Illinois Environmental Protection Agency

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

Division of Water Pollution Control
ANNUAL FACILITY INSPECTION REPORT
for NPDES Permit for Storm Water Discharges from Separate Storm Sewer Systems (MS4)

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

Report Period: From March, 2018 To March, 2019

Permit No. ILR40 0210

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

Name: Village of Hoffman Estates Mailing Address 1: 1900 Hassell Road

Mailing Address 2: County: Cook

City: Hoffman Estates State: IL Zip: 60169 Telephone: 847-252-5800

Contact Person: Alan Wenderski, P.E. Email Address: alan.wenderski@hoffmanestates.org
(Person responsible for Annual Report)

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

Cook County Kane County

THE FOLLOWING ITEMS MUST BE ADDRESSED.

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

1. Public Education and Outreach ☐
2. Public Participation/Involvement ☐
3. Illicit Discharge Detection & Elimination ☐
4. Construction Site Runoff Control ☐
5. Post-Construction Runoff Control ☐
6. Pollution Prevention/Good Housekeeping ☐

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

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

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

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

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

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

Owner Signature: Date: 5/30/19

Alan Wenderski Village Engineer

Printed Name: Title:

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

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

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

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

ANNUAL FACILITY INSPECTION REPORT FOR NPDES PERMIT FOR STORM WATER DISCHARGES FROM SEPARATE STORM SEWER SYSTEMS (MS4)

Village of Hoffman Estates
Year 16: March 2018 – March 2019

Section A. Changes to the Best Management Practices

There have been no changes to the Best Management Practices (BMPs) for the six minimum control measures as submitted in the Notice of Intent (NOI) for the Village of Hoffman Estates for the reporting period from March 2018 to March 2019.

Section B. Status of Compliance with Permit Conditions

The Village of Hoffman Estates is committed to the implementation of the BMPs in order to meet the requirements of the NPDES Phase II Stormwater Program. The status or progress of most of the measurable goals have been met or exceeded. This is especially noted for all site development construction projects.

The Village of Hoffman Estates has implemented numerous Best Management Practices (BMPs) in compliance with the goals outlined in the Village's 2014 Notice of Intent (NOI). The following is a status report on each of the BMPs and the activities that were undertaken during the March 2018 to March 2019 reporting period. The status or progress summary for each of the measurable goals in the minimum six compliance areas is presented below.

1. Public Education and Outreach

a. BMP No. A.1 Distributed Paper Material

Measurable Goal(s): Publish one stormwater pollution prevention related article annually in the Village-wide newsletter.

Milestones: Year 16: Publish one stormwater pollution prevention related article annually.

BMP Status: The Village of Hoffman Estates publishes a newsletter that is mailed directly to residents and businesses in the Village. The Village continued publishing stormwater quality articles within the newsletter during the March 2018 to March 2019 reporting period.

Two articles were published in May 2018 that were titled "Facts about Sanitary and Storm Sewers" and "Storm Sewer Infrastructure", discussing water conservation tips and the efforts of the Village to keep debris and chemicals out of the storm sewer system with help from residents and businesses. Another article was published in May 2018, titled "Free Advice on Solving Drainage Concerns" that advertises the Village's effort to help residents to solve their drainage problem properly without creating adverse stormwater pollution. An additional article was published in August 2018, titled "10 Facts about Storm Water" that support the Village's efforts to educate residents and businesses about stormwater quality. A new brief article subject published in October 2018, titled "Help Keep Storm Sewers Clear This Fall", informed residents and businesses about the Village's Municipal Code not allowing yard waste and debris to enter the storm sewer system, causing obstructions, and mentioned how to remove the yard waste properly.

The Village also maintains an electronic copy of its stormwater quality articles online on the Village of Hoffman Estates' website.

b. BMP No. A.3 Public Service Announcement

Measurable Goal(s): Twice a year, announce residential and commercial waste and recycling management opportunities through the Village website and newsletter.

Milestones: Year 16: Twice a year, announce residential and commercial waste and recycling management opportunities.

BMP Status: The Village of Hoffman Estates publishes a newsletter that is mailed directly to residents and businesses in the Village. The Village continued publishing various notices of recycling and waste management opportunities for almost every month during the reporting period. For example, in April 2018, notices were published about an electronics recycling opportunity, that yard waste collection had resumed, and that Public Works was coordinating a spring branch pick up service. For June 2018, the residents and businesses were notified of the do's and don'ts of plastic film recycling. The August 2018 newsletter informed residents that the Village will be hosting a large recycling event to collect various electronics, expired drugs/sharps, CFL light bulbs, batteries, printer cartridges and latex paint. In December 2018 and January 2019, reminders were sent about recycling options for Christmas trees and holiday lights. These articles and many more reminded readers of the proper disposal or recycling options of various items.

In 2018, due to the Village-wide notices about recycling opportunities, 1,332 pounds of holiday lights and compact fluorescent lamp (CFL) light bulbs were recycled, 78.25 tons of electronics were collected throughout the reporting period from April through November and an additional 19.7 tons of electronics were collected at the one-day recycling event in August 2018.

The Village of Hoffman Estates utilizes the services of the Solid Waste Agency of Northern Cook County (SWANCC) to accept household hazardous materials from Hoffman Estates residents and businesses. Various events occur throughout the reporting period that includes arranging for drop off events and supplying the location of permanent SWANCC facilities that accept the hazardous items.

The Village updates the Village website by posting copies of the newsletter and inserting information within the Sustainability Commission, Public Works, Transportation and Engineering and Code Enforcement pages for residents and business to access. Upcoming recycling events are announced on the Village's home page for all to see.

c. BMP No. A.4 Community Event

Measurable Goal(s): The Village Improvement Day will be held annually to help decrease environmental and stormwater pollution.

Milestones: Year 16: Continue to host Improvement Day annually.

BMP Status: The Village of Hoffman Estates Public Works Department conducted an annual cleanup event from March 26 through March 30, 2018. This event was a department-wide effort including individuals from each division. Debris was removed from rights-of-way and Village grounds at Village Hall, Hoffman Estates Police Department, Golf and Higgins Road, Roselle Road, Algonquin Road, and Huntington Boulevard.

At the Public Works Open House event held on November 3, 2018, a storm water brochure was distributed to attendees labeled, "After the Storm – A Citizen's Guide to Understanding Stormwater" and a new one called "Stream Maintenance" to inform attendees about the benefits of maintaining a clear stream to prevent flooding.

2. Public Participation/Involvement

a. BMP No. B.1 Public Panel

Measurable Goal(s): Hold one meeting annually to discuss the NOI, MS4 annual inspection report, the Village's Storm Water Management Plan and stormwater related activities and projects.

Milestones: Year 16: The Storm Water Management Committee will meet.

BMP Status: The Storm Water Management Committee met on April 3, 2018 and discussed the NPDES permit and Stormwater Management Plan, Village Drainage Policy, and various Village-wide storm sewer improvement projects.

b. BMP No. B.7 Other Public Involvement

Measurable Goal(s): The Village will inform the residents and businesses twice a year of the existence of a contact number to report stormwater related issues.

Milestones: Year 16: Inform residents and businesses of the existence of a contact number.

BMP Status: The Village of Hoffman Estates publishes a newsletter that is mailed directly to residents and businesses in the Village. The Village publishes a contact number to report illegal dumping or spills within its stormwater quality articles located in the newsletter during the March 2018 to March 2019 reporting period.

Three articles were published during this reporting period that requested the residents and businesses help in keeping stormwater pollution at a minimum and how to report any issues. Two of those articles were published in May 2018 that were titled “Facts about Sanitary and Storm Sewers” and “Storm Sewer Infrastructure”, discussing the efforts of the Village to keep debris and chemicals out of the storm sewer system with help from residents and businesses. The third article was published in August 2018, titled “10 Facts about Storm Water” that support the Village’s efforts to educate residents and businesses about stormwater quality.

The Village also maintains an electronic copy of its stormwater quality articles online on the Village of Hoffman Estates’ website. The Village of Hoffman Estates Public Works Department also has a webpage outlining its storm sewer maintenance responsibilities

where readers are encouraged use the contact number to report any violations or contaminants.

3. Illicit Discharge Detection and Elimination

a. BMP No. C.1 Storm Sewer Map Preparation

Measurable Goal(s): Annually review the storm sewer map with respect to Village projects and new developments that have occurred and update as needed.

Milestones: Year 16: Review the storm sewer map and update as needed.

BMP Status: The Village of Hoffman Estates has an existing storm sewer map that is updated routinely in the Village's GIS system. Both Public Works and GIS employees monitor, maintain and verify the storm sewer system map. The GIS map allows detailed information to be incorporated into the drawings of each pipeline, structure and outfall. As-built information is collected and entered for all completed site development and other Village projects.

b. BMP No. C.2 Regulatory Control Program

Measurable Goal(s): Enforce the Village Code to regulate discharges into the storm sewer system.

Milestones: Year 16: Continue to enforce the Village Code for illicit discharges.

BMP Status: The Village of Hoffman Estates continues to enforce its Village Code that prohibits non-stormwater discharges into its storm sewer system.

c. BMP No. C.3/C.7 Detection/Elimination Prioritization Plan

Measurable Goal(s): Continually inspect and monitor outfalls and discharges for the detection and elimination of illicit discharges.

Milestones: Year 16: Continue to inspect and monitor for illicit discharges.

BMP Status: The Village Public Works Department preforms a monthly inspection of all outfalls and creek lines to monitor any illicit discharge. Inspection results are recorded and maintained for historical reference.

The Public Works Department cleaned over 79 catch basins and cleaned 750 feet of Poplar Creek East Branch during the reporting period.

d. BMP No. C.9 Public Notification

Measurable Goal(s): The Village will inform the residents and businesses annually of the existence of a contact number to report illegal dumping or illicit discharges.

Milestones: Year 16: Inform residents and businesses of the existence of a contact number.

BMP Status: Through published Village-wide newsletter articles, Facebook and Twitter pages, and the Village website about storm water quality, the public is encouraged to report any deficiencies, blockages or illicit discharges directly to Public Works or the Police non-emergency number. Homeowners are encouraged to report any possible code violations and/or contaminants that may be or have been dumped down a storm sewer catch basin inlet or creek line.

e. BMP No. C.10 Other Illicit Discharge Controls

Measurable Goal(s): Annually review the streets considered for construction in the Street Project and indicate on the plans which inlet structures are to receive stenciled (or equivalent) messages.

Milestones: Year 16: Continue program to stencil inlets within the Street Project.

BMP Status: The Village's street construction project requires that all new storm drain grates shall be Neenah R-3278-A, with barred style curb box that shows "DUMP NO WASTE DRAINS TO WATERWAY" lettering on the grate, or an approved equivalent grate for Type B6.12 and Neenah R-3501-P for M3.12 curb and gutter. For the 2018 Street Revitalization Project, 69 new B6.12 frame and grates and 35 new M3.12 frame and grates, for a total of 94, were installed at various street locations.

4. <u>Construction Site Runoff Control</u>

a. BMP No. D.1/D.2/D.4/D.6 Regulatory Control Program, Erosion and Sediment Control BMPs, Site Plan Review Procedures, Site Inspection/Enforcement Procedures

Measurable Goal(s): Continually enforce the Village Code and the Engineering Development Standards Manual by requiring erosion and sediment control BMPs and inspecting construction sites.

Milestones: Year 16: Review site plans for appropriate BMPs, inspect construction sites for proper installation and maintenance of the BMPs, and respond to complaints.

BMP Status: The Village requires erosion and sediment control BMPs for all projects. The Village reviews site plans and inspects construction sites to ensure conformance with the Village Ordinance. Per Ordinance 10-3-13, the Village requires erosion and sediment control BMP designs prior to construction. The Village reviews the ESC plans for approval.

5. Post-Construction Runoff Control

a. BMP No. E.2/E.3/E.4/E.5/E.6 Regulatory Control Program, Long Term O & M Procedures, Pre-Construction Review of BMP Designs, Site Inspections During Construction, Post-Construction Inspections

Measurable Goal(s): Continually enforce the Village Code and the Engineering Development Standards Manual to prevent stormwater pollution resulting from post-construction runoff.

Milestones: Year 16: Review site plans for appropriate BMPs, inspect construction sites for substantial conformance with the approved site plans, and ensure long-term maintenance of the BMPs.

BMP Status: Per Ordinance 10-3-13, the Village requires erosion and sediment control BMP designs prior to construction. The Village reviews the ESC plans for approval. New detention basin designs and BMPs are incorporated depending on site conditions to lessen polluted runoff from existing sites. Construction sites are inspected during and after construction for conformance and to facilitate in reducing polluted runoff.

6. Pollution Prevention/Good Housekeeping

a. BMP No. F.1 Employee Training Program

Measurable Goal(s): Annually provide Village employees with seminars or workshops for stormwater pollution prevention for municipal operations and illicit discharge detection and

elimination. Other training occurs less formally in an on-the-job fashion.

Milestones: Year 16: Continue stormwater pollution prevention training for Village employees.

BMP Status: The Village of Hoffman Estates Public Works Department currently conducts regular employee training including new employee orientation to prevent or reduce stormwater pollution from municipal activities. Employee training for material handling, storage, inspection and maintenance is also a component conducted by the Village in preventing or reducing stormwater pollution.

The Public Works Department conducted its annual Hazardous Material Awareness Training inclusive of MSDS review and GHS Hazard Information Training for all employees. In addition, annual staff training on winter road salt and deicing applications was completed before the snow season began.

The Village also participates in the DuPage River Salt Creek Workgroup (DRSCW) workshops, training, special meetings and educational activities for additional opportunities for training.

b. BMP No. F.2 Inspection and Maintenance Program

Measurable Goal(s): Continually inspect and maintain the storm sewer system.

Milestones: Year 16: Continue conducting formal inspection and maintenance.

BMP Status: The Village of Hoffman Estates Public Works Department has a formal Standard Operating Procedure in place for Drainage System Maintenance that is followed semi-annually or more frequently after a major storm event. Currently, the storm sewer inspection and maintenance program is conducted on various inlets and outfalls throughout the Village as noted on the inspection log. The regular inspection and maintenance program is also designed to reduce pollutant runoff from municipal facilities and operations. Employee training for material handling, storage, inspection and maintenance is also a component conducted by the Village in preventing or reducing stormwater pollution.

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

Measurable Goal(s): Continue the street sweeping program. Continue offering curbside yard waste and leaf collection weekly from April through the end of November.

Milestones: Year 16: Continue current programs with the current schedule.

BMP Status: The Village of Hoffman Estates' Public Works Department oversees the street sweeping program which conducted four full sweeps in 2018; spring, summer and two fall sweeps. A partial sweep was also completed in the summer.

The Village continues to offer curbside yard waste and leaf collection weekly from April to November through the Village's waste management provider. Spring and fall branch pick up is also offered by the Public Works Department. These services are advertised through the Village-wide newsletter.

Section C. Results of Information Collected/Analyzed/Monitoring

The Village of Hoffman Estates participates in the DuPage River Salt Creek Workgroup (DRSCW) and supports its water quality monitoring program, which meets the ILR40 permit objectives and requirements. The DRSCW reports containing monitoring data that was collected and analyzed, for Salt Creek, including reducing chloride impairments from deicing measures, can be reviewed under the attachment for Section C. The Village is also a member and participant of the Upper Salt Creek Watershed Planning Council with the Northwest Municipal Conference.

Various agencies have water quality monitoring data for Poplar Creek, including the Fox River Study Group (FRSG), Poplar Creek Watershed Planning Council, IEPA, Forest Preserves of Cook County, the Illinois State Water Survey and the Metropolitan Water Reclamation District of Chicago's Watershed Management Ordinance (WMO).

In accordance with ILR40 V.A.2.b.x, the FRSG satisfies the monitoring requirement for the portion of the community located within the Fox River Watershed, which includes Poplar Creek, a contributor to the Fox River Watershed. The FRSG has developed the Fox River Implementation Plan (FRIP) to take the place of a traditional TMDL for dissolved oxygen and nuisance algae in the Fox River. The FRSG directly coordinates with the IEPA on the efforts described in the FRIP.

The Village of Hoffman Estates is committed to participating in the FRSG and supporting its efforts and those developed by the Poplar Creek Watershed Planning Council through the Northwest Municipal Conference.

Section D. Summary of Planned Storm Water Activities During the Next Reporting Cycle

A summary of the stormwater activities planned by the Village of Hoffman Estates during the next reporting cycle is presented below:

1. Public Education and Outreach

a. BMP No. A.1 Distributed Paper Material

Measurable Goal(s): Publish one stormwater pollution prevention related article annually in the Village-wide newsletter.

Milestones: Year 17: Publish one stormwater pollution prevention related article annually.

b. BMP No. A.3 Public Service Announcement

Measurable Goal(s): Twice a year, announce residential and commercial waste and recycling management opportunities through the Village website and newsletter.

Milestones: Year 17: Twice a year, announce residential and commercial waste and recycling management opportunities.

c. BMP No. A.4 Community Event

Measurable Goal(s): The Village Improvement Day will be held annually to help decrease environmental and stormwater pollution.

Milestones: Year 17: Continue to host Improvement Day annually.

2. Public Participation/Involvement

a. BMP No. B.1 Public Panel

Measurable Goal(s): Hold one meeting annually to discuss the NOI, MS4 annual inspection report, the Village's Storm Water Management Plan and stormwater related activities and projects.

Milestones: Year 17: The Storm Water Management Committee will meet.

b. BMP No. B.7 Other Public Involvement

Measurable Goal(s): The Village will inform the residents and businesses twice a year of the existence of a contact number to report stormwater related issues.

Milestones: Year 17: Inform residents and businesses of the existence of a contact number.

3. Illicit Discharge Detection and Elimination

a. BMP No. C.1 Storm Sewer Map Preparation

Measurable Goal(s): Annually review the storm sewer map with respect to Village projects and new developments that have occurred and update as needed.

Milestones: Year 17: Review the storm sewer map and update as needed.

b. BMP No. C.2 Regulatory Control Program

Measurable Goal(s): Enforce the Village Code to regulate discharges into the storm sewer system.

Milestones: Year 17: Continue to enforce the Village Code for illicit discharges.

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

Measurable Goal(s): Continually inspect and monitor outfalls and discharges for the detection and elimination of illicit discharges.

Milestones: Year 17: Continue to inspect and monitor for illicit discharges.

d. BMP No. C.7 Visual Dry Weather Screening

Measurable Goal(s): Continually inspect and monitor outfalls and discharges for the detection and elimination of illicit discharges.

Milestones: Year 17: Continue to inspect and monitor for illicit discharges.

e. BMP No. C.9 Public Notification

Measurable Goal(s): The Village will inform the residents and businesses annually of the existence of a contact number to report illegal dumping or illicit discharges.

Milestones: Year 17: Inform residents and businesses of the existence of a contact number.

f. BMP No. C.10 Other Illicit Discharge Controls

Measurable Goal(s): Annually review the streets considered for construction in the Street Project and indicate on the plans which inlet structures are to receive stenciled (or equivalent) messages.

Milestones: Year 17: Continue program to stencil inlets (and/or equivalent, by replacing frame and grates) within the Street Project.

4. Construction Site Runoff Control

a. BMP No. D.1 Regulatory Control Program

Measurable Goal(s): Continually enforce the Village Code and the Engineering Development Standards Manual by requiring erosion and sediment control BMPs and inspecting construction sites.

Milestones: Year 17: Review site plans for appropriate BMPs, inspect construction sites for proper installation and maintenance of the BMPs, and respond to complaints.

b. BMP No. D.2 Erosion and Sediment Control BMPs

Measurable Goal(s): Continually enforce the Village Code and the Engineering Development Standards Manual by requiring erosion and sediment control BMPs and inspecting construction sites.

Milestones: Year 17: Review site plans for appropriate BMPs, inspect construction sites for proper installation and maintenance of the BMPs, and respond to complaints.

c. BMP No. D.4 Site Plan Review Procedures

Measurable Goal(s): Continually enforce the Village Code and the Engineering Development Standards Manual by requiring erosion and sediment control BMPs and inspecting construction sites.

Milestones: Year 17: Review site plans for appropriate BMPs, inspect construction sites for proper installation and maintenance of the BMPs, and respond to complaints.

d. BMP No. D.6 Site Inspection/Enforcement Procedures

Measurable Goal(s): Continually enforce the Village Code and the Engineering Development Standards Manual by requiring erosion and sediment control BMPs and inspecting construction sites.

Milestones: Year 17: Review site plans for appropriate BMPs, inspect construction sites for proper installation and maintenance of the BMPs, and respond to complaints.

5. Post-Construction Runoff Control

a. BMP No. E.2 Regulatory Control Program

Measurable Goal(s): Continually enforce the Village Code and the Engineering Development Standards Manual to prevent stormwater pollution resulting from post-construction runoff.

Milestones: Year 17: Review site plans for appropriate BMPs, inspect construction sites for substantial conformance with the approved site plans, and ensure long-term maintenance of the BMPs.

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

Measurable Goal(s): Continually enforce the Village Code and the Engineering Development Standards Manual to prevent stormwater pollution resulting from post-construction runoff.

Milestones: Year 17: Review site plans for appropriate BMPs, inspect construction sites for substantial conformance with the approved site plans, and ensure long-term maintenance of the BMPs.

c. BMP No. E.4 Pre-Construction Review of BMP Designs

Measurable Goal(s): Continually enforce the Village Code and the Engineering Development Standards Manual to prevent stormwater pollution resulting from post-construction runoff.

Milestones: Year 17: Review site plans for appropriate BMPs, inspect construction sites for substantial conformance with the approved site plans, and ensure long-term maintenance of the BMPs.

d. BMP No. E.5 Site Inspections During Construction

Measurable Goal(s): Continually enforce the Village Code and the Engineering Development Standards Manual to prevent stormwater pollution resulting from post-construction runoff.

Milestones: Year 17: Review site plans for appropriate BMPs, inspect construction sites for substantial conformance with the approved site plans, and ensure long-term maintenance of the BMPs.

e. BMP No. E.6 Post-Construction Inspections

Measurable Goal(s): Continually enforce the Village Code and the Engineering Development Standards Manual to prevent stormwater pollution resulting from post-construction runoff.

Milestones: Year 17: Review site plans for appropriate BMPs, inspect construction sites for substantial conformance with the approved site plans, and ensure long-term maintenance of the BMPs.

6. <u>Pollution Prevention/Good Housekeeping</u>

a. BMP No. F.1 Employee Training Program

Measurable Goal(s): Annually provide Village employees with seminars or workshops for stormwater pollution prevention for municipal operations and illicit discharge detection and elimination. Other training occurs less formally in an on-the-job fashion.

Milestones: Year 17: Continue stormwater pollution prevention training for Village employees.

b. BMP No. F.2 Inspection and Maintenance Program

Measurable Goal(s): Continually inspect and maintain the storm sewer system.

Milestones: Year 17: Continue conducting formal inspection and maintenance.

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

Measurable Goal(s): Continue the street sweeping program. Continue offering curbside yard waste and leaf collection weekly from April through the end of November.

Milestones: Year 17: Continue current programs with the current schedule.

Section E. Notice of Qualifying Local Program

The Village of Hoffman Estates is relying on the Metropolitan Water Reclamation District of Chicago to enforce the Cook County Watershed Management Ordinance.

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

Construction projects in Permit Year 16 funded by the Village of Hoffman Estates and covered by General Permit ILR400210 are listed below:

- 2018 Street Revitalization Project
- 2018 Drainage Improvements Project
- 2018 Contract Street Sweeping Program
- 2018 Surface Patching Project
- Oakmont Road Storm Sewer Replacement Project
- Higgins Road and Oakmont Road Sanitary Sewer Rehabilitation Project
- Sears Centre Parking Lot Sealcoat and Striping Project
- Stonegate Pond Restoration Project
- Annual Creek Cleaning Project
- 2018 Sanitary Sewer Rehabilitation Program
- Miscellaneous Sanitary Sewer Projects
- Miscellaneous Street Rehabilitation Program

ATTACHMENT
FOR
BMP A.1

Sample Article

Hoffman Estates
Citizen

August 2018

News from the Village of Hoffman Estates

Stormwater Pollution Prevention article (see red box)

Village hosts large **recycling** and **document destruction** event

Hoffman Estates is hosting a free one-day recycling drop-off and document destruction event on Saturday, Aug. 18, from 9 a.m. to 1 p.m.

Due to high participation, residents are advised to arrive early at the Susan H. Kenley-Rupnow Public Works Center, 2305 Pembroke Ave. The event will conclude promptly at 1 p.m.

Document destruction and electronics recycling

Sponsored by the Solid Waste Agency of Northern Cook County (SWANCC), this portion is for residents of Hoffman Estates and other SWANCC-member communities only, and proof of residency is required. There is no cost to attend. Materials will not be accepted from businesses, schools or non-SWANCC residents. If you cannot come to this recycling day, you may attend any SWANCC recycling event (proof of residency required). Visit www.swancc.org for more collection dates.

Simply drive to the Public Works Center, and workers will unload the recyclables from your car. All paper, including medical records, bank statements and retired tax forms, is shredded on site by Accurate Document Destruction, and all electronics will be recycled by COM2 Recycling Solutions. For more information about these companies, visit www.shredd.net or www.com2recycling.com.

[continued on page 3]

In this issue

Fourth of July parade and contest **winners**

Parade entry winners

- Mayor's Cup: Proviso West Marching Band
- Parade Theme: Schaumburg Township District Library
- Patriotic: Ellsworth Meinke American Legion Post #1983
- Group: Dance Force Elite
- Junior Marchers: Township High School District 211 Drumline
- Senior Color Guard: VFW Post 5151 – Streamwood
- Dance/Specialty: Grupo Folklorico Quetzal
- Antique Auto: 1929 Mercedes Benz Gazelle Convertible
- Unusual: American Ninja
- Youth Entry: Goleadores Football Club

Children's bike and trike parade assembly

- Patricia Duke, 9 years old
- Samantha Pfuff, 13 years old
- Marcy Pfuff, 13 years old

Diaper derby winners

- First place: Vincent Pettrone, Time: 49 seconds
- Second place: Aubrey Olsen, Time: 1 minute, 21 seconds
- Third place: Shawn Devleschoward, Time: 1 minute, 29 seconds

Pie-eating contest winners

- First place: Daniel Groh
- Second place: Chase Kacide

10 facts about **storm water**

1. Storm sewers are designed to collect rainwater runoff, only.
2. Water entering the storm sewer system is not treated before moving into downstream waterways (ponds, creeks, wetlands, etc.).
3. Sump pumps that collect surface water, or ground water from the house perimeter, discharge into the storm sewer through surface runoff or a direct pipe connection.
4. All interior house drains, including floor drains and ejector pump discharges, do not enter the storm sewer system. They enter a separate sanitary sewer system that flows to a water treatment plant before being released into downstream waterways.
5. Dumping of any pollutants or waste into a storm sewer is never permitted and can pollute downstream waterways.
6. All open grated drains that collect surface water are part of the storm sewer system.
7. Runoff may become polluted as it runs along roads, parking lots, roofs, lawns and construction sites.
8. Runoff may contain pollutants, such as automotive fluids, fertilizers and pesticides, leaves, sediment, litter, and pet waste.
9. Please do your part to keep storm water clean! Everyone can help reduce the amount of pollution carried in storm water.
10. Report illegal dumping or spills by calling the Public Works Department at 847-490-6800 or the police non-emergency number at 847-882-1818 after 4 p.m. or on weekends.

Welcome **new businesses!**

Blackline Partners, LLC
2500 Hassell Road, #1000

C3 Chiropractic
2500 W. Higgins Road, #1140

Canteen Vending/Ave C @ Wells Fargo
5595 Trillium Blvd.

Chicago Craters
2400 Hassell Road, #360

Creations from the Sol
2400 Hassell Road, #360

The Nikao Group, LLC
2400 Hassell Road, #420

QOS Consulting, Inc.
2400 Hassell Road, #390

Tuth DK Dental Services
2500 W. Higgins Road, #1010

HD Fitness
1718 W. Algonquin Road

Welcome Home Interiors, Inc.
2200 Stonington Ave., #150

West Cal General Merchandise
2400 Hassell Road, #380

Dr. Myron Wolf, DPM
1585 N. Barrington Road, #103

ATTACHMENT
FOR
BMP A.3

Sample Articles

Hoffman Estates
Citizen

April 2018

News from the Village of Hoffman Estates

Recycling & Waste Management articles (see red boxes)

2018 **Street Revitalization** Project

The Village of Hoffman Estates will be investing approximately $5 million into Village streets this construction season.

These infrastructure investments will benefit residents and businesses by improving neighborhoods with a safe and serviceable street for years to come.

The 2018 Street Revitalization Project will consist of the reconstruction of 14 street segments and the resurfacing of 14 others.

Work is expected to begin in May and be completed by the end of November. Reconstruction involves the complete removal of the street and the installation of new base, asphalt pavement, curb and gutter, driveway aprons, and sidewalk repairs. Resurfacing, on the other hand, involves removing the top wearing surface of the street and replacing it with new asphalt along with minor curb, gutter and sidewalk work.

Information packets will be mailed to all residents living on those streets being rehabilitated before work begins. An open house will be held on Thursday, May 3, from 6:30 p.m. to 7:30 p.m. at the Village Hall. The meeting provides an opportunity to learn what to expect during construction.

[continued on page 3]

In this issue

Growing to Greenness!

Electronics Recycling Drop-off Program resumes

April through November only

Electronic items are banned from Illinois landfills. To assist residents with collecting old electronics and to ensure environmentally safe recycling of these materials, the Village, in cooperation with the Solid Waste Agency of Northern Cook County (SWANCC), is resuming its weekly drop-off collection program starting **Monday, April 2**. There is no charge to residents for this service, but all recycling must come from households.

Village Hall (follow the signs)
1900 Hassell Road
Mondays: 10 a.m. to noon

Only a specific list of acceptable items will be allowed to be dropped off, including computers (PCs, laptops and tablets) and computer components (monitors, keyboards, mouse devices, drives, etc.), TVs, VCRs, DVD players, fax machines, MP3 players, printers, scanners, and videogame consoles. Visit www.swancc.org for a full list of acceptable items.

Residents from all SWANCC communities are eligible to participate and IDs will be checked. Do not drop off electronics outside of the posted dates and times. Electronics from businesses, churches or schools will not be accepted. Thank you for your cooperation!

Visit www.hoffmanestates.org/garbage for more information about recycling and waste collection.

Historian's notebook

By Pat Barch, Hoffman Estates Village Historian

In late 2017, two gentleman who I enjoyed visiting with and talking to passed away. Harold Bergman and Vernon Frost won't be able to tell me any more stories about the farming world they lived in. I will greatly miss both of them.

Vernon loved to talk about his early years growing up on his parents' farm at Central and Ela roads. He lost his father at an early age and went to stay on his grandmother's farm, which is now the Highland Woods Golf Course. He and his mother moved to Palatine, but he continued to earn money by working on other farms in the area.

He had stories of his days attending Highland Grove School on Ela Road, and how Harold Bergman was his confirmation teacher at St. John's Church.

He told stories about the neighboring farms that formed their harvesting circle. They all shared the large combines to get crops into the barns and silos. He was always there when I'd call him to confirm information I was trying to pull together about the farming days before development of the Village began with F&S Construction.

Harold Bergman was a special friend who was always willing to share stories of what it was like to grow up on his parents' farm at Algonquin and Ela roads. I'd ask question after question about his daily routine as a young boy. He seemed to love remembering those early days. I learned so much. He also shared pictures from his life on the farm.

He told me how cans of milk would be put into a large tub of well water to keep it at 55 degrees until the dairy came by for pickup each morning. When there wasn't enough wind to drive the wind mill and pump the well water into the tub, a series of Delco batteries powered the pumps as well as his farmhouse. The batteries had enough power to last until shortly after sunset. When the house went dark, everyone would go to bed. When electricity came down Algonquin Road in the mid-1930s, he recalled how excited his mom was because she'd buy a new refrigerator and get rid of that old ice box. All the light bulbs in the house had to be changed with the new "off the line" power, as they called it. Harold recalled how expensive those new bulbs were.

Harold was the oldest farmer still farming in Cook County. He retired at the age of 100, moving to live with his son. He passed away in December 2017 at the age of 102.

These two men helped save our farming history by sharing their stories and photos of a time long past. I'll always remember them and be grateful for the time I spent with them.

Email Pat Barch at eagle2064@comcast.net.

Clothes **dryer safety**

Fact: the leading cause of home clothes dryer fires is failure to clean them.

Doing laundry is most likely part of your weekly routine. But do you know how important taking care of your clothes dryer is to the safety of your home? With a few simple safety tips, you can help prevent a clothes dryer fire.

- Have your dryer installed and serviced by a qualified professional.
- Do not use the dryer without a lint filter.
- Make sure you clean the lint filter before or after each load of laundry.
- Rigid or flexible metal venting material should be used to sustain proper air flow.
- Make sure the air exhaust vent pipe is not restricted and the outdoor vent flap will open when the dryer is operating. At least once a year, clean lint out of the vent pipe or have a dryer lint removal service do it for you.
- Keep dryers in good working order. Gas dryers should be inspected by a qualified professional to make sure that the gas line and connection are free of leaks.
- Make sure the right plug and outlet are used and that the machine is connected properly.
- Follow the manufacturer's operating instructions and don't overload your dryer.
- Turn the dryer off when you leave home or go to bed.

For more fire safety tips, call the Hoffman Estates Fire Prevention Bureau at 847-843-4835.

The **CITIZEN** is published monthly by the Village of Hoffman Estates as a public information service for residents and businesses. Previous editions are available online at www.hoffmanestates.org/citizen. This publication may not be reprinted or reproduced as a whole or in part without written permission from the Hoffman Estates Village Manager. © 2018. All rights reserved.

Editor: Doug Schultz
doug.schultz@hoffmanestates.org

Community briefs

Coffee with the Board

The next Coffee with the Board is on Saturday, April 21, at 10 a.m. at the Village Hall. Ask questions and give comments to the Village of Hoffman Estates Board of Trustees.

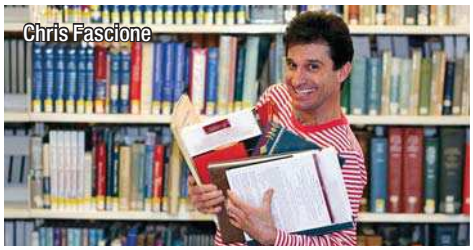
Fifth annual Victorian High Tea

Celebrate spring by enjoying a peaceful afternoon with friends at a "Victorian High Tea." The Arts Commission will serve tantalizing finger sandwiches, mouthwatering tea scones with Devonshire cream and jams, delicious homemade pies and breads, an assortment of petits fours, and pastries in a flowery spring atmosphere. This relaxing time is being offered on Wednesday, April 25, at 1 p.m. at the Village Hall. Period apparel and hats are encouraged. Tickets are $36 and reservations are required by Friday, April 13. Tickets are available online at www.hoffmanestateshightea.eventbrite.com. There is limited seating, so call Sue at 847-781-2606 to reserve your spot!

Arts Commissioner Lee Krizka, center, greets guests at last year's High Tea

Social for residents with disabilities

Friends, games, snacks and a juggler ... all that's missing is you! A social for adults with disabilities 14 and older is being held on Friday, April 6, at 6:30 p.m. at the Village Hall. Admission is free! Meet some new friends and, this month only, enjoy juggler and storyteller Chris Fascione! For information, email Sue at sue.lessen@hoffmanestates.org. Save the date! Next month's social will take place on Friday, May 4.



Chris Fascione

Transition Summit – register now!

The Commission for Disabled Citizens is hosting the fourth annual Transition Summit on Saturday, April 14, from 9 a.m. to 3 p.m. at the Village Hall. This year's event focuses on employment. Register online today at www.ctc2018summit.eventbrite.com. For more information, email Connect to Community at connecttocommunityinc@gmail.com.

Firefighter promotions

During the Village Board meeting on Monday, April 16, at 7 p.m., the following individuals from the Fire Department will be sworn in:

- Deputy Fire Chief Patrick Fortunato to Fire Chief
- Battalion Chief Richard Englund to Deputy Fire Chief
- Captain Wayne Rothbauer to Battalion Chief
- Lieutenant Brian Raymond to Captain
- Firefighter Alan O'Brien to Lieutenant

Build a Birdhouse

Children are invited to Build a Birdhouse, sponsored by the Sustainability Commission, on Saturday, May 12, at 9 a.m. at the Susan H. Kenley-Rupnow Public Works Center, 2305 Pembroke Ave. The event is free, but registration is required. Participation is limited to the first 30 Hoffman Estates children registered. To register, visit www.hoffmanestates.org/sc or call 847-781-2606. If you have questions, email grow2green@hoffmanestates.org.

A Sustainability Commission volunteer helps a guest build his birdhouse at last year's event

Free Greve Cemetery tour

The Historical Sites Commission is offering a guided group tour of Greve Cemetery on Sunday, April 22, at 1 p.m., weather permitting. The free tour explores the interrelated pioneer families buried in the cemetery, who settled in the 1840s along what is now Higgins Road. Call Sue at 847-781-2606 for reservations after Monday, April 16. Private small group tours are also available by appointment.

Hoffman Estates bus tour

The Historical Sites Commission is proud to announce a bus tour of the Village. The guided tour will take place on Sunday, May 6, at Sunderlage House, 1775 Vista Lane, and visit a number of significant sites in Hoffman Estates. The first 90-minute tour by comfortable coach bus leaves at 1 p.m. A second tour leaves Sunderlage House at 3 p.m. The tours are free, but reservations are required. Call Sue at 847-781-2606 before Monday, April 23, to reserve your seat.

April Luncheon for senior citizens

Spring into spring in a historic way! Join the Commission for Senior Citizens at their April Luncheon on Wednesday, April 18, at noon (doors open at 11:30 a.m.) at the Village Hall. Historian Jim Gibbons will be presenting on the 1940s – the "Greatest Generation." The cost is $8 per person, which includes food and entertainment. Seating is limited and reservations are required. For more information or to make reservations, call Sue at 847-781-2606.

Yard waste collection resumes April 2

Residents are reminded that grass clippings, plant material and leaves must be placed in brown paper yard waste bags. Bags cannot exceed 45 pounds and a yard waste disposal sticker must be affixed to each bag. Yard waste stickers are available at the Village Hall, local stores, and online at both www.groot.com and www.hoffmanestates.org/yardwaste. An annual subscription for unlimited yard waste pickup is also available by calling 800-244-1977.

Computer animation class for kids

The Youth Commission is offering two free "Project Alice" computer animation classes for children ages 7 to 13. Both sessions take place on Saturday, April 28, at the Village Hall. The beginner class begins at 9 a.m. and the advanced class begins at 11 a.m. Registration is required, as space is limited to 10 students per session. To reserve a spot, contact Sue at sue.lessen@hoffmanstates.org or 847-781-2606 (indicate the class time/skill level you are interested in). A parent or guardian is required throughout the duration of the class.

Spring hydrant flushing begins soon

Annual hydrant flushing is scheduled to begin the week of April 2 between the hours or 8 a.m. and 2 p.m. This is a six-week program. Watch for signs advising of the exact days for your neighborhood. Hydrants are flushed to circulate fresh water. Tap water may be discolored in your immediate area during flushing. Remove faucet screens and run water through the bathtub faucet for a few minutes to make sure it is clear before using. Also, be sure to check the water before washing clothes as sediment may stain clothes. Most municipal water systems perform annual hydrant flushing to ensure delivery of the best water quality.

Parking Etiquette 101

Finding a place to park in Hoffman Estates usually isn't a problem; however; with more vehicles on the road today, parking in some areas can be difficult. Families with multiple teen drivers, caregivers and live-in relatives can negatively impact parking availability.


Illegally parked car in Hoffman Estates

With warmer weather approaching, the Hoffman Estates Police Department would like to remind residents of some of the Village's parking ordinances. It is against the law to:

- Park any part of your vehicle on or over a sidewalk, crosswalk or within 15 feet of a crosswalk. Blocking sidewalks and crosswalks can prevent safe passage for pedestrians, especially those with disabilities.
- Park within 15 feet of a fire hydrant. Fire hydrants need to remain accessible in the event of an emergency.
- Park within 30 feet of a stop sign. Parking near a stop sign can obscure a motorist's view of the sign, which could result in a traffic accident.
- Park more than 12 inches away from the curb.
- Park on the street after a snowfall of 2 inches or more and for eight hours thereafter. The ability for the Village to quickly remove snow from the streets benefits all motorists and promotes safety.
- Park where prohibited by signs or without a permit in designated areas. Some areas of the Village require a permit to occupy a parking space. Signs will be clearly posted: "PERMIT PARKING ONLY."

Be mindful of walkers, joggers, school-bound kids and other pedestrians where illegally parked vehicles may endanger their progress.

For more information, call Officer Joe Kruschel in the Community Relations Division at 847-781-2880.

Spring branch pickup begins April 23

Hoffman Estates' free curbside spring tree branch pickup program begins on Monday, April 23. This program is for residents covered by the Village refuse collection contract.

Only one collection pass will be made for each street. Please do not ask for exceptions.

If branches are too large, are mixed with unacceptable materials or have not been prepared properly, they will **not** be picked up.

On the first date of pickup listed for your area, neatly stack branches at curbside by 7 a.m. Face the cut ends toward the street.

Do not tie branches in bundles or place in any container. Do not allow branches to protrude into the street or block sidewalks.

While supplies last, free woodchips will be available to residents at the Village's vehicle maintenance facility, 2405 Pembroke Ave., during daylight hours **after 3 p.m.**, Monday through Friday, and during daylight hours on weekends. Please bring your own containers.

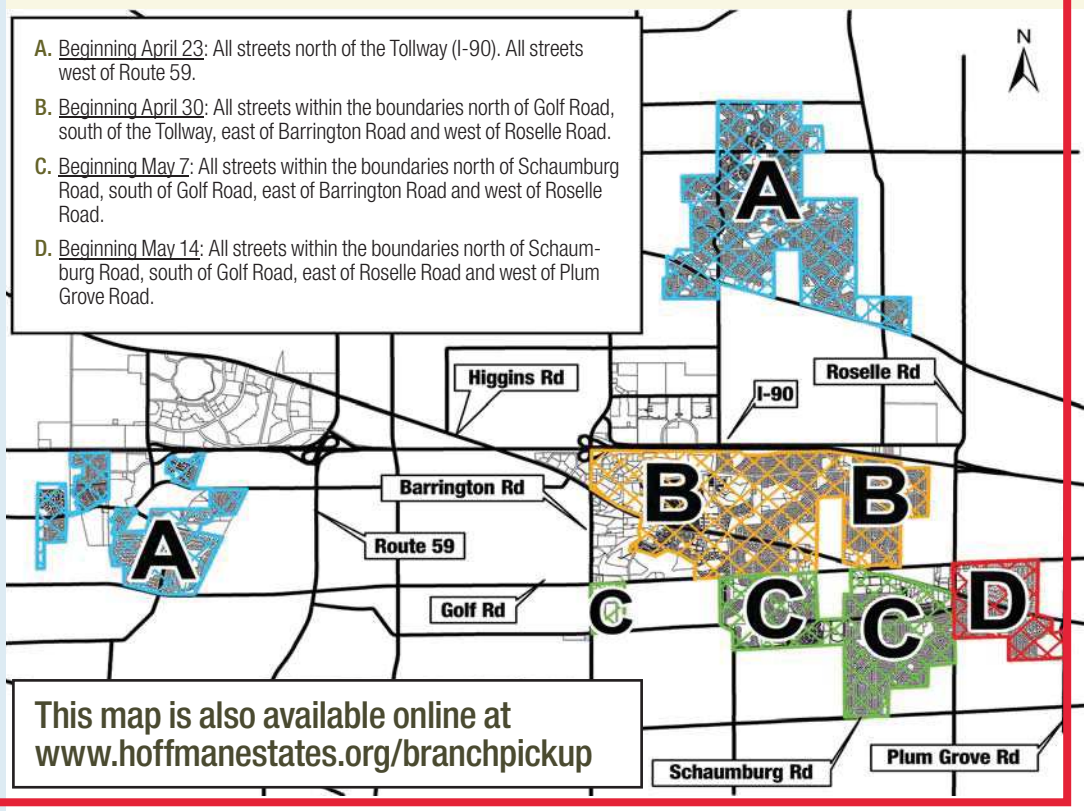
If you have any questions or are interested in free large truckload deliveries of wood chips, call Public Works at 847-490-6800.

A. Beginning April 23: All streets north of the Tollway (I-90). All streets west of Route 59.

B. Beginning April 30: All streets within the boundaries north of Golf Road, south of the Tollway, east of Barrington Road and west of Roselle Road.

C. Beginning May 7: All streets within the boundaries north of Schaumburg Road, south of Golf Road, east of Barrington Road and west of Roselle Road.

D. Beginning May 14: All streets within the boundaries north of Schaumburg Road, south of Golf Road, east of Roselle Road and west of Plum Grove Road.



This map is also available online at www.hoffmanestates.org/branchpickup

Bon Appétit **food festival is back!**

The Hoffman Estates Chamber of Commerce is thrilled to once again host the Bon Appétit Community Food and Drink Festival. Featuring delicious cuisine and liquor samples from over 25 restaurants and distilleries, the event takes place on Thursday, April 26, from 5 p.m. to 7:30 p.m. at the Stonegate Conference & Banquet Centre, 2401 W. Higgins Road. Guests will have the opportunity to judge cupcakes prepared by culinary students from Elgin Community College and Harper College. Early bird tickets are only $25. Reserve your space today, as the price increases to $35 at the door (if space is still available). Buy your tickets at www.hechamber.com or in person at the Chamber of Commerce office, 2200 W. Higgins Road, #201. Bring a canned food item to donate to a local food pantry! For more information, call the Chamber of Commerce at 847-781-9100.

Hoffman Estates
Citizen

August 2018

News from the Village of Hoffman Estates

Village hosts large **recycling** and **document destruction** event

Hoffman Estates is hosting a free one-day recycling drop-off and document destruction event on Saturday, Aug. 18, from 9 a.m. to 1 p.m.

Due to high participation, residents are advised to arrive early at the Susan H. Kenley-Rupnow Public Works Center, 2305 Pembroke Ave. The event will conclude promptly at 1 p.m.

Document destruction and electronics recycling

Sponsored by the Solid Waste Agency of Northern Cook County (SWANCC), this portion is for residents of Hoffman Estates and other SWANCC-member communities only, and proof of residency is required. There is no cost to attend. Materials will not be accepted from businesses, schools or non-SWANCC residents. If you cannot come to this recycling day, you may attend any SWANCC recycling event (proof of residency required). Visit www.swancc.org for more collection dates.

Simply drive to the Public Works Center, and workers will unload the recyclables from your car. All paper, including medical records, bank statements and retired tax forms, is shredded on site by Accurate Document Destruction, and all electronics will be recycled by COM2 Recycling Solutions. For more information about these companies, visit www.shredd.net or www.com2recycling.com.

[continued on page 3]

In this issue

Free **recycling** event

[continued from cover]

Residents will be limited to six file-size boxes or grocery-size paper bags of documents. Do not bring paper in plastic bags. Plastic, metal clips and binders should be removed.

Accepted electronic items include:

- Computers and computer equipment/components (e.g., cables, keyboards, mouse, etc.)
- Printers, scanners, copy machines and fax machines
- Microwaves
- Small home appliances (e.g., toasters, blenders, etc.)
- Cell phones, PDAs and tablets
- Stereo equipment (no wood) and MP3 players
- Cameras and camcorders
- Cellphones, landline phones and answering machines
- Power tools and cords
- TVs (no wood) and VHS, DVD, and CD players (no tapes or discs)
- DVRs, cable and satellite receivers, and converter boxes
- Videogame consoles

Do **NOT** bring humidifiers/dehumidifiers, air conditioners, vacuum cleaners, refrigerators and other large home appliances.

Additional services

In addition to electronics, the Village will be accepting these items for recycling:

- Expired drugs/sharps
- Fluorescent and compact fluorescent lamp (CFL) light bulbs
- Batteries
- Printer cartridges
- Latex (water-based) paint (small fee):
  - *Quarts: $2*
  - *One-gallon containers: $3.50*
  - *Two-gallon buckets: $5*
  - *Five-gallon buckets: $10*

NOTE: flammable materials and pressurized containers (e.g., spray paint cans) will not be accepted.

For more information about this recycling event and other sustainability programs, visit www.hoffmanestates.org/green.

A message from **Mayor McLeod**

We've got some exciting events coming up this month, starting with National Night Out. On Tuesday, Aug. 7, join us on the front lawn of the Hoffman Estates Police Department, 411 W. Higgins Road, from 6 p.m. to 9 p.m. National Night Out is celebrating 35 years of enhancing the relationship between neighbors and law enforcement while fostering a sense of community. Our officers are pulling out all the stops for this celebration, including complimentary food and beverages, K-9 demonstrations, touch a vehicle, games, and giveaways. I hope to see you there!

For the second year in a row, the Northwest Fourth-Fest Commission worked with its carnival vendor to provide a unique opportunity to residents in our community. For two hours on July 7, the carnival opened to individuals with disabilities and their families. It was a wonderful chance for these residents to enjoy rides and games in a safe and fun environment. This one-of-a-kind activity was a perfect tie-in for the recognition of the Special Olympics, an outstanding organization that celebrates 50 years of organized games this year. Hats off to School District 54 Special Olympics representatives (staff, athletes and coaches) who were able to attend our Board meeting on July 16 to honor this milestone.

Hoffman Estates resident Ashley Jones takes home the gold medal at a Special Olympics competition in Seattle

Of course, you know we can't let too much time pass before another event pops up in Hoffman Estates! Mark your calendars now for September's Platzkonzert Germanfest. We're pulling out all the stops this year with a three-day festival taking place at the Village Green! Join us for the kick-off on Friday, Sept. 7, for the annual "tapping of the keg," followed by delicious drinks, food, games and entertainment. Check out the September issue of the Citizen for details.

Don't hesitate to contact me with questions via email or phone at bill.mcleod@hoffmanestates.org or 847-781-2604.

Bill McLeod

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Follow us on Twitter! www.twitter.com/hoffmantweets

Watch videos on YouTube! www.youtube.com/hoffmanestatesil

Sign up for eNews! www.hoffmanestates.org/enews

ATTACHMENT
FOR
BMP A.4

Sample Brochures

WHEN IT RAINS IT DRAINS

For more information contact:

Village of Hoffman Estates
Public Works Department
2305 Pembroke Ave., Hoffman Estates, IL 60169

Report illegal dumping in storm sewers or creeks:

Call Public Works 847-490-6800 M-F 8am-4pm

Call Police Non-Emergency 847-882-1818 after work hours and on weekends

Email: publicworks@hoffmanestates.org

or visit
www.epa.gov/npdes/stormwater
www.epa.gov/nps

United States Environmental Protection Agency

EPA 833-B-03-002

January 2003

THE YEAR OF CLEAN WATER
Celebration & Recommitment

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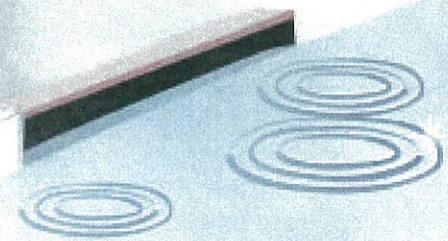
After the Storm



A Citizen's Guide to Understanding Stormwater

WHEN IT RAINS IT DRAINS

What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

Why is stormwater runoff a problem?

Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

The effects of pollution

Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.

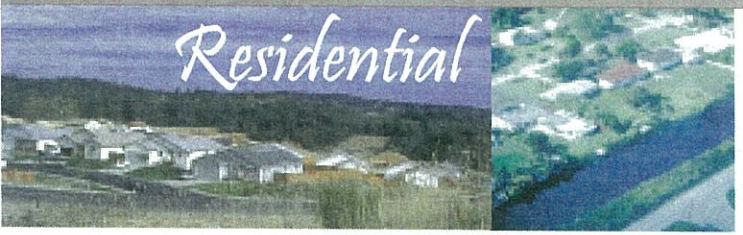
- Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.
- Debris—plastic bags, six-pack rings, bottles, and cigarette butts—washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.

- Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.

*** Open for Stormwater Pollution Solutions**

Stormwater Pollution Solutions

Residential



Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, solvents, and used motor oil and other auto fluids. Don't pour them onto the ground or into storm drains.

Lawn care

Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. In addition, yard clippings and leaves can wash into storm drains and contribute nutrients and organic matter to streams.

- Don't overwater your lawn. Consider using a soaker hose instead of a sprinkler.
- Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Use organic mulch or safer pest control methods whenever possible.
- Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drains or streams.
- Cover piles of dirt or mulch being used in landscaping projects.

Auto care

Washing your car and degreasing auto parts at home can send detergents and other contaminants through the storm sewer system. Dumping automotive fluids into storm drains has the same result as dumping the materials directly into a waterbody.

- Use a commercial car wash that treats or recycles its wastewater, or wash your car on your yard so the water infiltrates into the ground.
- Repair leaks and dispose of used auto fluids and batteries at designated drop-off or recycling locations.

Septic systems

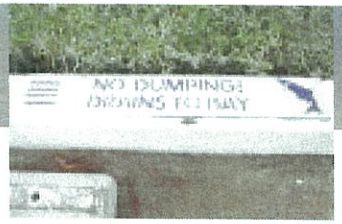
Leaking and poorly maintained septic systems release nutrients and pathogens (bacteria and viruses) that can be picked up by stormwater and discharged into nearby waterbodies. Pathogens can cause public health problems and environmental concerns.

- Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
- Don't dispose of household hazardous waste in sinks or toilets.

Pet waste

Pet waste can be a major source of bacteria and excess nutrients in local waters.

- When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.



Education is essential to changing people's behavior. Signs and markers near storm drains warn residents that pollutants entering the drains will be carried untreated into a local waterbody.

Residential landscaping

Permeable Pavement—Traditional concrete and asphalt don't allow water to soak into the ground. Instead these surfaces rely on storm drains to divert unwanted water. Permeable pavement systems allow rain and snowmelt to soak through, decreasing stormwater runoff.

Rain Barrels—You can collect rainwater from rooftops in mosquito-proof containers. The water can be used later on lawn or garden areas.

Rain Gardens and Grassy Swales—Specially designed areas planted with native plants can provide natural places for rainwater to collect and soak into the ground. Rain from rooftop areas or paved areas can be diverted into these areas rather than into storm drains.

Vegetated Filter Strips—Filter strips are areas of native grass or plants created along roadways or streams. They trap the pollutants stormwater picks up as it flows across driveways and streets.

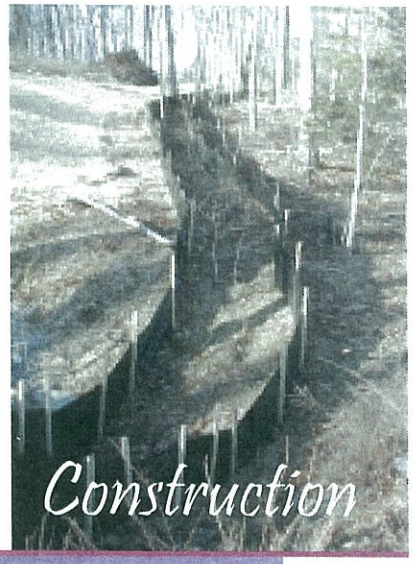
Commercial

Dirt, oil, and debris that collect in parking lots and paved areas can be washed into the storm sewer system and eventually enter local waterbodies.

- Sweep up litter and debris from sidewalks, driveways and parking lots, especially around storm drains.
- Cover grease storage and dumpsters and keep them clean to avoid leaks.
- Report any chemical spill to the local hazardous waste cleanup team. They'll know the best way to keep spills from harming the environment.

Erosion controls that aren't maintained can cause excessive amounts of sediment and debris to be carried into the stormwater system. Construction vehicles can leak fuel, oil, and other harmful fluids that can be picked up by stormwater and deposited into local waterbodies.

- Divert stormwater away from disturbed or exposed areas of the construction site.
- Install silt fences, vehicle mud removal areas, vegetative cover, and other sediment and erosion controls and properly maintain them, especially after rainstorms.
- Prevent soil erosion by minimizing disturbed areas during construction projects, and seed and mulch bare areas as soon as possible.

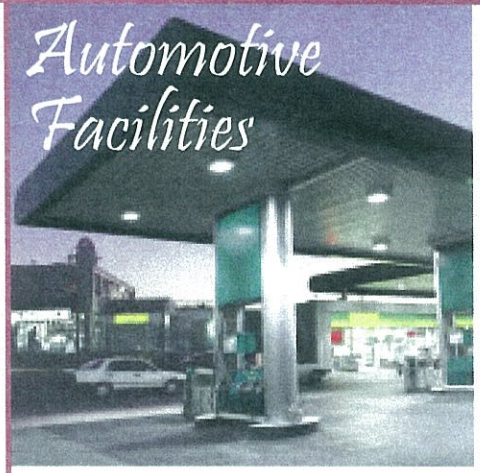


Construction

Agriculture

Lack of vegetation on streambanks can lead to erosion. Overgrazed pastures can also contribute excessive amounts of sediment to local waterbodies. Excess fertilizers and pesticides can poison aquatic animals and lead to destructive algae blooms. Livestock in streams can contaminate waterways with bacteria, making them unsafe for human contact.

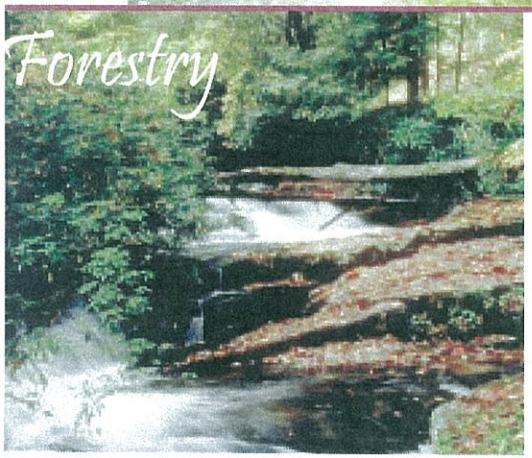
- Keep livestock away from streambanks and provide them a water source away from waterbodies.
- Store and apply manure away from waterbodies and in accordance with a nutrient management plan.
- Vegetate riparian areas along waterways.
- Rotate animal grazing to prevent soil erosion in fields.
- Apply fertilizers and pesticides according to label instructions to save money and minimize pollution.



Automotive Facilities

Uncovered fueling stations allow spills to be washed into storm drains. Cars waiting to be repaired can leak fuel, oil, and other harmful fluids that can be picked up by stormwater.

- Clean up spills immediately and properly dispose of cleanup materials.
- Provide cover over fueling stations and design or retrofit facilities for spill containment.
- Properly maintain fleet vehicles to prevent oil, gas, and other discharges from being washed into local waterbodies.
- Install and maintain oil/water separators.



Forestry

Improperly managed logging operations can result in erosion and sedimentation.

- Conduct preharvest planning to prevent erosion and lower costs.
- Use logging methods and equipment that minimize soil disturbance.
- Plan and design skid trails, yard areas, and truck access roads to minimize stream crossings and avoid disturbing the forest floor.
- Construct stream crossings so that they minimize erosion and physical changes to streams.
- Expedite revegetation of cleared areas.

A Valuable Service

The Metropolitan Water Reclamation District's Small Streams Maintenance Program (SSMP) helps prevent costly flood damage throughout Cook County. Since it began in 2006, dedicated crews have provided a valuable service by removing debris from creeks, streams, and waterways.

Project sites are determined based on reports from local municipalities and residents or from our routine inspections. The success of the SSMP depends on cooperation and coordination among all communities to efficiently and respectfully manage the waterways.

Contact the **Village of Hoffman Estates' Public Works Department** to report a blocked waterway.
Call: 847-490-6800 or
Email: publicworks@hoffmanestates.org

How You Can Help

Report debris accumulations in your stream to the MWRD or to your community leaders.

Remove invasive plant species (especially buckthorn) from your property.

Do not discard yard waste near your stream. When the water rises, it can wash away and contribute to a blockage.

Attend your local Watershed Planning Council meeting to learn more about the regional efforts to manage stormwater and prevent flooding.

For more information about the SSMP or to report a waterway blockage, call 708-588-3171 or go to www.mwrd.org.

Find the MWRD on Facebook and Twitter

Metropolitan Water Reclamation District of Greater Chicago

Board of Commissioners

Kathleen Therese Meany
President

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Chairman of Finance

Michael A. Alvarez

Frank Avila

Cynthia M. Santos

Debra Shore

Kari K. Steele

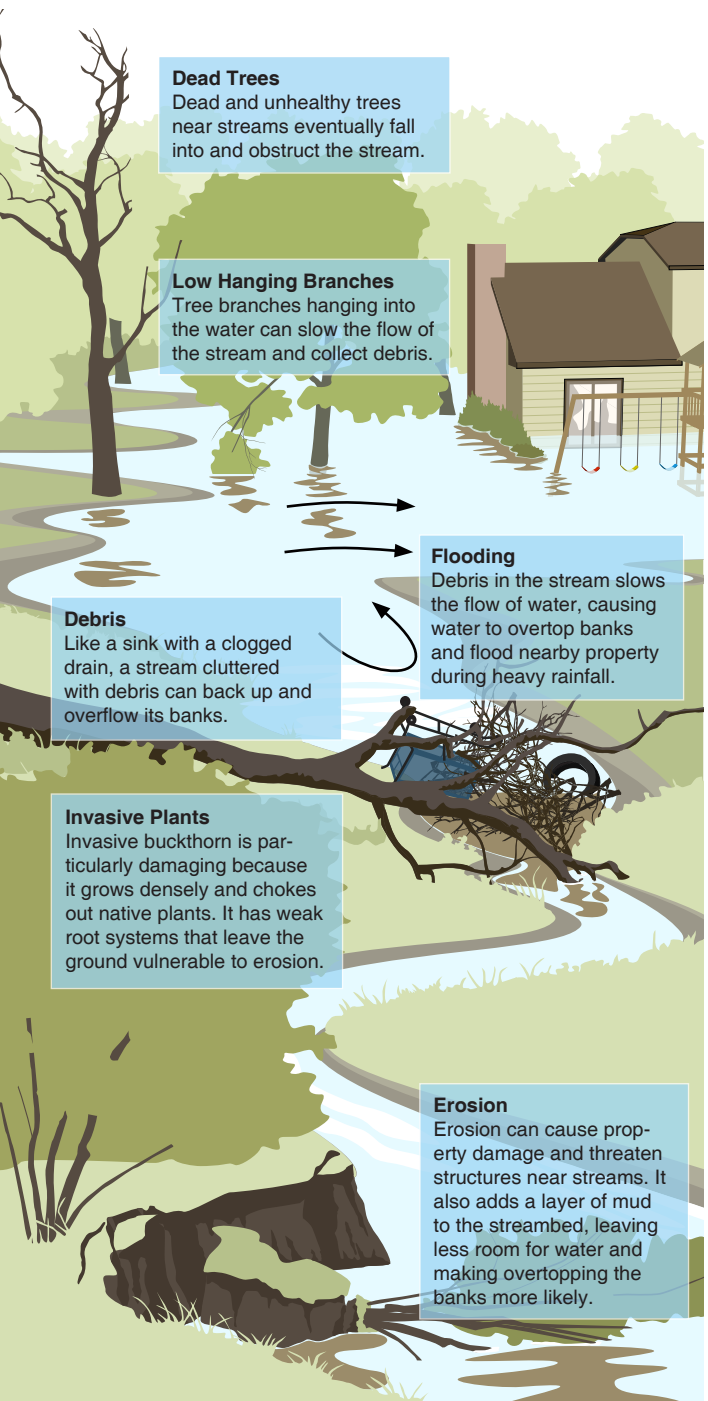
Patrick D. Thompson

David St. Pierre
Executive Director

Stream Maintenance

Working in your neighborhood to prevent flooding throughout the region

Before



Dead Trees
Dead and unhealthy trees near streams eventually fall into and obstruct the stream.

Low Hanging Branches
Tree branches hanging into the water can slow the flow of the stream and collect debris.

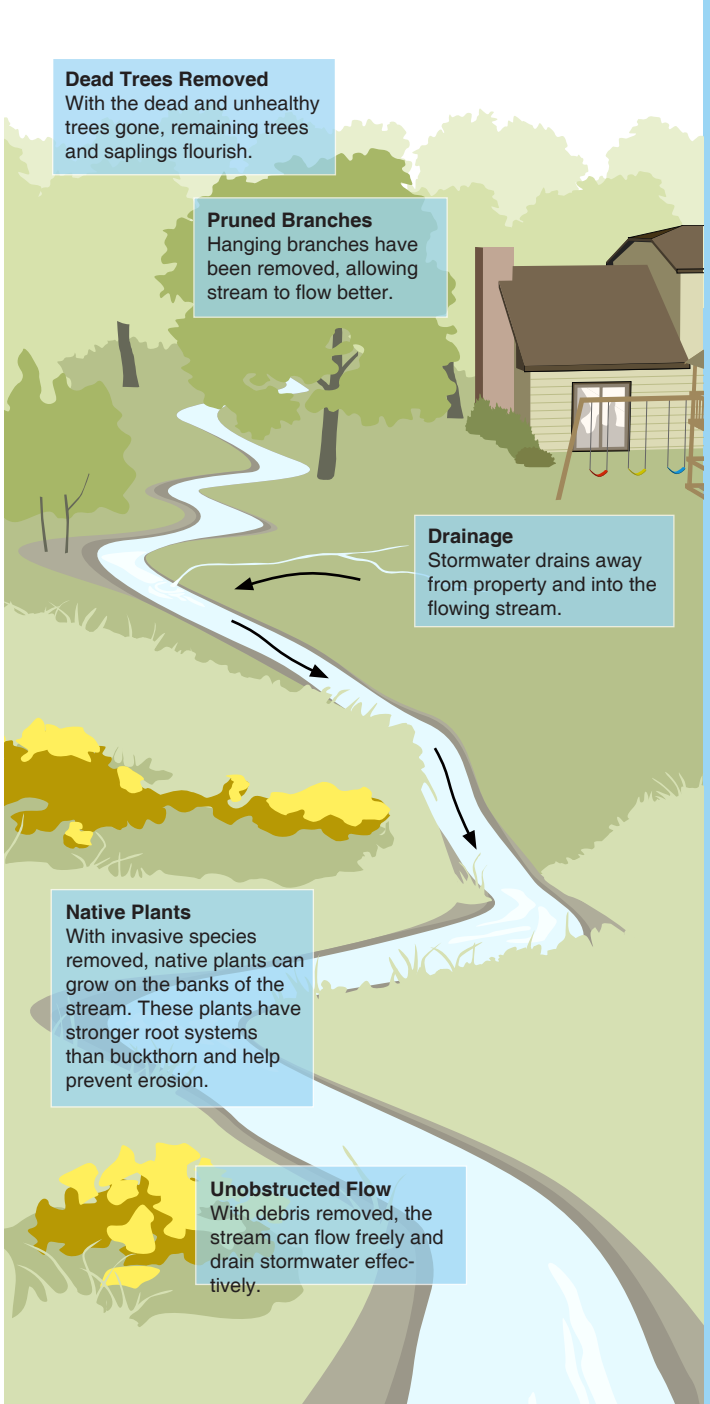
Flooding
Debris in the stream slows the flow of water, causing water to overtop banks and flood nearby property during heavy rainfall.

Debris
Like a sink with a clogged drain, a stream cluttered with debris can back up and overflow its banks.

Invasive Plants
Invasive buckthorn is particularly damaging because it grows densely and chokes out native plants. It has weak root systems that leave the ground vulnerable to erosion.

Erosion
Erosion can cause property damage and threaten structures near streams. It also adds a layer of mud to the streambed, leaving less room for water and making overtopping the banks more likely.

After



Dead Trees Removed
With the dead and unhealthy trees gone, remaining trees and saplings flourish.

Pruned Branches
Hanging branches have been removed, allowing stream to flow better.

Drainage
Stormwater drains away from property and into the flowing stream.

Native Plants
With invasive species removed, native plants can grow on the banks of the stream. These plants have stronger root systems than buckthorn and help prevent erosion.

Unobstructed Flow
With debris removed, the stream can flow freely and drain stormwater effectively.

Stream Maintenance Prevents Flooding

The stream that flows through your neighborhood is more than just a scenic part of the landscape or a habitat for wildlife. It serves the vital function of draining stormwater and preventing flooding. In order to function effectively, the stream must be maintained.

The Chicago region is so flat that our streams tend to move slowly and are naturally prone to flooding. Many areas that are now developed were originally uninhabited muddy marshes with meandering streams that often overtopped their banks. As the region was built up, our creeks and streams were deepened and enlarged to drain water and to prevent flooding.

The MWRD's SSMP works to keep our streams functioning by removing debris that can restrict their flow.

Minor blockages can build up quickly in heavy rains, as floating debris piles up and creates a dam. In our flat landscape, obstructions in one spot can contribute to flooding far upstream.

Thinking Ahead

Besides removing existing blockages, our crews and engineers also work to identify and fix potential problems before they can cause flooding. Dead and dying trees, which can eventually fall into streams and cause blockages, are removed from the banks. Harmful invasive plant species are also removed. Buckthorn is particularly harmful and thrives in our climate. It chokes out native plants and has weak root systems, leaving the ground vulnerable to erosion.

ATTACHMENT
FOR
BMP B.1

Meeting Agenda

AGENDA
STORMWATER MANAGEMENT COMMITTEE
Village of Hoffman Estates
April 3, 2018

6:30 p.m. – Frank Alexa Training Room

Members:	**Mike Gaeta, Chairperson**	**Jim Burns**
	Anna Newell, Trustee	**Paul Matthews**
	Gary Stanton, Trustee	**Eric Marscin**
		Gary Buczkowski

I. Roll Call

II. Approval of Minutes – April 5, 2017

III. Items for Discussion

A. 2017 Stormwater Projects

B. 2018 Stormwater Projects

C. Annual Drainage Improvement Project List and Village Drainage Policy

D. IEPA General Permit for Discharges from Municipal Separate Storm Sewer Systems (MS4's)

IV. Committee Member Comments

V. Adjournment

The Village of Hoffman Estates complies with the Americans with Disabilities Act (ADA). For accessibility assistance call the ADA Coordinator at 847/882-9100.

Items for Discussion

A. 2017 Stormwater Projects – 2017 CIP

a. Annual Drainage Improvements - $60,000 budget
    i. Completed three locations
    ii. 220 Aster and 1585 Westbury completed with 2017 Drainage Improvement Project (approx.. $49,000)
    iii. 4085 Whispering Trails completed with 2017 Street Revitalization Project (approx. $7,000)
    iv. Approx. $4,000 under budget overall

b. Berkley Lane, Chandler Lane - $1,000,000 budget
    i. Chandler Lane completed with 2017 Street Revitalization Project (approx. $90,000)
    ii. W Berkley Lane Storm Sewer Project completed (approx. $564,000)
    iii. Bode/Washington intersection (part of W Berkley Lane Strom Sewer Replacement scope of work) completed with STP Bode/Harmon Resurfacing Project (approx. $31,000, received 80% fed funding)
    iv. Engineering for W Berkley Lane project by Chastain & Associates (approx.. $70,000)
    v. Grading of ditches on Ash Road completed with 2017 Street Revitalization Project (approx. $10,000)
    vi. Approximately $235,000 under budget
c. Northview Lane Storm Sewer Lining – unbudgeted for 2017, $100,000 included in CIP for 2018
    i. Emergency work required corrective action prior to 2018, completed November 2017 (approx. $69,000)

B. 2018 Stormwater Projects – 2018 CIP

a. Annual Drainage Improvements - $60,000 budget
b. Various drainage improvements to be completed with 2018 Street Revitalization Project - $25,000 budget
    i. Planned improvements at location that could qualify per Drainage policy on Winston Ln, Lafayette Ln, and Hillside Ct
c. Oakmont Road Storm Sewer Replacement - $565,000 budget
    i. Currently in design by staff expected construction September-November
d. Northview Lane and Crimson Drive Overland Flow - $100,000 budget
    i. Locations currently on Drainage Project List, to be completed with additional locations as 2018 Drainage Improvements Project

C. Annual Drainage Improvement Project and Village Drainage Policy

See attached current version of Village Drainage Policy, adopted by Village Board in June 2016 (page 9). No changes to the current policy are proposed.

See attached current list of projects awaiting inclusion in Annual Drainage Project (page 10). These projects have met the criteria of the Village Drainage Policy and are listed in priority order based on the criteria specified in the Drainage Policy. Current 2018 budget is $60,000 for this project. It is recommended by staff that the 2018 Drainage Improvement Project include priority locations 4-9 and 12. Also priority locations 1-2 will be included with the Drainage Project as they are stand-alone projects in the CIP.

Estimated costs for locations 4-9 and 12 is $48,000.

D. IEPA General Permit for Discharges from Municipal Separate Storm Sewer Systems (MS4's)

Illinois Environmental Protection Agency (IEPA) general permit for discharges into municipal separate storm sewer systems (MS4). The permit lists the Best Management Practices (BMP's) that the Village implements for stormwater pollution prevention. The permit is obtained by the Village yearly.

The most recent Annual Report (March 2017-March 2018 report currently in progress) and the Stormwater Management Plan are attached for review (pages 11 – 27). Provide any additional recommendations for BMP's to include in next permit cycle (2019). These forms are required to be available for public review and are on the Village's website.

Open discussion for any recommended changes/additions for next permit cycle.

ATTACHMENT
FOR
BMP B.7

Sample Articles

Hoffman Estates
Citizen

May 2018

News from the Village of Hoffman Estates

Contact number to report stormwater related issues (see red boxes)

Village named **Tree City USA** for 27th consecutive year

For the 27th consecutive year, the National Arbor Day Foundation has named the Village of Hoffman Estates a Tree City USA.

The National Arbor Day Foundation, in cooperation with the National Association of State Foresters and the U.S. Department of Agriculture (USDA) Forest Service, sponsors the Tree City USA program. To become a Tree City USA, Hoffman Estates must meet four standards annually:

- Have an established tree board or department
- Have a tree care ordinance
- Have a community forestry program with an annual budget of at least $2 per capita
- Have an Arbor Day observance and proclamation

A municipality's designation as a Tree City USA is reflective of the level of stewardship necessary to build greater communities for today and tomorrow, while continuously enhancing the beauty and value of Hoffman Estates property.

The Tree City USA program has been greening up cities across America since 1976. It is a nationwide movement that provides the framework necessary for communities to manage and expand their public trees.

The Village's annual Arbor Day celebration was held on April 27 at Arbor Day Park.

In this issue

Community briefs

Memorial Day observance

The Village Hall will be closed on Saturday, May 26, and Monday, May 28. For more information on the Village's Memorial Day ceremony, turn to page 12.

Mother's Day Luncheon for senior citizens

Join the Commission for Senior Citizens for their annual Mother's Day Luncheon on Wednesday, May 9, at noon (doors open at 11:30 a.m.) at the Village Hall. The cost to attend is $8, which includes food and a very special guest entertainer. So, when you get a chance, please call your mother and thank her for all the good years that you had? To register, call Sue at 847-781-2606.

Build a Birdhouse

Reminder: children are invited to Build a Birdhouse on Saturday, May 12, at 9 a.m. at the Public Works Center, 2305 Pembroke Ave. The event is free! To register, visit www.hoffmanestates.org/sc or call 847-490-6800.

Free, fun science show for all ages

The Youth Commission is proud to present a free science show for the whole family! Join us on Saturday, May 19, from 10 a.m. to 11 a.m. at the Village Hall as Mad Science presents "Up, Up and Away!" This spellbinding spectacle introduces children to the principles of air and pressure. Hot air balloons, vortex generators and even a hovercraft will help children understand the power of air. This is a great way to learn about science in a fun and exciting environment. Appropriate for ages 6 and up, but the everyone is welcome! Call Sue at 847-781-2606 to RSVP before May 11.

Watering ban reminder

The Village watering ban is in effect from May 15 to Oct. 1. All outside water use is banned between the hours of 11 a.m. and 5 p.m. This includes lawn sprinkling, washing cars, filling swimming pools or any recreational use of hoses. The ban complies with state water conservation practices. Violators can receive a citation, which carries a $50 fine for the first offense.

Memorial Day garbage collection delayed

Garbage, recycling and yard waste collection will be delayed one day in observance of the Memorial Day holiday. Monday collection will be on Tuesday, May 29, and Wednesday collection will be on Thursday, May 31.

Cinco de Mayo for residents with disabilities

The Commission for Disabled Citizens and the Links, Inc., are hosting a Cinco de Mayo celebration for adults with disabilities 14 and older on Friday, May 4, at 6:30 p.m. at the Village Hall. Admission is free! Pizza will be served for $2 a slice, but lemonade is complimentary. Meet some new friends! For more information, email comdiscitz@gmail.com.

Storm sewer infrastructure

The Public Works Department is responsible for the maintenance and repair of all Village-owned storm sewers. Monthly inspections are performed on drainage ways and lake/pond outfall lines to reduce the risk of flooding. You can help by keeping storm sewer inlets free from blockages. If you see leaves, paper or ice obstructing an inlet, remove the items so water from the street can flow unobstructed. Call Public Works to report any inlet that is not draining or causing a large volume of water to collect on the street. If you notice any settlement around the structure, it may indicate a collapsed sewer or other problem. If you observe these conditions or have a question, call 847-490-6800. Working together, we can keep the Village's storm sewer infrastructure working at peak efficiency.

Police Department Open House

The Hoffman Estates Police Department, located at 411 W. Higgins Road, will host an Open House on Saturday, May 5, from 9 a.m. to noon. The entire community is invited to speak with police officers, take a station tour and meet our K-9, Dozer. For more information, contact Sgt. Mark Mueller by phone at 847-781-2866 or by email at mark.mueller@hoffmanestates.org.

Branch pickup continues through May

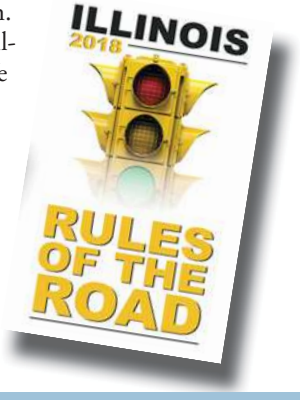
The Village's free curbside tree branch pickup program continues through Friday, May 18. Visit www.hoffmanestates.org/forestry for a map and the dates of pickup listed for your neighborhood. On the first date of your pickup, neatly stack branches at your curbside by 7 a.m. Do not tie branches in bundles or place in any container. Remember to keep branches clear of trees, mailboxes, signs and streetlight poles. Also, avoid parking cars next to branch piles as the equipment used for pickup needs to have clear, open access. For more information, call 847-490-6800.

eNews from Hoffman Estates

Hoffman Estates is always making efforts to expand its electronic communication to residents. To sign up for free email alerts, visit www.hoffmanestates.org/enews.

Rules of the Road

Refresh your driving skills! The Illinois Secretary of State is hosting a free "Rules of the Road" class on Monday, May 7, from 1:30 p.m. to 3:30 p.m. at the Village Hall. Review safe driving techniques, and learn what to expect when you go to renew your license. To register for the course, call Sue at 847-781-2606.



Facts about **sanitary** and **storm sewers**

Anything poured down a drain goes to a wastewater treatment plant, right? **WRONG!** It's important to understand the difference between a sanitary sewer and a storm sewer. Knowing this distinction can prevent environmental damage and ensure that water taken from natural sources is safe to use and drink.

The **sanitary sewer** is a system of underground pipes that carries waste water from bathrooms, kitchens and other plumbing components to a treatment plant. There, it is treated and filtered, and then put back into the creek system.

The **storm sewer** is a drainage system designed to carry rainfall and other water runoff, but not waste water. The runoff is carried in underground pipes or open ditches, and then discharged (untreated) into Poplar Creek or Salt Creek. The inlets that drain into this system are on the street and other low-lying outdoor areas.

Water (both surface and subsurface) from Hoffman Estates drains into Poplar Creek or Salt Creek, which flows into the Fox River and Des Plaines River, respectively, with both eventually reaching the Mississippi River. Water may pick up pollutants along the way, which are never treated in a natural environment.

Disposal of chemicals or hazardous substances via the storm sewer system is not only illegal, it also damages the environment. Pollutants that get into storm drains can affect your drinking water supply and poison fish, birds and other wildlife. In addition, silt, litter and organic matter (branches, clippings, etc.) can clog storm drains and cause flooding.

You can help by taking these simple steps:

- Don't pour ANYTHING in storm sewer drains
- Keep drains clear of leaves and lawn litter
- Scoop up after your pet and throw it in the trash
- Don't pour paint or oils down any sink or drain
- Clean up spills – DON'T wash them into drains
- Minimize use of pesticides and herbicides

Report illegal dumping or spills by calling the Public Works Department at 847-490-6800 or, in the case of an emergency, dial 911.

Free advice on **solving drainage concerns**

If you have a drainage problem or standing water on your property, the Village's Transportation and Engineering Division is available to assist you with technical advice. Standing water is a nuisance and will continue to worsen if not addressed. Most drainage problems grow over time from ground settlement and heaving from freeze-thaw cycles.

Sump pumps

Sump pumps collect surface and ground water from the house perimeter and pump it away from the house. A sump pump discharge may connect to the Village's storm sewer or discharge onto the ground. It is illegal to connect a sump pump to the sanitary sewer. A sump pump that runs often may be an indicator of other drainage-related problems around the house.

Sump pump discharge pipes should extend well beyond the house, be directed downstream or to the low end of the lot, and must be at least three feet from the property line. If it is determined that a sump pump discharge is causing a nuisance to a neighbor's property, public sidewalk or street, the Village could require a change in the sump pump discharge location.

Downspouts

Downspouts should be directed away from the house, and they should point toward the front or backyard. It is important to keep downspout water away from the foundation. Downspouts should be extended to direct water away from the house. Similar to sump pump discharges, downspouts should not drain directly on a neighbor's property.

Grading or private storm sewer

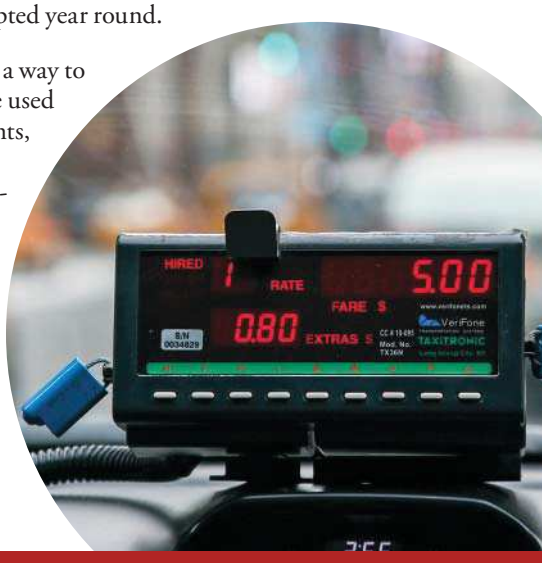
The grading of most yards should have the ground sloping or draining away from the house and toward the side, front or backyard swale. Ground settlement along the foundation should be addressed on an annual basis to maintain proper grading. Over time, side and backyard swales become less efficient due to settlement and erosion, and are commonly blocked by gardens, sheds, swing sets or landscaping features. Improper grade changes may affect drainage patterns on your lot and could result in standing water problems for you and your neighbors. Raised gardens or landscape features in drainage swales are a common obstruction to the drainage system.

Another solution for drainage concerns is the use of a perforated pipe underdrain. Underdrains are small underground pipes in a stone trench that drain surface water directly to the Village storm sewer. Any perforated pipe underdrain must connect to a nearby Village storm sewer, and cannot drain or discharge on a neighbor's lot, sidewalk or street. Perforated pipe improvements require a Village permit.

If you would like to take advantage of the free drainage investigation service or if you have any questions about the drainage or grading of your property, contact Alan Wenderski by email at alan.wenderski@hoffmanestates.org or by phone at 847-252-5802.

Taxi Discount Program – now accepting applications

The Taxi Discount Program is open to all residents who meet **one** of the following conditions: are 60 years or older; or have a disability; or meet income criteria. Participants can receive 10 coupons each month, and each coupon is valued at $7 off a one-way fare. There is no fee to register for this program, and applications are accepted year round.



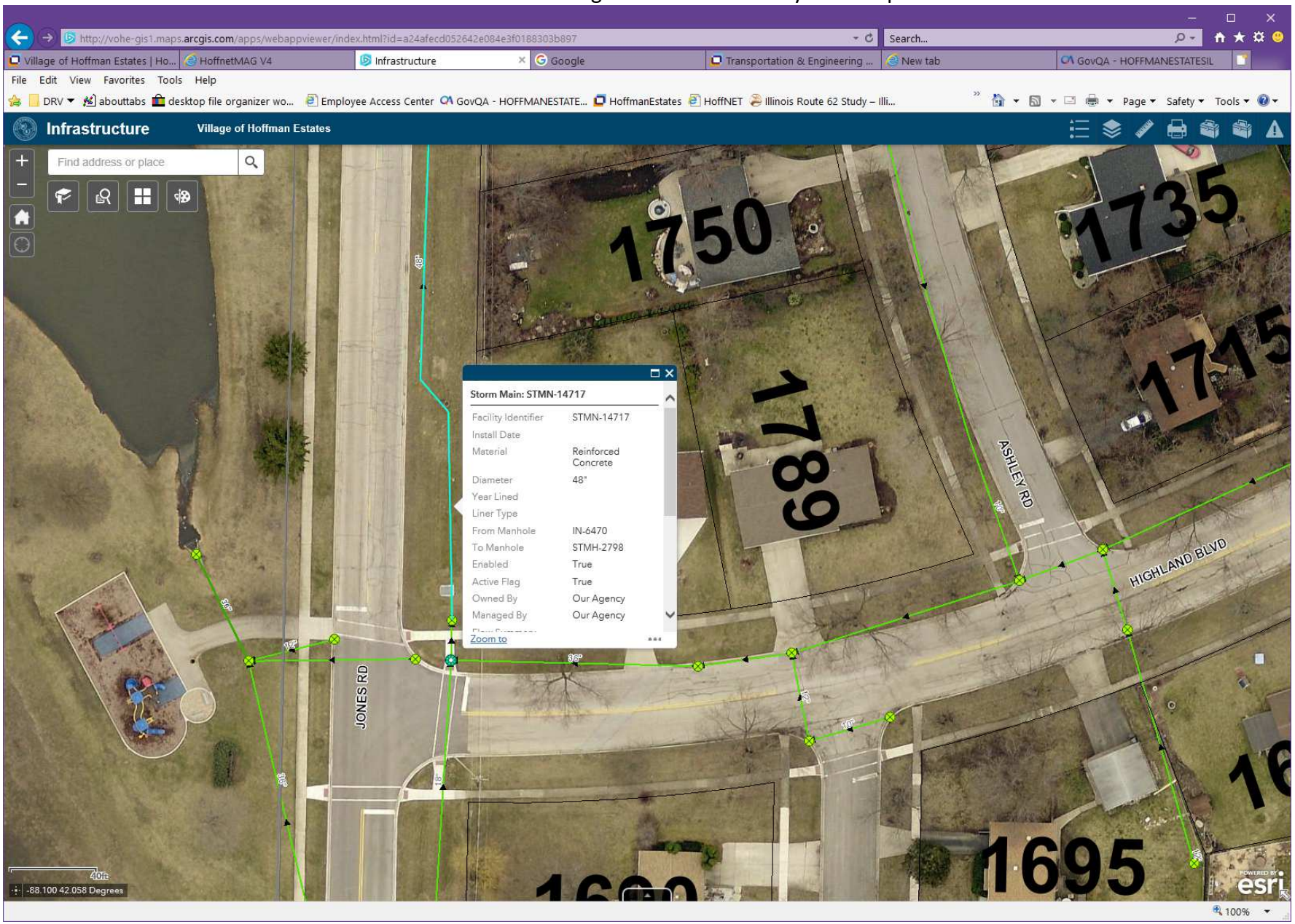
Many residents are finding this program helpful as a way to supplement their travel needs. Taxi coupons can be used for any purpose, such as trips to doctor appointments, the grocery store or the airport, as long as the ride begins or ends in Hoffman Estates. Three taxi companies currently accept the Village coupons.

To see if you qualify, if you have questions about whether this program is right for you, or if you have used all of your coupons and would like to receive your next booklet, call 847-252-5800 to speak with the Transportation and Engineering Division. Program details and registration forms are at www.hoffmanestates.org/transportation under the "Public Transit" section.

ATTACHMENT
FOR
BMP C.1

GIS Storm Sewer Map screenshot

Screen shot of Village GIS Storm Sewer System Map



ATTACHMENT
FOR
BMP C.2

Village Code

MUNICIPAL CODE OF HOFFMAN ESTATES, ILLINOIS

Published in 1955 by Order of the Village Board
Republished in 2001 by Order of the Village Board

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CURRENT OFFICIALS
of the
VILLAGE OF
HOFFMAN ESTATES, ILLINOIS

William D. McLeod
Mayor

Karen V. Mills
Anna Newell
Gary J. Pilafas
Gary Stanton
Michael Gaeta
Gayle Vandenbergh
Village Board

Arthur L. Janura, Jr.
Corporation Counsel

Bev Romanoff
Village Clerk

James H. Norris
Village Manager

This Republication constitutes a complete codification of the general and permanent ordinances of the Village of Hoffman Estates, Illinois.

Source materials used in the preparation of the Republication was the Village Code of 1955, as updated through December, 2000. The source of each section is included in the history note appearing in parentheses at the end thereof. The absence of such a note indicates that the section is new and was adopted for the first time with the adoption of the Code. By use of the comparative table appearing in the back of this Code, the reader can locate any section of any subsequent ordinance included herein.

Chapter and Section Numbering System

The chapter and section numbering system used in this Code is the same system used in many state and local government codes. Each section number consists of two parts separated by a dash. The figure before the dash refers to the chapter number, and the figure after the dash refers to the position of the section within the chapter. Thus, the second section of chapter 1 is numbered 1-2, and the first section of chapter 6 is 6-1. Articles may be placed at the end of the chapter embracing the subject, and, in the case of divisions, may be placed at the end of the article embracing the subject. The next successive number shall be assigned to the new article or division. New chapters may be included by using one of the reserved chapter numbers. Care should be taken that the alphabetical arrangement of chapters is maintained when including new chapters.

Indexes

The indexes have been prepared with the greatest of care. Each particular item has been placed under several headings, some of which are couched in lay phraseology, others in legal terminology, and still others in language generally used by local government officials and employees. There are numerous cross references within the indexes themselves which stand as guideposts to direct the user to the particular item in which the user is interested.

Looseleaf Supplements

A special feature of this publication is the looseleaf system of binding and supplemental servicing of the publication. With this system, the publication will be kept up-to-date. Subsequent amendatory legislation will be properly edited, and the affected page or pages will be reprinted. These new pages will be distributed to holders of copies of the publication, with instructions for the manner of inserting the new pages and deleting the obsolete pages.

Keeping this publication up-to-date at all times will depend largely upon the holder of the publication. As revised pages are received, it will then become the responsibility of the holder to have the amendments inserted according to the attached instructions. It is strongly recommended by the publisher that all such amendments be inserted immediately upon receipt to avoid misplacing them and, in addition, that all deleted pages be saved and filed for historical reference purposes.

Acknowledgments

The publisher is most grateful to Mr. Christopher J. Nelson, Assistant to Village Manager, for his cooperation and assistance during the progress of the work on this publication. It is hoped that his efforts and those of the publisher have resulted in a Code of Ordinances which will make the active law of the city readily accessible to all citizens and which will be a valuable tool in the day-to-day administration of the city's affairs.

This republication was under the direct supervision of John Dombroski, Vice President for Supplements, and Janet Cramer, Editor, of the Municipal Code Corporation, Tallahassee, Florida. Credit is gratefully given to the other members of the publisher's staff for their sincere interest and able assistance throughout the project.

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CHAPTER 7 – OFFENSES AND PUNISHMENT

ARTICLE 8. - PUBLIC NUISANCES

Sec. 7-8-3. - Pollution, general.

A. *Water Pollution.* It shall be unlawful for any person to litter, pollute or cause to be polluted any waterway, stream, lake, pond, storm sewer or other body of water so as to render it unclean and dangerous to the health and well being of any person or animal fowl or fish, coming into contact with such polluted water within the Village of Hoffman Estates.

Sec. 7-8-7. - Water control.

A. *Obstructing Water Passage.* No person shall knowingly stop or obstruct the passage of water in any street, gutter, public sewer, culvert, water pipe, hydrant, drainageway or swales between houses.

B. *Stagnant Water Prohibited.* Any stagnant pool of water in the Village is hereby declared to be a nuisance. It shall be unlawful for any person, firm or corporation to permit any such nuisance to remain or exist on any property under their control. Retention ponds or approved natural water retention areas are exempted from this requirement.

C. *Catch Basins.* Catch basins are to be cleaned of all grease and sludge as often as it is necessary to prevent sewage lines from clogging. It will be the responsibility of the owner to keep catch basins and sewage lines leading from their establishment free of grease.

D. *Drainage Swales.* No person shall reconstruct or change a rear yard or side yard swale so as to adversely affect the natural drainage.

E. *Sump Pump Discharge.* Sump pump discharge may be directed to the front, rear or side yard, but if stagnant water pools from a discharge to the side yard, the discharge shall be redirected to the rear or front yard.

ATTACHMENT
FOR
BMP C.3/C.7

Sample Inspection Log

HOFFMAN ESTATES

UNDERGROUND AND CONSTRUCTION

STORM SEWER DIVISION

Storm System Checks North

NORTH OF TOLLWAY CENTRAL ROAD

LOCATION AND AREA		DATE CLEANED	EMPLOYEE	EMPLOYEE	WATER QUALITY
Central Rd 500' East of Ela					
Central Rd 500' West of Thomas Eng. Central Rd to Tollway Culvert					
Central Rd East side of Forest Preserve entrance by guardrail. Goes under Tollway culvert and grate					
Ela Road 200' North of Central Road by guardrail		5/3/18 5/14/18	Zyburt	Whelan	Clear

Comments	Central east of Lea under heavy construction

NORTH OF TOLLWAY NA

LOCATION AND AREA		DATE CLEANED	EMPLOYEE	EMPLOYEE	WATER QUALITY
3451 North Wiltshire (Well 18) Vault	18" C.M.P.	5/3/18 5/14/18	Zyburt	Whelan	Clear

Comments	

NORTH OF TOLLWAY NB

LOCATION AND AREA		DATE CLEANED	EMPLOYEE	EMPLOYEE	WATER QUALITY
780 Charleston(Pine Park)	48" C.M.P.	5/3/18 5/14/18	Zyburt	Whelan	Clear
Winston and Norman(Willow Park)	18" C.M.P.				
Across from 920 Norman	12" C.M.P.				
Norman and Lexington	18" C.M.P.				
3660 Lexington	30" C.M.P. Into creek				
1100 Concord	48" C.M.P. Into creek	5/3/18 5/14/18			
1345 and 1355 Picardy Ct	42" C.M.P.				
3795 and 3805 Bordeaux(Rear Yard)	60" C.M.P.				
1380 Algonquin Road(Well 19)	Culvert	5/3/18 5/14/18			
Windemere(Brittany Park)	**Vault and Outflow**	5/3/18 5/14/18			

Comments	

Key

C.M.P.- Corrugated metal pipe

R.C.P.- Reinforced concrete pipe

P.V.C.- Polyvinal chloride pipe

BOLD INDICATES TROUBLE AREA AND SHOULD BE CHECKED MORE OFTEN

Updated 3/6/17 McKittrick

HOFFMAN ESTATES

UNDERGROUND AND CONSTRUCTION

STORM SEWER DIVISION

Storm System Checks North

NORTH OF TOLLWAY NC

LOCATION AND AREA		DATE CLEANED	EMPLOYEE	EMPLOYEE	WATER QUALITY
1929 Alder(Douglas Park) Retention Vault					
3821 Whispering Trails(Meadow Park)					
3954 and 3960 Whispering Trails					
Whispering Lake- Seminole Culvert					
Huntington behind(White Hen) Whispering Lake Vault		5/3/18 5/14/18	**Zyburt**	**Whelan**	**Clear**

Comments	

NORTH OF TOLLWAY ND

LOCATION AND AREA		DATE CLEANED	EMPLOYEE	EMPLOYEE	WATER QUALITY
Freeman Rd N New Britton(South Ridge Lake) Outfalls		5/3/18 5/14/18	Zyburt	Whelan	Clear
885 Park Lane (Valley Park)	Outfalls into creek				
1355 Sturbridge(North and South Ridge Lake)		5/3/18 5/14/18			
4195 Mumford(North Ridge Park) Pat's Pantry vault		5/3/18 5/14/18			
Haman and Westbury(Westbury Park vault)		5/3/18 5/14/18			

Comments	

NORTH OF TOLLWAY NE

LOCATION AND AREA		DATE CLEANED	EMPLOYEE	EMPLOYEE	WATER QUALITY
1633 and 1643 Castaway Ct	24" C.M.P.	5/3/18 5/14/18	Zyburt	Whelan	Clear
5100 Thornbark Outfall into Lake	38" C.M.P.				
5100 and 5070 N Tamarack	**32" C.M.P. Into creek-vault**	5/3/18 5/14/18			
Parkway between 5100 and 5100 Chambers					

Comments	

Key

C.M.P.- Corrugated metal pipe

R.C.P.- Reinforced concrete pipe

P.V.C.- Polyvinal chloride pipe

BOLD INDICATES TROUBLE AREA AND SHOULD BE CHECKED MORE OFTEN

Updated 3/6/17 McKittrick

HOFFMAN ESTATES

UNDERGROUND AND CONSTRUCTION

STORM SEWER DIVISION

Storm System Checks West

NORTH OF TOLLWAY WEST

LOCATION AND AREA		DATE CLEANED	EMPLOYEE	EMPLOYEE	WATER QUALITY
Shoe Factory Rd by railroad tracks		5/3/18 5/14/18	**Zyburt**	**Whelan**	
Rohrssen Rd inlet at curves (6)		5/3/18 5/14/18			
McDonough Rd- Cannon Crossing Park District- other side of railroad tracks	Creek line				
Mallard Lane and Pheasant Trail Ct	**Culvert in creek line**	5/3/18 5/14/18			

Comments	

NORTH OF TOLLWAY WHITE OAK

LOCATION AND AREA		DATE CLEANED	EMPLOYEE	EMPLOYEE	WATER QUALITY
White Oak and Shoe Factory Retention Outflows		5/3/18 5/14/18	Zyburt	Whelan	
Red Oak and Essex Retention- 2 Outflows		5/3/18 5/14/18			
5729 Caribou- Retention		5/3/18 5/14/18			
5677 and 5689 Caribou- Beehive		May 3, 2018			
Angouleme- Retention					

Comments	

NORTH OF TOLLWAY IVY RIDGE

LOCATION AND AREA		DATE CLEANED	EMPLOYEE	EMPLOYEE	WATER QUALITY
Ivy Ridge & Colchester Retention Pond		5/3/18 5/14/18	Zyburt	Whelan	
5591 McDonough Retention Outflow					
2000 Ivy Ridge Pond Retention Outflow					

Comments	

Key

C.M.P.- Corrugated metal pipe

R.C.P.- Reinforced concrete pipe

P.V.C.- Polyvinal chloride pipe

BOLD INDICATES TROUBLE AREA AND SHOULD BE CHECKED MORE OFTEN

Updated 3/6/17 McKittrick

HOFFMAN ESTATES

UNDERGROUND CONSTRUCTION

STORM SEWER DIVISION

Storm System Checks West

NORTH OF TOLLWAY HUNTERS RIDGE

LOCATION AND AREA	DATE CLEANED	EMPLOYEE	EMPLOYEE	WATER QUALITY
Hunter Ridge E & Mallard- Retention Outflow to creek	5/3/18 5/14/18	Whelan	Zyburt	Clear
Mallard Rd- Box culvert creek	5/3/18 5/14/18	Whelan	Zyburt	Clear
Mallard Rd- Retention Outflow North of box culvert-Outflow to creek	5/3/18 5/14/18			Clear
Mallard Rd- Retention South of box culvert-East of creek- Outflow to creek	5/3/18 5/14/18			Clear
Mallard Rd- Retention South of box culvert-West of creek- Outflow to creek	5/3/18 5/14/18			Clear
1280 Mallard- Retention Outflow to Creek	5/3/18 5/14/18			Clear
1380 Mallard- Retention Outflow to Creek	5/3/18 5/14/18			Clear
Mallard & Pheasant Trail Ct box culvert in creekline	5/3/18 5/14/18			**Clear**
Hunters Ridge Wetlands behind 5465 Fox Path- Outflow to creek	5/3/18 5/14/18			**Clear**
1297 Hunters Ridge E(Behind) Outflow to creek				

Comments	

NORTH OF TOLLWAY CANTERBERY FIELDS

LOCATION AND AREA	DATE CLEANED	EMPLOYEE	EMPLOYEE	WATER QUALITY
Maureen & Delaney- Retention Outflow S/W corner of pond	May 3, 2018	Zyburt	Whelan	Clear

Comments	

NORTH OF TOLLWAY YORKSHIRE WOODS

LOCATION AND AREA	DATE CLEANED	EMPLOYEE	EMPLOYEE	WATER QUALITY
McDonough Rd Retention Pond Outflow	May 3, 2018	Zyburt	Whelan	Clear
Swan & Nicholson Retention Pond Outflow				
Shoe Factory- retention Outflow West of McDonough(Bridlewood)				
Service Road- 2 flared ends in creek line 1300 ft north of Shoe Factory	5/3/18 5/14/18			**Clear**

Comments	

Key

C.M.P.- Corrugated metal pipe

R.C.P.- Reinforced concrete pipe

P.V.C.- Polyvinal chloride pipe

BOLD INDICATES TROUBLE AREA AND SHOULD BE CHECKED MORE OFTEN

Updated 3/6/17 McKittrick

ATTACHMENT
FOR
BMP C.9

Village Webpage

Stormwater Pollution Prevention

The Village of Hoffman Estates discharges stormwater from its storm sewer system under the IEPA General National Pollutant Discharge Elimination System Permit No. ILR40.

As a condition of the permit, the Village is required to set goals for a five-year period in order to reduce pollution to the receiving waters. These goals are described in the Notice of Intent.

After each program year, the Village must document its status of compliance with and any changes to the Notice of Intent in an annual Facility Inspection Report. Below is a list of recent reports:

- Annual Report 2013-2014
- Annual Report 2015-2016
- Annual Report 2016-2017
- Annual Report 2017-2018

Stormwater Management Plan

The Village of Hoffman Estates' General Permit ILR40 requires the Village to develop, implement, and enforce a stormwater management program designed to protect water quality and prevent and reduce pollution from its storm sewer system to the maximum extent practicable.

To comply with ILR40 Permit requirements, the Village's Stormwater Management Plan, along with the Notice of Intent (NOI) and Annual Facilities Reports are designed to provide the IEPA and the residents of Hoffman Estates with an understanding of the measures the Village employs to ensure public health and safety by reducing pollution into the receiving waters.

This is achieved through the implementation of six minimum control measures and related best management practices (BMPs) for each. More details are located in the Village's Stormwater Manangement Plan document.

How To Report Violations, Illegal Dumping or Pollutants

If you see someone pouring a substance into an inlet or waterway in Hoffman Estates that you suspect is a pollutant, contact the Village Public Works Department, Monday through Friday until 4:00 p.m. at (847) 490-6800 or after hours and on weekends, call the Police non-emergency line at (847) 882-1818.

ATTACHMENT
FOR
BMP C.10

Sample Grate

BMP C.10 Other Illicit Discharge Controls - Sample Grate

ATTACHMENT
FOR
BMP D.1/D.2/D.4/D.6
&
BMP E.2/E.3/E.4/E.5/E.6

Village Ordinance/Code

MUNICIPAL CODE OF HOFFMAN ESTATES, ILLINOIS

Published in 1955 by Order of the Village Board
Republished in 2001 by Order of the Village Board

Municipal Code Corporation | P.O. Box 2235 Tallahassee, FL 32316
info@municode.com | 800.262.2633
www.municode.com

CURRENT OFFICIALS
of the
VILLAGE OF
HOFFMAN ESTATES, ILLINOIS

William D. McLeod
Mayor

Karen V. Mills
Anna Newell
Gary J. Pilafas
Gary Stanton
Michael Gaeta
Gayle Vandenbergh
Village Board

Arthur L. Janura, Jr.
Corporation Counsel

Bev Romanoff
Village Clerk

James H. Norris
Village Manager

This Republication constitutes a complete codification of the general and permanent ordinances of the Village of Hoffman Estates, Illinois.

Source materials used in the preparation of the Republication was the Village Code of 1955, as updated through December, 2000. The source of each section is included in the history note appearing in parentheses at the end thereof. The absence of such a note indicates that the section is new and was adopted for the first time with the adoption of the Code. By use of the comparative table appearing in the back of this Code, the reader can locate any section of any subsequent ordinance included herein.

Chapter and Section Numbering System

The chapter and section numbering system used in this Code is the same system used in many state and local government codes. Each section number consists of two parts separated by a dash. The figure before the dash refers to the chapter number, and the figure after the dash refers to the position of the section within the chapter. Thus, the second section of chapter 1 is numbered 1-2, and the first section of chapter 6 is 6-1. Articles may be placed at the end of the chapter embracing the subject, and, in the case of divisions, may be placed at the end of the article embracing the subject. The next successive number shall be assigned to the new article or division. New chapters may be included by using one of the reserved chapter numbers. Care should be taken that the alphabetical arrangement of chapters is maintained when including new chapters.

Indexes

The indexes have been prepared with the greatest of care. Each particular item has been placed under several headings, some of which are couched in lay phraseology, others in legal terminology, and still others in language generally used by local government officials and employees. There are numerous cross references within the indexes themselves which stand as guideposts to direct the user to the particular item in which the user is interested.

Looseleaf Supplements

A special feature of this publication is the looseleaf system of binding and supplemental servicing of the publication. With this system, the publication will be kept up-to-date. Subsequent amendatory legislation will be properly edited, and the affected page or pages will be reprinted. These new pages will be distributed to holders of copies of the publication, with instructions for the manner of inserting the new pages and deleting the obsolete pages.

Keeping this publication up-to-date at all times will depend largely upon the holder of the publication. As revised pages are received, it will then become the responsibility of the holder to have the amendments inserted according to the attached instructions. It is strongly recommended by the publisher that all such amendments be inserted immediately upon receipt to avoid misplacing them and, in addition, that all deleted pages be saved and filed for historical reference purposes.

Acknowledgments

The publisher is most grateful to Mr. Christopher J. Nelson, Assistant to Village Manager, for his cooperation and assistance during the progress of the work on this publication. It is hoped that his efforts and those of the publisher have resulted in a Code of Ordinances which will make the active law of the city readily accessible to all citizens and which will be a valuable tool in the day-to-day administration of the city's affairs.

This republication was under the direct supervision of John Dombroski, Vice President for Supplements, and Janet Cramer, Editor, of the Municipal Code Corporation, Tallahassee, Florida. Credit is gratefully given to the other members of the publisher's staff for their sincere interest and able assistance throughout the project.

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CHAPTER 10 – SUBDIVISION CODE

ARTICLE 3 – LAND IMPROVEMENTS

Sec. 10-3-13. - Erosion and sedimentation control.

A. *General Principles.* It is the objective of this Section to control soil erosion and sedimentation caused by development activities in the Village. Measures taken to control erosion and sedimentation shall be adequate to assure that sediment is not transported from the site and shall be in accordance with the "Procedures and Standards for Urban Soil Erosion and Sedimentation Control" adopted by the North Cook County Soil and Water Conservation District (or Kane-DuPage Soil and Water Conservation District, where appropriate). The following principles shall apply to all development activities within the Village and to the preparation of the submissions required under Section 10-3-14[.]

1. Development should be related to the topography and soils of the site so as to create the least potential for erosion. Areas of steep slopes where high cuts and fills may be required should be avoided wherever possible, and natural contours should be followed as closely as possible.
2. Natural vegetation should be retained and protected wherever possible. Areas immediately adjacent to natural watercourses should be left undisturbed wherever possible.
3. The smallest practical area of land should be exposed for the shortest practical time during development.
4. Sediment basins, debris basins, desalting basins, silt traps or filters must be installed and maintained to remove sediment from run-off waters on land undergoing development. Soil erosion control measures must be in place prior to any construction.
5. The selection of erosion and sedimentation control measures should be based on assessment of the probable frequency of climatic and other events likely to contribute to erosion, and on evaluation of the risks, costs and benefits involved.
6. In the design of erosion control facilities and practices, aesthetics and the requirements of continuing maintenance should be considered.
7. Provision should be made to accommodate the increased run-off caused by changed soil and surface conditions during and after development. Drainageways should be designed so that their final gradients and the resultant velocities of discharges will not create additional erosion.
8. Permanent vegetation and structures should be installed as soon as practical during development. Refer to Article 4 of this Code for a listing of recommended planting seasons.

(Ord. No. 4360-2013, § 1(Exh. A), 3-18-13)

ATTACHMENT
FOR
BMP F.1

Sample Training Handouts/Information

2018 Lake County Deicing Workshop

by Lake County Health Department and Stormwater Management Commission

October 1, 2018

Date And Time

Mon, Oct 1, 2018, 7:00 AM –
Wed, Oct 3, 2018, 3:00 PM CDT
Add to Calendar

Location

500 W Winchester Rd
Libertyville, IL 60048
View Map

Refund Policy

Refunds up to **7 days** before event

2018 Lake County Deicing Workshop

by Lake County Health Department and Stormwater Management Commission

2018 Lake County Deicing Workshop

by Lake County Health Department and Stormwater Management Commission

Description

Calibration Demonstration and Vendor Expo
Learn how to optimize deicing applications and test new products and methods. Past workshop attendees are welcome to attend even if you are not registered for the workshop.

Classroom Training Covers:

- **Application Rate & Calibration**
- **Tour of DOT's Mixing Facility**
- **Effects of Weather Conditions & Storing Materials Surface Safety**
- **Environmental Effects**
- **Materials Selection**
- **Maintenance Best Management Practices**

Who Should Attend?

- **Public Works Superinendents, Managers, Directors Snow Plow Operators/Deicing Applicators**
- **Contractors Maintaining Private/Public Walkways and/or Parking Lots**
- **Property Managers Writing Deicing Contracts**
- **Facility/Grounds Maintenance Staff**
- **Distribution of Anti-Icing/Deicing Products**
- **Past Attendees (Certification expires after 5 years)**

Includes: Coffee and doughnuts, box lunch, and workshop materials

(please contact organizer if you have dietary requests)

Professional Development Certificate Available (5 hours)

8183496031019254532001

Event

2018 Lake County Deicing Workshop

Date+Time

Monday, October 1, 2018 at 7:00 AM - Wednesday, October 3, 2018 at 3:00 PM (CDT)

Location

500 W Winchester Rd
Libertyville, IL 60048

Payment Status

Eventbrite Completed

Order Info

Order #818349603. Ordered by Kelly Kerr on September 4, 2018 1:23 PM

Type

Roads Oct 2, 2018 $38.00

8183496031019254532001

Eventbrite

Do you organize events?

Start selling in minutes with Eventbrite!
www.eventbrite.com

Shelley Walenga

From: Eventbrite <orders@eventbrite.com>
Sent: Tuesday, September 4, 2018 1:24 PM
To: Kelly Kerr
Subject: Your Tickets for 2018 Lake County Deicing Workshop
Attachments: 48506525323-818349603-ticket.pdf

Eventbrite

Find events My Tickets

Hi Kelly, this is your order confirmation for 2018 Lake County Deicing Workshop

Organized by Lake County Health Department and Stormwater Management Commission

Here are your tickets

Mobile Tickets

Available on App Store

GET IT ON Google Play

...or...

Paper Tickets

Open the email attachment or download here

Questions about this event?

Contact the organizer

Order Summary

September 4, 2018

Order #: 818349603

Name	Type	Quantity	Price
Kelly Kerr	Roads Oct 2, 2018	1	$38.00
		TOTAL	$38.00

Charged to: MasterCard - XXXX-XXXXXX-3661

This charge will appear on your card statement as EB *2018 Lake County D

Refund Policy: Refunds up to **7 days** before event

This order is subject to Eventbrite Terms of Service, Privacy Policy, and Cookie Policy

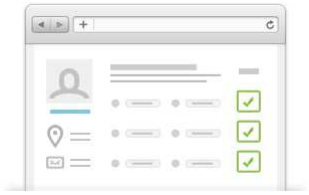
About this event

Monday, October 1, 2018 at 7:00 AM - Wednesday, October 3, 2018 at 3:00 PM (CDT)

500 W Winchester Rd
Libertyville, IL 60048

Add to my calendar:

Google · Outlook · iCal · Yahoo



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McHenry County Sensible Salting Workshop

WHO: PUBLIC & PRIVATE SECTOR EMPLOYEES RESPONSIBLE FOR MAINTENANCE OF ROADS, SIDEWALKS & PARKING LOTS
DATE: THURSDAY, OCTOBER 18 OR FRIDAY, OCTOBER 19 (choose one day only)
TIME: 8:00 AM - 2:00 PM *Registration begins at 7:30 AM
PLACE: CITY OF CRYSTAL LAKE: 100 Woodstock Street, Crystal Lake, IL

Sensible Salting.....

Removal of snow and ice from McHenry County pavement is essential for public safety and the local economy. During winter storm events, the use of pavement de-icing chemicals is widely accepted and, as some would argue, essential means of keeping pavements safe and passable.

Sodium chloride (NaCl), or common salt, is by far the most popular roadway deicing chemical because of its reliability, economy, and usability. However, it is also corrosive to vehicles, roadway surfaces, parking lots, driveways, and bridges and has been found to have adverse effects on the environment.

In addition, research indicates that chloride levels are increasing in McHenry County's surface water and groundwater, and salt used for pavement de-icing is the primary source for the increase.

Therefore, a reduction in salt use, through sensible salting, is the most effective method of reducing the risks of chloride contamination.

Workshop Updated for 2018!!!

This workshop will be conducted by the McHenry County Division of Transportation and Division of Water Resources, the Village of Algonquin, the City of Crystal Lake, and the Village of Spring Grove. Calibration training provided by City of Crystal Lake staff.

Registration fee includes: course materials, breakfast, lunch, refreshments, and the opportunity to receive Level 1 Certification: Snow & Ice Best Management Practices.

Training Topics Include:

- Application Rates
- Liquids
- Weather Conditions
- Material Storage
- Levels of Service
- Truck Washing
- New Maintenance Methods
- Environmental Effects
- State/Local Law
- NPDES Compliance

Demonstration/Hands-on:

- Calibrating Equipment

Who Should Participate:

- Public works superintendents, managers, directors
- Snow Plow Operators/De-icing applicators
- Contractors maintaining private/public walkways and/or parking lots
- Property Managers writing de-icing contracts
- Distributors of anti-icing/de-icing products
- Others responsible for winter maintenance

Need More Information?

Contact: McHenry County Dept. of Planning & Development
Phone: (815) 334-4560

Register Online at
www.mchenryh2o.com
Or mail in the Registration Form as directed below

2015 Attendees:
This is the year to renew!

6 PDH's are available.

Sponsored By...

Registration Form

Choose Workshop Date:
___ Thursday, October 18, 2018
___ Friday, October 19, 2018

Name _____

Title _____

Organization _____

Address _____

City/State/Zip _____

Phone _____

E-Mail _____

Registration Information:

Workshop Registration Fee: $25.00*
*Breakfast, Snacks, Lunch and Refreshments included in fee.

Please make checks payable to:
McHenry County Dept. of Planning & Development

Mail Checks and Registration to:
McHenry County Dept. of Planning & Development
2200 N. Seminary Ave., Suite 208
Woodstock, IL 60098

Payments & registration and must be received by:
October 12, 2018

Shelley Walenga

From: webmaster@mchenrycountyil.gov
Sent: Monday, August 13, 2018 9:19 AM
To: Kelly Kerr
Subject: McHenry County, IL: Sensible Salting Workshop Registration

A new entry to a form/survey has been submitted.

Form Name:	P&D - Sensible Salting Workshop Registration
Date & Time:	08/13/2018 9:19 AM
Response #:	8
Submitter ID:	59224
IP address:	172.24.96.111
Time to complete:	3 min. , 38 sec.

Survey Details

Page 1

Registrant Information

Name	Kelly Kerr
Title	Assistant Director of Public Works
Organization	Village of Hoffman Estates
Address	2305 Pembroke Ave
City	Hoffman Estates
State	Illinois
Zip	60169
Phone	(847) 781-2704
Email	Kelly.kerr@hoffmanestates.org

Thursday, October 18, 2018

List the names of all members of your organization who will be attending the THURSDAY workshop date. Please spell each name correctly and as you want it to be displayed on their completion certificate.

Jeremy Jahnke
Nick Lackowski
Kevin McGraw
Jay Evans
Joe Capiga
Tyler Wintz

Friday, October 19, 2018

List the names of all members of your organization who will be attending the FRIDAY workshop date. Please spell each name correctly and as you want it to be displayed on their completion certificate.

Not answered

Thank you,
McHenry County, IL

This is an automated message generated by the Vision Content Management System™. Please do not reply directly to this email.

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STORM WATER

Requirements Summary

Storm Water Pollution Prevention Plans (PPPs)

Companies and municipalities who must file general storm water permits must complete and implement storm water pollution prevention plans. Although the plans need not be submitted to the EPA, they must be on file and available to an EPA inspector.

Baseline pollution prevention plans have two major objectives — to identify potential sources of pollution and to describe the practices the company will follow to reduce pollutants in storm water discharges.

1. Pollution Source Identification. Typical source identification plan components include:
   - Mapping the drainage site;
   - Estimating the area of impervious surfaces and the total areas drained by each outfall;
   - Describing specified features that may impact the pollution potential of a discharge;
   - Listing significant spills and leaks of toxic or hazardous pollutants that occurred at the facility after the effective date of the permit;
   - Predicting the direction, rate, types, and total quantity of pollutants that may be present in discharges at your location; and
   - Summarizing existing sampling data describing pollutants in storm water discharges.
2. Best Management Practices to Reduce Pollutants. Typical pollution prevention plan components include:
   - Establishing a pollution prevention committee;
   - Identifying risks from materials present at the site;
   - Instituting a preventive maintenance program;
   - Implementing good housekeeping procedures;

STORM WATER

Requirements Summary

- Establishing spill prevention and response plans;
- Developing sediment and erosion prevention plans;
- Training employees in company plans and procedures;
- Conducting periodic inspections of the facility;
- Keeping appropriate records and reports; and
- Certifying that storm water discharges have been tested for the presence of non-storm water pollution sources.

Duty to Reapply

NPDES permits are effective for a fixed term not to exceed 5 years. Permittees who wish to continue any activity regulated by a NPDES permit after its expiration date must apply for and obtain a new permit. Permittees must submit a new application 180 days before the existing permit expires unless permission for a later date has been granted. Reapplication details are found in 40 CFR 122.21, 122.41 and 122.46.

The EPA administrators of regions 1, 2, 3, 4, 6, 9 and 10 have announced that the Agency does not intend to reissue the NPDES storm water baseline industrial general permit and is proposing to terminate this permit. As a result, all industrial facilities previously permitted under the baseline permit would be required to obtain storm water permit coverage under the multi-sector general permit (MSGP), which was finalized on September 30, 1998, or to submit an application for an individual permit. For more information, see the July 11, 1997 *Federal Register* or contact your regional EPA storm water coordinator.

Reporting

Industry-specific semi-annual monitoring and annual reporting requirements are established for storm water discharges associated with industrial activity from six classes of industries:

- Certain SARA Title III, Section 313 facilities;
- Primary metal facilities;
- Land disposal units;

ATTACHMENT

FOR

BMP F.2

Village Drainage System Maintenance SOP

VILLAGE OF HOFFMAN ESTATES
PUBLIC WORKS DEPARTMENT
DRAINAGE SYSTEM MAINTENANCE
STANDARD OPERATING PROCEDURES

I. OBJECTIVE

A. These Standard Operating Procedures (SOP) specify responsibilities and procedures for inspecting and cleaning the streams, ditches and storage basins in the Village of Hoffman Estates.

II. RESPONSIBLILITIES

A. The Director of Public Works is responsible for the administration of this Standard Operating Procedures and the performance of the Village of Hoffman Estates staff identified herein.

B. The Director of Public Works is responsible for:

1. Inspecting the streams, ditches and storage basins in accordance with this Standard Operating Procedures and in response to complaints and inquiries received by the Village of Hoffman Estates.

2. Forwarding drainage problem reports to the appropriate office for action.

3. Serving maintenance notices to private property owners.

4. Cleaning the streams, ditches and storage basins on public property, right-of-ways and easements in accordance with these Standard Operating Procedures.

5. Monitoring the streams, ditches and storage basins in the Village of Hoffman Estates parks and required cleaning in accordance with these Standard Operating Procedures.

C. The Chief of Police and/or the Building Official is responsible to enforce the Village of Hoffman Estates Municipal Code and related regulations on dumping or depositing material in the drainage system. The Chief of Police and/or the Building Official are also responsible for serving maintenance notices to private property owners.

D. All work on Illinois Department of Transportation or Cook County property shall be coordinated with the appropriate state and county offices.

E. Property owners are responsible for maintaining the streams, ditches and detention basins on their properties.

III. JURISDICTION

A. These Standard Operating Procedures cover all the public and private surface facilities delineated on the drainage system map, provided as Attachment 1.

B. Jurisdiction includes: all creeks, ditches, detention areas, and retention within the Village.

IV. IDENTIFICATION OF PROBLEMS

A. The Village Engineer or his/her designee and/or Director of Public Works or his/her designee shall inspect all the watercourses and basins in the drainage system.

B. Frequency should be at least semi-annual and during storm season.

C. When a major storm forecast is received, Director of Public Works or his/her designee shall check the outlet, flow and report the water level of the following lakes: (level in feet above the outlet elevation)

High Point Lake

North/South Twin Lakes

Ray Kessel Lake (Highland Blvd. & Jones) and contact Village of Schaumburg as needed.

Highland Lake

C. Within 24 hours of a major storm, Village Engineer or his/her designee and/or Director of Public Works or his/her designee shall inspect the “choke points” where debris has been known to accumulate.

D. See inspection log for locations.

E. The Village Engineer or his/her designee and/or Director of Public Works or his/her designee shall complete the Drainage Inspection Report after each

inspection. If an inspection finds a problem, a Drainage Problem Report shall be completed and forwarded to the appropriate office. A copy of the report shall be kept in an appropriate file.

F. The Village Engineer or his/her designee and/or Director of Public Works or his/her designee shall inspect all complaints submitted by residents, community officials or other community offices. Such complaints shall be recorded on the Drainage Problem Report form.

ATTACHMENT
FOR
BMP F.3

See BMP A.1 Sample Article

ATTACHMENT
FOR
SECTION C

Results of Information Collected/Analyzed/Monitoring

DRSCW ILR40 Activities
March 2018 – February 2019

PART I. COVERAGE UNDER GENRAL PERMITS ILR40

Not applicable to the work of the DRSCW.

PART II. NOTICE OF INTENT (NOI) REQUIREMENTS

Not applicable to the work of the DRSCW.

PART III. SPECIAL CONDITIONS

Not applicable to the work of the DRSCW.

PART IV. STORM WATER MANAGEMENT PROGRAMS

A. Requirements

Not applicable to the work of the DRSCW.

B. Minimum Control Measure

1. Public Education and Outreach on Stormwater Impacts

DRSCW outreach activities for the year ending 2018 included:

- The DRSCW website was maintained during the reporting period and periodically updated with presentations and material (www.drscw.org).
- A searchable database with information on local aquatic biodiversity (IBIs), habitat (QHEI), and sediment and water column chemistry was maintained and periodically updated.
- Public information available on the website includes:
  - Chloride Fact Sheets aimed at mayors and managers, public works staff, commercial operators, and homeowners.
  - Model salt Storage and Handling Ordinances and Policies.
  - Model Facilities Plan for Snow and Ice Control.
  - A fact sheet summarizing alternative deicing products.
  - Information of effective operating parameters for commonly used anti icing compounds.
  - Parking lots chloride application rate guidance example sheet and aide memoire.

- A brochure on coal tar sealants as a source of Polycyclic Aromatic Hydrocarbons (PAHs) aimed at homeowners (produced by the University of New Hampshire Stormwater Center).
- Detailed reports on the biolocal and chemical conditions of area waterways.

Technical Presentations

Workgroup meetings: The Workgroup hosts bimonthly meetings where technical presentations are made on a variety of water quality topics and surface water management subjects. The audience consists of mainly stormwater and wastewater professionals but the public is welcome to attend. Presentations made during the period March 1, 2018 to February 28, 2019 are listed below. Selected presentations are made available on the DRSCW website and upon request.

April 25, 2018 – Low Level Phosphorus Experience in Wisconsin Provides Valuable Data in Developing P-Removal Feasibility Studies for Bartlett and Bensenville. Presenter: Troy Stinson and Mike Ott, Strand Associates

April 25, 2018 – Cold Temperature Chloride Toxicity Update. Presenter: Jim Huff, Huff & Huff, Inc. A subsidiary of GZA GeoEnvironmental, Inc.

June 27, 2018 – East Branch DuPage River and the Morton Arboretum. Presenter: Kurt Dreisilker, Head of Natural Resources at The Morton Arboretum

August 29, 2018 – Results of the 2016 Biological and Water Quality study of the Salt Creek Watershed. Presenter: Chris Yoder, Research Director, Midwest Biodiversity Institute

August 29, 2018 – DuPage River Feasibility Study. Presenter: Erin Maloney and Imad Samara, Army Corps of Engineers

October 31, 2018. Reducing Salt Use at the Fox Valley Park District (FVPD). Presenter: Jimmy Schmidt, West Maintenance Supervisor, Fox Valley Park District

October 31, 2018. Alternative Cutting Edges; Improving Mechanical Snow Removal. Presenter: Scott Weber, Streets and Forestry Supervisor, Village of Hanover Park

October 31, 2019. Water Quality Improvement Grant. Presenter: Mary Beth Falsey, Water Quality Supervisor, DuPage County Stormwater Management

December 12, 2018. Graue Mill Dam, TMDLs and Aquatic life. Presenter: Deanna Doohaluk and Stephen McCracken, The Conservation Foundation/DuPage River Salt Creek Workgroup

Other Water Quality Presentations or Workshops by the DRSCW

April 17, 2018 – IWEA Watershed Management Track (Springfield, IL). Nutrient Trading Framework Concepts. Presenter: Deanna Doohaluk, The Conservation Foundation/DuPage River Salt Creek Workgroup

April 26, 2018 – Sweet Water Clean Rivers Clean Lake Conference (Milwaukee, WI). Developing a Collaborative, Data-Driven Trading Framework in the DuPage River Salt Creek Watersheds. Presenter: Deanna Doohaluk, The Conservation Foundation/DuPage River Salt Creek Workgroup

April 26, 2018 – League of Woman Voters (Elmhurst, IL). What's Up With Water in Elmhurst?"- A discussion of public water supply, storm water and water quality matters in Salt Creek. Presented by Dennis Streicher, Sierra Club and DuPage River Salt Creek Workgroup Executive Board Member

May 14, 2018 – CSWEA Annual Meeting (Oak Brook, IL). Collaborative, Data-Driven Trading Framework in the DuPage River Salt Creek Watersheds. Presenter: Deanna Doohaluk, The Conservation Foundation/DuPage River Salt Creek Workgroup

May 14, 2018—CSWEA Annual Meeting (Oak Brook, IL). Watershed Wide Adaptive Implementation for meeting Biodiversity Goals of the Clean Water Act. Presenter: Stephen McCracken, The Conservation Foundation/DuPage River Salt Creek Workgroup

May 14, 2018 – CSWEA Annual Meeting (Oak Brook, IL). Panel discussion on watershed management. Presenter: Deanna Doohaluk and Stephen McCracken, The Conservation Foundation/DuPage River Salt Creek Workgroup and Nick Menninga, Downers Grove Sanitary District and DuPage River Salt Creek Workgroup Executive Board Member

June 8, 2018 – ASCE Sustainability Conference (Downers Grove, IL). Watershed Wide Adaptive Implementation for meeting Biodiversity Goals of the Clean Water Act. Presenter: Stephen McCracken, The Conservation Foundation/DuPage River Salt Creek Workgroup

June 12, 2018 – Upper Mississippi River Basin Association Water Quality Task Force (UMRBAWQTF) Webinar. Chloride Management in DRSCW waterways. Presenter: Stephen McCracken, The Conservation Foundation/DuPage River Salt Creek Workgroup

September 19, 2018 – Trout Unlimited (Oak Brook, IL). Presenter: Stephen McCracken, The Conservation Foundation/DuPage River Salt Creek Workgroup

September 29, 2018 – New Jersey Water Monitoring Council (webinar). Chloride Management in the DRSCW area. Presenter: Stephen McCracken, The Conservation Foundation/DuPage River Salt Creek Workgroup

October 17, 2018 – Kane County Chloride Management Workshop. Chloride Trends and Impacts. Presenter: Stephen McCracken, The Conservation Foundation/DuPage River Salt Creek Workgroup

November 14-15, 2018 –Winter Preparedness Snow and Ice Conference - The Basics of Snow and Ice. Various presentations on chloride management. Presenter: Stephen McCracken, The Conservation Foundation/DuPage River Salt Creek Workgroup

February 13, 2019 – 2019 Illinois Wastewater Professionals Conference (Champaign, IL). NARP Panel. Presenter: Deanna Doohaluk and Stephen McCracken, The Conservation Foundation/DuPage River Salt Creek Workgroup

February 13, 2019 – 2019 Illinois Wastewater Professionals Conference (Champaign, IL). Beyond Steam Bank Stabilization. Presenter: Stephen McCracken, The Conservation Foundation/DuPage River Salt Creek Workgroup

February 21, 2019 – DRWW Annual Meeting (Libertyville, IL). NARP Work Plan. Presenter: Deanna Doohaluk, The Conservation Foundation/DuPage River Salt Creek Workgroup

2. Public Involvement and Participation **–** no activities

3. Illicit Discharge Detection and Elimination – no activities

4. Construction Site Storm Water Runoff Control - no activities

5. Post-Construction Storm Water Management in New Development and Redevelopment - no activities

6. Pollution Prevention/Good Housekeeping for Municipal Operations

Chloride Questionnaires

The DRSCW has attempted to track adoption of sensible salting BMPs in the program area since 2007. Monitoring ambient chloride concentrations has proven an imperfect metric for tracking efficiency trends in winter salt use. Tracking target BMP adoption in the program area provides opportunities to evaluate the impacts of the chloride management workshops; identify material for future workshops and form suppositions about salt use per unit of service expended inside the program area relative to 2006 levels.

In 2007, 2010, 2012, 2014, 2016, and 2018, the DRSCW distributed a questionnaire to approximately 80 municipal highway operations and public works agencies to obtain information about deicing practices throughout the program area. The DRAFT 2018 Deicing Program Summary Report is include in attachment A.

Chloride Reduction Workshops
Two chloride reduction workshops were held during the reporting period ending March 2019.

The **Public Roads Deicing Workshop** held at DuPage County DOT on October 25, 2018 with the following agenda:

- 7:00 - 7:30 Registration and Breakfast
- 7:30 -7:35 Welcome and Housekeeping- *Jeff Peroni, Highway Maintenance Supervisor, DuPage County Department of Transportation*
- 7:35 – 7:55 Visualizing the Movement of Chloride in the Shallow Aquifers of McHenry County *Daniel Abrams, Groundwater Flow Modeler, Illinois State Water Survey*
- 7:55 – 8:20 Premium and Flexible Plow Blades for Effective Winter Operations, *Gardi Willis, Managing Director, Kueper North America, LLC*
- 8:20 – 8:45 Alternative Cutting Edges, *Scott Weber, Streets and Forestry Supervisor, Village of Hanover Park*
- 8:45 –8:50 Sponsor Overview
- 8:50 – 9:05 BREAK
- 9:05– 10:10 Tiered Road Use Panel: *Chris Drey, Superintendent of Public Works, Village of Shorewood; Jason Pauling, Street Supervisor, Village of Carol Stream; Joseph Dragovich, Roadway District 1 Manager, Illinois Tollway; Moderated by Scott Weber, Streets and Forestry Supervisor, Village of Hanover Park*
- 10:10 – 10:35 Chlorides, the Corrosion Challenge, *Charles (Chuck) Lawrence, Independent Consulting Engineer*
- 10:35 – 10:55 Chloride Toxicity: Reviewing the State's Water Quality Standard, *Stephen McCracken, The Conservation Foundation/DRSCW*
- 10:55 – 11:10 BREAK
- 11:10 – 11:30 Practicable Direct Liquid Application, *Craig Eldred, Public Services Director, City of Waconia,*
- 11:30 – 11:45 Wrap Up, Evaluations, Equipment Show

Attendance – 147 registered, 13 presenters/staff, 7 committee members/guests; 7 sponsors/exhibitors = 174 total. All participants received a certificate of attendance. We received 59 feedback forms from participants. Attachment B includes a list of all registrants and the affiliation for the 2018 Public Roads Deicing Workshop.

The **Parking Lots and Sidewalks Deicing Worksho**p was held at DuPage County DOT on October 18, 2018 with the following agenda:

- Ambient conditions and regulatory update: Stephen McCracken, The Conservation Foundation/DRSCW
- Information on developing efficient and cost-effective snow fighting operations, appropriate product selection, equipment selection, application rates, equipment calibration, ambient conditions monitoring. Presenters: Connie Fortin, Fortin Consulting and Chris Walsh, (former Public Works Director with City of Beloit, WI)
- Test on workshop materials.

Attendance - 82 registrations, 5 presenters/staff, 2 exhibitors/staff = 89 total. All participants received a training certificate and participants who successfully completed the test are recognized on DuPage County Stormwater Management's Water Quality – Pollution Prevention/Good Housekeeping web page. The DRCCW received 68 program evaluations from participants. Attachment include Cs a list of all registrants and the affiliation for the 2018 Parking Lots and Sidewalks Deicing Workshop.

Ambient Winter Chloride Monitoring

Ambient monitoring of winter conductivity was carried out at five (5) locations in the program area in 2017-2018 (3 sites monitored by the DRSCW and 2 site monitored by MWRD). Conductivity is used to calculate chloride concentrations based on a relationship established by the DRSCW in 2007. Annual chloride concentrations for the winter months from 2006-2018 for 4 of the sites are depicted in Figure 1-4.

Figure 1. Annual chloride concentrations - winter months (2006-2018) for Salt Creek at Wolf Road.

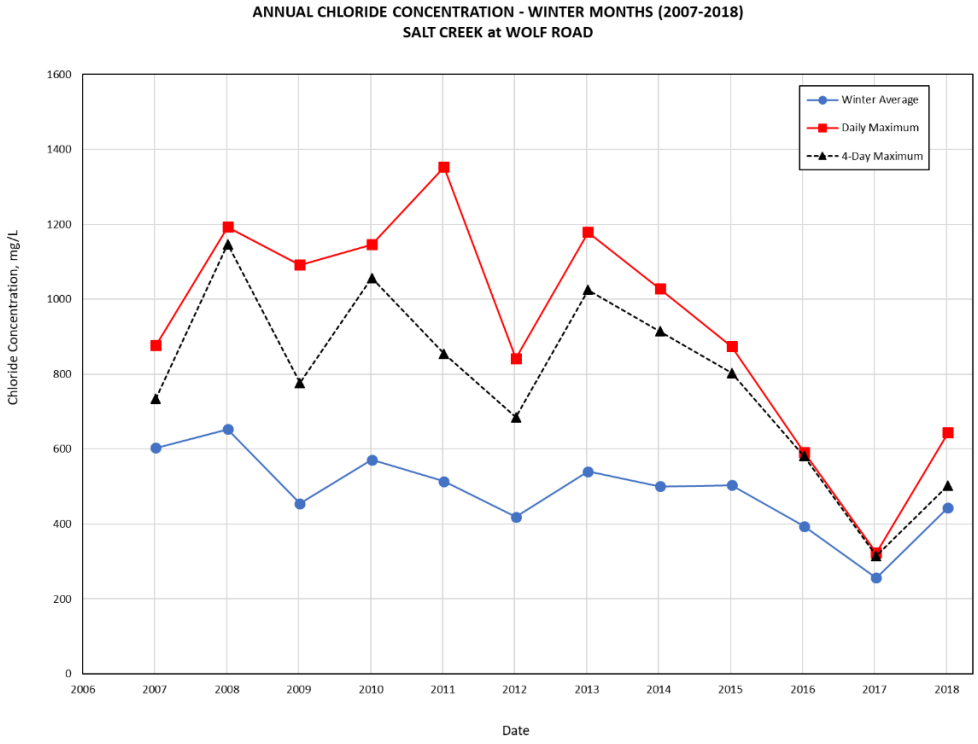


Figure 1. Annual chloride concentrations - winter months (2006-2018) for Salt Creek at Busse Woods Main Dam.

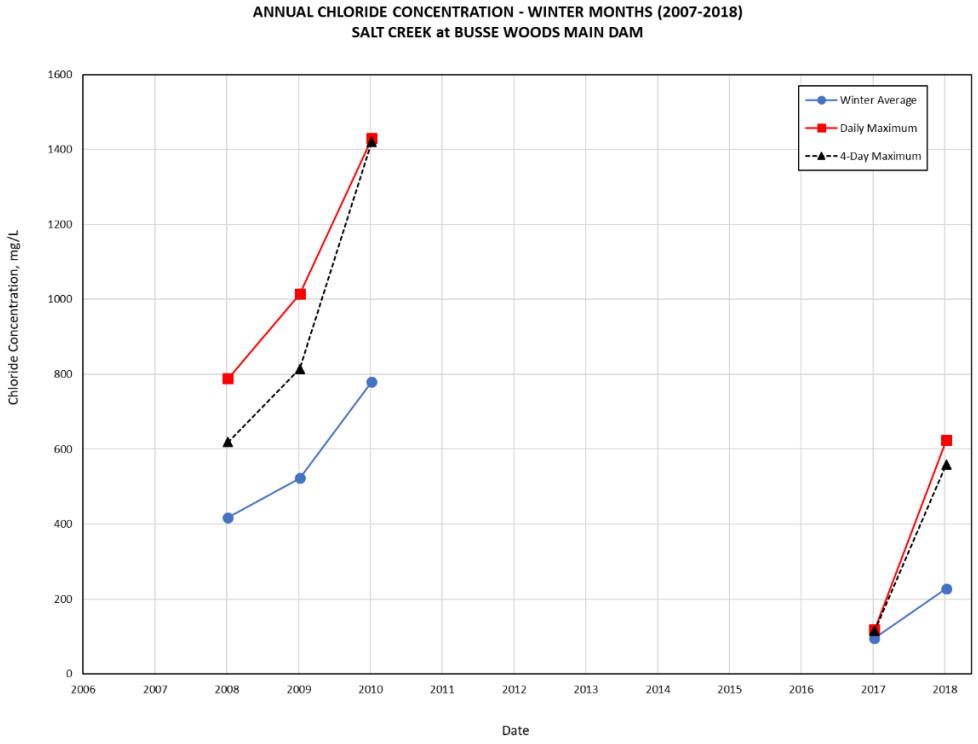


Figure 2. Annual chloride concentrations - winter months (2006-2018) for East Branch at Hobson Road.

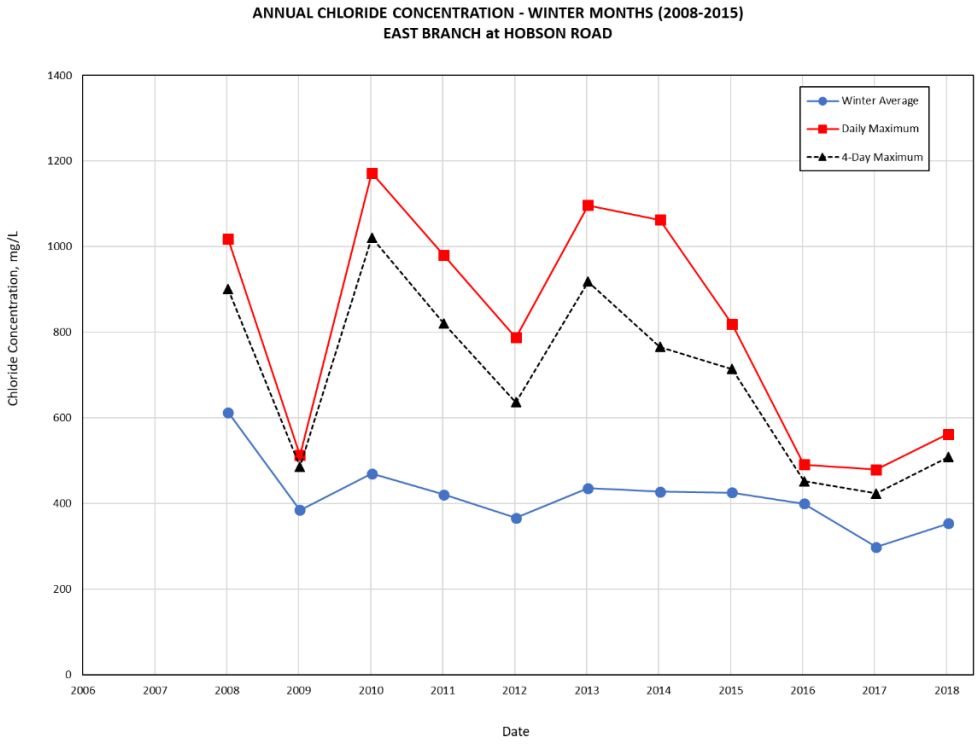
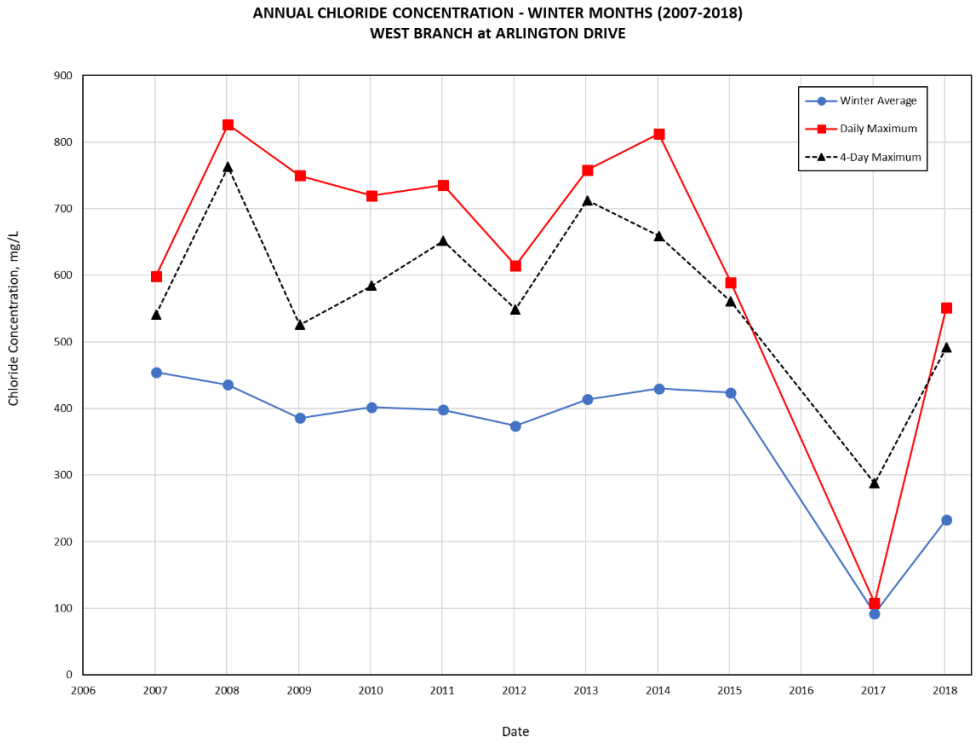


Figure 3. Annual chloride concentrations - winter months from 2006-2018 for West Branch at Arlington Drive.



C. Qualifying State, Country or Local Program

Not applicable to the work of the DRSCW.

D. Sharing Responsibility

This report outlines the activities conducted by the DRSCW on behalf of its' members related to the implementation of the ILR40 permit. It is the responsibility of the individual ILR40 permit holders to utilize this information to fulfill the reporting requirements outlined in Part V.C. of the permit.

E. Reviewing and Updating Stormwater Management Programs

Not applicable to the work of the DRSCW.

PART V. MONITORING, RECORDKEEPING, AND REPORTING

A. Monitoring

The ILR40 permit states that permit holders "must develop and implement a monitoring and assessment program to evaluate the effectiveness of the BMPs being implemented to reduce pollutant loadings and water quality impacts". The DRSCW monitoring program meets the following monitoring objectives and requirements outlined in the permit:

- Measuring pollutants over time (Part V. A. 2. b. ii)
- Sediment monitoring (Part V. A. 2. b. iii)
- Assessing physical and habitat characteristics such as stream bank erosion caused by storm water discharges ((Part V. A. 2. b. vi)
- Collaborative watershed-scape monitoring (Part V. A. 2. b. x)
- Ambient monitoring of total suspended solids, total nitrogen, total phosphorus, fecal coliform, chlorides, and oil and grease (Part V. A. 2. c.)

The DRSCW water quality monitoring program is made up of two components: 1) Bioassessment and 2) DO monitoring.

BIOASSESSMENT

Overview and Sampling Plan

A biological and water quality survey, or "biosurvey", is an interdisciplinary monitoring effort coordinated on a waterbody specific or watershed scale. This may involve a relatively simple setting focusing on one or two small streams, one or two principal stressors, and a handful of sampling sites or a much more complex effort including entire drainage basins, multiple and overlapping stressors, and tens of sites. The DRSCW bioassessment is the latter. The DRSCW bioassessment program began in 2007 with sampling in the West Branch DuPage River, East Branch DuPage River and Salt Creek watersheds. From 2009-2016, each watershed was sampled

on a 3-year rotation beginning with the West Branch DuPage River watershed in 2006. Beginning in 2017, watershed will be sampled in a 5-year rotation ensuring that each watershed will be sampled during the effective period of the ILR40 permit. The bioassessment program functions under a quality assurance plan agreed on with the Illinois Environmental Protection Agency (http://drscw.org/wp/bioassessment/). Table 1 details the bioassessment sampling dates for each DRSCW watershed.

Table 1. Bioassessment sampling dates for the DRSCW watershed

Watershed	Sampling Completed (year)	Sampling Scheduled (year)
West Branch DuPage River	2007, 2009, 2012, 2015	2020
East Branch DuPage River	2007, 2011, 2014	2019
Salt Creek	2007, 2010, 2013, 2016	2021

The DRSCW bioassessment program utilizes standardized biological, chemical, and physical monitoring and assessment techniques employed to meet three major objectives:

1) determine the extent to which biological assemblages are impaired (using IEPA guidelines);
2) determine the categorical stressors and sources that are associated with those impairments; and,
3) add to the broader databases for the DuPage River and Salt Creek watersheds to track and understand changes through time in response to abatement actions or other influences.

The data collects as part of the bioassessment is processed, evaluated, and synthesized as a biological and water quality assessment of aquatic life use status. The assessments are directly comparable to previously conducted bioassessments such that trends in status can be examined and causes and sources of impairment can be confirmed, amended, or removed. A final report containing a summary of major findings and recommendations for future monitoring, follow-up investigations, and any immediate actions that are needed to resolve readily diagnosed impairments is prepared following each bioassessment. The bioassessment reports are posted on the DRSCW at http://drscw.org/wp/bioassessment/. It is not the role of the bioassessments to identify specific remedial actions on a site specific or watershed basis. However, the baseline data provided by the bioassessments contributes to the Integrated Priority System that was developed to help determine and prioritize remedial projects (http://drscw.org/wp/project-identification-and-prioritization-system/).

Sampling sites for the bioassessment were determined systematically using a geometric design supplemented by the bracketing of features likely to exude an influence over stream resource quality, such as CSOs, dams and wastewater outfalls. The geometric site selection process starts at the downstream terminus or “pour point” of the watershed (Level 1 site), then continues by deriving each subsequent “panel” at descending intervals of one-half the drainage area (D.A.) of the preceding level. Thus, the drainage area of each successive level decreases geometrically.

This results in in seven drainage area levels in each of the three watersheds, starting at the largest (150 sq. mi) and continuing through successive panels of 75, 38, 19, 9, 5 and 2 sq. mi. Targeted sites are then added to fill gaps left by the geometric design and assure complete spatial coverage in order to capture all significant pollution gradients including reaches that are impacted by wastewater treatment plants (WWTPs), major stormwater sources, combined sewer overflows (CSOs) and dams. The number of sampling sites by method/protocol and watershed are listed in Table 2 and illustrated in Map 1.

Representativeness – Reference Sites

Data is collected from selected regional reference sites in northeastern Illinois preferably to include existing Illinois EPA and Illinois DNR reference sites, potentially being supplemented with other sites that meet the Illinois EPA criteria for reference conditions. One purpose of this data will be to index the biological methods used in this study that are different from Illinois EPA and/or DNR to the reference condition and biological index calibration as defined by Illinois EPA. In addition, the current Illinois EPA reference network does not yet include smaller headwater streams, hence reference data is needed to accomplish an assessment of that data. Presently thirteen (13) reference sites have been established.

Table 2. Number of sampling sites in the DRSCW project area.

Method/Protocol	West Branch DuPage River (2013)	East Branch DuPage River (2014)	Salt Creek (2016)	Reference Sites (2006-2016)	Total Sites
Biological sampling					
Fish	44	36	51	13	144
Macroinvertebrates	44	36	51	13	144
QHEI	44	36	51	13	144
Water Column Chemical/Physical Sampling					
Nutrients*	44	36	51	6	137
Water Quality Metals	44	36	51	6	137
Water Quality Organics	18	11	16	6	51
Sediment Sampling	18	11	16	6	51

*Also included indicators or organic enrichment and ionic strength, total suspended solids (TSS), DO, pH and temperature

The bioassessment sampling includes four (4) sampling methods/protocols: biological sampling, Qualitative Habitat Evaluation Index (QHEI), water column chemical/physical parameter sampling and sediment chemistry. The biological sampling includes two assemblages: fish and macroinvertebrates.

FISH

Methodology

Methods for the collection of fish at wadeable sites was performed using a tow-barge or longline pulsed D.C. electrofishing apparatus (MBI 2006b). A Wisconsin DNR battery powered backpack

electrofishing unit was used as an alternative to the long line in the smallest streams (Ohio EPA 1989). A three-person crew carried out the sampling protocol for each type of wading equipment sampling in an upstream direction. Sampling effort was indexed to linear distance and ranged from 150-200 meters in length. Non-wadeable sites were sampled with a raft-mounted pulsed D.C. electrofishing device in a downstream direction (MBI 2007). Sampling effort was indexed to lineal distance over 0.5 km. Sampling was conducted during a June 15-October 15 seasonal index period.

Samples from each site were processed by enumerating and recording weights by species and by life stage (y-o-y, juvenile, and adult). All captured fish were immediately placed in a live well, bucket, or live net for processing. Water was replaced and/or aerated regularly to maintain adequate D.O. levels in the water and to minimize mortality. Fish not retained for voucher or other purposes were released back into the water after they had been identified to species, examined for external anomalies, and weighed either individually or in batches. While the majority of captured fish were identified to species in the field, any uncertainty about the field identification required their preservation for later laboratory identification. Identification was made to the species level at a minimum and to the sub-specific level if necessary. Vouchers were deposited and verified at The Ohio State University Museum of Biodiversity (OSUMB) in Columbus, OH.

Results

The fish sampling results presented in this report summarize the findings for the mainstem reaches of the East Branch DuPage River, the West Branch DuPage River and Salt Creek. Information on the tributaries and detailed analysis of all results can be found at http://drscw.org/wp/bioassessment/.

The fish and macroinvertebrate results are presented as Index of Biotic Integrity (IBI) scores. IBI is an evaluation of a waterbodies biological community in a manner that allows the identification, classification and ranking of water pollution and other stressors. IBIs allow the statistical association of various anthropogenic influences on a water body with the observed biological activity in said water body and in turn the evaluation of management interventions in a process of adaptive management. Chemical testing of water samples produce only a snapshot of chemical concentrations while an IBI allows an evaluation of the net impact of chemical, physical and flow variables on a biological community structure. Dr. James Karr formulated the IBI concept in 1981.

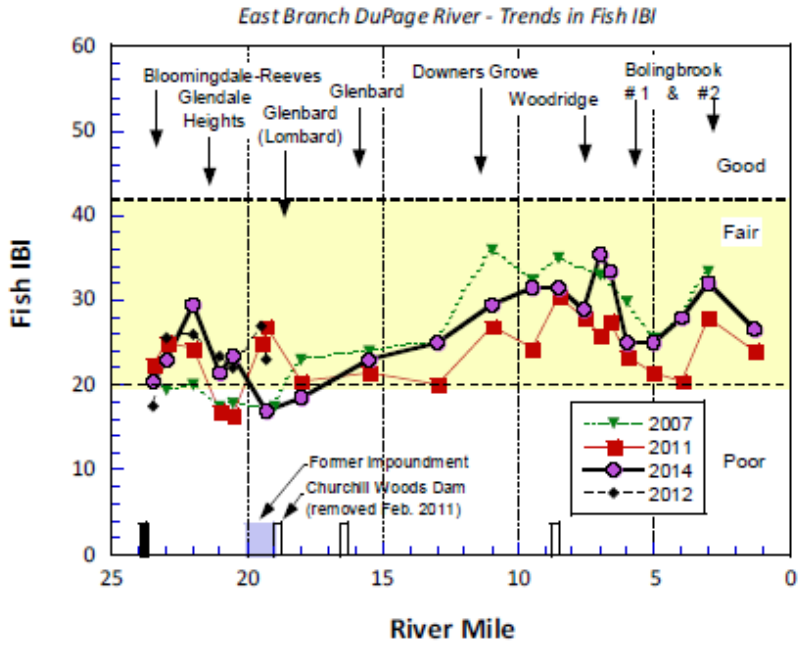
East Branch DuPage River

Fish assemblage conditions throughout the East Branch DuPage River watershed a in the poor and fair ranges (Figure 5). However, the mainstem assemblages show similar quality or modest improvement at nearly all sites when 2014 data is compare to 2011 and approach 2007 levels.

Prior to the modification of the Churchill Woods dam in 2001, fish assembles upstream of the dam, were essentially that of a pond and dominated by sunfish, bullheads, golden shiner, and mosquito fish. Downstream of the dam, the fish assemblage reflected more lotic, stream like

conditions with populations of sand shiner, johnny darter, horneyhead chub and rock bass. Since the modification of the Churchill Woods dam, eight new species have been recorded and other populations have expanded their ranges above the former dam site. Additionally, in 2014, two new species (banded darter and round goby) were recorded in the lower reaches of the East Branch. The appearance of the banded darter, a sensitive species, is a sign of improved quality in the lower nine miles of the main stem.

Figure 4. Fish IBI scores in the East Branch DuPage River, 2014, 2011-12, and 2017 in relation to municipal POTW dischargers.



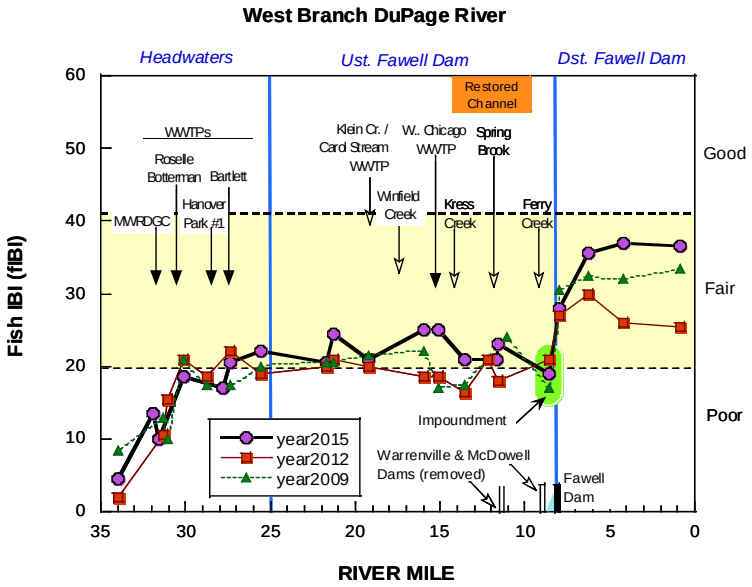
Bars along the x-axis depict mainstem dams or weirs (only black bars impede fish passage). The shaded area demarcates the "fair" narrative range.

West Branch DuPage River

All survey sites fell consistently in the poor or lower fair ranges with slightly higher scores downstream from RM 8.1 and the Fawell Dam (Figure 6). No West Branch sites met the 41-point criterion synonymous with a good quality assemblage.

It should be noted that the Fawell dam is a barrier to several fish species. The DRSCW in cooperation with DuPage County and Forest Preserve District of DuPage County plans to modify the Fawell Dam to allow for fish passage. This project is expected to be completed by 2018.

Figure 5. Fish IBI scores in the West Branch DuPage River, 2015, 2011-12 and 2007 in relation to municipal POTW dischargers.



Bars along the x-axis depict mainstem dams or weirs (only black bars impede fish passage). The shaded area demarcates the "fair" narrative range.

Salt Creek

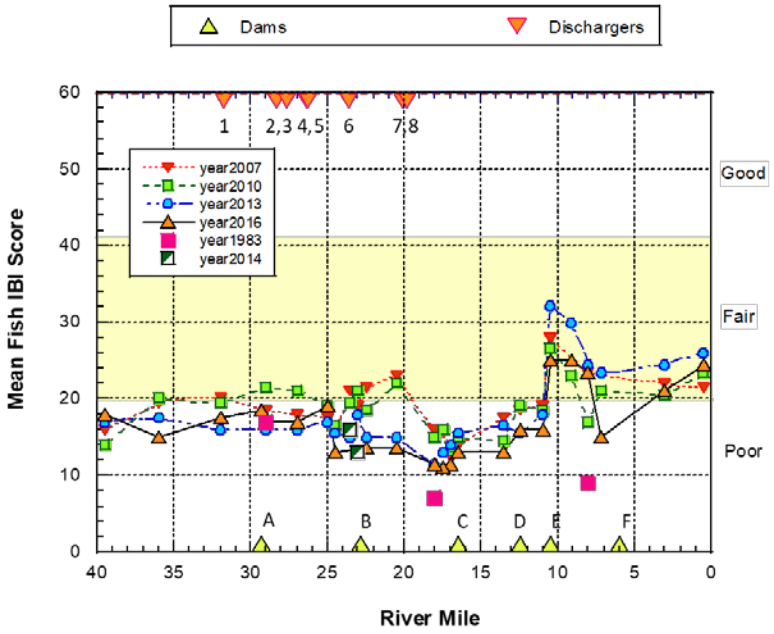
Fish assemblages sampled in Salt Creek mainstem in 2016 were consistently in poor condition upstream from the Graue Mill Dam and mostly fair downstream to the confluence with the Des Plaines River (Figure 7). This was similar to the pattern observed in 2013 although fIBI scores were slightly higher than in 2016 at most sites in the lower one-half of the mainstem. In fact, the general response of the fish assemblage was similar longitudinally among all four survey periods.

The Graue Mill Dam is a barrier to upstream fish movement with 17 fish species found only downstream of the dam and only two species only found upstream (Table 18). Many of the species only found downstream should have populations that extend well upstream of the dam (johnny darter, smallmouth bass, rock bass, hornyhead chub, etc.). Thus the dam as a barrier is a key factor that limits the ability of certain species to recolonize the upper reaches of Salt Creek as other precluding stressors (e.g., D.O., siltation, organic enrichment) are resolved. The DRSCW plans to modify the Fullersburg Woods Dam to allow for fish passage. This project is expected to be completed by 2023.

There was a wide variation in fIBI scores among the tributaries with no sites meeting the General Use fIBI threshold and many sites in poor condition. Sites in the Addison Creek subwatershed had the lowest fIBI scores with most rated as poor across all years. This generally matches the pattern observed with the QHEI in Addison Creek with uniformly poor habitat. However, Addison

Creek also has several water quality stressors and poor habitat condition in other tributaries did not result in the skew of fIBI scores in the poor range.

Figure 6. Fish Index of Biotic Integrity scores for samples collected from Salt Creek in 1983, 2007, 2010, 2013, 2014 and 2016 in relation to the locations of NPDES permitted facilities, combined sewer overflow (CSO) outfalls, dams and principal tributaries.



The locations of dams are arrayed along the x-axis and noted as triangles. The shaded area indicates the range for a restricted fish assemblage as defined by Illinois EPA.

MACROINVERTEBRATES

Methodology

The macroinvertebrate assemblage is sampled using the Illinois EPA (IEPA) multi-habitat method (IEPA 2005). Laboratory procedures followed the IEPA (2005) methodology for processing multi-habitat samples by producing a 300-organism subsample with a scan and pre-pick of large and/or rare taxa from a gridded tray. Taxonomic resolution is performed to the lowest practicable resolution for the common macroinvertebrate assemblage groups such as mayflies, stoneflies, caddisflies, midges, and crustaceans, which goes beyond the genus level requirement of IEPA (2005). However, calculation of the macroinvertebrate IBI followed IEPA methods in using genera as the lowest level of taxonomy for mIBI calculation and scoring.

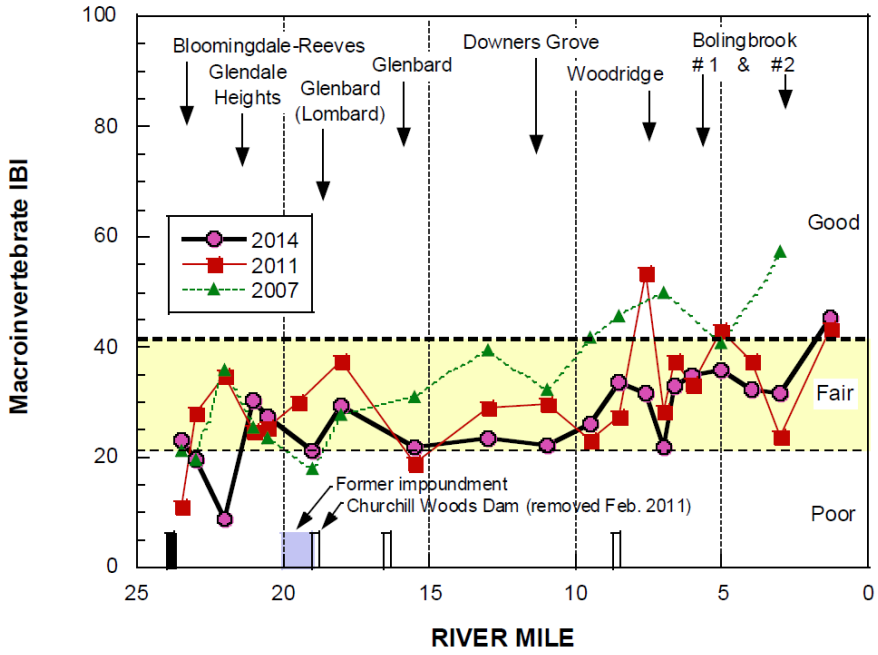
Results

The macroinvertebrate sampling results presented in this report summarize the findings for the mainstem reaches of the East Branch DuPage River, the West Branch DuPage River and Salt Creek. Information on the tributaries and detailed analysis of all results can be found at http://drscw.org/wp/bioassessment/.

East Branch DuPage River

Macroinvertebrate collections from the 2014 East Branch watershed survey fell entirely within the fair or poor quality ranges with the exception of a single "good" site on the lower mainstem (Figure 8). Assemblages throughout the study area are predominated by facultative and tolerant organisms most often associated with elevated nutrients, dissolved solids and low DO.

Figure 7. Macroinvertebrate IBI scores in the East Branch DuPage River, 2014, 2011-12 and 2007 in relation to municipal POTW dischargers.



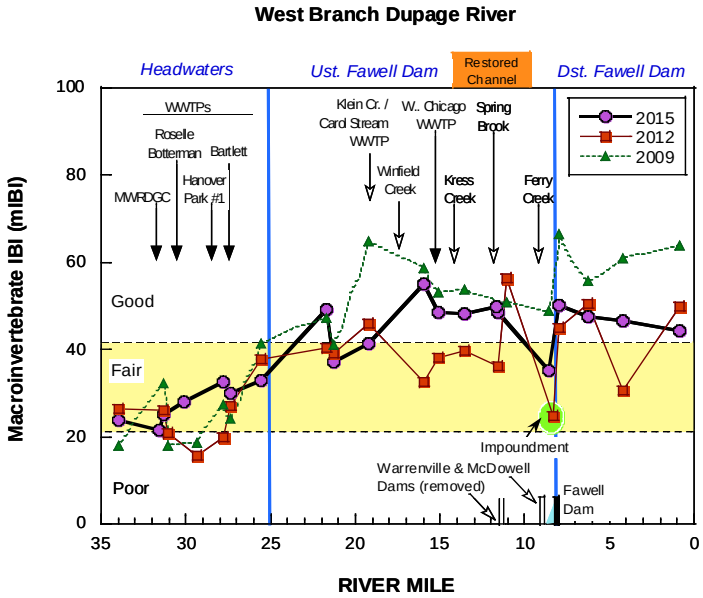
Bars along the x-axis depict mainstem dams or weirs (only black bars impede fish passage). The shaded are demarcates the "fair" narrative range.

West Branch DuPage River

With few exceptions, West Branch macroinvertebrate assemblages from the upper, headwater reach reflected degraded but similar quality between 2007, 2009, 2012 and 2015 (Figure 9). The combination urban drainage, marginal habitat quality and a series of four major WWTP discharges in the small drainage were considered major contributors.

In both 2009 and 2015, major improvement in mIBI scores and clearly good mIBI ratings were detected upstream from Klein Creek and the Carol Stream WWTP (Figure 9). In 2009 and 2015, consistently good quality was maintained along the remaining length of the West Branch downstream to the mouth. In 2006, this downstream improving trend was more erratic; still 5 of the 8 sites between Klein Creek and the mouth exceeded Illinois criteria. In contrast, the 2012 trend was much less distinct as narrative ratings vacillated between a fair or lower good range status through most of the lower 20 mainstem river miles.

Figure 8. Macroinvertebrate IBI scores in the West Branch DuPage River, 2015, 2011-12 and 2007 in relation to municipal POTW dischargers.



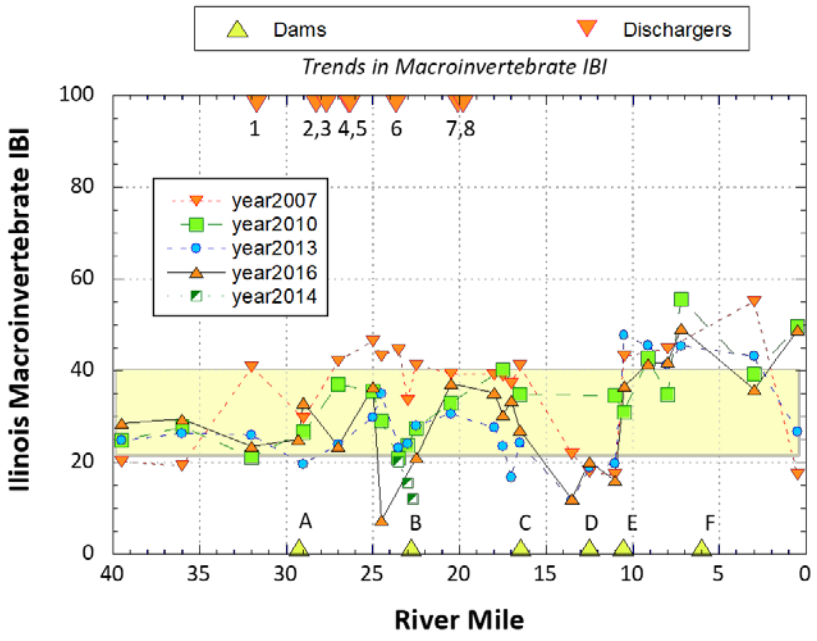
Bars along the x-axis depict mainstem dams or weirs (only black bars impede fish passage). The shaded area demarcates the "fair" narrative range.

Salt Creek

In 2013 and 2016 the macroinvertebrate assemblages in the Salt Creek mainstem were rated fair at most sites upstream from the Graue Mill Dam, and good at four and fair at two of the six sites downstream from the dam (Figure 10). Longitudinally, scores decreased downstream from Spring Brook relative to those upstream. The confluence with Spring Brook marks the reach where multiple WWTPs discharge in short succession.

In the 2016, the Oak Meadows Dam (dam B on Figure 10) was removed in a project sponsored by the Forest Preserve District of DuPage County, DuPage County Stormwater Management, and the DRSCW. Post-project sampling was completed in 2017 and 2018. Post-project, both mIBI and individual species taxa biodiversity improved at the site. The 2017 post-project mean mIBI (33.2) increased 9.6 points compared to the 2013 score. In 2018, the post-project mean mIBI was 34.9. The project's objective is to increase the mean mIBI to 35. Notably two sites achieved a score of 38.5 in 2018. Post-project macroinvertebrate sampling to document the continued effects of this dam removal will occur in 2019.

Figure 9. Macroinvertebrate IBI scores for samples collected from the Salt Creek mainstem, 2007, 2010, 2013, 2014, and 2016 in relation to publicly owned treatment works, low head dams, and combined sewer outfalls (CSO).



Diamonds along the x-axis depict mainstem dams or weirs. The shaded area demarcates the "fair" narrative range.

HABITAT

Methodology

Physical habitat was evaluated using the Qualitative Habitat Evaluation Index (QHEI) developed by the Ohio EPA for streams and rivers in Ohio (Rankin 1989, 1995; Ohio EPA 2006b) and as modified by MBI for specific attributes. Attributes of habitat are scored based on the overall importance of each to the maintenance of viable, diverse, and functional aquatic faunas. The type(s) and quality of substrates, amount and quality of instream cover, channel morphology, extent and quality of riparian vegetation, pool, run, and riffle development and quality, and gradient used to determine the QHEI score which generally ranges from 20 to less than 100. QHEI scores and physical habitat attribute were recorded in conjunction with fish collections.

Results

The QHEI data presented in this report summarize the findings for the mainstem reaches of the East Branch DuPage River, the West Branch DuPage River and Salt Creek. Information on the tributaries and detailed analysis of all results can be found at http://drscw.org/wp/bioassessment/.

The physical habitat of a stream is a primary determinant of biological quality. Streams in the glaciated Midwest, left in their natural state, typically possess riffle-pool-run sequences, high sinuosity, and well-developed channels with deep pools, heterogeneous substrates and cover in

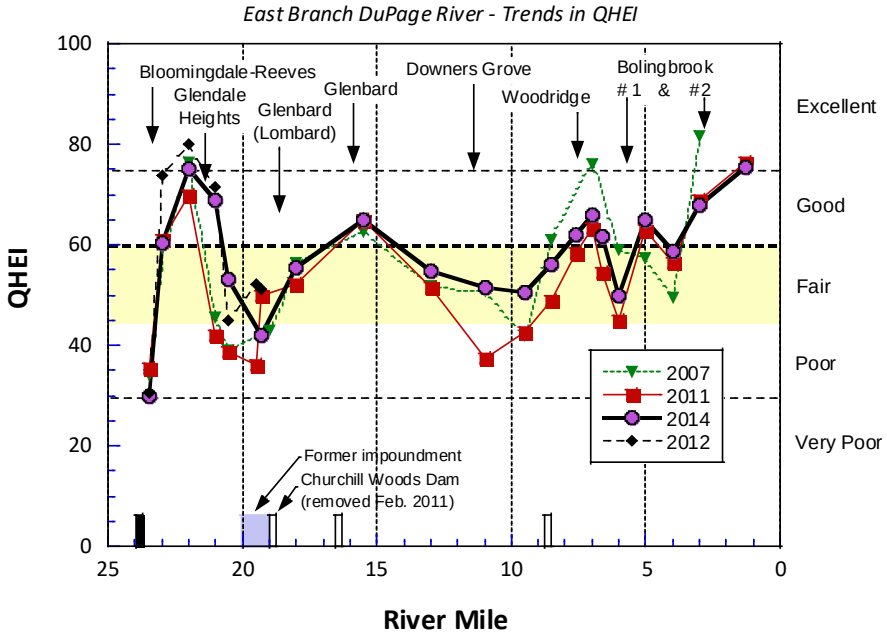
the form of woody debris, glacial tills, and aquatic macrophytes. The QHEI categorically scores the basic components of stream habitat into ranks according to the degree to which those components are found in a natural state, or conversely, in an altered or modified state.

East Branch DuPage River

Based on QHEI scores, mainstem habitat quality fell mostly in the fair to good ranges, but varied by location (Figure 11). Substrate embeddedness was a common characteristic of the mainstem as riffle or pool embeddedness was recorded at all but one location (EB23/RM 22.0).

Since the modification of the Churchill Woods dam in 2011, QHEI scores within and upstream of the former dam have increased by reflecting the appearance of riffles and increased habitat heterogeneity.

Figure 10. Qualitative Habitat Evaluation Index (QHEI) scores for the E. Branch DuPage River in 2007, 2011-12, and 2014 in relation to municipal WWTP discharges.

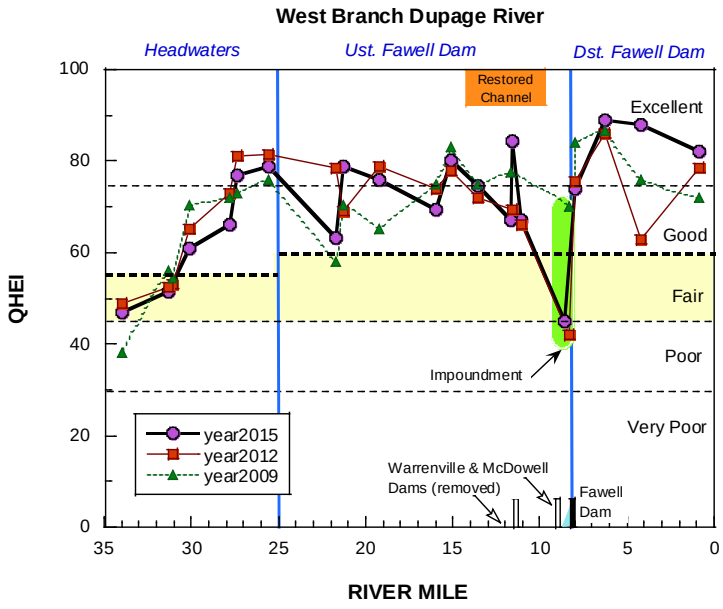


Bars along the x-axis depict mainstem dams or weirs (black bars are dams that impede fish passage). The shaded region depicts the range of QHEI scores where habitat quality is marginal and limiting to aquatic life. QHEI scores less than 45 are typical of highly modified habitat.

West Branch DuPage River

Mainstem habitat quality in 2012 was good to excellent throughout most of its length and, with the exception of the extreme headwaters (upstream RM 30.1) and Fawell Dam pool (RM 8.3) (Figure 12).

Figure 11. Qualitative Habitat Evaluation Index (QHEI) scores for the W. Branch DuPage River in 2009, 2012, and 2015.



Bars along the x-axis depict mainstem dams or weirs (black bars are dams that impede fish passage). The shaded region depicts the range of QHEI scores where habitat quality is marginal and limiting to aquatic life. QHEI scores less than 45 are typical of highly modified habitat.

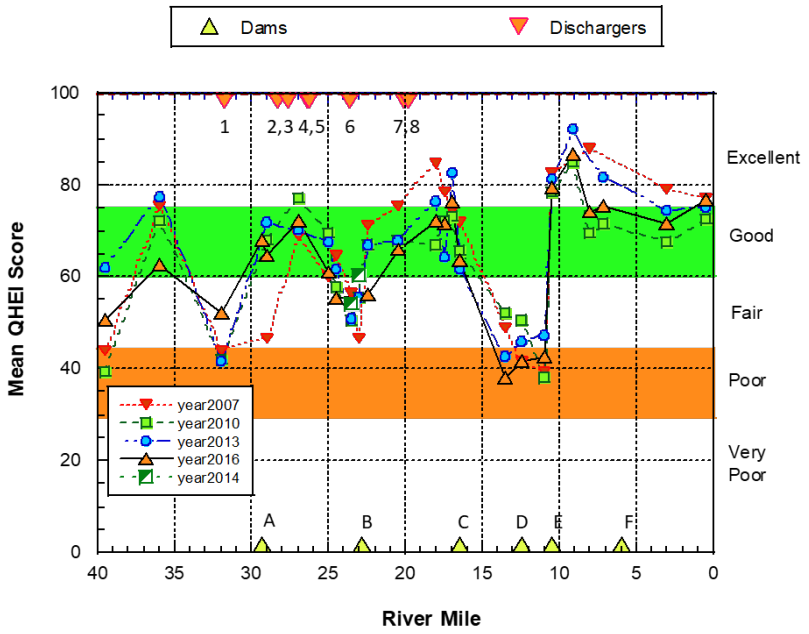
Salt Creek

In Salt Creek, most of the sites possessed the types and amounts of habitat features necessary to support aquatic life consistent with the Illinois General Use (Figure 13), with QHEI scores averaging 66.0 (range: 41.5-92.0) in 2013 and 64.3 (range: 38.0-86.5) in 2016. The longitudinal pattern in habitat quality was consistent between all years (2007, 2010, 2013 and 2016) with habitat generally improving in a downstream direction except where influenced by impoundments. Habitat was generally the poorest in the very headwaters and impoundments formed by low head dams. As in 2007 and 2010, the total number of modified quality attributes relative to the total number of good quality attributes at any given site generally did not overwhelm the capacity of a site to support aquatic life in 2013 and 2016, excepting in the impoundments formed by low head dams. The attributes of the QHEI that are most consistently potentially limiting to aquatic life are the embeddedness and siltation attributes with most sites having high silt cover and moderate to extensively embedded substrates. The prevalence of coarse substrate materials indicates the strongly biological potential if delivery of fines to the stream can be controlled.

In the 2016, the Oak Meadows Dam (dam B on Figure 9) was removed in a project sponsored by the Forest Preserve District of DuPage County, DuPage County Stormwater Management, and the DRSCW. Post-project sampling was completed in 2017 and 2018. Post project QHEI increased at all sites with improvements in substrate, riparian, pool and riffle scores. In 2017,

mean QHEI at the project location increased 12 points to 69.3 (or 68.5 if we discount SC35A, surveyed for QHEI post project only). By 2018, mean QHEI at the project location increased to 70. All QHEI scores were within the "good" range (>60 QHEI points). The DRSCW is optimistic its QHEI goal of >70 will be reached as riparian vegetation at the site matures. Post-project monitoring will continue in 2019.

Figure 12. Qualitative Habitat Evaluation Index (QHEI) scores for Salt Creek plotted by river mile for data from 2007, 2010, 2013, 2014, and 2016.



The orange-shaded region depicts the range of QHEI scores where habitat quality is marginal and limiting to aquatic life. QHEI scores less than 45 are typical of highly modified channels. The triangles arrayed along the x-axis in both plots show the locations of low-head dams.

WATER QUALITY CHEMISTRY

Methodology

Water column and sediment samples are collected as part of the DRSCW bioassessment programs. The total number of sites sampled is detailed in Table 2. Total number of collected samples by watershed typical for a full assessment by watershed are given in Table 3. The number of samples collected at each site is largely a function of the sites drainage area with the frequency of sampling increasing as drainage size increases (Table 4). Organics sampling is a single sample done at a subset of sites. Sediment sampling is done at a subset of 66 sites using the same procedures as IEPA.

The parameters sampled for are included in Table 5 and can be grouped into demand parameters, nutrients, demand, metals and organics. Locations of organic and sediment sites are shown on Figure 2. All sampling occurs between June and October of the sample year. The Standard Operating Procedure for water quality sampling can be found at http://drscw.org/wp/bioassessment/.

Table 3. Total number of samples by watershed typical for a full assessment by watershed.

Watershed	Approximate # Sites	Demand Samples	Nutrients Samples	Metals Samples	Organics Samples
Salt Creek	51	280	280	149	16
West Branch DR	44	218	218	110	18
East Branch DR	36	196	196	100	11

Table 4. Approximate distribution of sample numbers by drainage area across the monitoring area.

Drainage Area and site numbers	>100 sq mi (n=12)	>75 sq mi (n=25)	>38 sq mi (n=11)	>19 sq mi (n=11)	>8 sq mi (n=15)	>5 sq mi (n=24)	>2 sq mi (n= 46)
Mean # Samples demand /nutrients	12	9	6	6	4	4	2
Mean # Samples metals	6	6	4	4	2	2	0

Table 5. Water Quality and sediment Parameters sampled as part of the DRSCW Bioassessment Program.

Water Quality Parameters	Sediment Parameters
Demand Parameters 5 Day BOD Chloride Conductivity Dissolved Oxygen pH Temperature Total Dissolved Solids Total Suspended Solids **Nutrients** Ammonia Nitrogen/Nitrate Nitrogen – Total Kjeldahl Phosphorus, Total **Metals** Cadmium Calcium Copper Iron Lead Magnesium Zinc **Organics – Water** PCBS Pesticides Semivolatile Organics Volatile Organics	**Sediment Metals** Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Nickel Potassium Silver Zinc **Sediment Organics** Organochlorine Pesticides PCBS Percent Moisture Semivolatile Organics Volatile Organic Compounds

Results

The discussion presented below focuses on the constituents listed in the MS4 permit: total suspended solids, total nitrogen, total phosphorus, fecal coliform, chlorides, and oil and grease. Total nitrogen is presented as ammonia, nitrate, and total kjeldahl nitrogen (TKN). Prior to the 2016 sampling period, fecal coliform and oil and grease sampling was not conducted. Oil and grease sampling was added to the bioassessment sampling for Salt Creek in 2016. Fecal coliform and oil and grease sampling will be added to all future bioassessment sampling for the East Branch DuPage River (2019), West Branch DuPage River (2020), and Salt Creek (2021) ensuring that each watershed will be sampled for that parameter during the effective period of the ILR40 permit.

Detailed analysis and results for the other water quality constituents is located at http://drscw.org/wp/bioassessment/.

East Branch DuPage River

East Branch mainstem flows are effluent dominated during the late summer-early fall months. As such, chemical water quality is highly influenced by the concentration and composition of chemical constituents in WWTP effluents (Figures 14-17). The results in 2014 were consistent with 2011 during low flow periods with respect to observing no exceedances of Illinois water quality criteria for regulated parameters (i.e. TSS, NH_3-N).

West Branch DuPage River

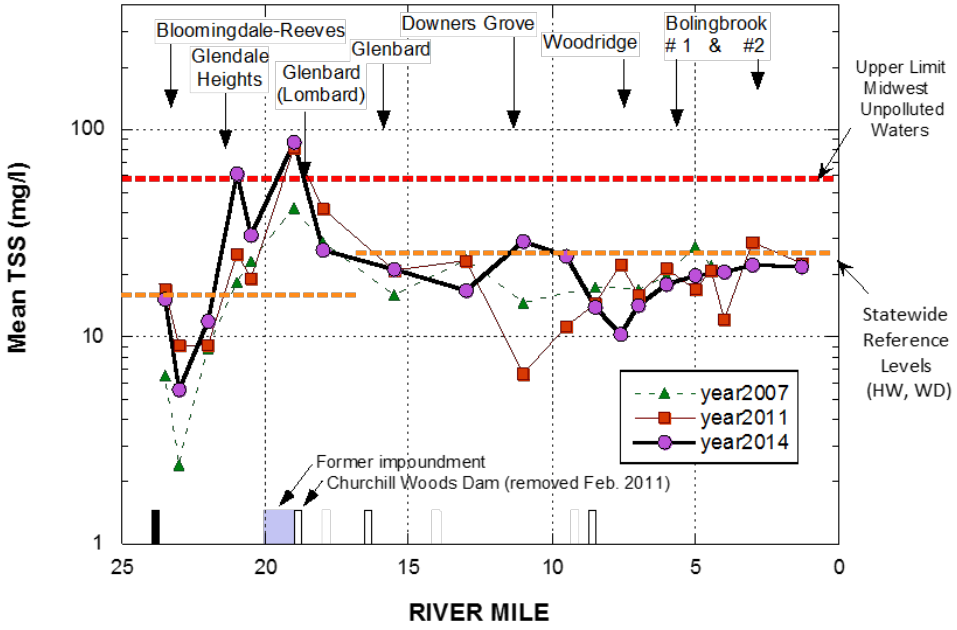
Stream flow in the West Branch DuPage River is effluent dominated during summer months. As such, its water quality is highly influenced by the concentrations and composition of chemical constituents in the effluent as well as runoff from the urban and developed land cover in the watershed. Water quality sampling in 2012 during the summer low-flow periods suggest that the quality of treated effluent, with respect to regulated parameters (i.e., cBOD5, TSS, NH3), was generally good. Effluents did not result directly in exceedances of water quality standards for these parameters. However, increasingly elevated nutrient levels and their attendant influence on mainstem D.O. regimes remain problematic. Figures 18-20 depict the water chemistry of the West Branch DuPage River.

Salt Creek

Salt Creek drains a highly urbanized landscape with a high population density. The increase in Pollutants associated with urbanized landscapes have been documented. Given the high population density in the watershed, treated municipal effluent comprises a significant fraction of the total flow in Salt Creek and strongly influences water quality, especially with respect to nitrogen and phosphorus. The results in 2016 were similar to those in 2013 and 2010. Figures 21-23 depict the water chemistry of Salt Creek.

Figure 13. Concentrations of total suspended solids (top panel) and TKN (lower panel) from E. Branch DuPage River samples in 2007, 2011 and 2014 in relation to municipal WWTP discharges.

Bars along the x-axis depict mainstem dams or weirs (black bars are dams that impede fish passage). Red dashed lines shows the upper limits of concentrations typical for relatively unpolluted waters for TSS (McNeeley et al. 1979). Orange dashed line in TSS plot is the Ohio reference threshold for headwater (HW) and wadeable (WD) streams. For TKN, the orange dashed line represents the IPS threshold (1.0 mg/l). IPS is a tool developed by the DRSCW and MBI.



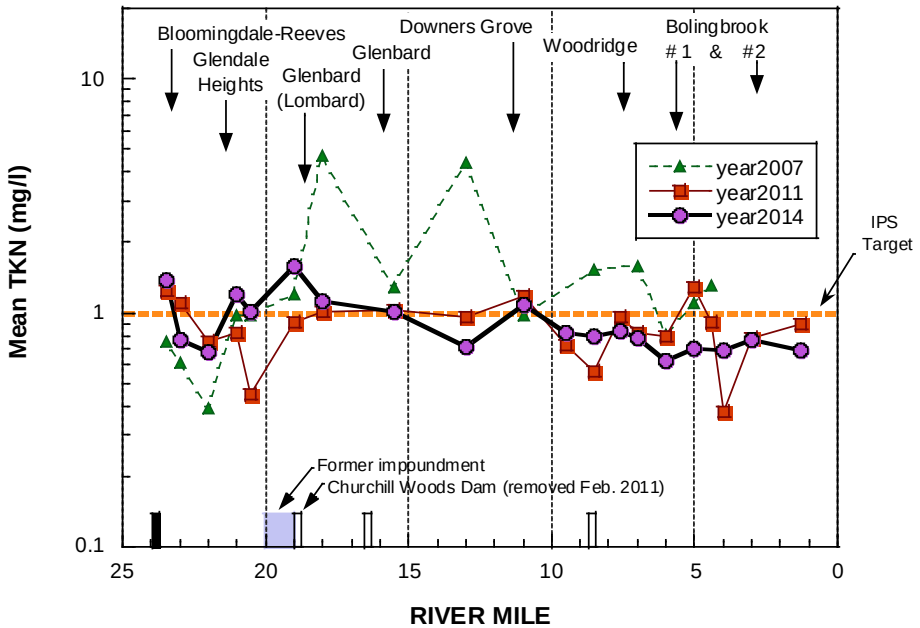


Figure 14. Concentrations of ammonia-N (top panel) and nitrate+nitrite-N (lower panel) from E. Branch. DuPage River samples in 2007, 2011 and 2014 in relation to municipal WWTP discharges.

Bars along the x-axis depict mainstem dams or weirs (only black bars for dams that impede fish passage). For ammonia-N, the red dashed line (1.0 mg/l) represents a threshold concentration beyond which acute toxicity is likely; the orange dashed line (0.15 mg/l) is correlated with impaired biota in the IPS study. For nitrate+nitrite-N, orange dashed lines represent target concentrations for ecoregion 54 (1.8 mg/l) and the Illinois EPA non-standard based criteria (7.8 mg/l). The red dashed line is the Illinois water quality criterion for public water supplies (10 mg/l).

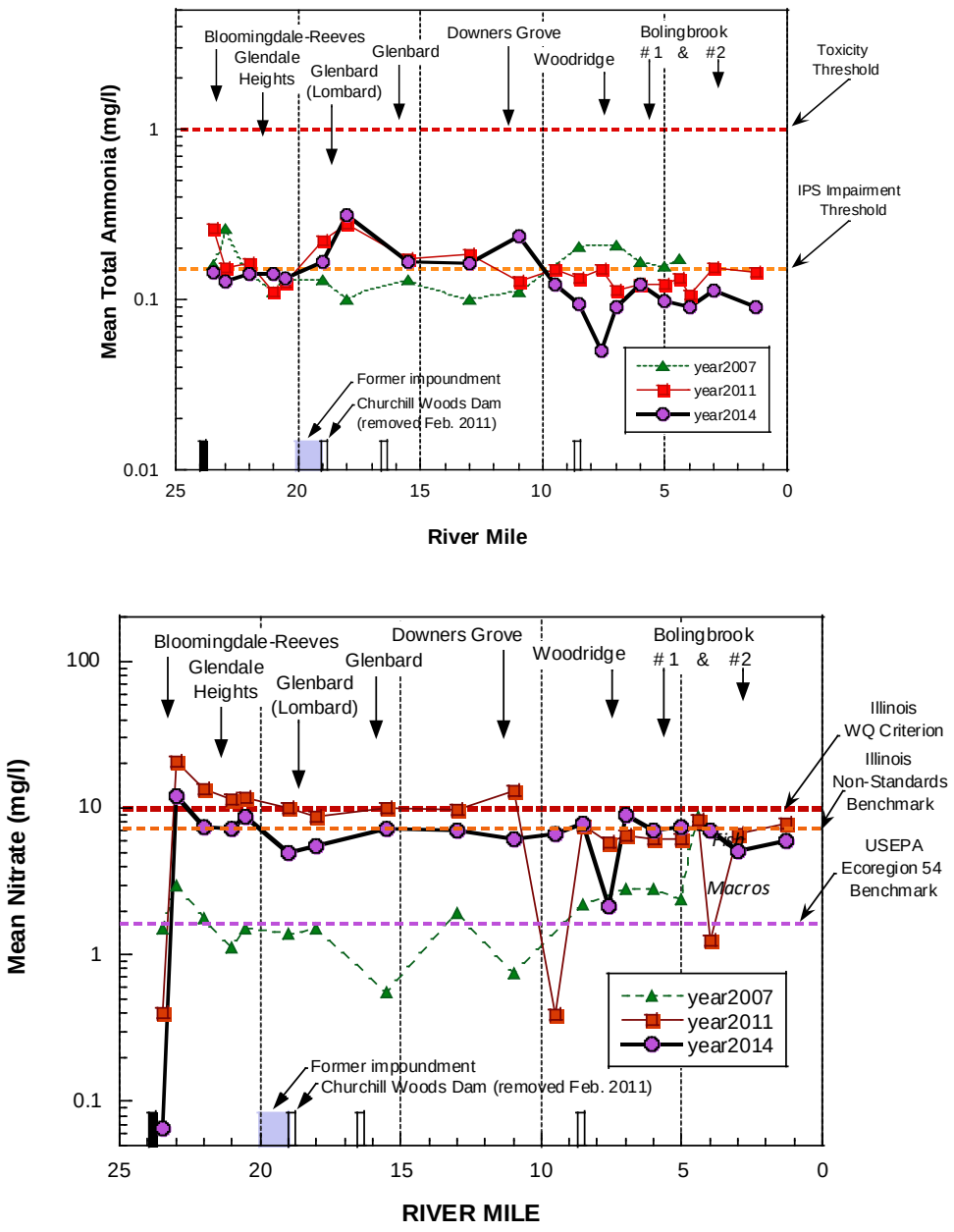


Figure 15. Concentrations total phosphorus from E. Branch DuPage River samples in 2007, 2011 and 2014 in relation to municipal WWTP discharges.

Bars along the x-axis depict mainstem dams or weirs (black bars are dams that impede fish passage). For phosphorus, orange dashed lines represent target concentrations for ecoregion 54 (0.07 mg/l) and the Illinois EPA non-standard based criterion (0.61 mg/l). The 1.0 mg/l dashed red line is the suggested effluent limit.

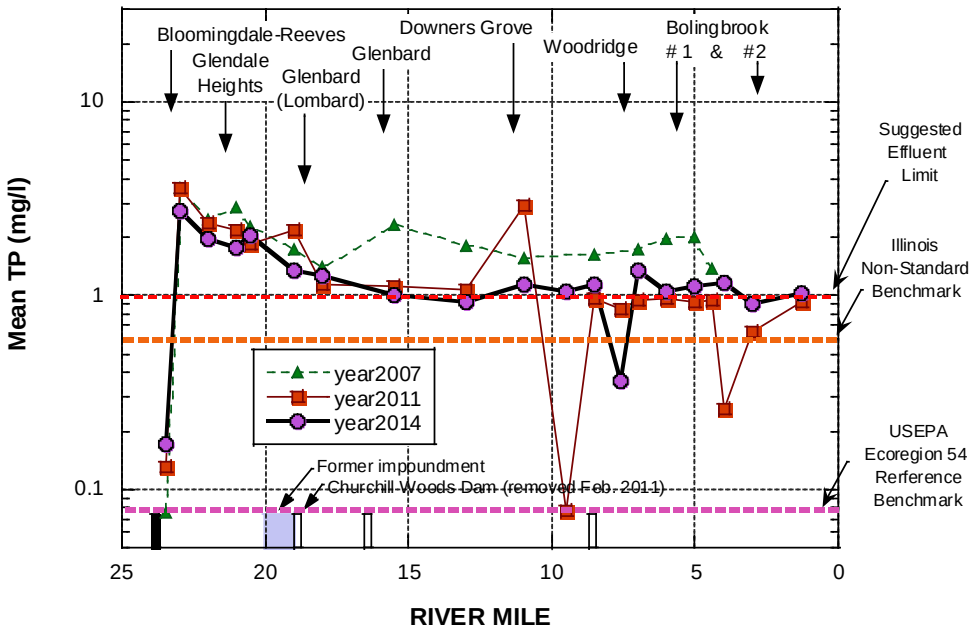


Figure 16. Chloride concentrations from the East Branch DuPage River in the summer of 2007, 2011 and 2014.

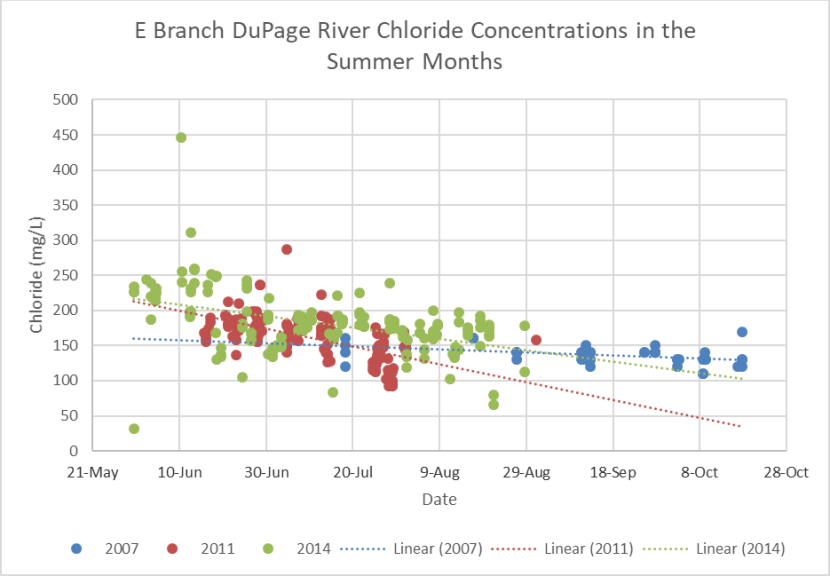
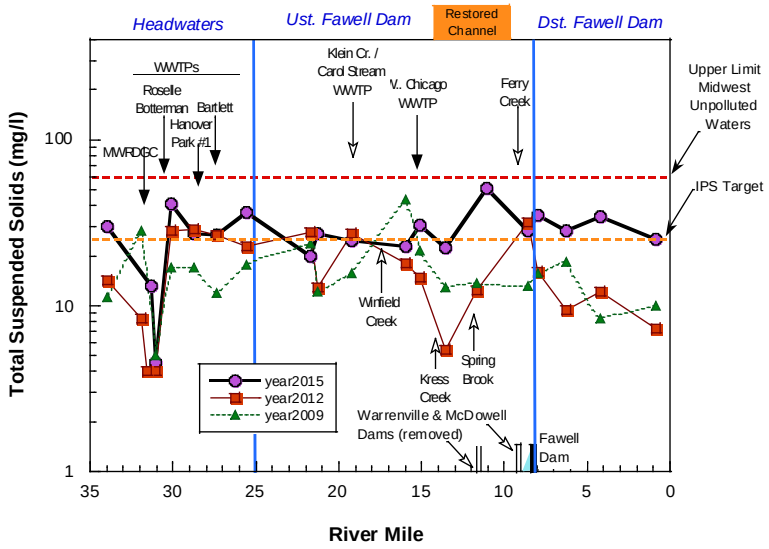


Figure 17. Concentrations of total suspended solids (top panel) and TKN (lower panel) from W. Branch DuPage River samples in 2008, 2012 and 2015 in relation to municipal WWTP discharges.

Bars along the x-axis depict mainstem dams or weirs (black bars are dams that impede fish passage). Red dashed lines shows the upper limits of concentrations typical for relatively unpolluted waters for TSS (McNeeley et al. 1979). Orange dashed line in TSS plot is the Ohio reference threshold for headwater (HW) and wadeable (WD) streams. For TKN, the orange dashed line represents the IPS threshold (1.0 mg/l). IPS is a tool developed by the DRSCW and MBI.



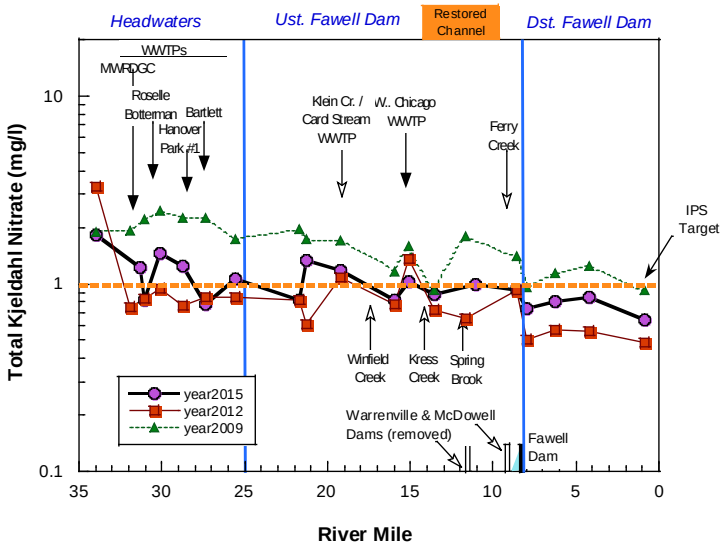


Figure 18. Concentrations of ammonia-N (top panel) and total nitrate (lower panel) from W. Branch DuPage River samples in 2008, 2012 and 2015 in relation to municipal WWTP discharges.

Bars along the x-axis depict mainstem dams or weirs (only black bars for dams that impede fish passage). For ammonia-N, the red dashed line (1.0 mg/l) represents a threshold concentration beyond which acute toxicity is likely; the orange dashed line (0.15 mg/l) is correlated with impaired biota in the IPS study. For total nitrate, red line represents the Illinois Water Quality Criterion, orange dashed line represents the Illinois Non-Standards Benchmark, and purple line represents the US Ecoregion 54 Benchmark.

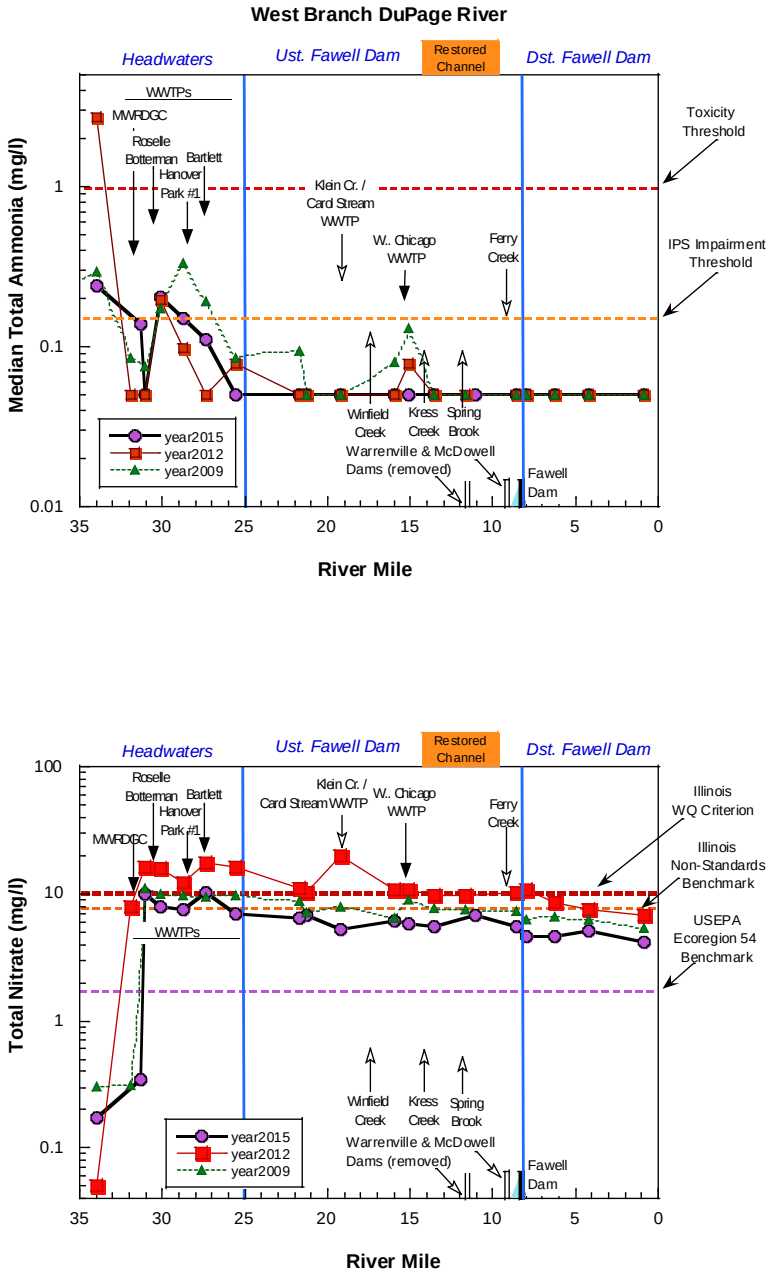
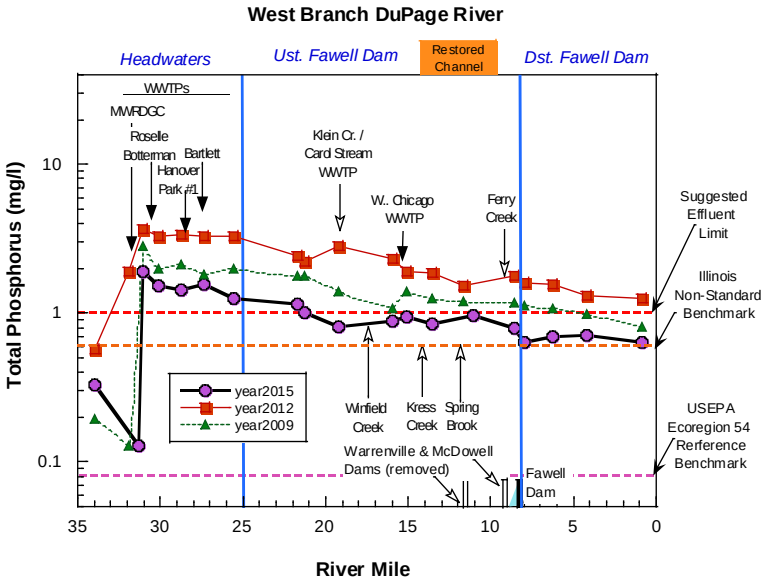


Figure 19. Concentrations total phosphorus (top panel) and chloride (lower panel) from W. Branch DuPage River samples in 2008, 2012 and 2015 in relation to municipal WWTP discharges.

Bars along the x-axis depict mainstem dams or weirs (black bars are dams that impede fish passage). For phosphorus, orange dashed lines represent target concentrations for ecoregion 54 (0.07 mg/l) and the Illinois EPA non-standard based criterion (0.61 mg/l). The 1.0 mg/l dashed red line is the suggested effluent limit. For chloride, red dashed line represents the Illinois Water Quality Criterion (500 mg/L) and orange dashed lines represent the IPS threshold for fish and macroinvertebrates. IPS is a tool developed by the DRSCW and MBI.



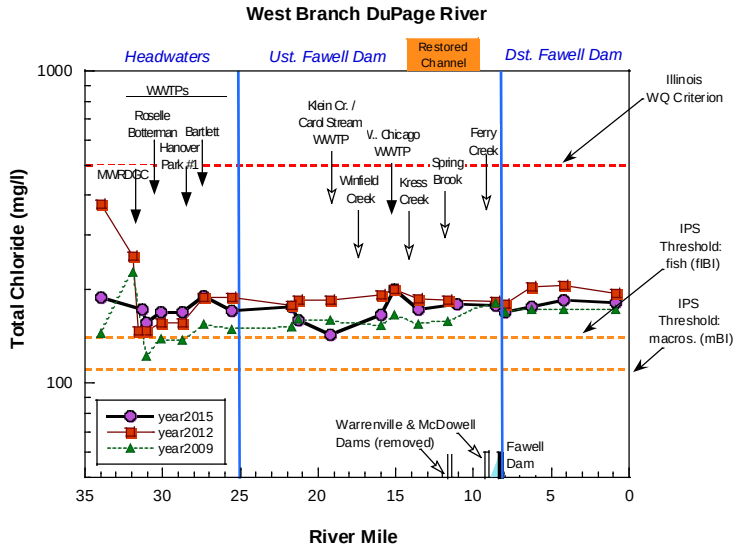
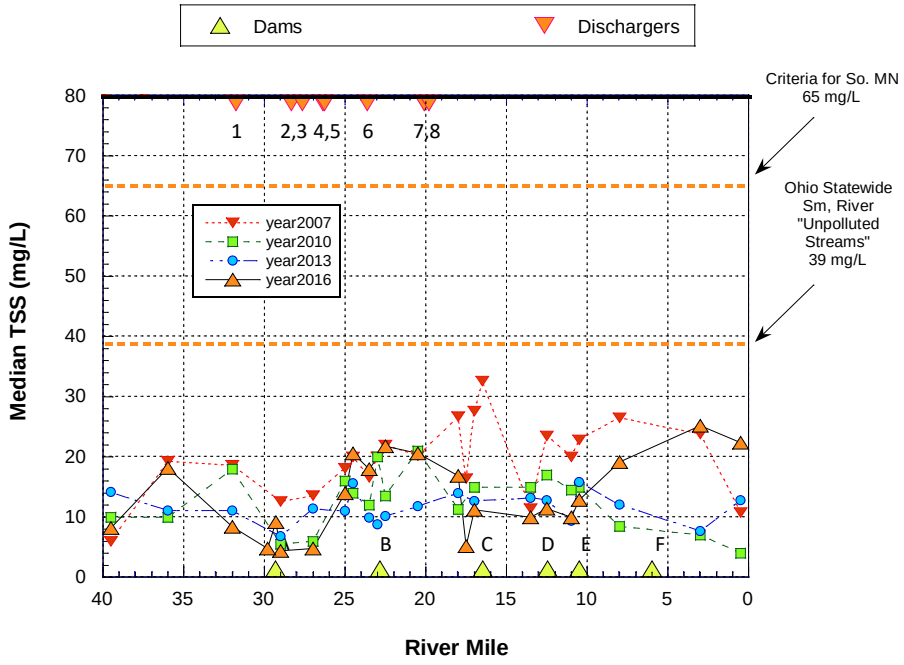


Figure 20. Concentrations of total suspended solids (top panel) and TKN (lower panel) from Salt Creek samples in 2007, 2010, 2013, and 2016 in relation to municipal WWTP discharges.

Yellow triangles along the x-axis depict mainstem dams or weirs. Orange dashed lines shows the upper limits of concentrations typical for relatively unpolluted waters for TSS (McNeeley et al. 1979). Blue dashed line in TSS plot is the Ohio reference threshold for headwater (HW) and wadeable (WD) streams. For TKN, orange dashed line represents the IPS threshold (1.0 mg/l). IPS is a tool developed by the DRSCW and MBI.



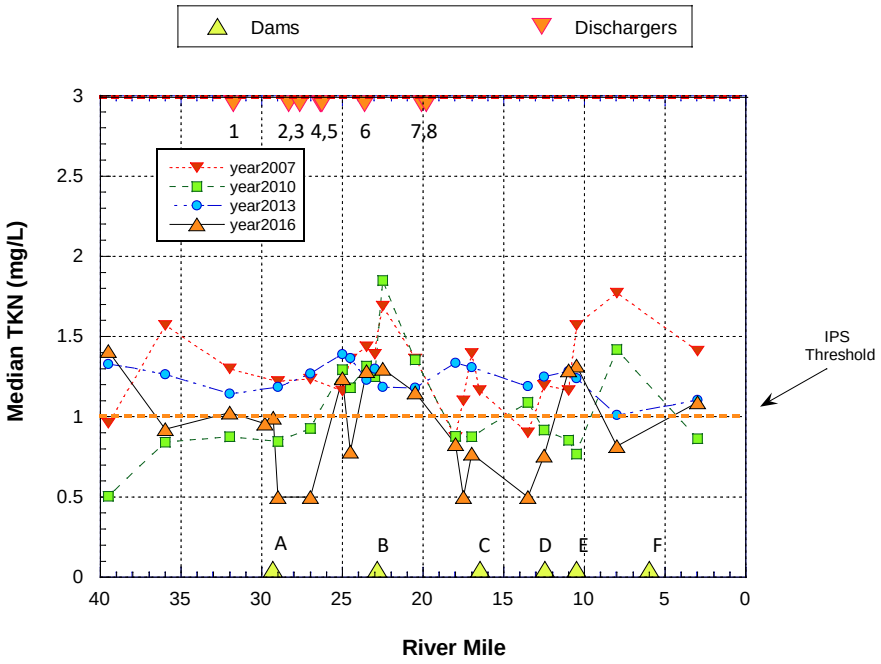


Figure 21. Concentrations of ammonia-N (top panel) and total nitrate (lower panel) from Salt Creek samples in 2007, 2010, 2013, and 2016 in relation to municipal WWTP discharges.

Yellow triangles along the x-axis depict mainstem dams or weirs. For ammonia-N, the blue dashed line (1.0 mg/l) represents a threshold concentration beyond which acute toxicity is likely; the orange dashed line (0.15 mg/l) is correlated with impaired biota in the IPS study. For total nitrate, red line represents the Illinois Water Quality Criterion, orange dashed line represents the Illinois Non-Standards Benchmark, and purple line represents the US Ecoregion 54 Benchmark.

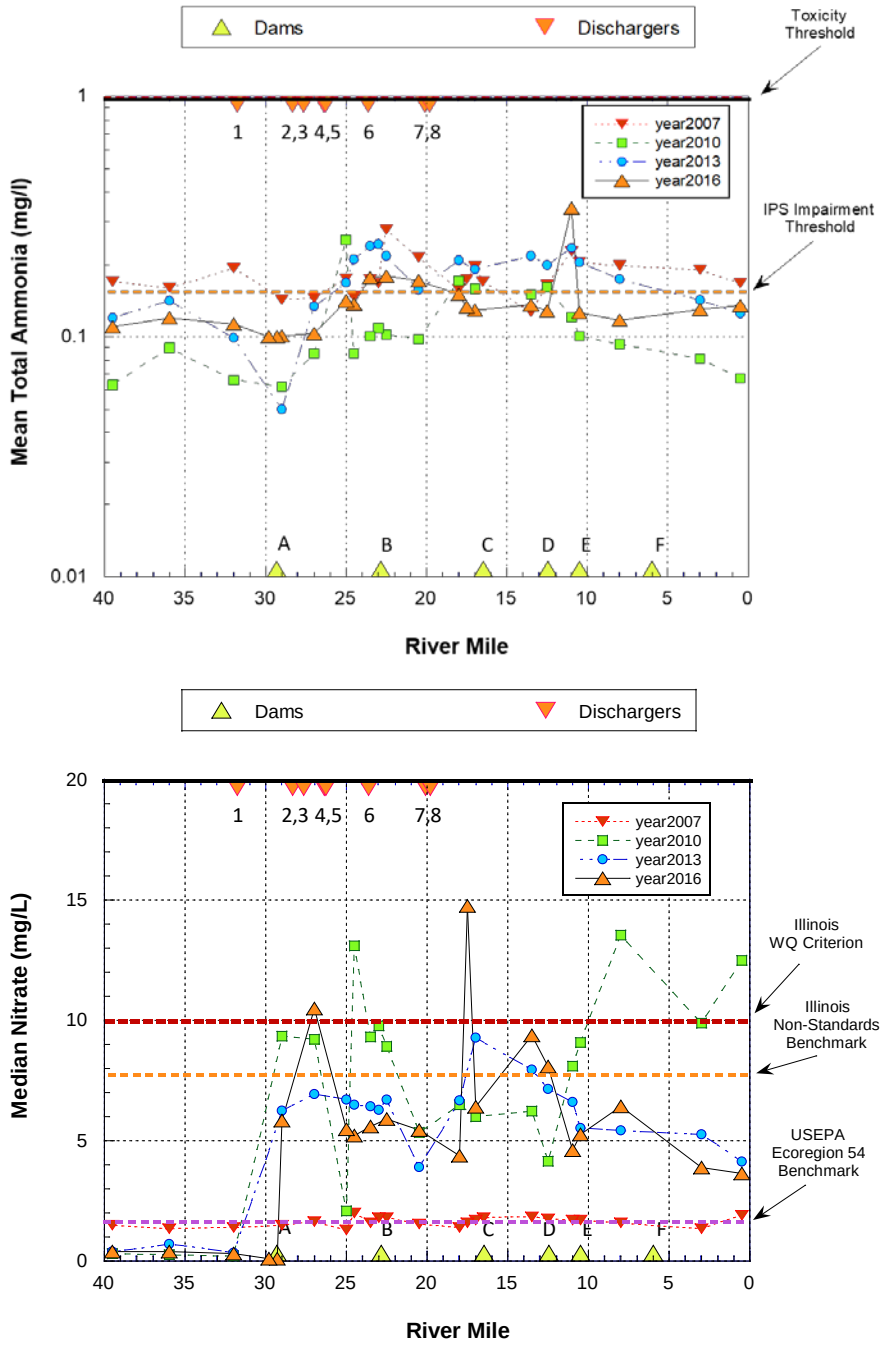
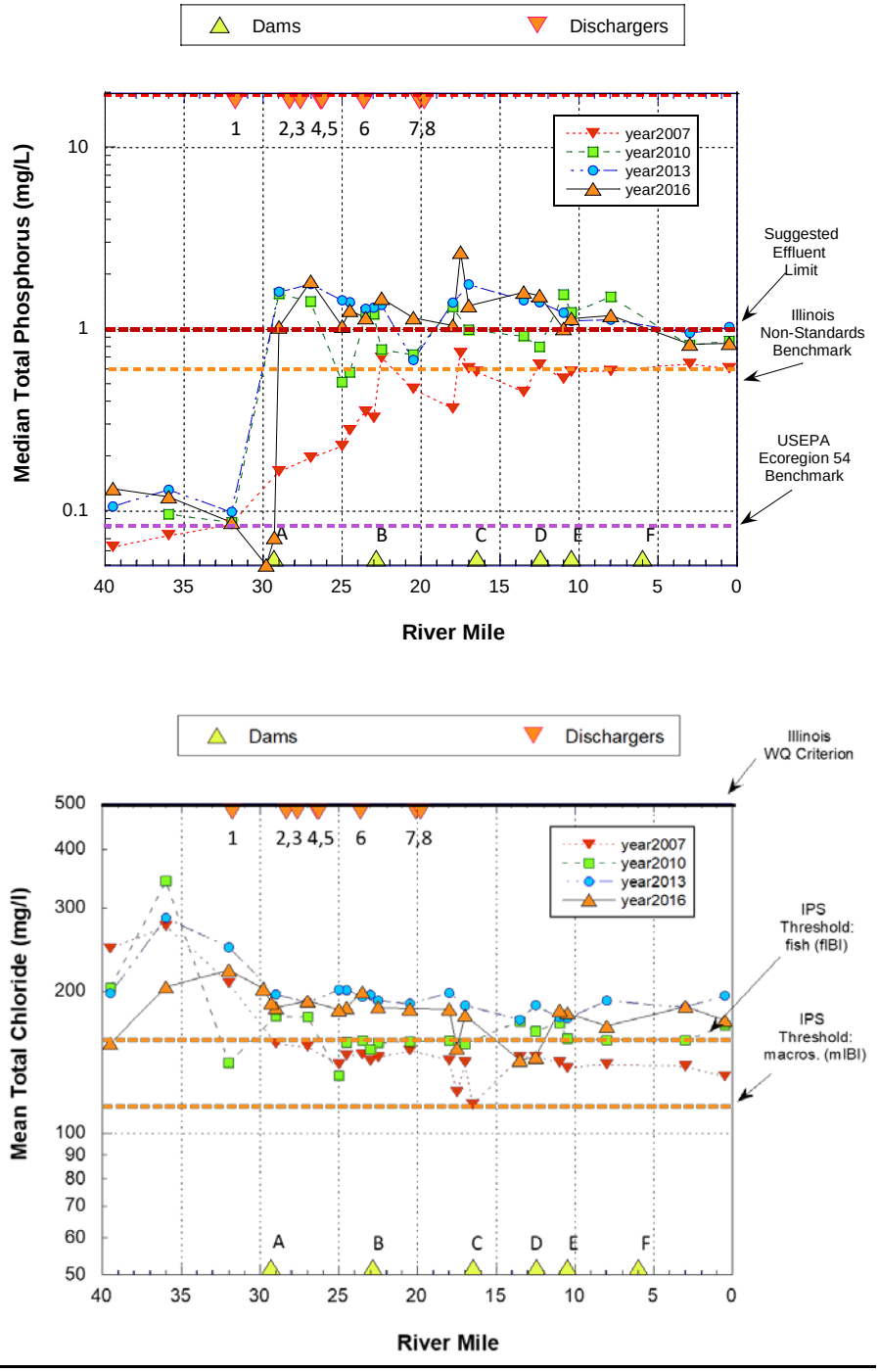


Figure 22. Concentrations total phosphorus (top panel) and chloride (lower panel) from Salt Creek samples in 2007, 2010, 2013, and 2016 in relation to municipal WWTP discharges.

Yellow triangles along the x-axis depict mainstem dams or weirs. For phosphorus, purple dashed lines represent target concentrations for ecoregion 54 (0.07 mg/l) and orange dashed line represents the Illinois EPA non-standard based criterion (0.61 mg/l). The 1.0 mg/l dashed red line is the suggested effluent limit. For chloride, red dashed line represents the Illinois Water Quality Criterion (500 mg/L) and orange dashed lines represent the IPS threshold for fish and macroinvertebrates. IPS is a tool developed by the DRSCW and MBI.



In 2016, samples for Fat, Oil and Grease (FOG) was collected at six (6) sites on the mainstem Salt Creek and one (1) site on Addison Creek. The results are summarized in Table 6.

Table 6. Concentrations of Fat, Oil and Grease in 2016 in the Salt Creek watershed.

Site Number	Latitude	Longitude	River Mile	Result (mg/L)
Salt Creek				
SC44	42.01197	-88.00092	29.3	Non detect
SC41	41.9703	-87.98817	25.0	Non detect
SC23	41.93694	-87.98423	22.5	1.63
SC37	41.88378	-87.96054	17.5	Non detect
SC49	41.82576	-87.90004	8.0	Non detect
SC29	41.8183	-87.83371	0.5	Non detect
Addison Creek				
SC-28	41.86116	-87.86774	1.5	2.47

In 2018, samples for fecal coliform samples were collected at five (5) sites on the mainstem Salt Creek, one (1) site on Springbrook and one (1) site on Addison Creek. Each site was sampled 5 times within a 30-day period beginning on September 19, 2018. The results are summarized below in Table 7.

Table 7. Concentrations of Fecal Coliform in 2018 in the Salt Creek watershed.

Site Number	Site Location	Fecal Coliform cfu/100 ml					Fecal Coliform cfu/100 ml
		9/19/2018	9/26/2018	9/27/2018	10/2/2018	10/8/2018	
Salt Creek							
SC15	Salt Creek at Higgins	750	550	2600	1450	11000	1764.54
SC43	Salt Creek at Arlington Heights	150	350	250	<50	50	160.05
SC51	Salt Creek at Elmhurst	550	1400	350	150	3400	672.40
SC49	Salt Creek at Wolf Road	100	400	3100	1600	13000	1208.64
SC29	Salt Creek at Rt 171	900	1300	350	2900	17000	1823.98
Tributaries							
SC16	Springbrook at Prospect Avenue	900	4200	650	<50	2600	1589.81
SC28	Addison Creek at Gartner Road	2450	2800	1350	1650	40000	3607.78

Sediment Chemistry Results

Detailed analysis and results for sediment chemistry is located at http://drscw.org/wp/bioassessment/.

DISSOLVED OXYGEN (DO) MONITORING

Background and Methodology

The Illinois Environmental Protection Agency (IEPA) report, Illinois 2004 Section 303(d) List, listed dissolved oxygen (DO) as a potential impairment in Salt Creek, and the East and West Branches of the DuPage River. The report suggested that the DO levels in selected reaches of these waterways might periodically fall to levels below those required by healthy aquatic communities.

All rivers and creeks in DuPage County are classified as General Use Waters. The present water quality standards for dissolved oxygen in General Use Waters is:

1. During the period of March through July
    a. 5.0 mg/L at any time; and
    b. 6.0 mg/L as a daily mean averaged over 7 days.

2. During the period of August through February,
    a. 3.5 mg/L at any time;
    b. 4.0 mg/L as a daily minimum averaged over 7 days; and
    c. 5.5 mg/L as a daily mean averaged over 30 days.

Following listing on the 303 (d) list three TMDLs were prepared by the IEPA for Salt Creek and the East Branch of the DuPage River. In response to the TMDLs, the DRSCW committed to develop and manage a continuous long-term DO monitoring plan for the project area in order to assess the nature and extent of the DO impairment and to allow the design of remedial projects. The continuous DO data is also used to assess the impact of DO improvement projects such as the Churchill Woods and Oak Meadow dam removals.

Typically, the continuous DO monitoring project includes two to three (2-3) sites on the West Branch DuPage River, four to five (4-5) sites of the East Branch DuPage River, and three to four (3-4) sites on Salt Creek. The program began in 2006 and data has been collected each year since. Each site is equipped with a HydroLab DS 5X which collects data on DO, pH, conductivity and water temperature. Stations have a sample interval of one hour and collect data from June through to October (the seasonal period recognized as containing the lowest annual levels of stream DO). The continuous DO monitoring program functions under a quality assurance plan agreed on with the Illinois Environmental Protection Agency (http://drscw.org/wp/dissolved-oxygen/). Details on the site location are included in Table 8 and site locations are included on Map 1.

Table 8. Continuous DO monitoring locations in the DRSCW watersheds

Site ID	Stream Name	River Mile	Latitude	Longitude	Location
WBAD	W. Br. DuPage R.	29.9	41.9750	-88.1386	Arlington Drive
WBBR	W. Br. DuPage R.	11.7	41.825268	-88.179456	Butterfield Road
WBWD	W. Br. DuPage R.	11.1	41.82027	-88.17212	Downstream of Warrenville Grove Dam
EBAR	E. Br. DuPage R.	23.0	41.935171	-88.05843	Army Trail Road
EBCB	E. Br. DuPage R.	18.8	41.88510	-88.04110	Former Churchill Woods pool (Crescent Blvd)
EBHL	E. Br. DuPage R.	14.0	41.82570	-88.05316	Hidden Lake Preserve
EBHR	E. Br. DuPage R.	8.5	41.76800	-88.07160	Upstream Hobson Rd
EBWL	E. Br. DuPage R.	4.0	41.71230	-88.09160	Downstream of 2nd mine discharge
SCOM	Salt Creek	23.0	41.941279	-87.983363	Oak Meadows Golf Course upstream of former Dam
SCBR	Salt Creek	16.1	41.864686	-87.95073	Butterfield Road
SCFW	Salt Creek	11.1	41.825493	-87.93158	Fullersburg Woods upstream of Dam

Results

Results of the continuous DO monitoring conducted in the summer of 2018 are not available at this time and will be forwarded upon their completion.

B. Recordkeeping

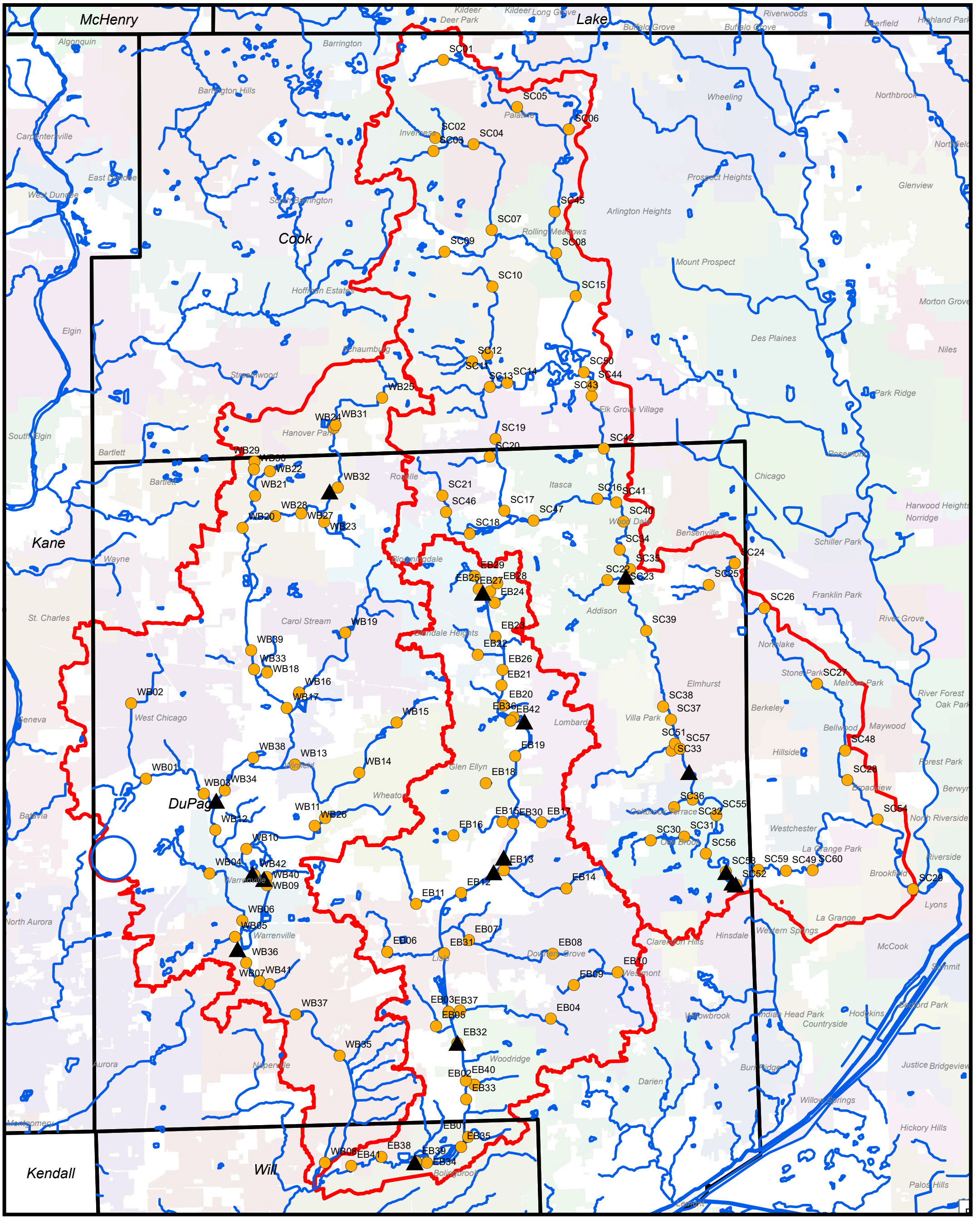
All monitoring data including by not limited to laboratory results, chain of custodies (COCs), and quality assurance protection plans (QAPP) will be maintained by the DRSCW for a minimum of 5 years after the expiration of the ILR40 (effective on 03/01/2016). The records are maintained at the DRSCW office located at The Conservation Foundation, 10S404 Knock Knolls Road, Naperville, Illinois 60656 and are accessible to the IEPA for review.

C. Reporting

The DRSCW is not responsible for preparing and submitting an Annual Report to the IEPA by the first day of June for each year that the permit is in effect. It is the responsibility of the individual

ILR40 permit holders to utilize the information provided in this report to fulfill the reporting requirements outlined in the permit.

Map 1. DRSCW Ambient Bioassessment and Continuous Dissolved Oxygen Monitoing Locations



Legend

- Continuous DO_Probes
- Bioassessment Sites
- RIVERS
- County Boundary
- DRSCW_Watersheds

N W E S

0 0.75 1.5 3 4.5 6 Miles

DuPage River Salt Creek Workgroup

Attachment A

2018 Deicing Program Survey Results

DuPage River Salt Creek Workgroup

BAXTER & WOODMAN Consulting Engineers

DuPage River Salt Creek Workgroup

Chloride Education and Reduction Program

2018 Deicing Program Survey

DRAFT

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Section 1
Background and Purpose

The DuPage River Salt Creek Workgroup (DRSCW) is a coalition of local governments, sanitary districts, environmental organizations, and professionals working to improve the ecological health of Salt Creek and the Upper DuPage River. DRSCW is responding to water quality requirements for chloride since the East and West Branches of the DuPage River and Salt Creek have been identified as having chloride related impairments. Total Maximum Daily Load (TMDL) analysis performed by the Illinois Environmental Protection Agency recommended significant reductions in chloride loading for each of the streams to meet the State's water quality standard for chloride (500 mg/L).

DRSCW formed a Chloride Committee and the Chloride Education and Reduction Program to develop and promote alternatives to conventional roadway deicing practices and support the implementation of the alternatives. An element of the program is gathering information from municipal deicing programs via survey questionnaires to benchmark municipal activities and identify positive changes in roadway deicing program practices. This report serves to summarize the responses received from the 2018 deicing program survey.

Funding for the program and this report is provided in part by the Illinois Environmental Protection Agency through Section 319 of the Clean Water Act and DRSCW member dues.

1.1 Background Information

Municipal road salting was identified as a source of chloride loading to DRSCW watersheds. As a result, DRSCW distributed a survey questionnaire to about 80 municipalities in November 2006 and April 2007 to obtain baseline information about deicing practices throughout the watersheds. Thirty-nine responses to the survey were received, forming an informed baseline of the deicing programs implemented in the watersheds. A similar survey was distributed in 2010. Thirty-two public agencies responded to the 2010 survey which helped to note positive changes in local deicing practices. The 2012, 2014, and 2016 the surveys generated 34, 27 and 43 responses respectively. Thirty-nine (39) agencies responded to the 2018 survey.

1.2 Goals of the Questionnaires

The 2018 Deicing Program Survey was conducted in the Spring of 2018 to follow up with agencies on any changes and/or improvements in their deicing programs, potentially because of DRSCW Chloride Reduction Program efforts, and any resulting effects on salt application rates.

The 2018 survey questionnaire asked for information about deicing practices and strategies per the following categories:

- General deicing and snow removal information
- Deicing and snow removal equipment
- Application rates

- Salt storage
- Equipment maintenance and calibration
- Management and record-keeping

The responses to the survey are summarized in Section 2 of this report. The responses are compared to those received in earlier surveys to determine if any changes or improvements have occurred. The survey and response data are included in **Appendix A**.

Section 2
Survey Responses

2.1 Survey Responses

Thirty-nine agencies responded to the 2018 survey. The following subsections summarize the responses in each of the categories described in Section 1. The survey and all responses are included in **Appendix A** of this report. Note that not all agencies provided responses to all questions, and some agencies answered some questions in different ways, resulting in some inconsistencies in survey results.

2.1.1 General Deicing and Snow Removal Information

The survey asked agencies for general deicing and snow removal information. All responding agencies provided some information. Survey responses indicated approximately 7,074 lane miles of road serviced by deicing programs throughout the watersheds.

2.1.1.1 Salt Application and Price

The majority of agencies indicated an average salt application rate of 200-300 pounds per lane mile (lbs/lm). **Figure 2-1 shows** the respondent's salt application rate distribution, comparing 2012-2018 averages to the 2016 and 2018 survey responses.

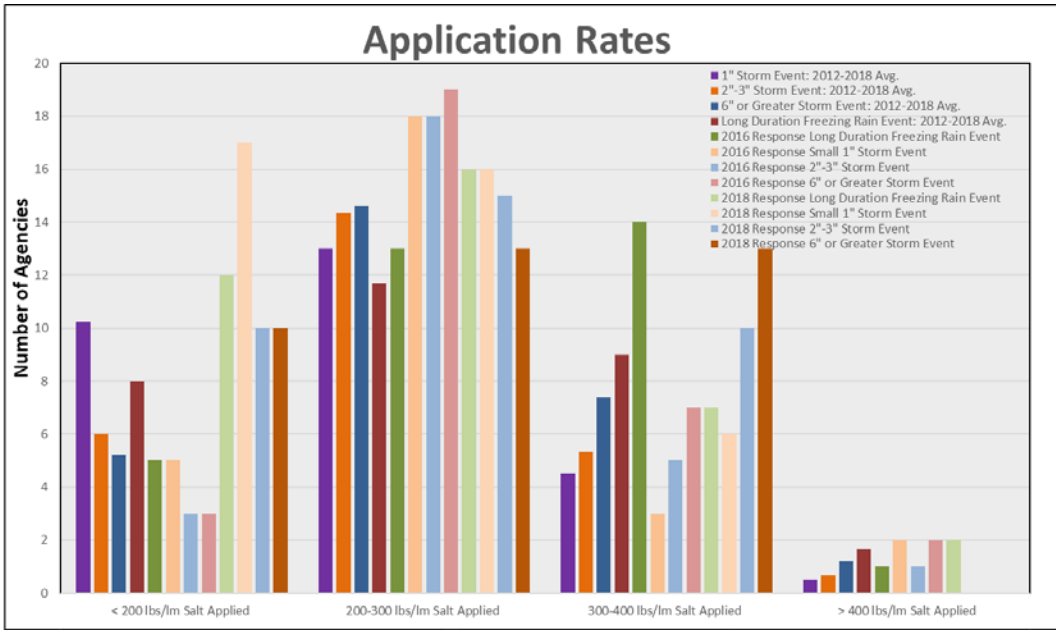

Figure 2-1 – Average Salt Application Rates

Survey responses generally indicate that more agencies are applying less salt per lane mile than in previous years for smaller winter storm events, and more salt per lane mile for the largest of events.

Regarding salt prices, 23 of the 39 agencies responding agencies indicated an increase in salt or deicing product prices over the past few years. Six (6) agencies reported a decrease in salt or deicing product price over the past few years. Nine (9) agencies indicated that product prices have remained the same.

2.1.1.2 Deicing, Anti-Icing, Pre-Wetting, and Deicing Agents

Information about deicing, pre-wetting, and anti-icing practices, as well as the deicing agents used was requested by the survey. The following is a list of deicing agents used by respondents:

- Each of the 39 responding agencies reported the use of salt
- Twenty-eight (28) agencies reported the use of dry rock salt
- Nineteen (19) agencies used liquid calcium chloride
- Ten (10) agencies reported the use of pre-manufactured liquid products

From the 39 responders, 26 reported using pre-wetting practices. The 2018 survey asked what percentage of total salt usage was pre-wetted prior to application. Of those agencies pre-wetting salt, responses ranged from 20 to 100% of total salt used, with the majority pre-wetting 90 to 100%.

Twenty-one (21) responders implement ant-icing practices. Benefits to anti-icing were noted as:

- Lowered salt usage
- Safer roadways
- Melts ice at lower temperatures /easier plowing / prevent freezing
- Reduced time spent plowing
- Reduce call-ins for minor snow events

Barriers to anti-icing were reported as:

- Lack of equipment / cost of equipment / limited vehicle storage
- Lack of personnel
- Political pressures
- Size of town / type of roads

2.1.1.3 Weather and Pavement Temperature Forecasting

Twenty-seven (27) respondents make use of pavement temperature for winter event deicing response, which is a slight increase from the previous survey.

2.1.2 Deicing and Snow Removal Equipment

All agencies use snow plows or similar equipment. Twenty-nine (29) agencies have mechanically controlled spreading equipment, and 32 have computer-controlled equipment. Equipment for spreading liquids is used by 31 agencies.

2.1.3 Salt Storage

2018 survey responses indicated the following salt storage practices:

- Thirty-seven (37) agencies responded that salt storage areas are fully enclosed storage structure or have impervious storage pads.
- Thirty-five (35) agencies store salt on an impervious pad.
- Thirty-seven (37) agencies indicated that drainage from their storage area(s) is controlled or collected.
- Twenty-four (24) agencies indicated that they store salt in a single storage area.
- Thirty-four (34) agencies store salt in an enclosed area.
- Thirty-two (32) reported that residual salt in loading areas is swept up.
- Six responders indicated they have salt storage areas which are not fully enclosed or on an impervious pad, which is a decrease by 8% from 2016.

2.1.4 Equipment Maintenance, Cleaning, and Calibration

Thirty-three (33) agencies indicated that they calibrate their de-icing equipment, an increase in the number of agencies performing calibration as a best management practice. Most agencies providing calibration information perform calibration annually, with 3 agencies calibrating at least 2 times per season, 3 agencies calibrating every 2 years, and 6 agencies calibrating after major maintenance or repairs (in addition to annually.

Thirty-seven (37) agencies responded that equipment is washed at an indoor wash station draining to a sanitary sewer. One (1) agency indicated outdoor washing in areas not drained to a sanitary sewer. Two (2) respondents reported collecting and reusing wash water for brine making. Sixteen (16) responders reported having brine making equipment, and 1 responder indicated the equipment is shared with other townships.

2.1.5 Management and Record-Keeping

Twenty-five (25) agencies indicated that operators are trained annually (or more often). Thirteen (13) of the remaining agencies train at the start of employment and one agency did not specify a training schedule.

From a management standpoint, the rate of salt application is established by the director or supervisor in 35 agencies, solely by the operators in 2 agencies, and 1 agency did not report. During spreading, the rate of product application is controlled solely by the

operator in 26 agencies, by the operator in addition to other measures in 34 agencies, automatically in 2 agencies, and set at a fixed rate in 2 agencies. Twenty-nine (29) agencies reported having set guidelines for equipment speed to control bounce and scatter and loss of salt from the road surface.

Regarding record keeping, thirty-two (32) agencies keep records per winter storm event, 25 keep records per truck, and 25 kept records per season. Twenty-eight (28) agencies keep more than one type of record for program management. Two (2) agencies reported keeping no records.

Seven (7) responders indicate contractors are utilized for clearing operations. Most responding agencies use contractors to clear cul-de-sacs. One uses a contractor to clear 20% of the road system.

2.2 Survey Analysis

The following subsections provide survey conclusions developed by comparing information from the 2016 survey to responses received from the 2014 survey or previous surveys. Forty-three (43) agencies responded to the 2016 survey, while 27 agencies responded to the 2014 survey. The number of new agencies responding to the survey is a positive for the amount of information provided for study and program participation overall, but results in some changes or inconsistencies in information trends.

2.2.1 Alternative Methods and Practices Analysis

Many of the questions in the survey focused on the use of alternative deicing agents, methods, and practices such as pre-wetting and anti-icing. **Figure 2-2** illustrates the percentage of respondents that use various deicing agents as reported on the 2007, 2010, 2012, 2014, 2016, and 2018 questionnaires.

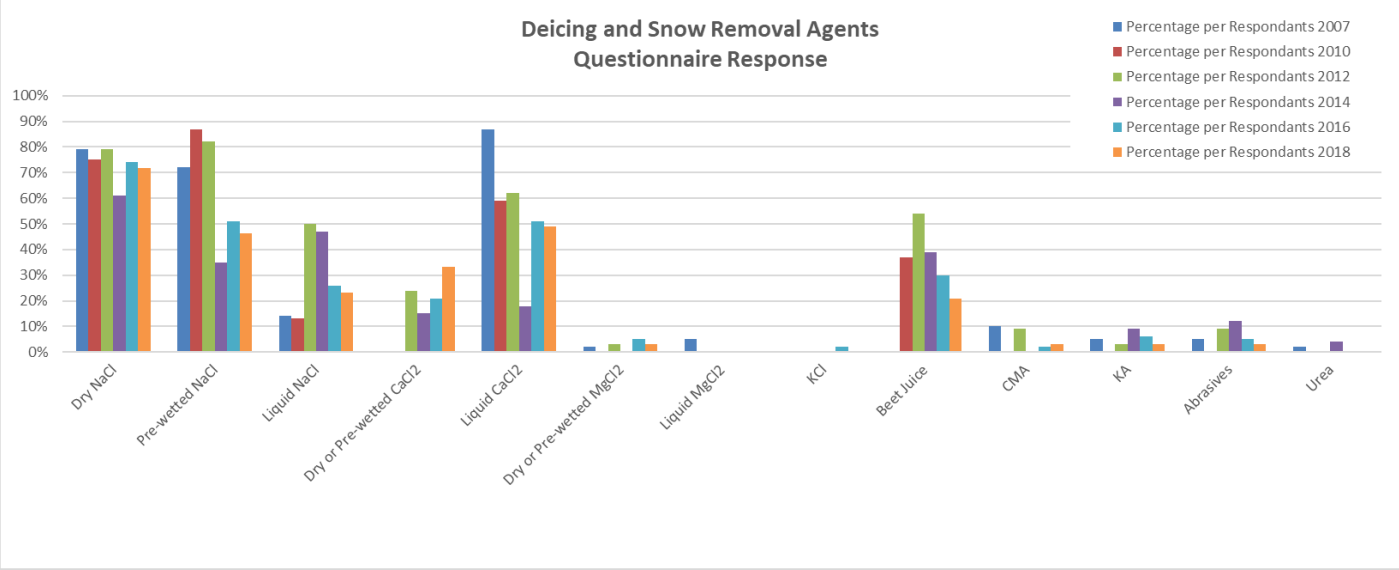

Figure 2-2 – Deicing and Snow Removal Agents

The survey results indicated dry and pre-wetted salt (NaCl) may have slightly decreased from the previous surveys In 2018, 46% of agencies reported using pre-wetted salt, however previous program information suggests that the level of implementation of pre-wetting is much higher than this throughout the watershed. The 2018 survey percentages may be skewed by agencies which did not report, and inexperience with the type of information being asked by the survey. Follow up with individual agencies for future surveys may be needed.

Other analysis observations include:

- Results show a 12% increase in dry or pre-wetted Calcium Chloride ($CaCl_2$).
- Results show a small decrease in the use of dry or pre-wetted Magnesium Chloride ($MgCl_2$).
- No 2018 responders use liquid $MgCl_2$, Urea, or Potassium Chloride (KCL). The 2016 survey reported no MgCl2 or Urea as well, but only one responder for KCL.
- The use of Calcium Magnesium Acetate (CMA) has slightly increased since 2016.
- Potassium Acetate (KA) and Abrasives have decreased since 2016.
- Beet Juice usage was at a peak in 2012, and has declined.

This year's survey asked agencies for the application rate of salt pre-wetting liquids, and application rate of anti-icing liquids to roadways. Application rates for pre-wetting ranged from 5 to 30 gal/ton of salt. Application rates for anti-icing ranged from 10 to 50 gal/lane mile.

In 2007, 14 agencies reported the use of anti-icing practices. Since then the number of reporting agencies has been

- 2010 - 20 agencies
- 2012 - 20 agencies
- 2014 - 13 agencies
- 2016 - 26 agencies

In 2018, 21 reporting agencies implemented anti-icing practices. This trend suggests improvement in the use of anti-icing BMPs over time, with the most widespread use in 2016.

Similar to the 2016 survey results, 2 of the responding agencies reuse vehicle wash-water for making brine solution. The responders who reported reuse of wash water in 2016 are not the same as in 2018.

2.2.2 Salt Application Rates

In 2007, survey respondents were asked about their average annual salt usage. In 2012, 2014, 2016, and again in 2018 respondents were asked about annual salt usage. Respondents gave their annual usage for each winter season which provides a good benchmark for how weather has affected salt application rates. **Figure 2-3** shows an approximated annual salt usage in lbs/lane mile for each watershed in the study area reported from the 2007, 2012, 2014, 2016, and 2018 surveys.

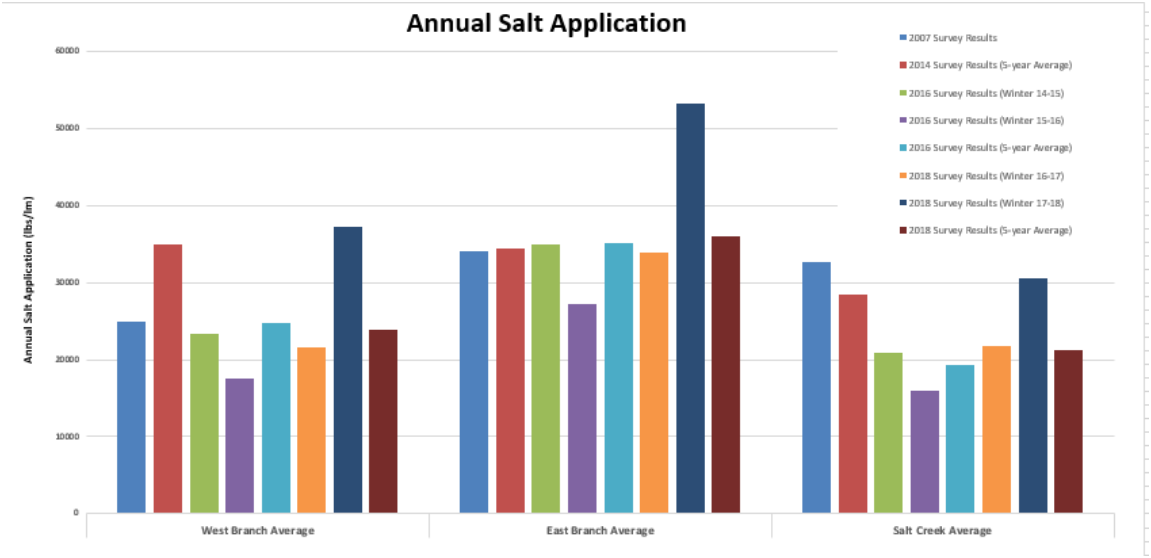

Figure 2-3 – Annual Salt Application Reported from 2007 - 2018

Annual salt application rates generally decreased from 2007 – 2012 in the watersheds, and increased from 2012-2014 as a result of winter precipitation and storm event frequency variation. 2018 survey responses indicated that the per lane mile use of salt in the 2017-18 winter was noticeably larger from that in most previous years. The number and type of winter storm events occurring each year and the different agencies providing usage information for each survey make developing direct usage trends or correlations difficult.

Survey respondents were asked about the average salt application rate per lane mile for specific winter storm events. This information more comparably describes a community's salt usage, or application rate. Figure 2-1 shows salt application rates reported from the 2010, 2012, 2014, 2016, and 2018 surveys. In general, the number of agencies applying 200-300 lbs/lm has increased from 2012 to 2018 for Long Term Freezing Rain event (LTFR) and 1" storm events.

Both annual salt usage data and salt application rates provide insight into individual agency programs and salt application across watersheds, as well as a valuable benchmark for future survey and Chloride Reduction Program efforts. Both of the above

values will continue to be requested of agencies in future surveys to compare and report deicing program improvements, and presumed water quality improvements.

2.3 Survey Conclusions

The purpose of the 2018 survey was to gather follow-up information to determine if alternative deicing practices are being implemented in the DuPage River/Salt Creek watersheds. Thirty-nine (39) agencies responded to the 2018 survey, similar in number to the 2016 survey (two less in 2018). As different agencies provided information, the 2018 survey results may be skewed by the unique practices of the agencies providing information this year, and inexperience with the type of information being asked by the survey. Follow up with individual agencies for future surveys may be needed.

- Almost all agencies in the program area have covered permanent salt storage facilities; however, there are still some opportunities for storage and salt handling improvements across the watersheds.

- Almost all agencies are using pre-wetted salt, either as a pre-wetted product or by pre-wetting the salt on board spreading equipment immediately before applying to road surfaces. Some agencies are not fully implementing pre-wetting practices. The 2018 survey asked what percentage of total salt usage was pre-wetted prior to application. Of those agencies pre-wetting salt, responses ranged from 20 to 100% of total salt used, with the majority pre-wetting 90 to 100%.

- Twenty-nine (29) agencies reported having set guidelines for equipment speed to reduce bounce and scatter and loss of salt from the road surface.

- For the 2018 survey, 21 responders reported the implementation of anti-icing practices. The benefits of anti-icing were noted as:
    - Lowered salt usage
    - Safer roadways
    - Melts ice at lower temperatures /easier plowing / prevent freezing
    - Reduced time spent plowing
    - Reduce call-outs for minor snow events

- Agencies are implementing anti-icing at different levels within their operations, with varying success. The level of implementation could be expanded over time. The barriers to implementing anti-icing practices were reported as:
    - Lack of equipment / cost of equipment
    - Limited vehicle storage available
    - Lack of personnel
    - Size of town / type of roads
    - Political pressures

- Out of the agencies responding, 27 agencies use an advanced weather forecasting service, which is a similar percentage of responders from the previous 2016 survey. Twenty-seven (27) respondents make use of pavement temperature for winter event deicing response, which is a slight increase from the previous

survey. Several communities within the program area are not making use of these practices.

- The 2018 survey asked agencies for the application rate of salt pre-wetting liquids, and application rate of anti-icing liquids to roadways. Application rates for pre-wetting ranged from 5 to 30 gal/ton of salt. Application rates for anti-icing ranged from 10 to 50 gal/lane mile.

- Seven (7) responders indicate contractors are utilized for clearing operations. Most responding agencies use contractors to clear cul-de-sacs. One uses a contractor to clear 20% of the road system.

- Eighteen (18) agencies reported changes made to their program due to local deicing program workshops in 2018, indicating agencies are hearing about alternative ways to implement deicing practices at the workshops and are testing new practices that could reduce overall salt usage.

In order to perform a more definitive trend analysis of program improvements and reductions in salt usage, additional information will need to be collected over time. Information should continue to be collected to characterize any deicing program BMP improvements and resulting reductions in salt usage occurring within the DRSCW watersheds.

Attachment B

List of Registrants at the 2018 Public Roads Deicing Workshop

DRSCW Roads Deicing Workshop Attendees Oct. 25, 2018

Agency	First Name	Last Name
Village of Addison	Eddie	Paladino
Village of Addison	Greg	Soltwisch
Village of Addison	John	Van Meter
Village of Addison	Jon	Wagner
Addison Township Highway Dept	Mike	Capizzano
Addison Township Highway Dept	Alex	Kachiroubas
Addison TownshipHighway Dept	Don	Holod
Village of Bloomingdale	Jim	Johnson
Village of Bloomingdale	Ed	Lewen
Village of Bloomingdale	Jim	Monkemeyer
Bloomingdale Township	Bruno	Barton
Bloomingdale Township	Ben	Dehart
Bloomingdale Township	John	Hitzker
Bloomingdale Township	Robert	Nogan
Bloomingdale Township	John	Pauling
Bloomingdale Township	Nick	Sickafoose
Bloomingdale Township	Brad	Warner
Bloomingdale Township	Dylan	Wiggins
City of Darien	Dave	Brownl
City of Darien	Dennis	Cable
City of Darien	John	Carr
City of Darien	Jeff	Corneils
City of Darien	Dave	Fell
City of Darien	Jim	Herman
City of Darien	Rich	Lepic
City of Darien	Keith	Schuster
City of Warrenville	James	Clark
City of Warrenville	Phil	Kuchler
City of Warrenville	Joe	Mcfadden
City of Warrenville	Dave	Neal
City of Warrenville	Bruce	Padalik
City of Warrenville	John	Satter
DuPage DOT	Jenni	Schlueter
DuPage DOT	Matt	Ebelt
DuPage DOT	Mark	Matozzi
DuPage DOT	Dylan	Schrader
DuPage DOT	Adkin	Rhodes
DuPage DOT	Buddy	Johnson
DuPage Public Works	Ben	Notte
DuPage Public Works	Doug	Daly
DuPage Public Works	Mike	Krause
DuPage Public Works	Charles	Eaves
Elk Grove Village	Bryan	Grippo
Elk Grove Village	John	Temes

Agency	First Name	Last Name
Fermilab	Ed	Collins
Fermilab	Ryan	Frantzen
Fermilab	Jason	Van Hartman
Fermilab	Sheryl	Westwood
Forest Preserve of DuPage Co	Bob	McNeel
Village of Hinsdale	Derek	Donylersky
Village of Hinsdale	Eric	Kasperksi
Village of Hinsdale	Brendon	Mendoza
Village of Hinsdale	Juan	Morin
Village of Hinsdale	Wes	Phenegar
Village of Hinsdale	Rich	Roehn
IL Highway Toll Auth	William	Alicea
IL Highway Toll Auth	Matt	Carter
IL Highway Toll Auth	Hector	Contreras
IL Highway Toll Auth	Brian	Fuqua
IL Highway Toll Auth	Aaron	LaMore
IL Highway Toll Auth	Mike	Velasco
Illinois Tollway GEC	Bryan	Kapala
Milton Township Hwy	Brandon	Bielik
Milton Township Hwy	Mike	Britton
Milton Township Hwy	Eric	Kelly
Milton Township Hwy	Jim	Mauerman
Milton Township Hwy	Gary	Muehlfelt
Milton Township Hwy	Joe	Ocasio
Milton Township Hwy	Rob	Trecker
Milton Township Hwy	Larry	Wangles
Naperville Township	David	Marshall
Naperville Township	Richard	Novinger
Naperville Township	Pat	Testin
Naperville Township	Larry	Wehner
Village of Palatine	Elias	Koutas
Village of Palatine	Jim	McCullar
Village of Burr Ridge	Nate	Arnquist
Village of Burr Ridge	George	Hovorka
Village of Burr Ridge	John	Wernimont
Village of Carol Stream	Sam	Barghi
Village of Carol Stream	Frank	Minniti
Village of Carol Stream	Phil	Modaff
Village of Carol Stream	Jason	Pauling
Village of Carol Stream	Nick	Techter
Village of Carol Stream	Ron	Turner
Village of Downers Grove	Jordan	Daliege
Village of Downers Grove	Justin	Dickey
Village of Downers Grove	Tom	Forrest
Village of Downers Grove	Joe	Guertler
Village of Downers Grove	Nick	Kollintzas

Agency	First Name	Last Name
Village of Downers Grove	Reyes	Vega
Village of Glendale Heights	Rocco	Barbanente
Village of Glendale Heights	Jonathan	Brennan
Village of Glendale Heights	Matt	Frew
Village of Glendale Heights	Steve	Jackson
Village of Glendale Heights	Pat	Kelly
Village of Glendale Heights	Oscar	Marmolejo
Village of Glendale Heights	Ed	Murphy
Village of Glendale Heights	Lino	Novielli
Village of Glendale Heights	Mario	Pignataro
Village of Glendale Heights	Eric	Schmidt
Village of Glendale Heights	Jeff	Timar
Village of Glendale Heights	John	Urso
Village of Lisle	Keith	Dooley
Village of Lisle	Tom	Gallagher
Village of Lisle	Mike	Young
Village of Lombard	Colin	Gaerlan
Village of Lombard	Bill	Harvey
Village of Lombard	Rob	LaMontagna
Village of Lombard	Josh	Leonard
Village of Lombard	Adam	McGown
Village of Lombard	Zach	McKamey
Village of Lombard	Scott	Neetz
Village of Lombard	Rob	Smith
Village of Lombard	Bob	Tirjer
Village of Lombard	Rick	Walker
Village of Oak Brook	Matt	Kennedy
Village of Oak Brook	Tyler	Puetz
Village of Shorewood	Brody	Fay
Village of Shorewood	Jim	Parthun
Village of Shorewood	Riley	Reynolds
Village of Villa Park	Dan	Coulter
Village of Villa Park	Rod	Scheitler
Village of Westchester	Carl	Muell
Village of Westchester	Scott	Russell
Village of Westchester	Steve	Crowley
Wayne Township Road District	Rick	Deeke
Wayne Township Road District	Don	Hodge
Wayne Township Road District	Chad Dumont	McManamon
Wayne Township Road District	Tom	McManamon
City of West Chicago	Pat	Colford
City of West Chicago	Joe	Domzalski
City of West Chicago	Robert	Flatter
City of West Chicago	Steven	Gardner
City of West Chicago	Mark	Harvel
City of West Chicago	Mark	Ruddick

Agency	First Name	Last Name
Village of Westmont	Andy	Peterson
Village of Westmont	Phil	Ricchetti
Winfield Township Road District	Phil	Bergmann
Winfield Township Road District	Michael	Davis
Winfield Township Road District	John	Dusza
Winfield Township Road District	Brad	Kinley
Winfield Township Road District	Chris	Petzek
Winfield Township Road District	Trevor	W
Winfield Township Road District	Brian	Welch
York Township Highway Dept.	Chris	Anderson
York Township Highway Dept.	Dan	Lindeen

Attachment C

List of Registrants at the 2018 Parking Lots and Sidewalks Deicing Workshop

DRSCW Parking Lots & Sidewalks Deicing Workshop Attendees 2018

Agency	First	Last
City of Aurora	Brett	Bennett
ABM - Bensenville Dist 2	Joe	Czajkowski
ABM - Bensenville Dist 2	Patrick	Schwager
City of Batavia	Dave	Armbrust
City of Batavia	Bill	Kellum
City of Batavia	Brett	Wing
Bridgeview Bank	Harry	Nathanson
Crete Monee School District	Frederick	Jarvey
Crete Monee School District	Keith	McLean
Crete Monee School District	David	Slover
City of Darien	Dave	Brown
City of Darien	Dennis	Cable
City of Darien	John	Carr
City of Darien	Jeff	Corneils
City of Darien	Dave	Fell
City of Darien	Jim	Herman
City of Darien	Rich	Lepic
City of Darien	Keith	Schuster
DuPage DOT	Matthew	Cook
DuPage DOT	Edgar	San Juan Ortega
DuPage DOT	Ramiro	Vargas
Elmhurst Park District	Erik	Jimenez-Garcia
Elmhurst Park District	Tom	Shimko
Fox Valley Park District	Raul	Bernal
Fox Valley Park District	Jerad	Campbell
Fox Valley Park District	Tom	Custer
Fox Valley Park District	Isaac	Delgado
Fox Valley Park District	Mike	Gareski
Fox Valley Park District	Terry	Griffin
Fox Valley Park District	Rob	Jordan
Fox Valley Park District	Kevin	Kraabel
Fox Valley Park District	Chris	Kuehn
Fox Valley Park District	Shawn	Loomis
Fox Valley Park District	Nick	Loomis
Fox Valley Park District	Adam	Mance
Fox Valley Park District	Wesley	Peete
Fox Valley Park District	Mike	Prendeville
Fox Valley Park District	Doug	Quigley
Fox Valley Park District	Johnny	Robles
Fox Valley Park District	Jimmy	Schmidt
Fox Valley Park District	Trevor	VanKampen
Fox Valley Park District	Richard	Williams

Agency	First	Last
Geneva Park District	Bill	Braun
Geneva Park District	Ken	Kerfoot
Geneva Park District	Larry	Miller
Geneva Park District	Mandy	Morgan
Glenbard Wastewater Authority	Bob	Chejlava
Glenbard Wastewater Authority	Brian	Simpson
Village of Glendale Heights	Andre	Chilton
Village of Glendale Heights	Emmanuel	Garcia
Village of Glendale Heights	Don	Jackson
Village of Glendale Heights	Joe	Mondelli
Village of Glendale Heights	Scott	Moore
Village of Glendale Heights	Stacy	Simpson
Village of Hinsdale	Kurt	Jobst
Village of Hinsdale	Tom	Jung
Village of Hinsdale	Don	Miller
Village of Hinsdale	John	Navarro
Village of Lisle	Robin	Goldman
Village of Lisle	Jeremy	Lake
Village of Lisle	Pete	Nesti
Yorktown Center Mall	Matthew	Romano
North Central College	Sean	Walsh
North Central College	Dean	Balduff
ABM - Bensenville Dist 2	Gregory	Jones
Valley View School District	Ryan	Kehr
Valley View School District	Mike	Singleton
Valley View School District	Kevin	Smith
Engineering Resource Associates	John	Mayer
City of West Chicago	Pat	Colford
City of West Chicago	Joe	Domzalski
City of West Chicago	Robert	Flatter
City of West Chicago	Steven	Gardner
City of West Chicago	Mark	Harvel
City of West Chicago	Mark	Ruddick
Village of Westmont	Edgar	Tapia
Village of Westmont	Patrick	Vath
Village of Woodridge	Wbaldo	Molina Franco
Village of Woodridge	Russ	Neder
Village of Woodridge	Scott	Sramek