

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

**Village of Vernon Hills  
Permit No. ILR40  
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	
MS4	
<b>A. Public Education and Outreach</b>	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
	A.3 Public Service Announcement
	A.4 Community Event
	A.5 Classroom Education Material
X	A.6 Other Public Education
<b>B. Public Participation/Involvement</b>	
	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
	B.4 Public Hearing
	B.5 Volunteer Monitoring
	B.6 Program Coordination
X	B.7 Other Public Involvement
<b>C. Illicit Discharge Detection and Elimination</b>	
	C.1 Storm Sewer Map Preparation
	C.2 Regulatory Control Program
X	C.3 Detection/Elimination Prioritization Plan
X	C.4 Illicit Discharge Tracing Procedures
X	C.5 Illicit Source Removal Procedures
	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
	C.9 Public Notification
	C.10 Other Illicit Discharge Controls

Year 17	
MS4	
<b>D. Construction Site Runoff Control</b>	
	D.1 Regulatory Control Program
	D.2 Erosion and Sediment Control BMPs
	D.3 Other Waste Control Program
	D.4 Site Plan Review Procedures
	D.5 Public Information Handling Procedures
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<b>E. Post-Construction Runoff Control</b>	
	E.1 Community Control Strategy
	E.2 Regulatory Control Program
	E.3 Long Term O&M Procedures
	E.4 Pre-Const Review of BMP Designs
	E.5 Site Inspections During Construction
	E.6 Post-Construction Inspections
	E.7 Other Post-Const Runoff Controls
<b>F. Pollution Prevention/Good Housekeeping</b>	
X	F.1 Employee Training Program
X	F.2 Inspection and Maintenance Program
	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

## 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 can be viewed at the following link: <https://www.vernonhills.org/314/Stormwater-Management>

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 16, the MS4 reviewed and revised its SMPP. The stormwater management activities that the MS4 performed during Year 16, including the MS4's BMPs and measurable goals, are described in detail in 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

#### BMP A1. Distributed Paper Material

Brief Description of BMP: MS4 will distribute publications received from SMC to local target groups.

Measurable Goal(s), including frequencies: Make available and distribute two manuals "A Citizen's Guide to Maintaining Stormwater Best Management Practices" and "Living With Wetlands: A Handbook for Homeowners in Northeastern Illinois" to local entities such as homeowners associations and stakeholder groups.

Year 1: Identify local target groups and distribute manuals to groups as appropriate.

Year 2: Distribute additional resources as appropriate. Made available and distributed the manual "A Citizen's Guide to Maintaining Stormwater Best Management Practices" and the handbook "Living With Wetlands to the Environmental Committee.

Year 3: Worked with Haig Pointe Citizens to remove non-indigenous materials from wetlands. Distributed to residents adjacent to natural areas Prescribed Burn newsletter that described the benefits. Continue to provide SMC materials at the Public Works Building.

Year 4: Distributed SMC materials at the Public Works Building and Village Hall.

Year 5: Materials distributed over 500 people at Public Works Open House. Materials available at Public Works front desk.

Year 6: Letters prohibiting phosphorus fertilizer were sent to suppliers, vendors, and contractors. Homeowners in Beaver Creek Subdivision were provided drainage map and LCHD brochure on effect of phosphorus and algae growth.

Year 7: Continue to distribute paper materials at the Village Hall and Public Works Buildings to Public. Letters were sent in March 2009 to local suppliers of fertilizer for reminder of phosphorus prohibition in Vernon Hills.

Year 8: Continue to distribute paper materials at the Village Hall and Public Works Buildings to Public.

Year 9: Continue to distribute paper materials at the Village Hall and Public Works Buildings to Public.

Year 10: Continue to distribute paper materials at the Village Hall and Public Works Buildings to Public.

Year 11: Continue to distribute paper materials at the Village Hall and Public Works Buildings to Public.

Year 12: Continue to distribute paper materials at the Village Hall and Public Works Buildings to Public.

Year 13: Continue to distribute paper materials at the Village Hall and Public Works Buildings to Public.

Year 14: Continue to distribute paper materials at the Village Hall and Public Works Buildings to Public.  
Year 15: Continue to distribute paper materials at the Village Hall and Public Works Buildings to Public.  
Year 16: Continue to distribute paper materials at the Village Hall and Public Works Buildings to Public.  
Year 17: Continue to distribute paper materials at the Village Hall and Public Works Buildings to Public.

### **BMP A2. Speaking Engagement**

Year 3: Village Engineer met with two citizen groups to discuss Lake Harvey and Seavey Drainage Ditch projects. See attached letters.  
Year 4: Continue to meet with Citizen Groups on local projects and events. Work with Gregg's Landing HOA to improve Lake Charles Water Quality.  
Year 5: Speak at Middle School Career Day about Water Resources, Wetlands, and Lakes Operation and maintenance.  
Year 6: Upper Des Plaines River Ecosystem and Barrington Area Council of Governments presentation of phosphorus ordinance implementation. Village Board presentation on ordinance. Cable interview with LCHD staff on phosphorus/algae impacts.  
Year 7: The Village Engineer, as the APWA Lake Branch Education Chair, assisted in the APWA/SMC co-sponsored BMP-De-Icing seminar on September 29, 2009.  
Year 8: The Village Engineer spoke at the UPDREP Watershed Tour.  
Year 9: The Village Engineer spoke to the Hawthorn Elementary School Science Club once about wetlands and floodplains.  
Year 10: No speaking engagements performed.  
Year 11: No speaking engagements performed.  
Year 12: No speaking engagements performed.  
Year 13: No speaking engagements performed.  
Year 14: No speaking engagements performed.  
Year 15: No speaking engagements performed.  
Year 16: The Village Engineer spoke to Directors of Public Works & their staffs on sensible salting practices on April 17<sup>th</sup>, 2019  
Year 17: No speaking engagements performed.

### **BMP A4. Community Event**

Brief Description of BMP: The Community Development Department met internally on soil erosion and sediment control procedures. Measurable Goal(s), including frequencies: Participate in the bi-annual soil erosion and sediment control workshop.

Milestones:

Year 1: Participate in workshop.  
Year 2: No workshop planned.  
Year 3: Participate in workshop.  
Year 4: No workshop planned.  
Year 5: Participate in workshop.

Measurable Goal(s), including frequencies: Host an annual SWALCO Household Hazardous Chemical Waste Pickup.

Year 2: The Village held a household chemical waste collection event on May 3, 2004 with 805 households participating. There were 188 waste containers and 900 gallons of waste oil / antifreeze collected.

Year 3: Host a SWALCO Household Hazardous Chemical Waste Pickup on June 11, 2005. Over 900 participants dropped off household wastes. Distribute SMC materials at Biannual Public Works Open House held in May, 2005.

Year 4: Hosted two SWALCO Household Hazardous Chemical Waste Pickups in May, and November 2006. Hosted Electronics Recycling event in September 2006. Work with willing citizens on environmental issues.

Year 5: Host SWALCO Household Hazardous Chemical Waste Pickup and Electronics Recycling events. Participated in SWALCO Reuse-a-Shoe program this year. Distributed SMC materials at Biannual Public Works Open House in May, 2007.

Year 6: Host SWALCO Household Hazardous Chemical Waste Pickup (1500 total) and Electronics Recycling (600 total) events in spring and fall.

Year 7: Village hosted two electronics collection with over 500 participants and one Hazardous Chemical Waste Pickup (742 Households). Village contributed funds to new satellite Hazardous Chemical Waste Pickup at Lincolnshire Riverwoods Fire Protection District Station.

Year 8: The Village hosted an Household Chemical Waste event on May 15, 2010 removing 172.1 55-gallon drum equivalents from the waste stream, and also hosted two electronic collections (4/29/10 and 9/29/10) removing 32,662 pounds of electronics from the landfills.

Year 9: The Village hosted an Electronics waste event on April 30<sup>th</sup>, a Household waste event on May 7<sup>th</sup>, and a Recycle o Rama on July 23<sup>rd</sup>.

Year 10: We assisted Vernon Township who hosted an Electronics waste event on April 20<sup>th</sup>, a Household waste event on May 18<sup>th</sup>, and started a daily electronic collection in 2013.

Year 11: We assisted Vernon Township who hosted an Recycle O Rama waste event on April 26<sup>th</sup>, a Household waste event on May 17<sup>th</sup>, and started a daily electronic collection in 2013.

Year 12: We assisted Vernon Township who hosted an Recycle O Rama waste event on April 26<sup>th</sup>, a Park District Recycle O Rama on June 14<sup>th</sup>, and ended a daily electronic collection in 2014.

Year 13: May 16<sup>th</sup>, we assisted with a Household Chemical Waste event. April 29-30, we hosted a Reuse a Shoe Event.

Year 14: May 21<sup>st</sup>, we assisted with a Household Chemical Waste event. April 27-29, we hosted a Reuse a Shoe Event.

Year 15: May 6<sup>th</sup>, we assisted with a Household Chemical Waste event. April 26-28, we hosted a Reuse a Shoe Event.

Year 16: On May 18<sup>th</sup>, we assisted with a Household Chemical Waste event. On April 24<sup>th</sup>-26<sup>th</sup>, we hosted a Reuse- A- Shoe event.

Year 17: On May 18<sup>th</sup>, we assisted with a Household Chemical Waste event. On April 24<sup>th</sup>-25<sup>th</sup>, we hosted a Reuse- A- Shoe event.

**BMP No. A.6 Other Public Education:**

Year 3: Investigate purchase and use of Catch Basin Markers – target residential area with detention basins, seek volunteers, and develop educational materials.

Year 4: SMC has developed “How to Guide” for Catch Basin Markers and Public Works Department is investigating program. Since 2000 in all new developments, catch basins are cast with the “fish” identifier on back of the grate.

Year 5: Review SMC How to Guide and seek Catch Basin Marker Volunteers.

Year 6: New Catch Basin Frames have “Drains to Rivers” cast on them. All new development will incorporate their use. This is in lieu of using aerosol paints and stencils materials on existing catch basins.

Year 7: A video was produced of our Seavey Ditch at Hazeltime Road Streambank Restoration Project and placed on YouTube. The Village Engineer attended two Hawthorn Elementary School Science Club meetings educating them on wetlands, farm tiles, and invasive species.

Year 8: The Village won a native landscaping award from the Chicago Wilderness, we installed the Award Winning Sign at Hazeltime Streambank Project, and hosted and spoke to a watershed tour group at the Hazeltime Streambank Project.

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

### **BMP No. B1. Public Panel**

Year 6: Hosted UDREP Brown Bag Briefing – open to County Board members, municipalities, and other stakeholders. Promote Homeowner Association Maintenance for Subdivision Drainage Systems Seminar on July 14, 2008.

### **BMP No. B3. Stakeholder Meeting**

Brief Description of BMP: 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, the village will publicize stakeholder meetings locally and participate by being represented at the stakeholder meetings.

Measurable Goal(s), including frequencies: Publicize and participate in relevant watershed planning committees and other stakeholder groups. Village Engineer continues to attend meetings and participated in the Indian Creek Watershed Plan that was approved in 2004-05 and Des Plaines River planning.

Year 1-5: The Village of Vernon Hills will participate in Indian Creek Watershed Planning meetings.

Year 6: November 6, 2008 – Village received the Indian Creek Watershed Leadership Award at annual meeting.

Year 7: Continue involvement in Indian Creek Watershed Planning Group. Public Works staff worked with citizens group (Haig Pointe) in removal of invasive vegetation from wetlands.

Year 8: Volunteers from Lifeline Vascular Access helped plant 74 trees and 90 shrubs for our Seavey Ditch at Hazeltime Road Streambank Restoration Project.

Year 9: Arbor Day cleanup at Harvey Lake where the general public was invited.

Year 10: Arbor Day event was held at the Arboretum where the Boy Scouts helped plant Oak Trees.

Year 11: Arbor Day event was held at Harvey Lake where the public was invited to help plant small trees.

Year 12: Arbor Day event was held at Hazeltime Park where the Boy Scouts was invited to help plant small trees.

Year 13: Arbor Day event was held at the Arboretum where the Boy Scouts were invited to help plant small trees and pick up debris.

Year 14: Arbor Day event was held on May 14th at the Arbortheatre where the Boy Scouts assisted in planting small trees and pick up debris.

Year 15: Arbor Day event was held on May 13th at the Metra Station where the Boy Scouts assisted in planting small trees and pick up debris.

Year 16: Arbor Day event was held on May 11th at the Arborthheater where the Boy Scouts planted a variety of small trees and learned about rain gardens.

Year 17: Staff worked with a Girl Scout on her Gold Award project. She designed and installed a raingarden at the village's arborthheater in October. She also designed an informational brochure on raingardens to distribute to residents.

#### **BMP B4. Public Hearing**

Brief Description of BMP: The village will conduct a public meeting or public hearing on its proposed stormwater management plan. Each village will meet its own requirements for conducting public meetings or hearings.

Measurable Goal(s), including frequencies:

Year 1: Hold at least one public meeting to present NPDES Phase II program and locally proposed stormwater management plan.

Year 2, 3: A public hearing will be conducted when the Upper Des Plaines River draft is received from Lake County SMC. Draft report has not been released at end of Year 2. Due to the date of release, this BMP will be a year 3.

Year 3: Present ongoing program summary at annual public meeting in June 2005.

Year 4: Present Municipal NPDES Phase II Report and Year 4 Activities to Village Board in June 2006.

Year 5: Present Municipal NPDES Phase II Report and Year 5 Activities to Village Board in June 2007.

Year 6: Present year long activities to Village Board in May/June Board meeting. Village Board adopted by resolution new NOI on June 16, 2009.

Year 7: Presented to the Village Board year long activities at a June 2010 Board meeting.

Year 8: Present Municipal NPDES Phase II Report and Year 5 Activities to Village Board in June 2011.

Year 9: Present Municipal NPDES Phase II Report and Year 5 Activities to Village Board in June 2012.

Year 10: Present Municipal NPDES Phase II Report and Year 5 Activities to Village Board in June 2013.

Year 11: Present Municipal NPDES Phase II Report and Year 5 Activities to Village Board in June 2014.

Year 12: Present Municipal NPDES Phase II Report and Year 5 Activities to Village Board in June 2015.

Year 13: Present Municipal NPDES Phase II Report and Year 5 Activities to Village Board in June 2016.

Year 14: Present Municipal NPDES Phase II Report and Year 5 Activities to Village Board in June 2017.

Year 15: Present Municipal NPDES Phase II Report and Year 5 Activities to Village Board in June 2018.

Year 16: Present Municipal NPDES Phase II Report and Year 5 Activities to Village Board in June 2019.

Year 17: Present Municipal NPDES Phase II Report and Year 5 Activities to Village Board in June 2020.

#### **BMP B7. Other Public Involvement**

Measurable Goal(s), including frequencies: Hold at least two Environmental Committee meetings per year.

Year 1: Conduct two meetings with Environmental Committee.

Year 2: The Village's Citizen's Environmental Committee has not held meetings related to stormwater management in Year 2.

Year 3: The Village's Citizen's Environmental Committee is under reorganization with the Forestry Advisory Committee.

Year 4-5: Committee was eliminated by Village Board.

Measurable Goal(s), including frequencies: Staff Attendance at SMC Meetings for NPDES Permitting.



Year 2: Attended NPDES Phase II Good Housekeeping Workshop on April 6, 2004. Staff attended three MAC meetings at SMC.

Year 3: Attended NPDES Phase II Managing Snow & Ice Control Operations to Protect Water Quality Seminar, Linking Watersheds Conference 2005, and APWA Streambank Stabilization Webcast Workshop.

Year 4: Attended two NPDES Workshops including sensible salting application seminar, and SMC Monthly MAC meetings.

Year 5: Attended NPDES Workshop May 10, 2007 and SMC MAC meetings throughout the year.

Year 6: Continue to attend NPDES Workshops and SMC MAC meetings throughout the year. Staff attended Recycling, Reusing, and Managing Stormwater Workshop on September 17, 2008 by LCSMC.

Year 7: Continue to attend NPDES Workshops and SMC meetings throughout the year. Public Works staff attended De-icing Workshop in November, 2009, NPDES Compliance workshop in October, 2009, and Discharges for MS4's in June 2009.

Year 8: Placed NPDES Year-end Report and NOI on Public Works Website.

Year 9: Placed NPDES Year-end Report and NOI on Public Works Website.

Year 10: Placed NPDES Year-end Report and NOI on Public Works Website.

Year 11: Placed NPDES Year-end Report and NOI on Public Works Website.

Year 12: Placed NPDES Year-end Report and NOI on Public Works Website.

Year 13: Placed NPDES Year-end Report and NOI on Public Works Website.

Year 14: Placed NPDES Year-end Report and NOI on Public Works Website.

Year 15: Placed NPDES Year-end Report and NOI on Public Works Website.

Year 16: Placed NPDES Year-end Report and NOI on Public Works Website.

Year 17: Placed NPDES Year-end Report and NOI on Public Works Website.

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

#### **BMP No. C.1 Storm Sewer Map Preparation**

Brief Description of BMP: Village Engineer and GIS Specialist will prepare an outfall map to allow for tracking of dry weather flow inspections and outfall maintenance.

Measurable Goal(s), including frequencies: The Village will map all storm sewer outfalls discharging to the Seavey Drainage Ditch and Des Plaines River. Each outfall will be field verified and given a unique identifier to be used to document inspections. The map will be regularly updated as improvements or new developments occur.

Year 1: Planning and collection of data.

Year 2: Start outfall map and GIS data. Public Works staff dedicated 126 hours to field locating the storm sewer network.

Year 3: Complete storm sewer and outfall data. The storm sewer map preparation and information may be obtained from the Village's GIS Specialist. Village Engineer has represented Village in the Illicit Discharge Detection and Elimination AD-HOC Committee.

Year 4: The 2006/07 Village budget has funding for consultant GIS mapping of the outfalls. The Stormwater Management Agency has now provided the protocol for mapping.

Year 5: Outfall Mapping – collected 250+ points on Des Plaines River, Seavey Drainage Ditch, and Indian Creek. Purchased Trimble unit to improve accuracy of existing stormwater facilities.

Year 6: Continue identification of outfall and storm sewer structures within the Village. Verify location of outfall connections to storm sewer system.

Year 7: Mapping of 3200 storm structures by GIS Coordinator. Included are outfall and detention restrictor structures.

Year 8: Mapping of over 95% of Village owned storm structures was completed. Privately owned storm structures were included into the Village GIS database via construction as-builts.

Year 9: Additional storm sewer mapping was performed.

Year 10: Additional storm sewer mapping was performed. Purchase a Colorado Tube for sampling.

Year 11: Additional storm sewer mapping was performed.

Year 12: Additional storm sewer mapping was performed.

Year 13: Additional storm sewer mapping was performed.

Year 14: Additional storm sewer mapping was performed.

Year 15: Additional storm sewer mapping was performed.

Year 16: Additional storm sewer mapping was performed.

Year 17: Additional storm sewer mapping was performed.

### **BMP No. C.2 Regulatory Control Program**

Brief Description of BMP: Review, existing ordinance language to prohibit non-storm water discharges to the storm sewer or drainage system.

Measurable Goal(s), including frequencies: Adopt ordinance amendment by end of Year 4.

Year 2: Receive and review model ordinance language from SMC.

Year 3: Investigate current village ordinances and coordinate model ordinance amendments.

Year 4: The Village will use the draft model ordinance being developed by the SMC for MS4's.

Year 5: Illicit Discharge Ordinance drafted and was sent to the Village Board for approval In May 2008.

Year 6: Adopted Illicit Discharge Ordinance in April 2008.

Year 7: No enforcement action needed.

Year 8: Participated in review and modification of Countywide Watershed Development Ordinance Amendments.

Year 9: No enforcement action needed.

Year 10: No enforcement action needed.

Year 11: No enforcement action needed.

Year 12: No enforcement action needed.

Year 13: No enforcement action needed.

Year 14: No enforcement action needed.

Year 15: No enforcement action needed.

Year 16: No enforcement action needed.

Year 17: No enforcement action needed.

### **BMP No. C.3 Detection/Elimination Prioritization Program**

Year 8: Begin development of SMPP, Investigate, and budget and develop dry-weather screening program.

Year 9: Staff attended IDDE Seminar to help develop program.

Year 10: Staff began sampling and testing for pH, Total Alkalinity, Total Hardness, Nitrate, Nitrite, Iron, Copper, Free Chlorine, Total Chlorine.

Year 11: Staff sampled and tested for pH, Total Alkalinity, Total Hardness, Nitrate, Nitrite, Iron, Copper, Free Chlorine, Total Chlorine at two location along the Seavey Ditch in Vernon Hills.

Year 12: Staff sampled and tested for pH, Total Alkalinity, Total Hardness, Nitrate, Nitrite, Iron, Copper, Free Chlorine, Total Chlorine at two location along the Seavey Ditch in Vernon Hills.

Year 13: The Village of Vernon Hills joined the Upper Des Plaines River Watershed consortium for sampling and testing water samples.

Year 14: The Village of Vernon Hills is a member of the Upper Des Plaines River Watershed consortium for sampling and testing water samples.

Year 15: The Village of Vernon Hills is a member of the Upper Des Plaines River Watershed consortium for sampling and testing water samples.

Year 16: The Village of Vernon Hills is a member of the Upper Des Plaines River Watershed consortium for sampling and testing water samples.

Year 17: The Village of Vernon Hills is a member of the Upper Des Plaines River Watershed consortium for sampling and testing water samples.

**BMP No. C.4 Illicit Discharge Training Procedures**

Year 8: Request Excel Training Module from LCSMC for training program with Public Works staff.

Year 9: Two employees attended a IDDE training seminar presented by the APWA and SMC.

Year 10: Staff viewed the Excel Training Module from LCSMC.

Year 13: Staff viewed the Excel Training Module from LCSMC.

Year 15: Staff viewed the Excel Training Module from LCSMC on March 14<sup>th</sup>, 2018

**D. Construction Site Runoff Control**

The Village adopted on April 4, 2006 the revised Watershed Development Ordinance that establishes the minimum stormwater management requirements for development in the Village. The WDO is enforced by the Village and has established standards for construction site runoff control. The Village Engineer is the appointed WDO enforcement officer and has participated in the development of the Soil Erosion/Sediment test.

**BMP D1. Regulatory Control Program**

The WDO has been adopted as the regulatory mechanism to require erosion and sediment controls for construction activities in the village. The soil erosion and sedimentation control performance standards are included in Article IV, Section B.1.j. of the WDO. At a minimum, these standards apply to any development that hydrologically disturbs 5,000 square feet or more.

Year 6: Development sites were stabilized where construction has stopped due to economic conditions.

Year 7: Continued enforcement of the countywide WDO. Performed a self assessment of the Regulatory Control program which was forwarded to the SMC for recertification approval.

Year 8: Participated in review and modification of County wide Watershed Development Ordinance Amendments.

Year 9: Continued enforcement of the countywide WDO.

Year 10: Continued enforcement of the countywide WDO.

Year 11: Continued enforcement of the countywide WDO.

Year 12: Continued enforcement of the countywide WDO.

Year 13: Continued enforcement of the countywide WDO.

Year 14: Continued enforcement of the countywide WDO.  
Year 15: Continued enforcement of the countywide WDO.  
Year 16: Continued enforcement of the countywide WDO.  
Year 17: Continued enforcement of the countywide WDO.

#### **BMP D2. Erosion and Sediment Control BMPs**

Article IV, Section B.1.j. of the WDO specifies the required soil erosion and sediment control measures for any land disturbance activity. This section of the WDO includes 15 requirements for soil erosion and sediment control measures 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 14 days of active disturbance; avoid disturbance of streams and when possible, size measures appropriate to the amount of tributary drainage area; protect functioning storm sewers from sediment; prevent sediment from being tracked onto adjoining streets; limit earthen embankments to slope of 3H:IV; identify soil stockpile areas; and utilize statewide standards and specifications as guidance for soil erosion and sediment control.

Year 8: Sediment and erosion control ordinance was updated to reflect newer Best Management Practices.

Year 9: Two Village employees received recertification as Designated Erosion Control Inspectors by the Lake County Stormwater Management Commission.

Year 10: Attended a workshop with hands on training of BMP's hosted by the SMC.

Year 11: Two Village employees received recertification as Designated Erosion Control Inspectors by the Lake County Stormwater Management Commission.

Year 12: Two Village employees received recertification as Designated Erosion Control Inspectors by the Lake County Stormwater Management Commission.

Year 13: Two Village employees received recertification as Designated Erosion Control Inspectors by the Lake County Stormwater Management Commission.

Year 14: Two Village employees received recertification as Designated Erosion Control Inspectors by the Lake County Stormwater Management Commission.

Year 15 : Two Village employees received recertification as Designated Erosion Control Inspectors by the Lake County Stormwater Management Commission.

Year 16: One Village employee received recertification and one employee passed the exam and obtained certification as Designated Erosion Control Inspector by the Lake County Stormwater Management Commission.

Year 17: Two Village employees maintained certification as Designated Erosion Control Inspectors by the Lake County Stormwater Management Commission. An additional employee passed the exam and obtained certification as Designated Erosion Control Inspector by the Lake County Stormwater Management Commission.

#### **BMP D3. Other Waste Control Program**

The Village initiates the process of developing WDO amendments to include the control of waste and debris at construction sites.

#### **BMP D4. Site Plan Review Procedures**

The Village Enforcement Officer reviews all Watershed Development Applications and issues permits for those projects that are in compliance with the provision of the WDO.

**BMP D5. Public Information Handling Procedures**

The Village provides a number of opportunities for receipt and consideration of information submitted by the public. The Village documents and tracks the resolution of reported problems and citizen complaints. The Village investigates the report and prescribes corrective action to the property owner to find a solution.

**E. Post-Construction Runoff Control**

The WDO standards established by the Lake County Watershed Development Ordinance for minimum stormwater management requirements for development in the village have been established. These standards apply to any new development or redevelopment those results in over 0.5 acres of new impervious areas.

**BMP E2. Regulatory Control Program**

The Village has adopted a stormwater management strategy for controlling post-construction runoff. The applicant must develop a stormwater management strategy that minimizes the increase in runoff volumes and rates and addresses the water quality treatment requirements of the WDO. The proposed drainage plan must use the runoff reduction hierarchy in the WDO and implement BMPs as presented in the TRM. The WDO also requires the use of buffers when adjacent to existing waterbodies.

**BMP E3. Long Term O&M Procedures**

The Village requires that a maintenance plan be prepared for all stormwater management system components for Major developments (as defined by the WDO). The Enforcement Officer may require maintenance plans to be prepared for all development sites that require a NPDES permit. The maintenance plan must include: maintenance tasks; the party responsible for performing the maintenance tasks; a description of all permanent public or private access maintenance easements and overland flow paths, and compensatory storage areas; and a description of dedicated sources of funding for the required maintenance.

**BMP E4. Pre-Construction Review of BMP Designs**

The Village's Enforcement Officer reviews all Watershed Development Applications and issues permits for those projects that are in compliance with the provisions of the WDO. This includes a review of the proposed BMPs for post-construction runoff control.

Year 6: In house training was provided to our Engineering Technicians and Building Inspectors.

Year 7: Implemented use of newer BMP's on projects, flock logs and treatment trains are examples.

Year 8: Village adopted the new WDO standards in June 2012.

Year 16: In-house training was provided to our two new engineering staff.

Year 17: In-house training was provided to our engineering staff.

**BMP E5. Site Inspections During Construction**

Article IV of the WDO provides both the recommended and the minimum requirements for site inspection. The Village's Enforcement Officer conducts these inspections. The Village's Enforcement

Officer also inspects site development at any stage in the construction process. For major developments, the Village's Enforcement Officer has conducted site inspections, at a minimum, upon complete of installation of sediment and runoff control measures and after final stabilization and landscaping, prior to removal of sediment controls.

Year 4: Engineering Inspectors have completed training and passed Designated Erosion Control Inspector exam.

Year 5: Engineering Inspectors are Designated Erosion Control Inspectors through the Lake County Stormwater Agency.

Year 6: Engineering Technicians are certified as: Designated Erosion Control Inspectors.

Year 7: Continued enforcement of the countywide WDO.

Year 8: Continued enforcement of the countywide WDO, two Village employees were recertified as Designated Erosion Control Inspectors by the Lake County Stormwater Management Commission.

Year 9: Continued enforcement of the countywide WDO.

Year 10: Continued enforcement of the countywide WDO.

Year 11: Continued enforcement of the countywide WDO.

Year 12: Continued enforcement of the countywide WDO.

Year 13: Continued enforcement of the countywide WDO.

Year 14: Continued enforcement of the countywide WDO.

Year 15: Continued enforcement of the countywide WDO.

Year 16: Continued enforcement of the countywide WDO.

Year 17: Continued enforcement of the countywide WDO.

#### **BMP E6. Post-Construction Inspections**

See comments in E5.

#### **BMP E7. Other Post-Construction Runoff Controls**

The Village Manager along with elected officials, township supervisors, drainage district chairs, and county board members from each district within the boundaries of the watershed meet yearly to make recommendations on project funding. The goal is to maximize opportunities for local units of government and other groups to have input and influence in local stormwater management problem solving. This has resulted in projects having improved quality of water in streams and swales and has enhanced stormwater facilities.

Year 8: Created inventory of hydrocarbon removal systems in our GIS system.

Year 9: Will conduct code enforcement inspections of hydrocarbon removal systems to assure that they are properly maintained.

Year 10: The Village implemented a program to assure annual cleaning of all hydro carbon systems within the Village limits.

Year 11: The Village oversaw a program to assure annual cleaning of all hydro carbon systems within the Village limits.

Year 12: The Village oversaw a program to assure annual cleaning of all hydro carbon systems within the Village limits.

Year 13: The Village oversaw a program to assure annual cleaning of all hydro carbon systems within the Village limits.

Year 14: The Village oversaw a program to assure annual cleaning of all hydro carbon systems within the Village limits.

Year 15: The Village oversaw a program to assure annual cleaning of all hydro carbon systems within the Village limits.

Year 16: The Village oversaw a program to assure annual cleaning of all hydro carbon systems within the Village limits.

Year 17: The Village oversaw a program to assure annual cleaning of all hydro carbon systems within the Village limits.

**F. Pollution Prevention/Good Housekeeping**

BMP No. F1 Employee Training Program

Brief Description of BMP: The Village will develop a training program for municipal employees. This may be based on existing training programs that the Village currently conducts. Any new training materials will be developed based on guidance that is widely available. SMC, the Qualifying Local Program, will serve as a clearinghouse of these materials. The training program may be updated and expanded as the Village implements its stormwater management program.

Measurable Goal(s), including frequencies: Develop municipal employee training program. Conduct annual training for employees that will implement or utilize BMPs.

Milestones:

Year 1: Inventory and categorize municipal activities that are classified as industrial.

Year 2: Continue training program for employees in relevant positions. NPDES training meeting was held amongst Public Works staff. The inventory and categorization of municipal activities is being performed.

Year 3: Staff attended the NPDES Phase II Managing Snow & Ice Control Operations to Protect Water Quality Seminar

Year 4-5: Train municipal employees in relevant positions and update program as needed. Attended SMC/APWA seminar on Sensible Salting.

Year 6:

Year 7: Attend QLP programs for NPDES. Public Works Department installed and initiated use of liquid de-icing materials for snow and ice control. Anti-icing was performed throughout the winter, but it was difficult to determine the efficacy of the program.

Year 8: Trained new personnel on salt controls and liquid deicing.

Year 9: Entire Public Works staff was trained on good housekeeping practices through viewing of a Visual training video.

Year 10: Entire Public Works staff was trained on good housekeeping practices through viewing of a Visual training video.

Year 11: Entire Public Works staff was trained on good housekeeping practices through viewing of a Visual training video.

Year 12: Entire Public Works staff was trained on good housekeeping practices through viewing of a Visual training video.

Year 13: Entire Public Works staff was trained on good housekeeping practices through viewing of a Visual training video.

Year 14: Entire Public Works staff was trained on good housekeeping practices through viewing of a Visual training video.

Year 15: Entire Public Works staff was trained on good housekeeping practices through viewing of a Visual training video.

Year 16: Entire Public Works staff was trained on good housekeeping practices through viewing of a Visual training video.

Year 17: Entire Public Works staff was trained on good housekeeping practices through viewing of a Visual training video.

**BMP No. F2 Inspection and Maintenance Program**

Brief Description of BMP: Reduce the amount of pollution (sand, salt, leaves, etc.) that accumulates on village streets, which has the potential to be carried by runoff into village streams.

Measurable Goal(s), including frequencies: The Village continues street sweeping in the months of April to November and catch basin cleaning in spring and fall.

Milestones:

Year 1: The Village will determine the lineal footage of storm sewers and number of drainage structures; analyze existing lane miles of streets and frequency of cleaning and sweeping. See Exhibit for work hours dedicated to maintenance programs.

Year 2: The Village will report frequency and create maintenance program goals. The Public Works Department swept 2100 curb miles and the municipal parking lots on a regular schedule. Catch Basins (107) in the Grosse Pointe Village and Stone Fence were cleaned this year. Sediment bags in Catch Basins at the Public Works Building were cleaned on five occasions. Television of 350 feet of storm sewers was completed in Grosse Pointe Village.

Year 3: Storm Sewer cleaning by contract was completed in the Stone Fence Farms, Deerpath, and Plymouth Farms subdivisions.

Year 4: Street Sweeping Contractor completed over 1000 miles of street cleaning. Village staff augmented with winter sweeping when snow was not present to pickup debris. The triple basin and sediment trap was cleaned on five occasions by Lake County Public Works Department.

Year 5: Continued program of cleaning catch basins and using wash bay for cleaning the Village's street sweeper. Contractor sweep all Village cul-de-sacs in March after winter use of sand/salt mixture for de-icing purposes. 2400 miles of street sweeping completed in Year 5.

Year 6: Continue aggressive program of street sweeping by staff and contract (1147 miles). Catch Basin Patrol of 111 hours to remove debris at prescribed locations in Village. Repair 24 Catch Basins during the year. Attach 3 sump pumps causing erosion to storm sewers.

Year 7: Continue aggressive program of street sweeping by staff (903 miles) and contract (614 miles). Catch Basin Patrol of 135 hours to remove debris at prescribed locations in Village. Repair 18 Catch Basins during the year. Attach 1 sump pump to storm sewer that was causing erosion.

Year 8: Continued street sweeping efforts by both the Village and Contractor. The Contractor totaled 160 hours of sweeping for over 700 miles, the Village covered approximately 1000 miles in sweeping. The Village repaired over 10 catch basins and performed catch basin patrol to remove debris from storm structures.

Year 9: Continued street sweeping efforts by both the Village and Contractor. The Contractor totaled 191.5 hours of sweeping for 958 miles, the Village covered approximately 2,544 miles. The Village repaired 21 catch basins, repaired and cleaned a RCCP that was separated and created a sinkhole on the Noble Circle roadway.

Year 10: Continued street sweeping efforts by both the Village and Contractor. The Contractor and the Village covered approximately 2,101 miles. The Village repaired 11 catch basins.



Year 11: Continued street sweeping efforts by both the Village and Contractor. The Contractor and the Village covered approximately 2,270 miles. The Village repaired 40 catch basins.

Year 12: Continued street sweeping efforts by both the Village and Contractor. The Contractor and the Village covered approximately 2,859 miles. The Village repaired 35 catch basins.

Year 13: Continued street sweeping efforts by both the Village and Contractor. The Contractor and the Village covered approximately 2,543 miles. The Village repaired 37 catch basins.

Year 14: Continued street sweeping efforts by both the Village and Contractor. The Contractor and the Village covered approximately 2,700 miles. The Village repaired 20 catch basins.

Year 15: Continued street sweeping efforts by both the Village and Contractor. The Contractor and the Village covered approximately 1,397 miles. The Village repaired 25 catch basins.

Year 16: Town was swept 8 times this past year, 2 spring, 1 summer, and 5 fall sweepings totaling 1,336 miles. 10 "Village" parking lots were cleaned as well, PW, Village Hall, PD, VHAC, Golf Course, Metra, Arbor theater, and 3 school lots, Hawthorn, Middle school south, Aspen Elementary, and Aspen Elementary South, totaling 1,808 parking stalls.

Year 17: Continued street sweeping efforts by the contractor. The entire village was swept 8 times (2 times in the spring, 1 time in the summer, 5 times in the fall), for a total of 1336 miles. The village repaired 20 catch basins.

### **BMP No. F3 Municipal Operations Storm Water Control**

Measurable Goal(s), including frequencies:

Milestones: Continue to monitor local outlets and critical structures. See attached location sheet.

Year 2: Outlets and Structures checked on 30 occasions before and after storms. Complete inspection of Class I dams as required by IDNRDWR.

Year 3: Outlet and Structure Inspection list created and used by staff. Outlets were checked on occasions. Complete inspection of Class I dams as required by IDNRDWR.

Year 4: Over 320 hours are attributed to cleaning catch basins and patrol of grates after a storm event. Reconstruct seven catch basins and connect three residential sump pumps to storm sewer system. Complete inspection of Class I dams as required by IDNRDWR.

Year 5: Staff completed 416 hours of catch Basin cleaning and patrol. Sediment bags at the Public Works Building and VHAC were cleaned five times throughout the year. 80 hours of contract time were used for storm sewer cleaning and televising by a contractor. Staff assisted with 52 hours of cleaning throughout the community. Complete inspection of Class I dams as required by IDNRDWR.

Year 6: 8900 feet of storm sewers were cleaned including root cutting in advance or future construction projects and 240 hours by contract throughout community. Storm sewers were televised 56 hours by staff and 80 hours by contract. Complete inspection of Class I dams as required by IDNRDWR.

Year 7: Contractor/Staff cleaned storm sewers for 72 hours. Storm Sewers were televised by staff a total of 128 hours.

Year 8: Contractor/Staff cleaned storm sewers for 80 hours. Other storm sewers were televised in the area of our 2010 MFT Road Re-surfacing Project.

Year 9: Contractor/Staff cleaned and jet-rodded storm sewers for 98 hours. Multiple sites including a CDS structure as well as the entirety of Hawthorn Club's laterals.

Year 10: Contractor/Staff cleaned and jet-rodded storm sewers for 76 hours. This included 13 private CDS structures.

Year 11: Contractor/Staff cleaned and jet-rodded storm sewers for 80 hours. This included 13 private CDS structures.

Year 12: Contractor/Staff cleaned and jet-rodded storm sewers for 32 hours. This included 14 private CDS structures.

Year 13: Contractor/Staff cleaned and jet-rodded storm sewers for 40 hours. This included 14 private CDS structures.

Year 14: Contractor/Staff cleaned and jet-rodded storm sewers for 12 hours. This included 10 private CDS structures.

Year 15: Contractor/Staff cleaned and jet-rodded storm sewers for 16 hours. This included 10 private CDS structures.

Year 16: Contractor / Staff cleaned and jet-rodded 19 CDS structures for a total of 16 hours.

Year 17: Contractor / Staff cleaned and jet-rodded 19 CDS structures for a total of 16 hours.

**BMP No. F4 Municipal Operations Waste Control**

Measurable Goal(s), including frequencies:

Milestones: Roadway Salt is handled with proper procedures and waste materials disposed of properly.

Year 2, 3: The Public Works Department continues to accept and dispose of Waste Oil, Gasoline, and Antifreeze from Village residents as an alternative to dumping into storm or sanitary sewers. The Village was also accepts crushed and drained used oil filters. The cost of the disposal is budgeted at \$1800 per year. Roadway salt is stored in a structure at the Public Works Building. Stormwater runoff from this area is travels first through a gravel storage area and then into a long vegetated swale and drainage way on Village property. Excess salt is swept in the winter when weather conditions permit the work. This year roadway salt used by the high school and the park district was stored in the Village's salt bins. This eliminates two potential locations of runoff from exposed salt piles. The Public Works Department removed 200 tons of salt from a local shopping center storage area where the cover had been frayed over the last year. This eliminated the potential for discharge of stormwater laden with salt into the Des Plaines River.

Year 4: Continue to store salt in contained structure. Public Works Department used snow fence in newly development area to reduce the amount of roadway salt used and draining to detention basins and Lake Charles. Salt was picked up from the shopping center for storage and future use.

Year 5: Salt properly stored on site. Snow fence again used in open area of the Village to reduce salt burn to parkways and detention ponds. Triple basin in Public Works Garage was cleaned five times throughout the year – street sweeper and salt trucks now cleaned inside facility.

Year 6: The Public Works used 5000 gallons of GeoMelt on a trial experience to understand its effectiveness. Clean Public Works Building Triple Basins 4 times, sediment, and debris are attributed to cleaning street sweeper and snow plow equipment. Sediment bags at catch basins in Public Works Department lot were cleaned 4 times and at the VHAC baseball fields 3 times.

Year 7: Wash Bay sump at Public Works Building was cleaned on 4 occasions. The wash bay, inside the building, is used for cleaning all vehicles and reduces sediment in the storm sewer system. Sediment bags were cleaned on the facility on 2 occasions and at the Athletic Complex on 3 occasions.

Year 8: Wash Bay sump at Public Works Building was cleaned as necessary. The wash bay, inside the building, is used for cleaning all vehicles and reduces sediment in the storm sewer system. Sediment bags were cleaned on the facility on 2 occasions and at the Athletic Complex on 2 occasions. The Village cleaned its only CDS structure.

Year 9: Sediment bags at the Public Works building and VHAC were cleaned four times. The triple basin and sediment trap in the Public Works garage was cleaned a minimum of five times.

Year 10: Sediment bags at the Public Works building and VHAC were cleaned five times. The triple basin and sediment trap in the Public Works garage was cleaned a minimum of four times.

Year 11: Sediment bags at the Public Works building and VHAC were cleaned five times. The triple basin and sediment trap in the Public Works garage was cleaned a minimum of four times.

Year 12: Sediment bags at the Public Works building and VHAC were cleaned five times. The triple basin and sediment trap in the Public Works garage was cleaned a minimum of four times.

Year 13: Sediment bags at the Public Works building and VHAC were cleaned five times. The triple basin and sediment trap in the Public Works garage was cleaned a minimum of four times.

Year 14: Sediment bags at the Public Works building and VHAC were cleaned five times. The triple basin and sediment trap in the Public Works garage was cleaned a minimum of four times.

Year 15: Sediment bags at the Public Works building and VHAC were cleaned five times. The triple basin and sediment trap in the Public Works garage was cleaned a minimum of four times. Sewer line blockage from sediment trap flowing to sewer line was remediated by jet rodding and fault analysis.

Year 16: Sediment bags at the Public Works building and VHAC were cleaned four times.

Year 17: Sediment bags at the Public Works building and VHAC were cleaned four times.

### **BMP No. F5 Flood Management**

Measurable Goal(s), including frequencies: Monitor Seavey Drainage Ditch for Blockages

Year 2: Removed a blockage of downed trees and debris between Hazeltine Street and Gregg's Parkway, using a contractor with a grapple. Large amounts of debris were removed from Seavey Ditch at the Route 45 Box Culvert. In the winter sediment that was deposited downstream of the Hazeltine Box Culvert was removed with an excavator and trucked offsite.

Year 3: Works was completed on the Seavey Ditch including tree and buckthorn removal in the Stone Fence/Deerpath areas.

Year 4: Public Works staff had 75 hours of general cleaning of the Seavey Ditch to remove local blockages. Contract Cleaning of Seavey Ditch was budgeted in 2006/07 and scheduled for June 2007.

Year 5: Based on budgets, continue with management of Seavey Drainage Ditch. Contract cleaning of Seavey Drainage Ditch was completed upstream of Gregg's Parkway. Work to continue in 2008 further upstream. Staff completed 64 hours of targeted location cleaning at culvert structures.

Year 6: Contract cleaning of Seavey Drainage Ditch was completed between Hazeltine Drive Culvert and Gregg's Parkway. Staff spent 72 hours cleaning blockages of the ditch.

Year 7: Contract cleaning of Seavey Drainage Ditch was completed between Route 60 and Arbortheater/Kids Castle. Staff spent 35 hours cleaning blockages of the Seavey Ditch, Evergreen Lake, and Atrium Ditch.

Year 8: The Village cleaned blockages in the Seavey Ditch at Deerpath and Route 45 and just downstream of the Village Golf Course.

Year 9: A minimum of 161 hours was spent cleaning/removal of flotsam, jetsam and flora at various locales in/along the Seavey Ditch(i.e. Hazeltine, Atrium Ditch, Deerpath) to prevent blockages and or improve access to areas where blockages commonly occur. Staff installed wire mesh fencing surrounding three intake laterals in the Atrium Ditch to prevent future blockages within the storm system. Staff rebuilt the majority of one weir dam to help regulate the flow of water as originally intended.

Year 10: A minimum of 100 hours was spent cleaning/removal of flotsam, jetsam and flora at various locales in/along the Seavey Ditch(i.e. Hazeltine, Atrium Ditch, Deerpath) to prevent blockages and or improve access to areas where blockages commonly occur.

Year 11: A minimum of 120 hours was spent cleaning/removal of flotsam, jetsam and flora at various locales in/along the Seavey Ditch(i.e. Hazeltime, Atrium Ditch, Deerpath) to prevent blockages and or improve access to areas where blockages commonly occur.

Year 12: A minimum of 50 hours was spent cleaning/removal of flotsam, jetsam and flora at various locales in/along the Seavey Ditch(i.e. Hazeltime, Atrium Ditch, Deerpath) to prevent blockages and or improve access to areas where blockages commonly occur.

Year 13: A minimum of 64 hours was spent cleaning/removal of flotsam, jetsam and flora at various locales in/along the Seavey Ditch(i.e. Hazeltime, Atrium Ditch, Deerpath) to prevent blockages and or improve access to areas where blockages commonly occur.

Year 14: A minimum of 48 hours was spent cleaning/removal of flotsam, jetsam and flora at various locales in/along the Seavey Ditch(i.e. Hazeltime, Atrium Ditch, Deerpath) to prevent blockages and or improve access to areas where blockages commonly occur.

Year 15: The Village contracted to remove Buckthorn/invasive vegetation from the Atrium drainage ditch in the Deerpath subdivision. Scope of work totaled 300 lineal feet along both banks and 25 longitudinal feet from water line again on both banks.

Year 16: The Village contracted to remove Buckthorn / invasive vegetation from the Seavey Ditch Creek shoreline. Scope of work totaled 1000 lineal feet along both banks and 15 longitudinal feet from water line on both banks.

Year 17: The Village removed Buckthorn / invasive vegetation from the Seavey Ditch shoreline. Scope of work totaled 900 lineal feet along both banks and 15 longitudinal feet from water line on both sides. This work was performed to prevent future blockages. Restoration work is in progress to establish native species in order to stabilize banks.

## **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 worked with Lake County Health Department (LCHD). Water samples were taken from Big & Little Bear Lakes to draw comparisons of natural lakes versus man-made lakes and nutrient loading.

A Water Quality Improvement Feasibility Study was conducted on Lake Charles. The study revealed upstream sedimentation concerns. Findings were shared with the stakeholders. The Public Works Department implemented Buckthorn removal along the edge of the upstream banks, clearing 1000ft (linear) of invasive species. The area is in the process of being restored with native seed and cover crops.

The Senior Engineering Technician and Landscape Engineering Technician have maintained their Designated Erosion Control Inspector (DECI) Certification while one of the new Engineering Technicians received his DECI Certification. The village now has 3 DECI's on staff. New roles and responsibilities have been assigned for SMPP within the Engineering Division. SMPP responsibilities and documentation in Operation Divisions is important for Year 18.

Staff continues to be trained in Sensible Salt Practices. Steve Maslov, Josh Hansen, Sergio Soto, and Zach Turner (new employee) attended the Sidewalk & Roads workshop on September 30<sup>th</sup> & October 1<sup>st</sup>, held at the Lake County Permit Center. The Village has reduced our Rock Salt purchases from over 2000 tons to 1600 tons on an annual basis. In addition to training, the use of Beet Juice and related ice control products are utilized to reduce impacts to our Lakes and Streams.

The Village continues to partner with the Lake County Stormwater Management Commission on training, education and watershed matters. The Director of Public Works/ Village Engineer serves on the Des Plaines River Watershed Workgroup (DRWW) MS4 Subcommittee. The DRWW has made good progress in sampling and data collection over a few years which will be very useful in the near term in determining "hot spots" within our watershed. These efforts will assist in improving impairments thru their identification and in grant applications.

Solid Waste collection programs continue to be supported for our residents. SWALCO and the Village continue to hold an annual program for Household Waste Collection and in cooperation with our Park District, a Recycle-A-Rama which collects electronics, latex paint, etc. The Village continues to be the Clearinghouse for ReUseAShoe whereby shoes collected throughout Lake County are delivered to our Public Works facility to divert shoes from our waste stream. Our facility is also available for residents to drop off gasoline and used motor oil as well as clothing.

In summary, the Village is performing well in terms of the six SMP categories and activities. Moving forward training and improvement of documentation are items that will occur in Year 18.

**SMPP TASKS/ Tracking Forms**

Annual SMPP Tasks			
BMP	Task	Date Compl'd	SMPP Section
A.6	Post NOI, SMPP and Annual Report on website	5/31/2019	3.2.B
B.4	Present Annual Report to Board during open meeting	5/19/2020	3.3.B
C.3, C.8	Inspect all high priority outfalls	4/29/20	3.4.D.2.b
F.2	Inspect and recondition spreaders and spinners and install these items onto snow removal vehicles. Perform test operations and calibrate distribution rates per National Salt Institution Application Guidelines.	11/1/19	3.7.A.4.a
Multi-Year SMPP Tasks			
BMP	Task	Date Compl'd	SMPP Section
C.1	Inspect for "new" outfalls every 5 years	*	1.4.B
C.3, C.7	Pre-screen 100% of outfalls (20% per year or 100% within every 5-yrs)	**	3.4.D.2.a
C.3, C.8	Complete outfall inspection procedure for all outfalls with observed dry weather flow (20% per year or 100% within every 5-yrs). Document.	**	3.4.D.2.b-c
C.7	Inspect catch basins, clean catch basins (10% per year or 100% within every 10 yrs). Document.	04/29/20	3.7.A.2.b
E.6	Inspect detention basins (20% per year or 100% within every 5-yrs of unassessed facilities)	**	3.6.E.2
*	<b>Action Item:</b> New outfalls (Woodland Chase, Melody Farms)	11/1/19	

**	<b>Action Item:</b> Reset 20% tracking for Year 17-21. Document to meet 5 year plan.		
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<b>As needed SMPP Tasks</b>		
<b>BMP</b>	<b>Task</b>	<b>SMPP Section</b>
A.1, A.4	Attend/sponsor outreach events and scheduled meetings with the general public and distribute materials	3.2.A, 3.2.C
B.6	Evaluate SWPP. Major highlights and deficiencies should be noted annually and the plan revised accordingly on a minimum 5-yr basis, or as necessary.	4.2.C
C.3	Respond to, track and resolve indirect illicit discharges	3.4.C
C.4	Complete source id/tracing procedures for identified illicit discharges. Document.	3.4.D.3
C.5, C.8	Complete removal procedures for found illicit discharges	3.4.D.4
C.9, F.6	Implement Spill Response Plan and provide notice for observed discharges	3.7.B
E.3	Provide sample maintenance plan to pre-wdo sites	3.6.B
E.7, F.2	Inspect swales and overland flow paths for erosion and sediment accumulation	3.7.A.2
F.1	Ensure applicable Village staff trained to implement SMPP	3.7.C
F.1	Encourage employees to attend all relevant training sessions offered by the QLP and other entities on topics related to the goals/objectives of the SWPPP	3.7.C
*	<b>Action Item:</b> New technician was trained on SMPP. Responsibilities have been divided among staff.	5/1/20

<b>On-going SMPP Tasks</b>		
<b>BMP</b>	<b>Task</b>	<b>SMPP Section</b>
All	Support QLP efforts	3.4.A.1

<b>A.1, A.6</b>	<b>Maintain take-a-way racks and provide other appropriate outreach efforts. Provide safe vehicle maintenance, car washing, healthy lawn care, green infrastructure, pool dewatering, information.</b>	<b>3.2.A, 3.2.G-K</b>
<b>A.4</b>	<b>Support and publicize SWALCO collections.</b>	<b>3.2.E</b>
<b>B.3</b>	<b>Participate in QLP or other sponsored watershed planning events (stakeholder groups)</b>	<b>3.3.A</b>
<b>A.6</b>	<b>Maintain link to SMC, link to SWALCO, IEPA, safe vehicle maintenance &amp; car washing information, healthy lawn care, green infrastructure, pool dewatering.</b>	<b>3.2.B, 3.2.G-K</b>
<b>B.6, C.6</b>	<b>Participate in MAC meetings and events hosted by the QLP</b>	<b>3.3.C</b>
<b>B.7</b>	<b>Support adopt-a-highway efforts</b>	<b>3.3.E</b>
<b>B.7</b>	<b>Publicize contact information to encourage submission of complaints, suggestions, requests</b>	<b>3.3.B.2</b>
<b>C.1</b>	<b>Update outfall map (new permits, outfall inventory updates)</b>	<b>1.4.B, 3.4.D.3.c</b>
<b>C.2</b>	<b>Enforce WDO</b>	<b>3.4.A.1</b>
<b>C.2</b>	<b>Enforce IDDE Ordinance</b>	<b>3.4.A.2</b>
<b>D.1- D.6, E.2- E.5</b>	<b>Administer &amp; enforce WDO provisions (plan review, permitting, inspections and enforcement)</b>	<b>3.5.B-I, 3.6.A-E</b>
<b>D.5, E.3</b>	<b>Keep log, track number, respond to se/sc and post construction storm water concerns</b>	<b>3.5.G, 3.6.B</b>
<b>E.7, F.4</b>	<b>Street sweeping</b>	<b>3.7.A.1</b>
<b>F.4</b>	<b>Remove litter/debris from Village property, roadway right-of-ways, facilities, park &amp; rec areas</b>	<b>3.7.A.3</b>
<b>F.4</b>	<b>Collection and disposal of "road kill" and carcasses</b>	<b>3.7.A.7</b>
<b>F.3</b>	<b>Follow Snow Removal and Ice Control BMP in SMPP</b>	<b>3.7.A.4</b>
<b>F.4</b>	<b>Vehicle Maintenance collection and disposal (waste oil, antifreeze, batteries, tires)</b>	<b>3.7.A.6</b>
<b>F.4</b>	<b>Prevent/Minimize illicit discharges from Special Events</b>	<b>3.7.A.11</b>



## **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.

Year 9: Due to budgetary constraints, no information or monitoring data was collected during Year 9. However, during Year 10, the MS4 anticipates that it will identify appropriate water quality sampling locations and begin conducting annual monitoring at these locations. Monitoring parameters will likely include: [list of monitoring parameters (e.g., copper, phosphate, chlorine, ammonia, alkalinity, and pH)].

Year 10: The Village sampled water in the Seavey Ditch at 2 locations in the village, at the inflow near Hazeltine Drive and the outflow near the Sugar Creek Park. Hazeltine test results, pH 7.5, Total alkalinity 180 ppm, Total Hardness 180 ppm, Nitrate 0, Nitrite 0, Iron 0.0, Copper 0.0, Free Chlorine 0.0, Total Chlorine 0.0. Sugar Creek Park test results, pH 7.5, Total alkalinity 120 ppm, Total Hardness 120 ppm, Nitrate 0, Nitrite 0, Iron 0.0, Copper 0.0, Free Chlorine 0.0, Total Chlorine 0.0.

Year 11: The Village sampled water in the Seavey Ditch at 2 locations in the village, at the inflow near Hazeltine Drive and the outflow near the Sugar Creek Park. Hazeltine test results, pH 6.5, Total alkalinity 80 ppm, Total Hardness 180 ppm, Nitrate 0, Nitrite 0, Iron 0.0, Copper 0.1, Free Chlorine 0.0, Total Chlorine 0.0. Sugar Creek Park test results, pH 8.0, Total alkalinity 180 ppm, Total Hardness 180 ppm, Nitrate 0, Nitrite 0, Iron 0.0, Copper 0.1, Free Chlorine 0.0, Total Chlorine 0.0.

Year 12: The Village sampled water in the Seavey Ditch at 2 locations in the village, at the inflow near Hazeltine Drive and the outflow near the Sugar Creek Park. Hazeltine test results, pH 7.0, Total alkalinity 120 ppm, Total Hardness 50 ppm, Nitrate 0, Nitrite 0, Iron 0.0, Copper 0.0, Free Chlorine 0.0, Total Chlorine 0.0. Sugar Creek Park test results, pH 7.0, Total alkalinity 120 ppm, Total Hardness 0 ppm, Nitrate 0, Nitrite 0, Iron 0.0, Copper 0.1, Free Chlorine 0.0, Total Chlorine 0.0.

Year 13: The Village joined the Upper Des Plaines River Watershed consortium who performs sampling and water testing.

Year 14: The Village joined the Upper Des Plaines River Watershed consortium who performs sampling and water testing.

Year 15: The Village joined the Upper Des Plaines River Watershed consortium who performs sampling and water testing.

Year 16: The Village joined the Upper Des Plaines River Watershed consortium who performs sampling and water testing.

Year 17: The Village joined the Upper Des Plaines River Watershed consortium who performs sampling and water testing.

### **IDDE Monitoring and Data Collection, Year 16**

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

Year 10: No dry weather flow investigations were conducted during Year 10. However, during Year 11, the MS4 anticipates that it will continue its dry weather flow investigations and associated water quality testing in accordance with the procedures outlined in its SMPP.

Year 11: No dry weather flow investigations were conducted during Year 11. However, during Year 12, the MS4 anticipates that it will continue its dry weather flow investigations and associated water quality testing in accordance with the procedures outlined in its SMPP.

Year 12: The Village worked with the Upper Des Plaines Watershed to develop a sampling program and protocols. This newly formed group will share data to better understand hot spots. Consultant to be hired by the Watershed Group and funded by the member municipalities starting June 1, 2015.

Year 16: The Village worked with the Upper Des Plaines Watershed who are performing sampling on a watershed basis. Met with Lake County Health Department to review Lake Charles, Big Bear Lake & Little Bear Lake for additional sampling on a proactive basis (i.e. effort not based on poor sampling results).

Year 17: Lake County Health Department performed additional sampling on Big & Little Bear Lakes and Lake Charles. The Village continues to participate as a member of the Upper Des Plaines Watershed workgroup to identify impairments.

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

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

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

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

Year 18	MS4
<b>A. Public Education and Outreach</b>	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
	A.3 Public Service Announcement
X	A.4 Community Event
	A.5 Classroom Education Material
X	A.6 Other Public Education
<b>B. Public Participation/Involvement</b>	
	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
X	B.4 Public Hearing
X	B.5 Volunteer Monitoring
X	B.6 Program Coordination
X	B.7 Other Public Involvement
<b>C. Illicit Discharge Detection and Elimination</b>	
X	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
X	C.3 Detection/Elimination Prioritization Plan
X	C.4 Illicit Discharge Tracing Procedures
X	C.5 Illicit Source Removal Procedures
X	C.6 Program Evaluation and Assessment
X	C.7 Visual Dry Weather Screening
X	C.8 Pollutant Field Testing
X	C.9 Public Notification
X	C.10 Other Illicit Discharge Controls

Year 18	MS4
<b>D. Construction Site Runoff Control</b>	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
X	D.7 Other Construction Site Runoff Controls
<b>E. Post-Construction Runoff Control</b>	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
X	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
X	E.7 Other Post-Const Runoff Controls
<b>F. Pollution Prevention/Good Housekeeping</b>	
X	F.1 Employee Training Program
X	F.2 Inspection and Maintenance Program
X	F.3 Municipal Operations Storm Water Control
X	F.4 Municipal Operations Waste Disposal
X	F.5 Flood Management/Assess Guidelines
X	F.6 Other Municipal Operations 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 17, the MS4 plans to continue to support and supplement QLP efforts, as described in detail in the MS4’s SMPP and in brief below. The MS4’s SMPP can be viewed at <https://www.vernonhills.org/314/Stormwater-Management>

### A. Public Education and Outreach

In addition to the extensive QLP efforts, the MS4 utilizes a variety of methods to educate and provide outreach to the public about the importance of managing pollutants that potentially could enter the stormwater system. The MS4’s Public Education and Outreach program includes: the distribution of educational material via take-away racks, municipal newsletters, website, at outreach events and by supporting efforts of the Solid Waste Agency of Lake County (SWALCO).

#### Measurable Goal(s):

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

### 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.

#### 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.
- Enforcement of the 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.
- Enforcement of the WDO in ensuring that all applicable developments are in compliance with the WDO.

**F. Pollution Prevention/Good Housekeeping**

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

Measurable Goal(s):

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

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

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

- **Part E1** identifies changes to Best Management Practices (BMPs) that occurred during Year 16 and includes information about how these changes affected the QLP's stormwater management program.
- **Part E2** describes the stormwater management activities that the QLP performed during Year 16.
- **Part E3** summarizes the information and data collected by the QLP during Year 17.
- **Part E4** describes the stormwater management activities that the QLP plans to undertake during Year 17.
- **Part E5** lists the construction projects conducted by the QLP during Year 17.

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

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

**✓ indicates BMPs that were changed during Year 17**

Year 17	
QLP	
<b>A. Public Education and Outreach</b>	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
X	A.3 Public Service Announcement
X	A.4 Community Event
X	A.5 Classroom Education Material
X	A.6 Other Public Education
<b>B. Public Participation/Involvement</b>	
X	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
	B.4 Public Hearing
	B.5 Volunteer Monitoring
X	B.6 Program Coordination
	B.7 Other Public Involvement
<b>C. Illicit Discharge Detection and Elimination</b>	
	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
	C.3 Detection/Elimination Prioritization Plan
	C.4 Illicit Discharge Tracing Procedures
	C.5 Illicit Source Removal Procedures
	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
	C.9 Public Notification
X	C.10 Other Illicit Discharge Controls

Year 17	
QLP	
<b>D. Construction Site Runoff Control</b>	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
<b>E. Post-Construction Runoff Control</b>	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
X	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
X	E.7 Other Post-Const Runoff Controls
<b>F. Pollution Prevention/Good Housekeeping</b>	
X	F.1 Employee Training Program
	F.2 Inspection and Maintenance Program
	F.3 Municipal Operations Storm Water Control
	F.4 Municipal Operations Waste Disposal
X	F.5 Flood Management/Assess Guidelines
X	F.6 Other Municipal Operations Controls

## Part E2. QLP Status of Compliance with Permit Conditions, Year 17

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

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

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

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

##### Measurable Goal(s):

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

##### Year 17 QLP activities:

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

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

##### Measurable Goal(s):

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

##### Year 17 QLP activities:

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

#### **A.4 Community Event**

##### Measurable Goal(s):

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

##### Year 17 QLP activities:

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

- SMC sponsored (2) Designated Erosion Control Inspector (DECI) Workshop held on 4/11/2019 and 2/26/2020.



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

#### A.5 Classroom Education

##### Measurable Goal(s):

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

##### Year 17 QLP activities:

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

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

#### A.6 Other Public Education

##### Measurable Goal(s):

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

##### Year 17 QLP activities:

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

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

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

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

#### Measurable Goal(s):

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

#### Year 17 QLP activities:

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

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

#### Measurable Goal(s):

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

#### Year 17 QLP activities:

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

## **B.6 Program Coordination**

### Measurable Goal(s):

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

### Year 17 QLP activities:

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

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

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

#### Measurable Goal(s):

- Continue to enforce the countywide WDO.

#### Year 17 QLP activities:

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

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

#### Measurable Goal(s):

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

#### Year 17 QLP activities:

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

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

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

#### Measurable Goal(s):

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

#### Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.
- SMC continues to administer the Designated Erosion Control Inspector (DECI) program as outlined by the WDO, ([URL hyperlink](#)).
  - Total DECI's who have passed the exam (to date): 825.
  - DECI's who have passed the exam between 03/01/2019 – 02/29/2020: 48.
  - Total listed DECI's (to date): 282 (DECI completed certification process).
  - DECI's have a recertification process every (3) years. Current cycle 2020-2023.

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

### Measurable Goal(s):

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

### Year 17 QLP activities:

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

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

### Measurable Goal(s):

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

### Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.

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

### Measurable Goal(s):

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

### Year 17 QLP activities:

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

## **D.5 Public Information Handling Procedures**

### Measurable Goal(s):

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

### Year 17 QLP activities:

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

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

### Measurable Goal(s):

- Track number of site inspections conducted by SMC.

### Year 17 QLP activities:

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

**E. Post-Construction Runoff Control**

**E.2 Regulatory Control Program**

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.

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

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.

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

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.

**E.5 Site Inspections During Construction**

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.

**E.6 Post-Construction Inspections**

Measurable Goal(s):

- Continue to enforce the countywide WDO.

Year 17 QLP activities:

- SMC continues to enforce the countywide WDO.

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

Measurable Goal(s):

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

Year 17 QLP activities:

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

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

### State of Lake County's Waters February 2020

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

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

#### **Streams**

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

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

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

Table E3.1 2014 303(d) streams removed from 2016 303(d) list						
Assessment ID	Name	Miles		Assessment ID	Name	Miles
IL_G-08	Des Plaines River	0.98		IL_QE-01	Dead Dog Creek	4.02
IL_GV-01	Bull Creek	2.33		IL_DTZS-01	Flint Creek	9.66
IL_RGZB	Hastings Lake	0.34		IL_RTJ	Long Lake	2.85
IL_DT-35	Fox River	5.03		IL_RHK	Eleanor Lake	0.36
IL_HCCB-05	West Fork North Branch	5.73		IL_GWA	North Mill Creek	6.62
IL_GST	Buffalo Creek	8.77		IL_RGZE	Slough Lake	0.42
IL_RGZA	Crooked Lake	1.00				

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

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

### **Lakes**

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

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

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

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

### **Lake Michigan**

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

Located within Illinois is 196 square miles of open water of Lake Michigan, or about thirteen percent of the total open water located within Illinois. These waters were assessed for the 2016 IIWQR and Section



303(d) List, and all 196 assessed square miles were rated as Fully Supporting for the following uses: aquatic life use, primary contact use, secondary contact use, and public and food processing water supply use. However, fish consumption uses in all 196 assessed square miles of open water was rated as Not Supporting due to contamination from polychlorinated biphenyls (PCBs) and mercury. Additionally, aesthetic quality use in all 196 assessed square miles of open water was rated as Not Supporting due to exceedances of the Lake Michigan open water standard for total phosphorus. It should be noted that such exceedances do not necessarily indicate that there are offensive conditions in Lake Michigan due to excessive algal or aquatic plant growth.

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

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

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

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

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

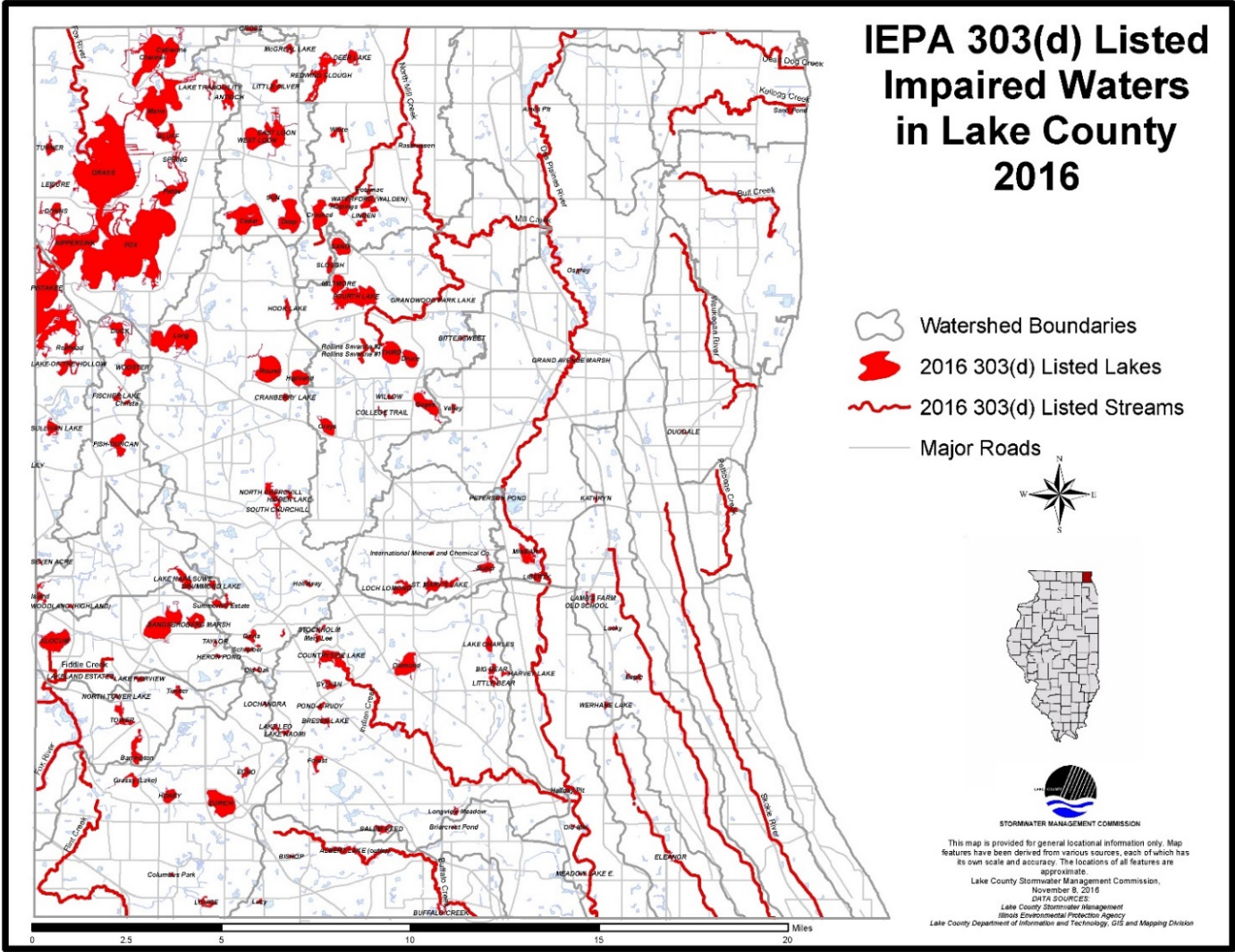


Figure E3.1

## **Monitoring**

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

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

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

## Part E4. QLP Summary of Year 18 Stormwater Activities

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

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

Year 17	
QLP	
<b>A. Public Education and Outreach</b>	
X	A.1 Distributed Paper Material
X	A.2 Speaking Engagement
X	A.3 Public Service Announcement
X	A.4 Community Event
X	A.5 Classroom Education Material
X	A.6 Other Public Education
<b>B. Public Participation/Involvement</b>	
X	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
	B.4 Public Hearing
	B.5 Volunteer Monitoring
X	B.6 Program Coordination
	B.7 Other Public Involvement
<b>C. Illicit Discharge Detection and Elimination</b>	
	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
	C.3 Detection/Elimination Prioritization Plan
	C.4 Illicit Discharge Tracing Procedures
	C.5 Illicit Source Removal Procedures
	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
	C.9 Public Notification
X	C.10 Other Illicit Discharge Controls

Year 17	
QLP	
<b>D. Construction Site Runoff Control</b>	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
X	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
<b>E. Post-Construction Runoff Control</b>	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
X	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
X	E.7 Other Post-Const Runoff Controls
<b>F. Pollution Prevention/Good Housekeeping</b>	
X	F.1 Employee Training Program
	F.2 Inspection and Maintenance Program
	F.3 Municipal Operations Storm Water Control
	F.4 Municipal Operations Waste Disposal
X	F.5 Flood Management/Assess Guidelines
X	F.6 Other Municipal Operations Controls

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Measurable Goal(s):

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

**A.5 Classroom Education Material**

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

Measurable Goal(s):

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

**A.6 Other Public Education**

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

Measurable Goal(s):

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

**B. Public Participation/Involvement**

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

**B.1 Public Panel**

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

Measurable Goal(s):

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

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

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

Measurable Goal(s):

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

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

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

Measurable Goal(s):

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

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

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

Measurable Goal(s):

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

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

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

Measurable Goal(s):

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

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

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

Measurable Goal(s):

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

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

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

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

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

Measurable Goal(s):

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

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

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

Measurable Goal(s):

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

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

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

Measurable Goal(s):

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

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

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



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

Measurable Goal(s):

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

**D.5 Public Information Handling Procedures**

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

Measurable Goal(s):

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

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

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

Measurable Goal(s):

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

**E. Post-Construction Runoff Control**

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

**E.2 Regulatory Control Program**

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

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

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

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

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

**E.5 Site Inspections During Construction**

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

Measurable Goal(s):

- Continue to administer and enforce the WDO.

**E.6 Post-Construction Inspections**

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

Measurable Goal(s):

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

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

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

Measurable Goal(s):

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

**F. Pollution Prevention/Good Housekeeping**

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

**F.1 Employee Training Program**

SMC will assist Lake County MS4s with the development and implementation of their employee training programs by maintaining a list of known employee training resources and opportunities,

making available a software-based employee training program, and providing technical assistance to local MS4s. In addition, each year, SMC will sponsor or co-sponsor training workshops.

Measurable Goal(s):

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

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

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

Measurable Goal(s):

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

**F.6 Other Municipal Operations Controls**

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

Measurable Goal(s):

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

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

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

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

Project Name	Project Size (acres)	Construction Start Date	Construction End Date
V.H.A.C. Sports Turf Improvements	4.5	1/14/20	4/28/20