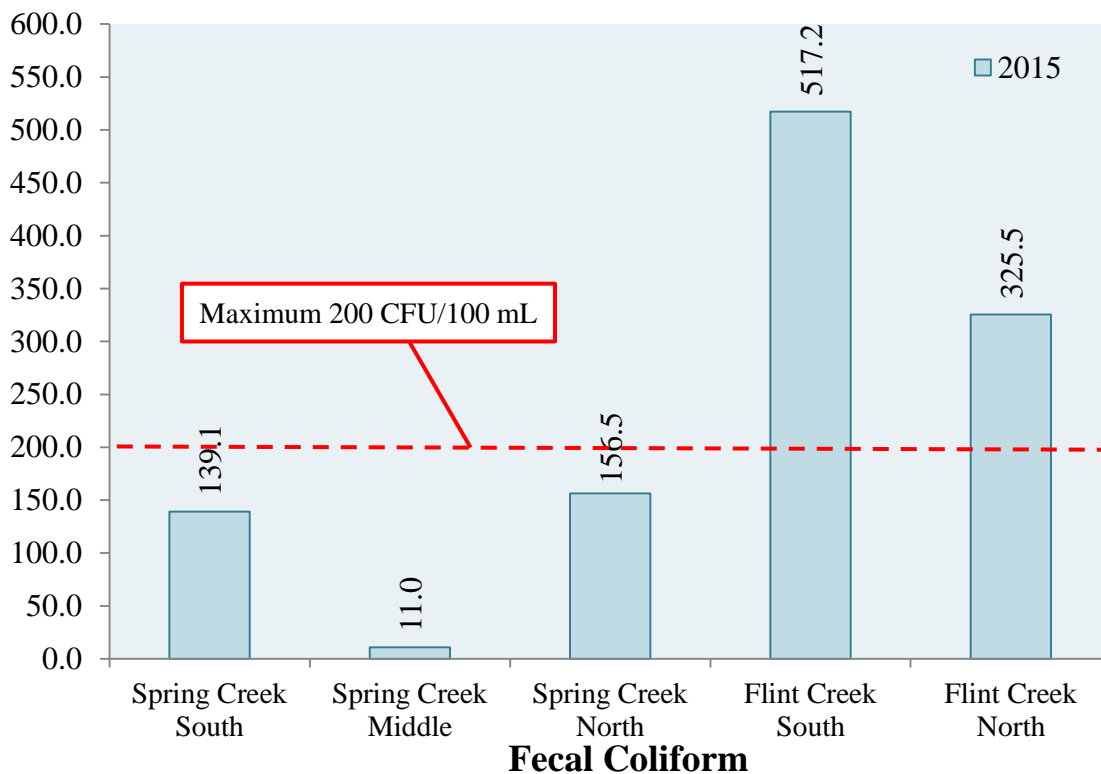
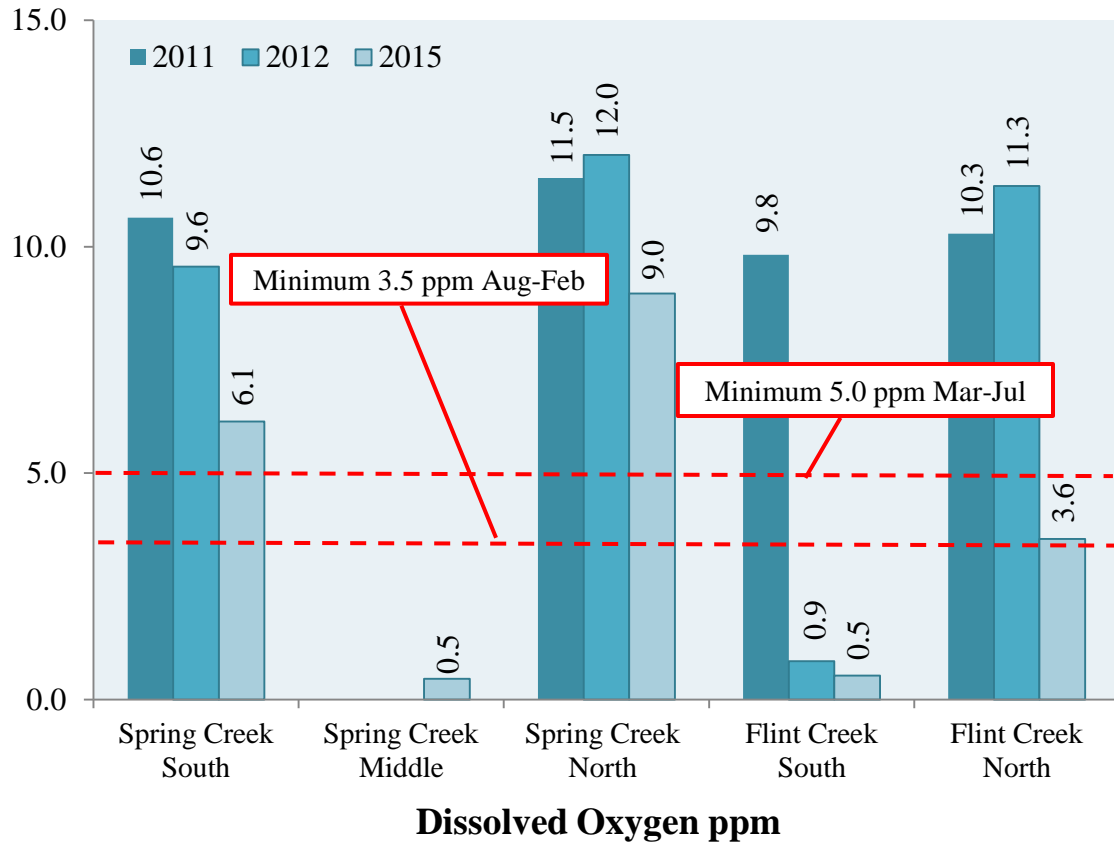
Village of Barrington Hills Water Quality Results 2015

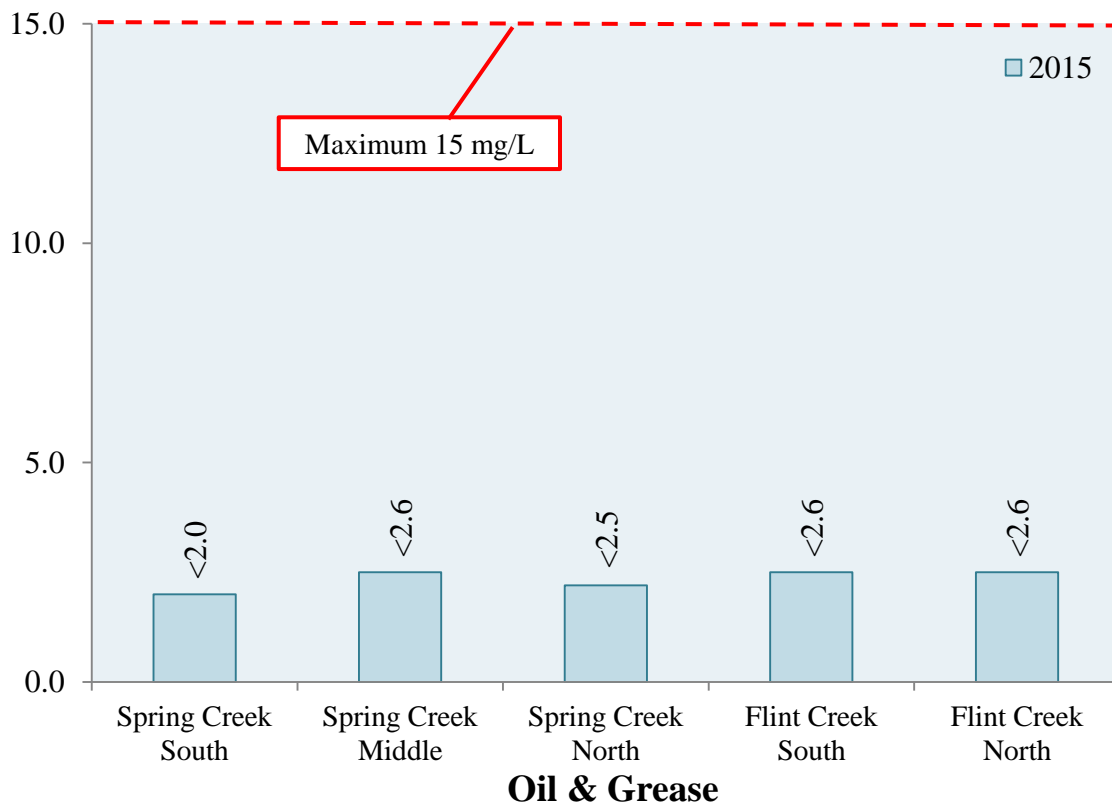
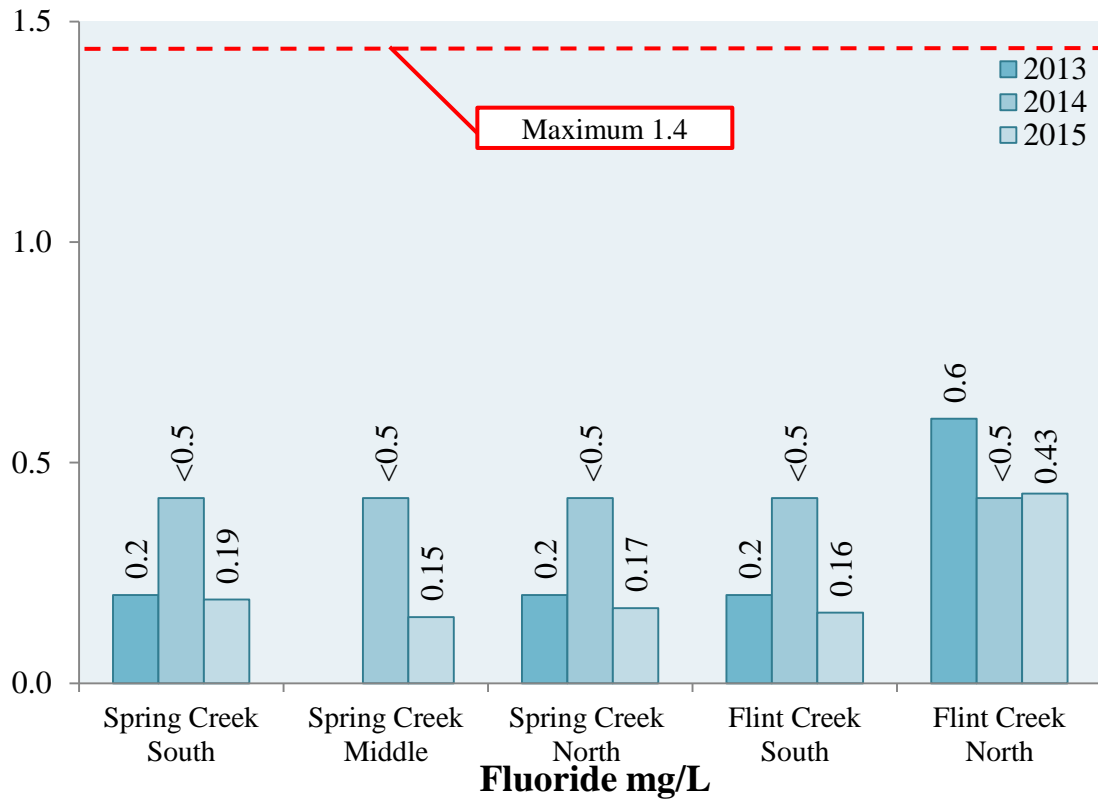
	Illinois Water Pollution Control Board WQS*	IPCB Standards or Accepted Limits in mg/L	Spring Creek South (SCBH1Q)	Spring Creek Middle (SCBH2Q)	Spring Creek North (SCBH3Q)	Flint Creek South (FCBH1)	Flint Creek North (FCBH4)
Date Tested: 8/14/15							
Lab Analyses							
Ammonia	302.212	15.0	0.02	<0.05	<0.05	0.22	0.30
BOD	304 Effluent Standards	<8.0	4.03	3.67	2.11	3.97	4.71
Chloride	302.304	500.0	258.0	106.0	73.4	202.0	339.0
Fecal Coliform	302.209	200 CFU/100mL	139.1	11.0	156.5	517.2	325.5
Fluoride	302.407	1.4	0.19	0.15	0.17	0.16	0.43
Oil & Grease	302.407	15 mg/L	<2.4	<2.6	<2.5	<2.6	<2.6
Total Dissolved Solids	302.304	1000.0 ppm	767.0	533.0	533.0	600.0	1100.0
Total Kjeldahl Nitrogen	Standard Methods for the Examination of Water and Wastewater	<20.0	1.1	1.2	0.6	1.2	1.4
Phosphorous, Total	302.205	0.05	0.05	0.04	0.04	0.05	0.19
Total Suspended Solids	304 Effluent Standards	15-30.0	12.0	1.0	2.3	15.0	33.0
Phenolics	302.407	0.100	0.004	0.0048	<0.002	<0.002	0.0035
Potassium	None	20.0	4.4	2.3	2.5	2.7	9.9
Field Analyses							
Conductivity	USEPA Volunteer Stream Monitoring Manual	50.0-1500.0 µS/cm	1324.0	897.0	835.0	1610.0	1780.0
Dissolved Oxygen	302.206	March - July at least 5.0 ppm Aug -Feb at least 3.5 ppm	6.14	0.46	8.97	0.53	3.55
Temperature °F	302.211	Dec - Mar 60° F Max Apr - Nov 90° F Max	73.4	72.0	74.0	65.2	72.8
pH	302.204	6.5 - 9.0	7.8	7.2	8.2	7.1	7.7

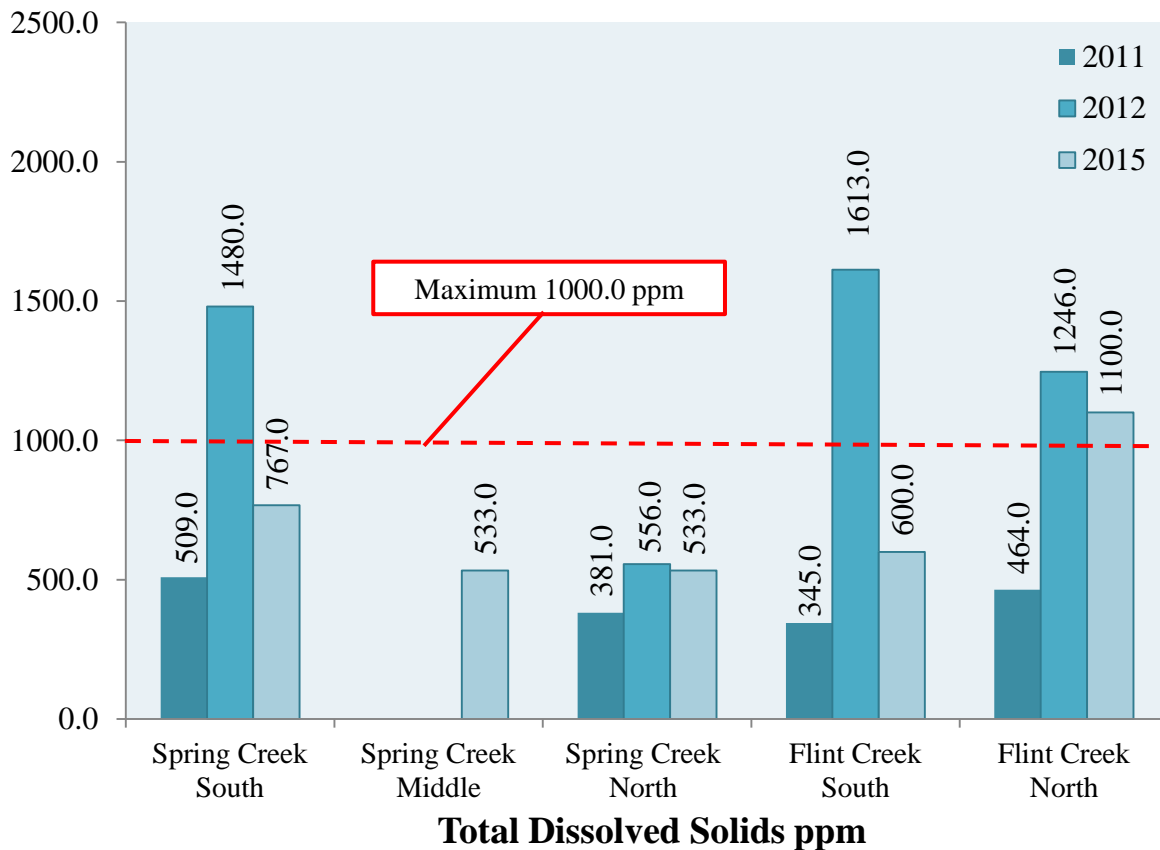
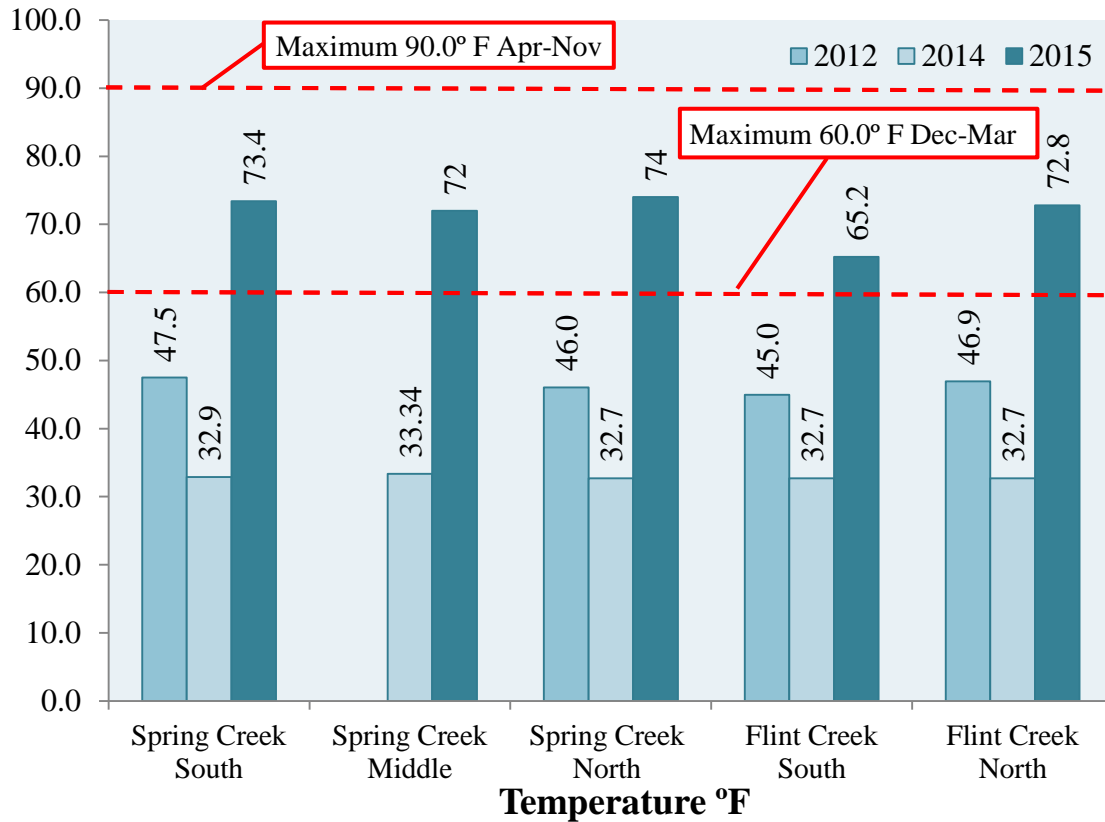
*Title 35 Part 302 Water Quality Standards unless otherwise noted.

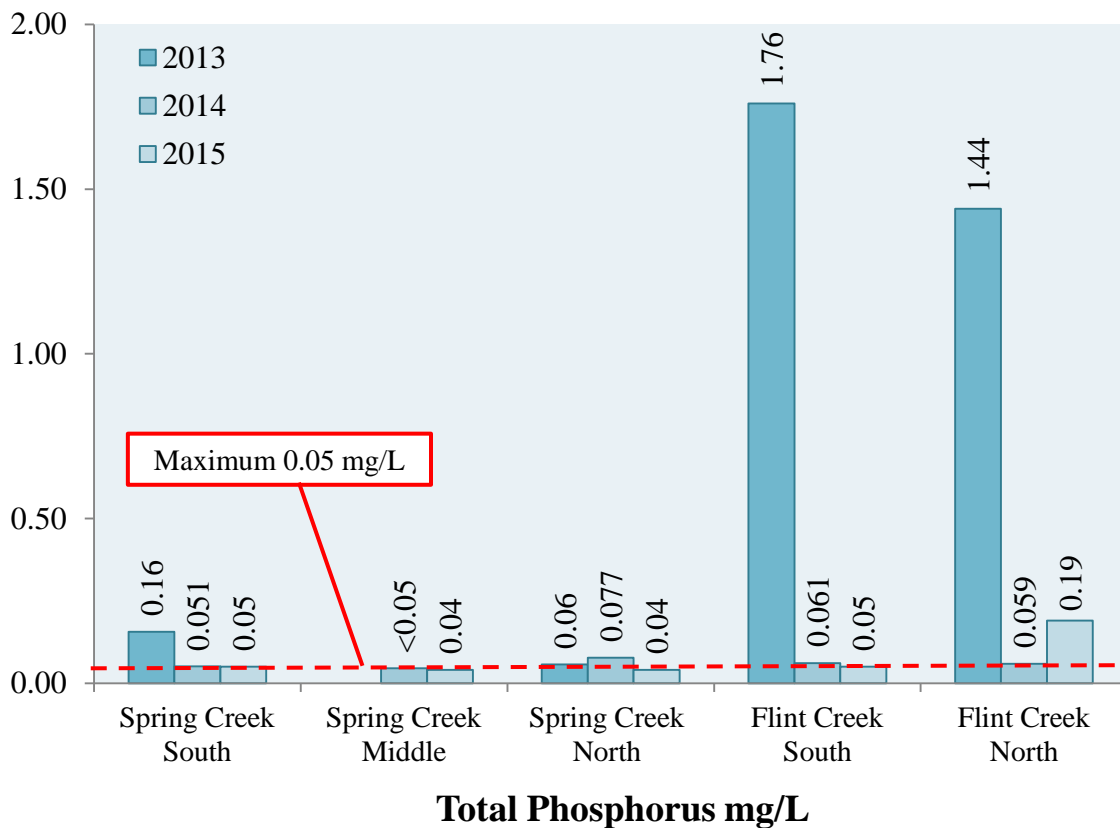
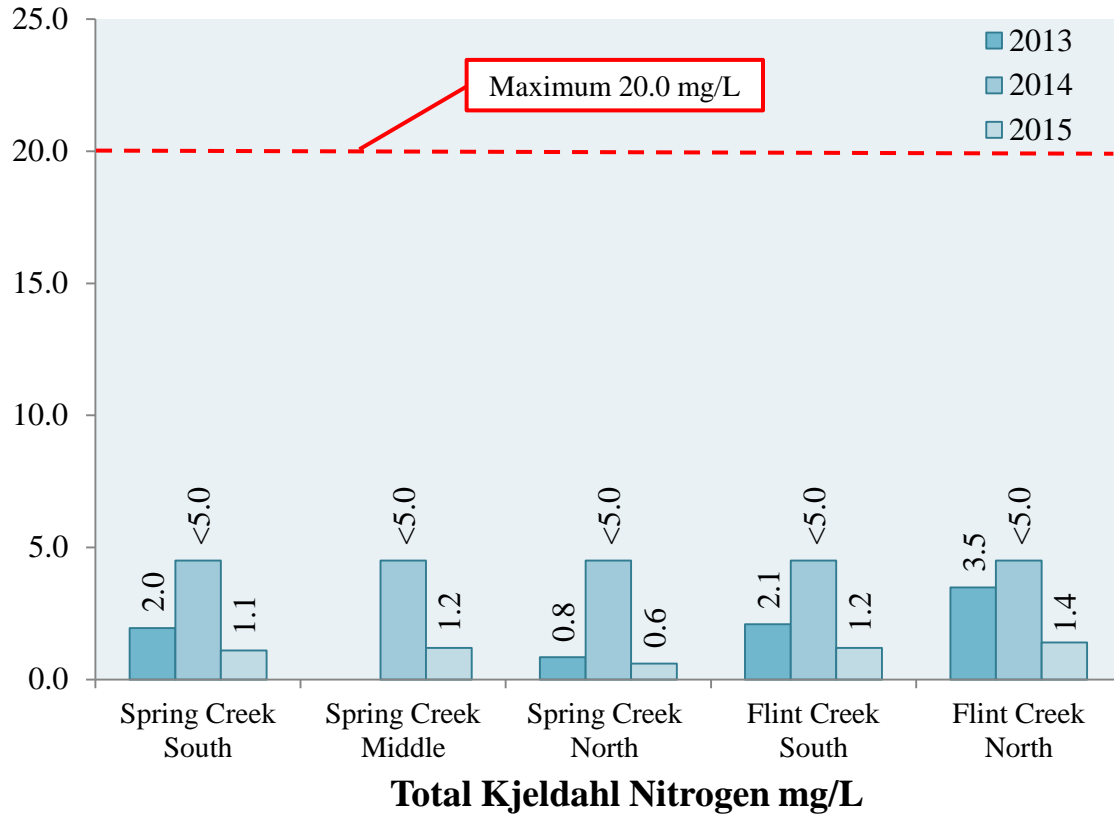


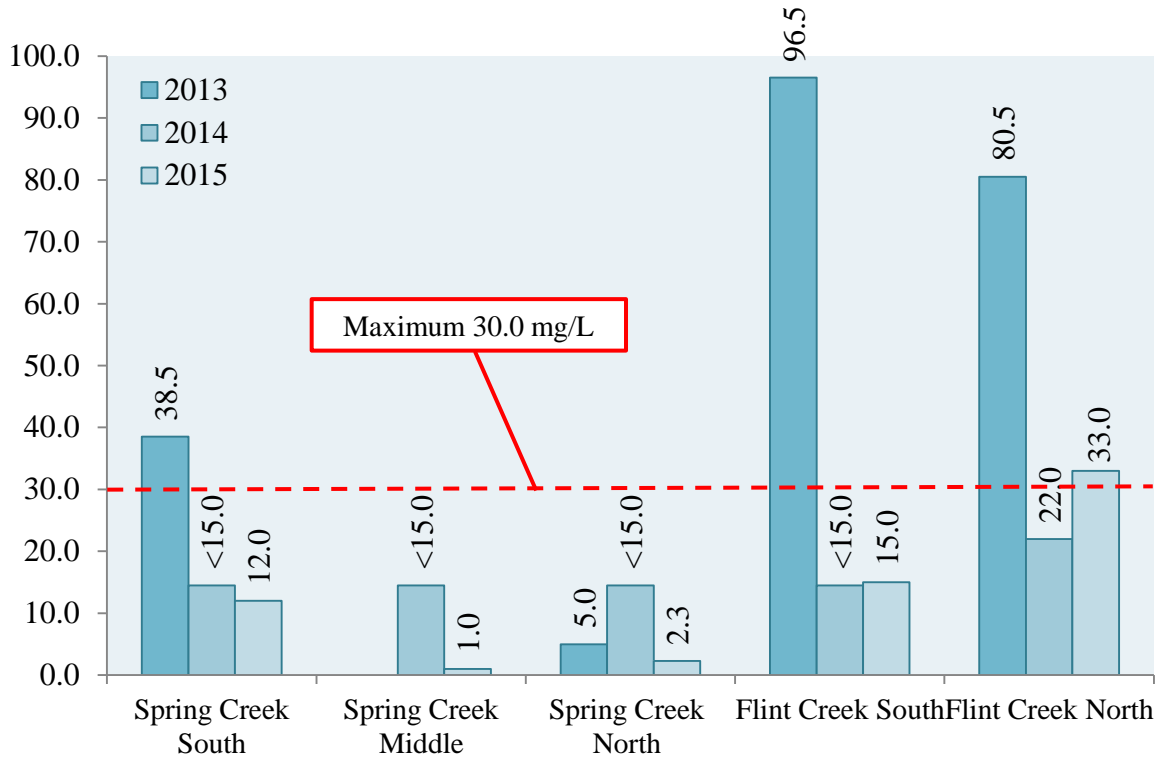




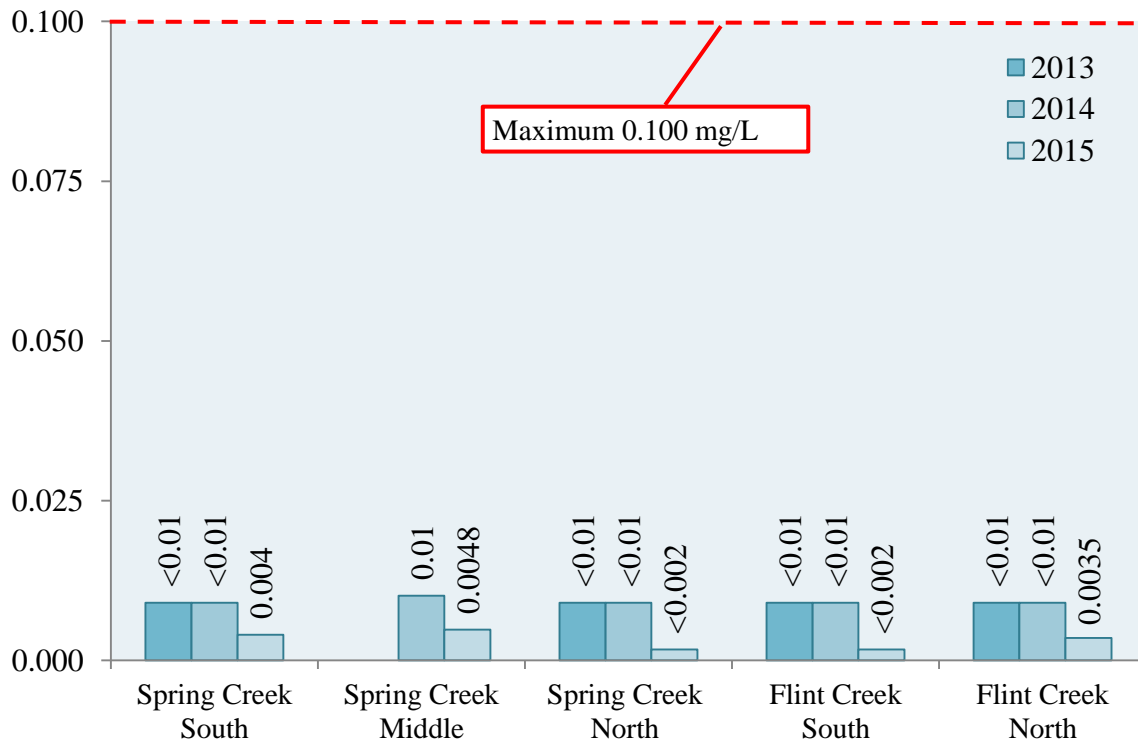








Total Suspended Solids mg/L



Phenolics mg/L

