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, 2023 To March, 2024

Permit No. ILR40 0272

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

Name: Will County Mailing Address 1: 58 East Clinton Street

Mailing Address 2: County: Will

City: Joliet State: IL Zip: 60432 Telephone: 815-774-3362

Contact Person: Brian Radner Email Address: bradner@willcountylanduse.com
(Person responsible for Annual Report)

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

Will 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: 5/28/2024

Brian Radner, AICP Director, Development Services

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

IL 532 2585
WPC 691 Rev 6/10

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

Table of Contents

Part A. Changes to Best Management Practices A-1

Part B. Status of Compliance with Permit Conditions B-1

Part C. Information and Data Collection Results C-1

Part D. Summary of Fiscal Years 2023 Stormwater Activities D-1

Part E. Notice of Reliance on another Government Entity E-1

Part F. Construction Projects Conducted During Year 2023 ..... F-1

Part A. Changes to Best Management Practices

Note: X indicates BMPs performed that were proposed in your NPDES permit
✓ indicates changes to BMPs proposed in your NPDES permit. No changes are proposed this year. The Fiscal year is assumed to run from April 1 to March 31.

FY 2021	FY 2022	FY 2023			MS4
A. Public Education and Outreach					
X	X	X			A.1 Distributed Paper Material
					A.2 Speaking Engagement
					A.3 Public Service Announcement
X	X	X			A.4 Community Event
X	X	X			A.5 Classroom Education Material
X	X	X			A.6 Other Public Education
B. Public Participation/Involvement					
					B.1 Public Panel
					B.2 Educational Volunteer
X	X	X			B.3 Stakeholder Meeting
X	X	X			B.4 Public Hearing
X	X	X			B.5 Volunteer Monitoring
					B.6 Program Coordination
X	X	X			B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination					
X	X	X			C.1 Storm Sewer Map Preparation
X	X	X			C.2 Regulatory Control Program
X	X	X			C.3 Detection/Elimination Prioritization Plan
X	X	X			C.4 Illicit Discharge Tracing Procedures
X	X	X			C.5 Illicit Source Removal Procedures
X	X	X			C.6 Program Evaluation and Assessment
					C.7 Visual Dry Weather Screening
					C.8 Pollutant Field Testing
					C.9 Public Notification
X	X	X			C.10 Other Illicit Discharge Controls

FY 2021	FY 2022	FY 2023			MS4
D. Construction Site Runoff Control					
X	X	X			D.1 Regulatory Control Program
X	X	X			D.2 Erosion and Sediment Control BMPs
					D.3 Other Waste Control Program
X	X	X			D.4 Site Plan Review Procedures
X	X	X			D.5 Public Information Handling Procedures
X	X	X			D.6 Site Inspection/Enforcement Procedures
					D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control					
					E.1 Community Control Strategy
X	X	X			E.2 Regulatory Control Program
					E.3 Long Term O&M Procedures
X	X	X			E.4 Pre-Const Review of BMP Designs
X	X	X			E.5 Site Inspections During Construction
X	X	X			E.6 Post-Construction Inspections
					E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping					
X	X	X			F.1 Employee Training Program
X	X	X			F.2 Inspection and Maintenance Program
X	X	X			F.3 Municipal Operations Storm Water Control
X	X	X			F.4 Municipal Operations Waste Disposal
X	X	X			F.5 Flood Management/Assess Guidelines
X	X	X			F.6 Other Municipal Operations Controls

Part B. Status of Compliance with Permit Conditions

The status of BMPs and measurable goals performed in Fiscal Year 2023 are described below. A Stormwater Management Plan has been developed and posted on the County's web page in the NPDES section along with the NOI and Annual Reports.

1. Public Education and Outreach

Will County (County) committed to conduct Public Education and Outreach as part of program implementation. Public Education and Outreach includes distribution of educational material to the community or conducting equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. The County committed to implementation of BMPs related to A.1, A.4, A.5 and A.6. The status or progress for each of the measurable goals related to these BMPs is presented below.

BMP No. A1 – Distributed Educational Material

Brief Description of BMP: The County makes a variety of stormwater quality or related materials available on the Will County Green website. This information includes recycling events, rain barrel information, Household Hazardous Waste events, and many other educational outreach items. The Will CountyGreen.com website had 163,718 page views in 2023 from over 40,000 visitors.WillCountyGreen.com is a comprehensive environmental website with over 250 pages of information. It offers a database search filled with businesses, a newspaper article section and a calendar of upcoming events, along with a FAQ section that many people use to contact us. Due to these features, the website requires weekly updating.

The County also utilizes other electronic formats such as their monthly E-Blast newsletter program to distribute stormwater quality or related information to residents and other interested parties. A newsletter is sent through Constant Contact to political leaders, citizens, teachers and to all employees throughout the County - this is sent to over 11,500 people each month and to all County employees (1,000+). It features a variety of brief articles, links to many of the Willcountygreen.com pages and invitations to follow us on Facebook (6,700+ followers), Twitter (439 followers), Instagram (708 followers), LinkedIn, and YouTube. For several years, each of the monthly newsletters created have been added to the website so users could read past articles on all topics covered. The newsletter occasionally highlights information on rain gardens, encourages rain barrel use, asks residents to use a car wash instead of washing by hand, and always contains a link to Household Hazardous Waste disposal opportunities. Both the website and newsletter reference local partner organizations involved in storm water issues, such as the Soil and Water Conservation District and Conservation Foundation's conserve-at-work and conserve-at-home programs, and the Watershed groups. For the fourth year in a row, the Lower-DuPage Watershed Coalition efforts to prevent water pollution were shared in newsletter and social media platforms. This past year they continued efforts to prevent pet waste from being left on the ground and reduce salt use. Of related significance, nearly every Wednesday an effort is made to use our social media for a water conservation or pollution tip.

BMP No. A4 – Community Event

Brief Description of BMP: In 2023 Will County partnered with the City of Joliet to offer a Water Conservation themed Baseball Game in cooperation with the Slammers, a minor league team with a field in downtown Joliet. We created pledge cards and an advertising campaign that offered water conservation tips, including tips that reduce runoff pollution. We offered raffle prizes such as rain barrels and water

aerators at the game. The Will County employees that attended the game were eligible to receive a bonus "wellness point" from Human Resources. This messaging effort was included in social media, newsletters, press releases, billboard advertisements, and radio advertising.

BMP No. A5 – Classroom Education Material

Brief Description of BMP: During the last 12 months of (2023/2024) the Will County Land Use Department—RR&E Division Educator met with 60 different educational programs. There were: 47 schools, 6 Spring and Summer Park District Programs, 2 Municipal Programs, 2 library programs, 1 Forest Preserve Program, 1 YMCA Program, and 1 PTO Program.

Some entities were visited twice and three times during the year covering environmental topics from recycling, composting, renewable energy and water conservation/water pollution.

Two to three of our staff members have been working with the City of Joliet on water conservation, rain barrel sales, and public events.

Over 13,000 residents of Will County were seen during these education efforts.

BMP No. A6 – Other Public Education

Brief Description of BMP: The County is actively involved in the use of social media as a means of distributing information and materials. The County operates a Facebook page as well as a Twitter and Instagram account and uses both outlets to disseminate stormwater quality or related materials and/or information at least once a week.

The Facebook page is updated daily, and has 6,700+ followers. Many environmental messages are created for the site, including plenty on storm water, proper disposal of hazardous waste, cleaning with less harmful products, recycling and waste reduction.

The Twitter page (439 followers) is also updated frequently, carrying the same messages (but without photos) as Facebook. An Instagram page (708 followers) is currently used a few times a week for similar environmental messages, always including a photo. A Linked-In page and YouTube channel have also been used but far less frequently. We welcome YouTube suggestions.

The Lower Du Page River Watershed Coalition and the Lower Des Plaines River Watershed Group, in which Will County actively participates, provides material tailored to each of the four seasons. These materials are posted on the County website at the appropriate times of year.

2. Public Participation/Involvement

The County committed to performing activities and services related to the Public Participation/Involvement minimum control measure under BMP numbers B.3, B.4, B.5, and B.7. The status or progress for each of the measurable goals related to these BMPs is presented below.

BMP No. B.3 – Stakeholder Meeting

Brief Description of BMP: A Stormwater Management Plan has been developed and posted to the County's stormwater webpage in the NPDES section, along with the Notice of Intent (NOI) and Annual Facility Inspection Report (AFIR).

Environmental Justice Area (EJA) information from USEPA was reviewed. This information may be used to identify EJA's within the County or tailor public education and outreach materials.

BMP No. B.4 – Public Hearing

Brief Description of BMP: The County partners with the Will/South Cook Soil Water Conservation District to provide input and analysis for development sites throughout the County. Public Hearings are required as a part of the zoning process and occur at least 12 times per year. These hearings provide a dedicated opportunity for interested residents and individuals give input on stormwater management and related water quality issues. In addition, the Stormwater Committee takes public comment at every meeting. Public hearings were conducted at least monthly in 2023.

BMP No. B.5 – Volunteer Monitoring

Brief Description of BMP: The County participates in planning groups for specific watersheds within Will County. These groups meet to discuss issues affecting the watershed including preserving, protecting and restoring water quality and other issues relating to stormwater management. In 2023, the County participated in the Lower DuPage River Watershed Coalition, Lower Des Plaines Watershed Group and the Will County Rain Gage Network, which is managed by the USGS.

BMP No. B7 – Other Public Involvement

Brief Description of BMP: The County organizes specialized collection events that allow citizens to properly dispose of wastes that could potentially be dumped or otherwise disposed of illegally and end up in the storm sewer system. These events are held throughout the year and at various locations in the County to provide opportunities for as many residents as possible. During 2023, the County hosted 4 events and collected approximately 114,771 pounds of waste. Additionally, the County collected over 615 pounds of pharmaceutical/medical waste during the current permit year. The collection of these wastes prevented them from being dumped or otherwise introduced to the MS4 system.

In 2023, Will County also participated in the Northeast Illinois Groundwater Protection Planning Committee and the Will County Farm Bureau Resource Work Committee.

3. Illicit Discharge Detection and Elimination

The County committed to perform some activities related to the Illicit Discharge Detection and Elimination minimum control under BMP numbers C.1, C.2, C.3, C.4, C.5, C.6 and C.10. The status or progress for each of the measurable goals related to these BMPs is presented below.

BMP No. C1 – Storm Sewer Map Preparation

Brief Description of BMP: The County has developed a comprehensive storm sewer atlas showing the location of all County-owned outfalls and receiving streams in the County. The atlas is updated by the Will County Division of Transportation each year, with new additions or system changes.

BMP No. C2 – Regulatory Control Program

Brief Description of BMP: The County has adopted and enforces the Will County Stormwater Management and Water Resources Ordinances. These ordinances provide the regulatory authority for the

County to detect, investigate and eliminate potential illicit discharges. The County will continue to review the Ordinances and update its program as necessary to effectively detect and eliminate illicit discharges in compliance with NPDES requirements. Updates and changes determined necessary through the review will be implemented.

BMP No. C3 – Detection/Elimination Prioritization Plan

Brief Description of BMP: The County has policies and procedures in place to detect and eliminate illicit discharges. Depending on the nature of the discharge, multiple departments and procedures may be involved. Enforcement procedures are utilized on an as-needed basis to obtain compliance. All IDDE inspection and response activities are kept within the County's electronic filing system.

BMP No. C4 – Illicit Discharge Tracing Procedures

Brief Description of BMP: The County conducts the screening of outfalls on an annual basis or as funding allows to evaluate the potential for illicit discharges. The County employed established procedures to inspect storm sewer outfalls, identify potential problems and investigate potential illicit discharges during FY 2023. 158 outfall inspections were performed by the Will County Division of Transportation.

BMP No. C5 – Illicit Source Removal Procedures

Brief Description of BMP: The County continued the existing program and review the procedures as needed to authorize the removal of illicit discharges from the storm sewer system. This program requires the disconnection of any illicit discharge source that can be identified through the tracing program. During FY 2023, no removals were completed.

BMP No. C.6 – Program Evaluation and Assessment

Brief Description of BMP: The County assesses their NPDES program on an annual basis to determine the effectiveness of the BMPs selected to meet the specified goals for overall compliance. The goal of this program is to evaluate the appropriateness of the BMPs selected for the NPDES program in meeting the goals necessary to maintain compliance. The County continued this regular assessment during FY 2023.

BMP No. C.10 - Other Illicit Discharge Controls

Brief Description of BMP: The County performs regular monitoring activities of the receiving waters that receive discharges from MS4 outfalls. The goal of this program is to monitor the receiving waters for potential illicit discharges. The County continued to monitor the receiving waters upstream and downstream of the MS4 discharge points during Fiscal Year 2023. No illicit discharges were observed within our MS4.

4. Construction Site Runoff Control

The County committed to performing activities and services related to the Construction Site Runoff Control minimum control measure under BMP numbers D.1, D.2, D.4, D.5 and D.6. The status or progress for each of the measurable goals related to these BMPs is presented below.

BMP No. D1 – Regulatory Control Program

Brief Description of BMP: The County has prepared, adopted and enforces the Will County Stormwater Management and Water Resources Ordinances. These ordinances provide the regulatory authority for the County to inspect, evaluate and enforce construction site runoff control measures. The County will continue to review the Ordinances and update its program as necessary to effectively regulate construction site runoff controls in compliance with NPDES requirements.

BMP No. D2 – Erosion and Sediment Control BMPs

Brief Description of BMP: The County has procedures in place that require the review of Best Management Practices for proposed developments prior to construction. The intent of these procedures is to reduce or prevent the discharge of pollutants from construction sites through the use of effective BMPs. The County continued to review, inspect and enforce the ordinance regulations during Fiscal Year 2023 to prevent or reduce the discharge of sediment or other pollutants from construction sites.

BMP No. D4 –Site Plan Review Procedures

Brief Description of BMP: The County has procedures and policies in place that require the review of site plans for compliance with all applicable State and County Ordinances specifically as they relate to soil erosion and sediment control measures and other potential construction related pollutants. During Fiscal Year 2023, 238 site plans were reviewed for stormwater BMP implementation and NPDES requirements.

BMP No. D5 – Public Information Handling Procedures

Brief Description of BMP: The County has procedures in place for receiving, logging and addressing reports from residents or other individual regarding the potential release of pollutants or sediment from construction sites. The County continued the program to receive, investigate and address publicly reported issues.

BMP No. D6 – Site Inspection/Enforcement Procedures

Brief Description of BMP: The County has procedures and policies in place for the inspection and enforcement of applicable ordinances for construction sites in the County. These procedures specifically apply to soil erosion and sediment control measures and other potential construction related pollutants. The County has a soil erosion and sediment control checklist that is employed during site inspections to verify compliance and consistency in the inspection process. Forms, checklists and other enforcement measures utilized by the County are available upon request. During permit Fiscal Year 2023, 448 site inspections for compliance were performed and documented by the County. All inspection and response activities are kept within the County's electronic filing system.

5. Post-Construction Runoff Control

The County committed to performing activities and services related to the Post-Construction Site Runoff Control minimum control measure under BMP numbers E.2, E.4, E.5 and E.6. The status or progress for each of the measurable goals related to these BMPs is presented below.

BMP No. E2 – Regulatory Control Program

Brief Description of BMP: The County has prepared, adopted and enforces the Will County Stormwater Management and Water Resources Ordinances. These ordinances provide the regulatory authority for the County to inspect, evaluate and enforce post-construction site runoff control measures. The County will continue to review the Ordinances and update its program as necessary to effectively regulate post-construction site runoff controls in compliance with NPDES requirements.

BMP No. E4 – Pre-Construction Review of BMP Designs

Brief Description of BMP: The County has procedures and policies in place that require the review of site plans for compliance with all applicable State and County Ordinances specifically as they relate to soil erosion and sediment control measures and other potential construction related pollutants. During Fiscal Year 2023, 238 site plans were reviewed for stormwater BMP implementation and NPDES requirements.

BMP No. E.5, E.6 – Site Inspections During Construction, Post Construction Inspections

Brief Description of BMP: The County has site inspection procedures in place during and prior to releasing the site after construction to verify that proposed developments are in compliance with the County Ordinances and regulations related to site runoff controls and potential discharge of pollutants. The County continued the site inspection and enforcement policies and procedures for all developments during and after construction and will update or modify as needed to maintain compliance with their NPDES permit conditions. During permit FY 2023, 448 site inspections for compliance were performed and documented by the County. All inspection and response activities are kept within the County's electronic filing system.

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation, maintenance, and training program to reduce the discharge of stormwater pollutants from municipal operations. The County committed to perform activities for BMP numbers F.1, F.2, F.3, F.4, F.5 and F.6. The status or progress for each of the measurable goals related to these BMPs is presented below.

BMP No. F1 – Employee Training Program

Brief Description of BMP: The County conducts or attends annual stormwater pollution prevention training for employees including proper maintenance of municipal facilities and property, the inspection of stormwater management systems, and other areas that may impact stormwater runoff.

The County continued employee training through the year. 2 employees attended 16 different classes. Many of the classes were virtual this year in keeping with the CDC guidelines. These classes included the Illinois Association of Floodplain and Stormwater Management 2023 Annual Conference, the FEMA Region 5's Floodplain Management and Insurance Branch Webinars, CSI Network Series, and FP04 – Floodplain Design, Construction, and Impacts on Flood Insurance. Currently on staff there are two Certified Floodplain Managers, and two Certified Stormwater Inspectors. 5 employees attended the IDOT Erosion and Sediment Control Workshops.

BMP No. F2 – Inspection and Maintenance Program

Brief Description of BMP: The County has an inspection and maintenance program that is designed to reduce pollutant runoff from municipal operations by maintaining properly functioning facilities. This maintenance program will be continued and evaluated on an annual basis to determine its effectiveness in reducing pollutant runoff.

Inspection and maintenance activities continued in FY 2023. 158 inspections were performed at priority outfalls.

BMP No. F3 – Municipal Operations Stormwater Control

Brief Description of BMP: The County currently has many operational policies designed to prevent storm water pollution associated with municipal operations. Road salt is stored on a paved surface and covered to protect it from precipitation. The County stores diesel fuel and gasoline for its vehicles in appropriate tanks with containment measures. Used vehicle oil is stored in a holding tank and periodically hauled away by a waste disposal service. Maintenance and washing of the County vehicles is performed in the County maintenance garage or similar facility. Wastes and recyclables are stored in designated containers and areas for proper disposal.

The County continued the current operations and waste control programs and procedures in FY 2023.

BMP No. F4 – Municipal Operation Waste Disposal

Brief Description of BMP: The County has 3 Street Sweepers and 2 sewer jet/hydro excavator trucks. The street sweepers are used to maintain approximately 252 centerline miles of roadway in Will County. These street sweepers are out at least 2-3 times a week for around 5-6 hours a day cleaning the curb and gutters and center median gutters of debris. When they are not operating it is because they are being maintained. On average, each machine can cover 4-5 miles of roadway on a good day depending on the amount of debris and various other factors.
The County continued the current operations and waste control programs and procedures in FY 2023.

BMP No. F5 – Flood Management/Assess Guidelines

Brief Description of BMP: The County and State have strict development regulations related to floodplain management and the evaluation of potential development in these areas. The County also has Certified Floodplain Managers on staff to assist with development issues and other floodplain management concerns. The County continued to enforce the requirements for potential development in special flood hazard areas.

Will County participated in a DuPage River Feasibility Study which was done by the USACE in partnership with Will and Du Page Counties. The Final Report was approved by the USACE in August 2019. In 2021 Will County began the design and implementation phase of the project, which includes buy out of 6 structures.

BMP No. F6 – Other Municipal Operations Controls

Brief Description of BMP: The County regularly evaluates their policies and programs for effectiveness and compliance. Currently the program is evaluated and/or updated at least annually to maintain compliance with permit conditions. The County continued the current evaluation program.

Part C. Information and Data Collection Results

No illicit discharges were detected in Fiscal Year 2023 within the MS4. As a result, no IDDE information or data was collected during Fiscal Year 2023.

The County participates in local watershed groups that perform regular, periodic water quality monitoring within the County's jurisdiction. During Fiscal Year 2023, the County participated in the Lower DuPage River Watershed Coalition and the Lower Des Plaines Watershed Group. This information was submitted to the IEPA by The Conservation Foundation. The Lower DuPage River Watershed Coalition and the Lower Des Plaines Watershed Group activities summary reports are attached to this report.

Part D. Summary of Fiscal Year 2024 Stormwater Activities

The table shown below summarizes the BMPs committed to for the next implementation year. Specific BMPs and measurable goals for future development activities are presented in the sections following the table.

Note: X indicates BMPs committed to for Fiscal Year 2024.

FY 2024 MS4	
A. Public Education and Outreach	
X	A.1 Distributed Paper Material
	A.2 Speaking Engagement
	A.3 Public Service Announcement
X	A.4 Community Event
X	A.5 Classroom Education Material
X	A.6 Other Public Education
B. Public Participation/Involvement	
	B.1 Public Panel
	B.2 Educational Volunteer
X	B.3 Stakeholder Meeting
X	B.4 Public Hearing
X	B.5 Volunteer Monitoring
	B.6 Program Coordination
X	B.7 Other Public Involvement
C. Illicit Discharge Detection and Elimination	
X	C.1 Storm Sewer Map Preparation
X	C.2 Regulatory Control Program
X	C.3 Detection/Elimination Prioritization Plan
X	C.4 Illicit Discharge Tracing Procedures
X	C.5 Illicit Source Removal Procedures
X	C.6 Program Evaluation and Assessment
	C.7 Visual Dry Weather Screening
	C.8 Pollutant Field Testing
	C.9 Public Notification
X	C.10 Other Illicit Discharge Controls

FY 2024 MS4	
D. Construction Site Runoff Control	
X	D.1 Regulatory Control Program
X	D.2 Erosion and Sediment Control BMPs
	D.3 Other Waste Control Program
X	D.4 Site Plan Review Procedures
X	D.5 Public Information Handling Procedures
X	D.6 Site Inspection/Enforcement Procedures
	D.7 Other Construction Site Runoff Controls
E. Post-Construction Runoff Control	
	E.1 Community Control Strategy
X	E.2 Regulatory Control Program
	E.3 Long Term O&M Procedures
X	E.4 Pre-Const Review of BMP Designs
X	E.5 Site Inspections During Construction
X	E.6 Post-Construction Inspections
	E.7 Other Post-Const Runoff Controls
F. Pollution Prevention/Good Housekeeping	
X	F.1 Employee Training Program
X	F.2 Inspection and Maintenance Program
X	F.3 Municipal Operations Storm Water Control
X	F.4 Municipal Operations Waste Disposal
X	F.5 Flood Management/Assess Guidelines
X	F.6 Other Municipal Operations Controls

1. Public Education and Outreach

The County is committing to conduct Public Education and Outreach as part of its program. Public Education and Outreach requires implementation of a program to distribute educational material to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants to stormwater runoff. The County commits to implementation of BMPs related to A.1, A.4, A.5 and A.6 as described below.

BMP No. A1 – Distributed Educational Materials

Brief Description of BMP: The County makes a variety of stormwater quality or related materials available on the Will County Green website. This information includes recycling events, rain barrel information, Household Hazardous Waste events, and many other examples of educational materials. The County also utilizes other electronic formats such as their E-Blast program to distribute stormwater quality or related information to residents and other interested parties.

Measurable Goal(s), including frequencies: The County will continue to provide the residents with stormwater articles or related materials on the County websites and update or add new material at least twice a year or as needed to maintain compliance with the permit conditions.

Milestones:Fiscal Year 2024: Continue to include stormwater information on County websites and update as new material and/or information becomes available. Include climate change information within the materials.

BMP No. A4 – Community Event

Brief Description of BMP: The County annually hosts an informational booth at the County Fair to provide residents with the opportunity to obtain a variety of information including topics related to stormwater quality and similar issues.

Measurable Goal(s), including frequencies: Annually distribute pamphlets at the County Fair Informational booth to residents interested in stormwater quality and related issues.

Milestones:Fiscal Year 2024: Distribute informational pamphlets annually at the County Fair and work to increase distribution.

BMP No. A5 – Classroom Education Material

Brief Description of BMP: The County has an educational classroom program where County staff visits schools to provide education on a variety of topics including those relating to stormwater quality or related issues. The County anticipates visiting approximately 40 schools during this permit year with a student population around 5,000.

Measurable Goal(s), including frequencies: Continue to visit local schools to present stormwater quality and similar issues with a target of once a month.

Milestones:Fiscal Year 2024: Continue to perform the classroom educational program and increase the number of schools as funding allows.

BMP No. A6 – Other Public Education

Brief Description of BMP: The County is actively involved in the use of social media as a means of distributing information and materials. The County operates a Facebook page as we all as a Twitter Handle and uses both outlets to disseminate stormwater quality or related materials and/or information.

Measurable Goal(s), including frequencies: Continue to operate and maintain the social media sites as a means of disseminating educational materials.

Milestones:Fiscal Year 2024: Work to increase the number of active users on the social media sites.

2. Public Participation/Involvement

The County will perform activities and services related to the Public Participation/Involvement minimum control measure. BMPs will be implemented under BMP number B.3, B.4, B.5, and B.7 as described below.

BMP No. B.3 – Stakeholder Meeting

Brief Description of BMP: The County has an active and progressive Stormwater Committee that is responsible for a multitude of stormwater management and water quality activities. The Stormwater Committee publicly meets bi-monthly providing the opportunity for interested individuals to learn, inquire or be involved in the County' stormwater management issues.

Measurable Goal(s), including frequencies: The County will continue to host and support the Stormwater Management Committee.

Milestones:Fiscal Year 2024: The County will work to increase the attendance at the Stormwater Management Committee meetings and additional projects as funding allows. The County will complete its assessment of Environmental Justice Areas from an MS4 perspective.

BMP No. B.4 – Public Hearing

Brief Description of BMP: The County partners with the Will/South Cook Soil Water Conservation District to provide input and analysis for development sites throughout the County. Public Hearings are required as a part of the zoning process and occur at least 12 times per year.

Measurable Goal(s), including frequencies: Provide a dedicated opportunity for interested residents and individuals give input on stormwater management and related water quality issues.

Milestones:Fiscal Year 2024: The County will continue to partner with the Will/South Cook Soil and Water Conservation District and provide these public hearings targeting 12 times per year.

BMP No. B.5 – Volunteer Monitoring

Brief Description of BMP: The County participates in planning groups for specific watersheds within Will County. These groups meet to discuss issues affecting the watershed including preserving, protecting and restoring water quality and other issues relating to stormwater management.

Measurable Goal(s), including frequencies: Continue to provide the volunteer monitoring opportunities for protecting, preserving and restoring Will County watersheds.

Milestones:Fiscal Year 2024: The County will continue to participate in and support the active watershed planning groups each permit year.

BMP No. B7 – Other Public Involvement

Brief Description of BMP: The County organizes specialized collection events that allow citizens to properly dispose of wastes that could potentially be dumped or otherwise disposed of illegally and end up in the municipal separate storm sewer system. These events are held throughout the year and at various locations in the County to provide opportunities for as many residents as possible.

Measurable Goal(s), including frequencies: Continue to organize, fund and provide the collection events to reduce or prevent the discharge of illicit material into the municipal separate storm sewer system.

Milestones:Fiscal Year 2024: The County will work to increase the number of participants/materials collected each year.

3. Illicit Discharge Detection and Elimination

The County commits to performing some activities related to the Illicit Discharge Detection and Elimination minimum control. BMPs will be implemented under BMP numbers C.1, C.2, C.3, C.4, C.5, C.6 and C.10 as described below.

BMP No. C1 – Storm Sewer Map Preparation

Brief Description of BMP: The County has developed a comprehensive stormwater atlas showing the location of all County-owned outfalls and receiving streams in the County.

Measurable Goal(s), including frequencies: The County will update the storm sewer atlas to reflect the latest development and any changes in the urbanized area based on the permit conditions.

Milestones:Fiscal Year 2024: Update the storm sewer atlas to reflect new development and permit modifications.

BMP No. C2 – Regulatory Control Program

Brief Description of BMP: The County has prepared, adopted and enforces the Will County Stormwater Management and Water Resources Ordinances. These ordinances provide the regulatory authority for the County to detect, investigate and eliminate potential illicit The County will continue to review the Ordinances and update its program as necessary to effectively detect and eliminate illicit discharges in compliance with NPDES requirements.

Measurable Goal(s), including frequencies: The County will continue to review the illicit discharge detection and elimination program and the associated Ordinances for compliance with NPDES requirements.

Milestones:Fiscal Year 2024: The County will review its program and associated Ordinances and revise as needed.

BMP No. C3 – Detection/Elimination Prioritization Program

Brief Description of BMP: The County has policies and procedures in place to detect and eliminate illicit discharges. Procedures may involve multiple departments and procedures such as tracing can be employed as necessary to identify and eliminate the discharge. Enforcement procedures are utilized on an as-needed basis to obtain compliance.

Measurable Goal(s), including frequencies: Inspect storm sewer outfalls, reported complaints and other issues to determine high priority sites or other potential issue and perform investigations as needed to locate and eliminate illicit discharges.

Milestones:Fiscal Year 2024: Continue inspections and enforce policies and procedures to identify, enforce and eliminate illicit discharge.

BMP No. C4 – Illicit Discharge Tracing Procedures

Brief Description of BMP: The County conducts the screening of outfalls on an annual basis or as funding allows to evaluate the potential for illicit discharges.

Measurable Goal(s), including frequencies: Employ stablished procedures to inspect storm sewer outfalls, identify potential problems and investigate potential illicit discharges.

Milestones:Fiscal Year 2024: Continue inspections to identify, trace and enforce illicit discharge regulations to eliminate potential pollution.

BMP No. C5 – Illicit Source Removal Procedures

Brief Description of BMP: The County will continue the existing program and review the procedures as needed to authorize the removal of illicit discharges from the storm sewer system.

Measurable Goal(s), including frequencies: Require disconnection of any illicit discharge source that can be identified through the tracing program.

Milestones:Fiscal Year 2024: Continue current program and review procedures as needed for updates to authorize the removal of illicit discharges.

BMP No. C.6 – Program Evaluation and Assessment

Brief Description of BMP:
The County regularly assesses their NPDES program on an annual basis to determine the effectiveness of the BMPs selected to meet the specified goals for overall compliance.

Measurable Goal(s), including frequencies:
The goal of this program is to evaluate the appropriateness of the BMPs selected for the NPDES program in meeting the goals necessary to maintain compliance.

Milestones: Fiscal Year 2024: The County will continue the yearly evaluation of its NPDES program and BMPs selected for effectiveness in meeting the specific measurable goals.

BMP No. C.10- Other Illicit Discharge Controls

Brief Description of BMP:
The County performs regular monitoring activities of the receiving waters that receive discharges from MS4 outfalls.

Measurable Goal(s), including frequencies:
The goal of this program is to monitor the receiving waters for potential illicit discharges from the MS4.

Milestones: Fiscal Year 2024: The County will continue to monitor the receiving waters upstream and downstream of the MS4 discharge points.

4. Construction Site Runoff Control

The County will perform activities and services related to the Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP numbers D.1, D.2, D.4, D.5, and D.6 as described below.

BMP No. D1 – Regulatory Control Program

Brief Description of BMP: The County has prepared, adopted and enforces the Will County Stormwater Management and Water Resources Ordinances. These ordinances provide the regulatory authority for the County to inspect, evaluate and enforce construction site runoff control measures. The County will continue to review the Ordinances and update its program as necessary to effectively regulate construction site runoff controls in compliance with NPDES requirements.

Measurable Goal(s), including frequencies: The County will continue to review the Ordinances and update its program as necessary to effectively regulate construction site runoff controls in compliance with NPDES requirements.

Milestones:Fiscal Year 2024: The County will continue to review the Ordinances and update its program as necessary to effectively regulate construction site runoff controls in compliance with NPDES requirements.

BMP No. D2 – Erosion and Sediment Control BMPs

Brief Description of BMP: The County has procedures in place that require the review of Best Management Practices for proposed developments prior to construction. The intent of these procedures is to reduce or prevent the discharge of pollutants from construction sites through the use of effective BMPs.

Measurable Goal(s), including frequencies: The County will continue to review, inspect and enforce the ordinance regulations to prevent or reduce the discharge of sediment or other pollutants from construction sites as it relates to BMP's.

Milestones:Fiscal Year 2024: The County will continue the current program to review, inspect and enforce existing procedures and ordinances. These will be revised as needed to make sure that the County procedures for review, inspection, and enforcement of stormwater pollution control measures are in continual conformance with the NPDES requirements.

BMP No. D4 – Site Plan Review Procedures

Brief Description of BMP: The County has site plan review procedures in place to verify that proposed developments are in compliance with the County Ordinances and regulations related to construction site runoff controls and potential discharge of pollutants. The County has a soil erosion and sediment control checklist that is employed during reviews to verify compliance and consistency in the review process.

Measurable Goal(s), including frequencies: The County will continue the site plan review procedures for all developments and will update or modify as needed to maintain compliance with their NPDES permit conditions.

Milestones:Fiscal Year 2024: The County will continue the current program to review, inspect and enforce existing procedures and ordinances. These will be revised as needed to make sure that the County procedures for review, inspection, and enforcement of stormwater pollution control measures are in continual conformance with the NPDES requirements.

BMP No. D5 – Public Information Handling Procedures

Brief Description of BMP: The County has procedures in place for receiving, logging and addressing reports from residents or other individual regarding the potential release of pollutants or sediment from construction sites.

Measurable Goal(s), including frequencies: The County will continue the program to receive, investigate and address publicly reported issues.

Milestones:Fiscal Year 2024: The County will continue the public reporting program to reduce or eliminate the potential for discharge of pollutants from construction site runoff related issues.

BMP No. D6 – Site Enforcement/Inspection Procedures

Brief Description of BMP: The County has site inspection and enforcement procedures in place to verify that proposed developments are in compliance with the County Ordinances and regulations related to construction site runoff controls and potential discharge of pollutants. The County has a soil erosion and sediment control checklist that is employed during site inspections to verify compliance and consistency in the inspection process.

Measurable Goal(s), including frequencies: The County will continue the site inspection and enforcement policies and procedures for all developments and will update or modify as needed to maintain compliance with their NPDES permit conditions.

Milestones:Fiscal Year 2024: The County will continue the current program to review, inspect and enforce existing procedures and ordinances. These will be revised as needed to make sure that the County procedures for review, inspection, and enforcement of stormwater pollution control measures are in continual conformance with the NPDES requirements.

5. Post-Construction Runoff Control

The County will perform activities and services related to the Post-Construction Site Runoff Control minimum control measure. BMPs will be implemented under BMP numbers E.2, E.4, E.5 and E.6 as described below.

BMP No. E.2 – Regulatory Control Program

Brief Description of BMP: The County has prepared, adopted and enforces the Will County Stormwater Management and Water Resources Ordinances. These ordinances provide the regulatory authority for the County to inspect, evaluate and enforce post construction site runoff control measures. The County will continue to review the Ordinances and update its program as necessary to effectively regulate construction site runoff controls in compliance with NPDES requirements.

Measurable Goal(s), including frequencies: The County will continue to review the Ordinances and update its program as necessary to effectively regulate post construction site runoff controls in compliance with NPDES requirements.

Milestones:Fiscal Year 2024: The County will continue to review the Ordinances and update its program as necessary to effectively regulate post construction site runoff controls in compliance with NPDES requirements.

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

Brief Description of BMP: The County has procedures in place that require the review of Best Management Practices for proposed developments prior to construction. The intent of these procedures is to reduce or prevent the discharge of pollutants from construction sites through the use of effective BMPs.

Measurable Goal(s), including frequencies: The County will continue to review, inspect and enforce the ordinance regulations to prevent or reduce the discharge of sediment or other pollutants from construction sites as it relates to BMP's.

Milestones:Fiscal Year 2024: The County will continue the current program to review, inspect and enforce existing procedures and ordinances. These will be revised as needed to make sure that the County procedures for review, inspection, and enforcement of stormwater pollution control measures are in continual conformance with the NPDES requirements.

BMP No. E.5, E.6 – Site Inspections During Construction, Post Construction Inspections

Brief Description of BMP: The County has site inspection procedures in place during and prior to releasing the site after construction to verify that proposed developments are in compliance with the County Ordinances and regulations related to construction site runoff controls and potential discharge of pollutants. The County has a soil erosion and sediment control checklist that is employed during site inspections to verify compliance and consistency in the inspection process.

Measurable Goal(s), including frequencies: The County will continue the site inspection and enforcement policies and procedures for all developments during and after construction and will update or modify as needed to maintain compliance with their NPDES permit conditions.

Milestones:Fiscal Year 2024: The County will continue the current program to review, inspect and enforce existing procedures and ordinances. These will be revised as needed to make sure that the County procedures for review, inspection, and enforcement of stormwater pollution control measures are in continual conformance with the NPDES requirements.

6. Pollution Prevention/Good Housekeeping

This minimum control measure involves the development and implementation of an operation and maintenance program to reduce the discharge of pollutants from municipal operations. This program must include a training program for municipal employees. The County will perform BMPs under BMP numbers F.1, F.2, F.3, F.4, F.5 and F.6 as described below.

BMP No. F1 – Employee Training Program

Brief Description of BMP: The County regularly provides training to staff regarding a variety of topics aimed at reducing or preventing the discharge of contaminants from municipal operations. County staff currently includes four Certified Floodplain Managers and one Certified Stormwater Inspector. Both certifications require extensive training and continued educational credits to maintain certification.

Measurable Goal(s), including frequencies: Conduct annual employee training to educate staff on prevention and reduction of storm water pollution from municipal activities.

Milestones: Fiscal Year 2024: The County will continue to review and revise the existing employee training and educational programs as needed, and provide for annual staff training.

BMP No. F2 – Inspection and Maintenance Program

Brief Description of BMP: The County has an inspection and maintenance program that is designed to reduce pollutant runoff from municipal operations through proper maintenance and functionality. The County currently performs cleaning and routine maintenance as needed or based on reports of problem or concerns. This maintenance program will be continued and evaluated on an annual basis to determine its effectiveness in reducing pollutant runoff.

Measurable Goal(s), including frequencies: The County will continue the current program and continually review the inspection and maintenance program to determine effectiveness or update as needed based on the permit requirements.

Milestones:Fiscal Year 2024: The County will continue the current program and continually review the inspection and maintenance program to determine effectiveness.

BMP No. F3 – Municipal Operations Stormwater Control

Brief Description of BMP: The County currently has many operational policies designed to prevent storm water pollution associated with municipal operations. Road salt is stored on a paved surface and covered to protect it from precipitation. The County stores diesel fuel and gasoline for its vehicles in appropriate tanks with containment measures. Used vehicle oil is stored in a holding tank and periodically hauled away by a waste disposal service. Maintenance and washing of the County vehicles is performed in the County maintenance garage or similar facility. Wastes and recyclables are stored in designated containers and areas for proper disposal.

The County continued the current operations and waste control programs and procedures in FY 2021.

Measurable Goal(s), including frequencies: The County will continue the current program and review these policies and revise as necessary to maintain compliance with the permit conditions.

Milestones:Fiscal Year 2024: The County will continue the programs in place and review and revise as necessary.

BMP No. F4 – Municipal Operation Waste Disposal

Brief Description of BMP: The County has 3 Street Sweepers and 2 sewer jet/hydro excavator trucks. The street sweepers are used to maintain approximately 252 centerline miles of roadway in Will County. On average, each machine can cover 4-5 miles of roadway on a good day depending on the amount of debris and various other factors.
The County continued the current operations and waste control programs and procedures in FY 2021.

Measurable Goal(s), including frequencies: The County will continue the current program and review these policies and revise as necessary to maintain compliance with the permit conditions.

Milestones:Fiscal Year 2024: The County will continue the programs in place and review and revise as necessary.

BMP No. F5 – Flood Management/Assess Guidelines

Brief Description of BMP: The County and State have strict development regulations related to floodplain management and the evaluation of potential development in these areas. The County also has Certified Floodplain Managers on staff to assist with development issues and other floodplain management concerns.

Measurable Goal(s), including frequencies: The County will continue to enforce the requirements for potential development is special flood hazard areas.

Milestones:Fiscal Year 2024: The County will continue to enforce the ordinances as needed for compliance with development in special flood hazard areas.

BMP No. F6 – Other Municipal Operations Controls

Brief Description of BMP: The County regularly evaluates their policies and programs for effectiveness and compliance. Currently the program is evaluated and/or updated at least annually or as needed to maintain compliance with permit conditions.

Measurable Goal(s), including frequencies: The County will continue the current evaluation program and review these policies and revise as necessary to maintain compliance with the permit conditions.

Milestones:Fiscal Year 2024: The County will continue the programs in place and review and revise as necessary.

Part E. Notice of Reliance on another Government Entity

Will County is not relying on any other government entity to implement the program. The County participates in local watershed groups with regional public education, participation, and water quality monitoring programs. The Lower DuPage River Watershed Coalition and the Lower Des Plaines Watershed Group activities summary reports are attached to this report.

Part F. Construction Projects Conducted During Fiscal Year 2023

The following construction projects which have a disturbed area greater than one (1) acre were active within the County's jurisdiction during the reporting period.

Project Name	Project Size (acres)	Construction Start Date	Construction End Date
CH4 over Spring Creek: Bridge Replacement	4.95	May 2022	Ongoing
CH16 from 151st Street to 159th Street	16.6	November 2022	Ongoing
CH35 from Smith Rd to Emily Dr	12.8	April 2022	(now nearing completion)
CH74 from Jackson Br Cr to Cardinal Dr	23.38	September 2023	Ongoing
CH88—Weber Road Reconstruction, 119th St. to Normantown Road	State project; refer to IDOT	October 2018	May 2023
CH58 over Pike Creek: Bridge Replacement	0.46	July 2022	November 2023
CH83 from 183rd St to 191st St	32.06	April 2022	Ongoing
CH32 ditch restabilizing W of DuPage River	2.27	March 2023	May 2023
--overlays--			
CH4 Resurfacing south of Laraway to US52*	62.53	April 2023	June 2023
CH58 Reworking Base & Resurfacing*	7.44	August 2022	June 2023
CH10 Resurfacing from Court St to Co. Line*	76.48	June 2023	November 2023
CH14 Resurfacing from 87th St to S of 119th *	58.08	August 2023	December 2023
CH24 Resurfacing from IL-1 to IL-50*	94.90	July 2023	October 2023

* Projects wherein the ground was not disturbed. These projects had no earthwork or changes to roadway alignment.

Lower Des Plaines Watershed Group (LDWG)
ILR40 Activities
March 2023 – February 2024

PART I. COVERAGE UNDER GENRAL PERMITS ILR40

Not applicable to the work of the LDWG.

PART II. NOTICE OF INTENT (NOI) REQUIREMENTS

Not applicable to the work of the LDWG.

PART III. SPECIAL CONDITIONS

Not applicable to the work of the LDWG.

PART IV. STORM WATER MANAGEMENT PROGRAMS

A. Requirements

Not applicable to the work of the LDWG.

B. Minimum Control Measure

1. Public Education and Outreach on Stormwater Impacts

LDWG outreach activities for 2023-2024 included:

- The joint website for the LDWG and Lower DuPage River Watershed Coalition has been maintained with updated information for the general public on local water quality issues and what they can do to help, as well as more information on the monitoring program, outreach program, NARP and Chloride TLWQS. The URL is www.LDPWatersheds.org
- Watershed Outreach materials were developed and shared with member throughout the year. The "Outreach Materials" page on the website includes all past and present watershed outreach materials for download. Materials are organized by topic to make it easier to see what is available. Materials for each topic include text for websites, newsletters, posters, blogs and social media posts. The website also has a blog page with blogs for all of the topics that members can link to. The blog page also provides a place for site visitors to find information. Examples of materials created are attached at end of report. For the winter season www.SaltSmart.org website is also used as a clearinghouse of winter BMPs for residents, public agencies and private deicing companies. This website has provided a wider reach beyond the Lower Des Plaines watershed, LDWG is an active partner in the Salt Smart Collaborative.

  Watershed outreach topics:

  - Spring – Outdoor Water Conservation Tips, Green Infrastructure Series – Rainwater Harvesting & Bioswales
  - Summer – Wastewater Treatment Plant Series - Overview, Green Infrastructure Series – Green Roofs, Watershed Ecology - Macroinvertebrates

- Fall – Yard Waste & Dumping, Green Infrastructure Series – Permeable Pavement
- Winter – Stay Safe & Salt Smart, Find Your "Why" to be Salt Smart, Salt Smart Practices

LDWG also maintains a Facebook page and posts all materials developed so that communities can just share the posts if that is easier.
https://www.facebook.com/lowerdesplaineswatershedgroup

2. Public Involvement and Participation **–** LDWG worked with members to provide resources on setting up rain barrel sales program and materials to encourage residents to install rain barrels and rain gardens to help minimize stormwater runoff from residential properties.

The LDWG worked with The Conservation Foundation and the Salt Smart Collaborative to make the "Salt Smart & You" eight panel, bi-lingual exhibit (Figure 1) available to communities to help engage residents in conversations around winter salt use. Salt Smart Save More cups were provided with the exhibit to hand out to residents.

Figure 1 Salt Smart You Exhibit and Salt Smart Cups

Additionally, LDWG partnered with The Conservation Foundation and the Illinois RiverWatch to expand the Winter Chloride Watchers Program in northeastern Illinois (Figure 2). Four in-person and two virtual volunteer trainings were held regionally with 164 participants. 116 of those participants signed up to monitor chlorides monthly from November to May at 122 new sites. The volunteer trainings including information about how chlorides impact water quality and our local environment, what types of practices can be used by municipalities and residents to reduce chloride impact while keeping people safe and how to use the test kits and upload their data. The program utilizes the Water Rangers online platform which allows participants and the public to see results as soon as they are posted. An annual report will be assembled in June.

Figure 2 Winter Chloride Watchers Flyer

3. Illicit Discharge Detection and Elimination – no activities

4. Construction Site Storm Water Runoff Control - no activities

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

6. Pollution Prevention/Good Housekeeping for Municipal Operations

Chloride Reduction Workshops

In 2023 the LDWG partnered with Lower DuPage River Watershed Coalition, Chicago Area Waterways Chloride Workgroup, DRSCW, The Conservation Foundation and Lake County Stormwater/Health Department to jointly offer five Winter Deicing Workshops, three on Public Roads and two on Parking Lots and Sidewalks using the newly created "Salt Smart Certified Parking Lots & Sidewalks" training based on the newly released *Illinois Winter Maintenance Manual for Parking Lots and Sidewalks*. Registration was widely advertised throughout northeastern Illinois (Figure 3). Accordingly, the webinars were attended by staff in DuPage, Will, Kane, Lake, McHenry, Boone, Cook and Winnebago counties.

Public Roads Deicing Workshops were held on September 26, October 4, and October 10, 2023. Bolton & Menk from Minnesota was engaged to present the material. A registration fee was required per agency in order to participate in the training. The links were sharable so the webinars could be viewed individually or in groups. Based on polling results, a minimum of 680 people participated in the three workshops.

The Salt Smart Certified Parking Lots and Sidewalks Workshop were held on September 27 and October 17 presented by the Salt Smart Collaborative. Based on polling results a minimum of 340 people participated in the two workshops. Certificates of attendance were provided to those who requested them. Evaluation surveys were sent to the persons who logging in to the webinars. A link to the *Illinois Winter Maintenance Manual for Parking Lots and Sidewalks* was provided to each registrant. Participants in all of the workshops were able to ask questions through the chat function and were answered by Bolton & Menk staff, Workgroup staff as well as others participating in the training.

Figure 3 Welcome & Introduction to Parking Lots & Sidewalks Presentation & Registration Flyer

Qualifying State, Country or Local Program

Not applicable to the work of the LDWG.

C. Sharing Responsibility

This report outlines the activities conducted by the LDWG 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.

D. Reviewing and Updating Stormwater Management Programs

Not applicable to the work of the LDRWC.

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 LDWG began a monitoring program in the summer of 2018 that meets the following monitoring objectives and requirements outlined in the permit:

- Measuring pollutants over time
- Sediment monitoring
- Assessing physical and habitat characteristics such as stream bank erosion caused by storm water discharges
- Collaborative watershed-scale monitoring
- Ambient monitoring of total suspended solids, total nitrogen, total phosphorus, fecal coliform, and chlorides

The bioassessment monitoring is split over a five-year cycle with four (4) years of sampling and one (1) year of program assessment. The first five-year cycle was completed in 2022. The first year of the cycle included twenty-nine (29) identified sites on the mainstem Des Plaines River from the confluence with the Kankakee River up to the I-355 bridge. The remaining thirty-three (33) mainstem sites were scheduled for sampling in Year 2. In addition to the mainstem Des Plaines River sites, forty (40) sites were sampled across the Hickory Creek watershed in Year 3. The remaining fourteen (14) tributaries, forty-eight (48) sites were sampled in Year 4. Details of the bioassessment program are below and the schedule for the second five-year cycle can be found in Table 1. Draft reports for the Mainstem Des Plaines River and the Hickory Creek Watershed are under final review and will soon be posted to the website. The report for the Year 4 sampling of tributaries will be made available for review in late spring of 2024 and posted to the website by late summer.

Bioassessment

A biological and water quality survey, 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 LDWG bioassessment is the latter. The Bioassessment includes fish, macroinvertebrate, QHEI – habitat and water chemistry at all sites and sediment sampling at a subset of sites.

Table 1 Bioassessment Schedule

Watershed	Sampling Year	# of Stations
Lower mainstem Lower Des Plaines River	2023	28
Upper mainstem Lower Des Plaines River + northern tributaries	2024	33
Hickory Creek subwatershed	2025	40
Remaining Tributaries	2026	48
Off year for sampling	2027	0

The LDWG 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 Des Plaines River watershed to track and understand changes through time in response to abatement actions or other influences.

The data collected 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 will be posted on the LDWG website. It is not the role of the bioassessments to identify specific remedial actions on a site specific or watershed basis.

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 1 and illustrated in Figure 1. Field reconnaissance will be needed to confirm suitability of sites prior to sampling season.

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.

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 lineal 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.

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.

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.

Chemistry

Methodology

Water column and sediment samples are collected as part of the LDWG bioassessment programs. The number of samples collected at each site is largely a function of the site's drainage area with the frequency of sampling increasing as drainage size increases. Grab sample is taken at center of flow. Temperature, dissolved oxygen, pH and conductivity are sampled in the field. Sediment sampling is done at a subset of 158 sites using the same procedures as IEPA.

The parameters sampled for are included in Table 2 and can be grouped into demand parameters, nutrients, demand, metals and organics. All sampling occurs between May and October of the sample year.

Figure 4 Lower Des Plaines River Bioassessment Stations. Year represents order of sampling within bioassessment 5-year cycle – 5th year no sampling.

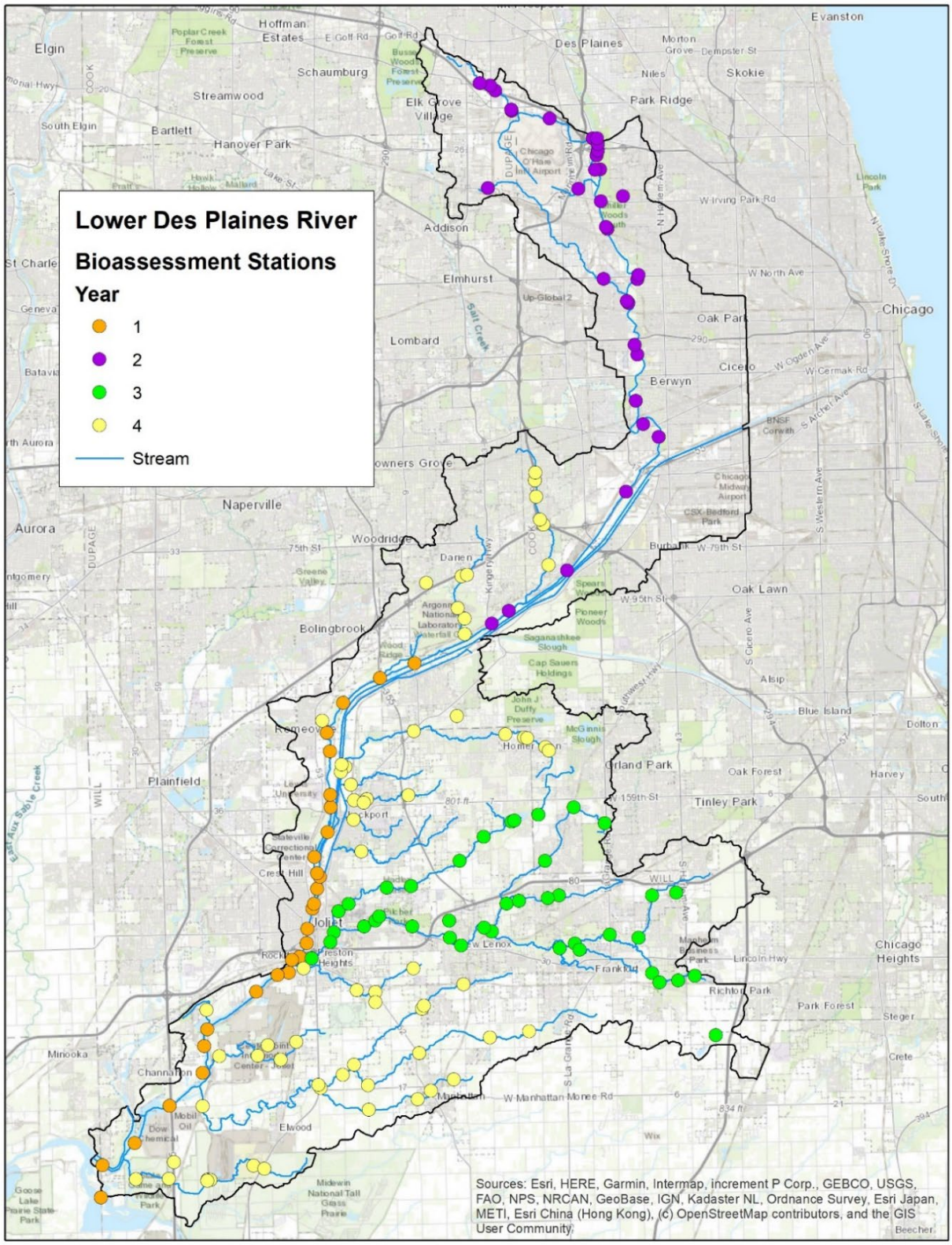


Table 2 Water Quality and sediment Parameters sampled as part of the LDWG Bioassessment Program.

Water Quality Parameters	Sediment Parameters
Demand Parameters 5 Day BOD Chloride Conductivity Dissolved Oxygen Chlorophyll a pH Temperature Total Dissolved Solids Total Suspended Solids **Nutrients** Ammonia Nitrogen/Nitrate Nitrogen – Total Kjeldahl Phosphorus, Total Chlorophyll-a (new in 2020) **Metals** Cadmium Lead Calcium Magnesium Copper Zinc Iron	**Sediment Metals** Arsenic Barium Cadmium Chromium Copper Iron Lead Manganese Nickel Potassium Selenium Silver Zinc **Sediment Organics** Organochlorine Pesticides PCBS Percent Moisture Semi-volatile Organics Volatile Organic Compounds

Fecal Coliform

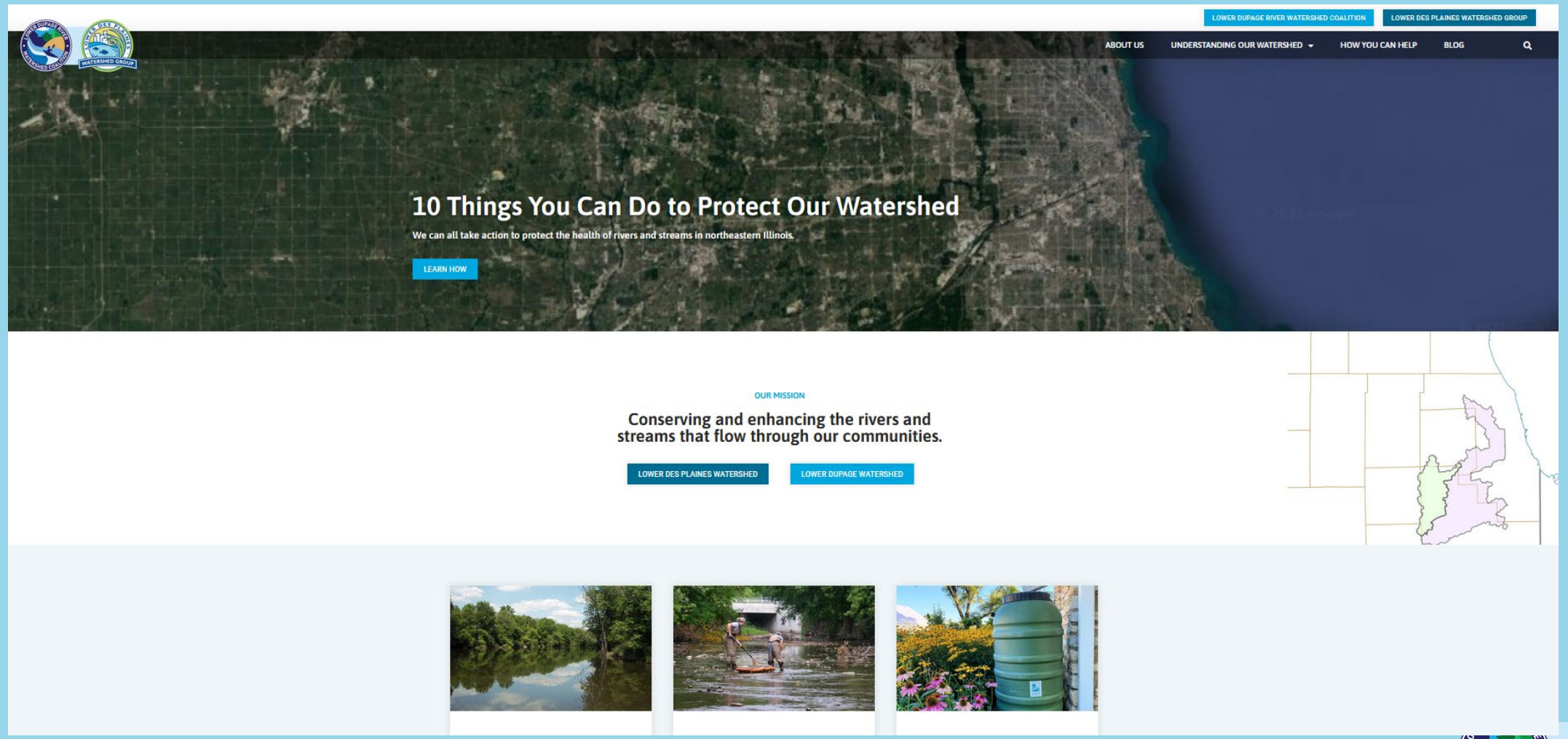
In 2023 fecal coliform was collected at five (5) sites on the Des Plaines River. Grab samples were collected at center of flow five (5) times within a thirty (30) day period. Results from the fecal coliform sampling can be found in Table 3.

Table 3 2023 Fecal Coliform data - Results in Colony Forming Units (CFU)/100 ml

IEPA Segment	Station ID	Location	10/11/2023	10/18/2023	10/23/2023	10/26/2023	10/30/2023
Des Plaines River			Results in cfu/100ml				
G-24	LDG03	Downstream I-55 Bridge	<50	<50	<50	<50	<50
G-23	LDG12	Downstream McDonough Street	<50	<50	<50	<50	<50
G-23	LDG14	Upstream Ruby Street	<50	<50	<50	<50	<50
G-11	LDG19	Upstream Power House Drive	<50	<50	<50	<50	<50
G-02	LDG25	Downstream Lemont Road	<50	<50	<50	<50	<50

2023 Watershed Outreach Summary

2023 Outreach Materials



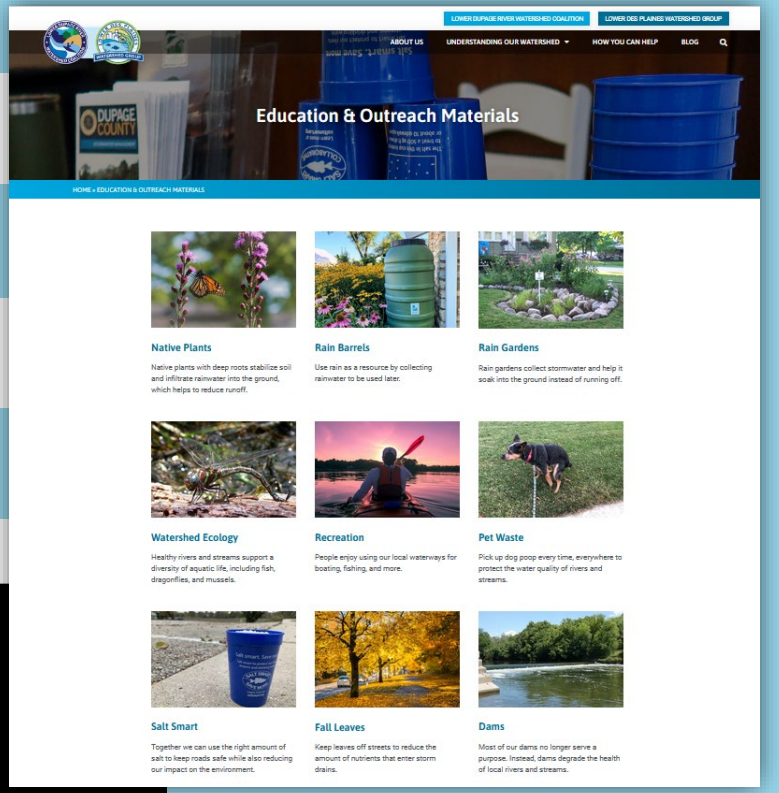
www.LDPWatersheds.org

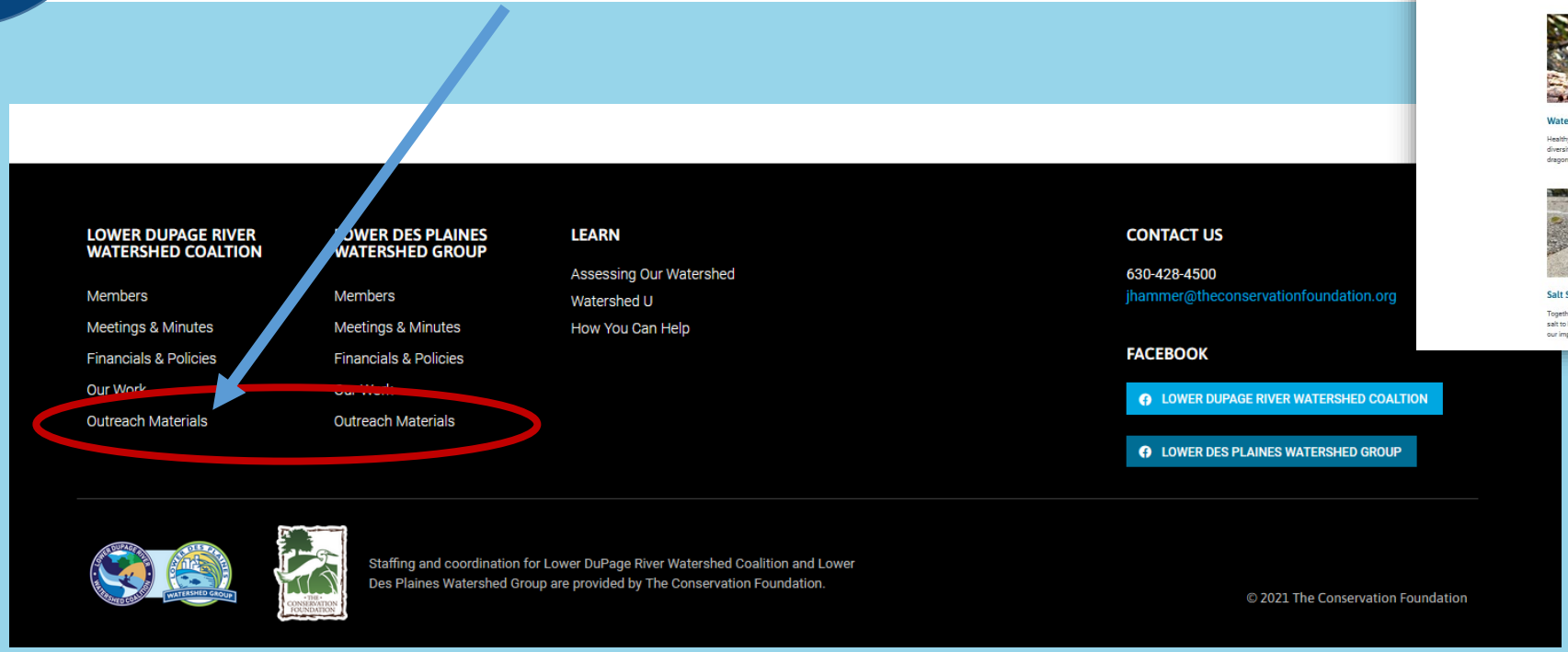
Outreach Materials

Where can I find outreach materials?

LDPwatersheds.org/**outreach**

Bottom of any page on the website



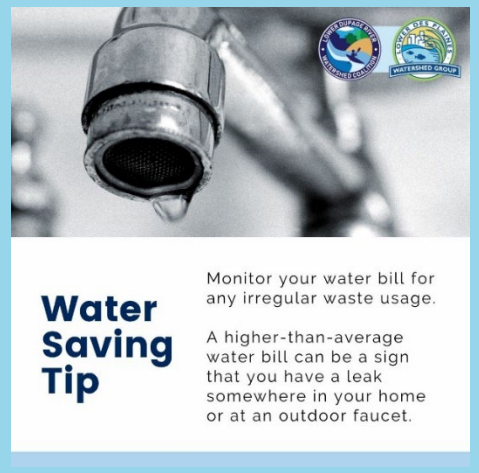


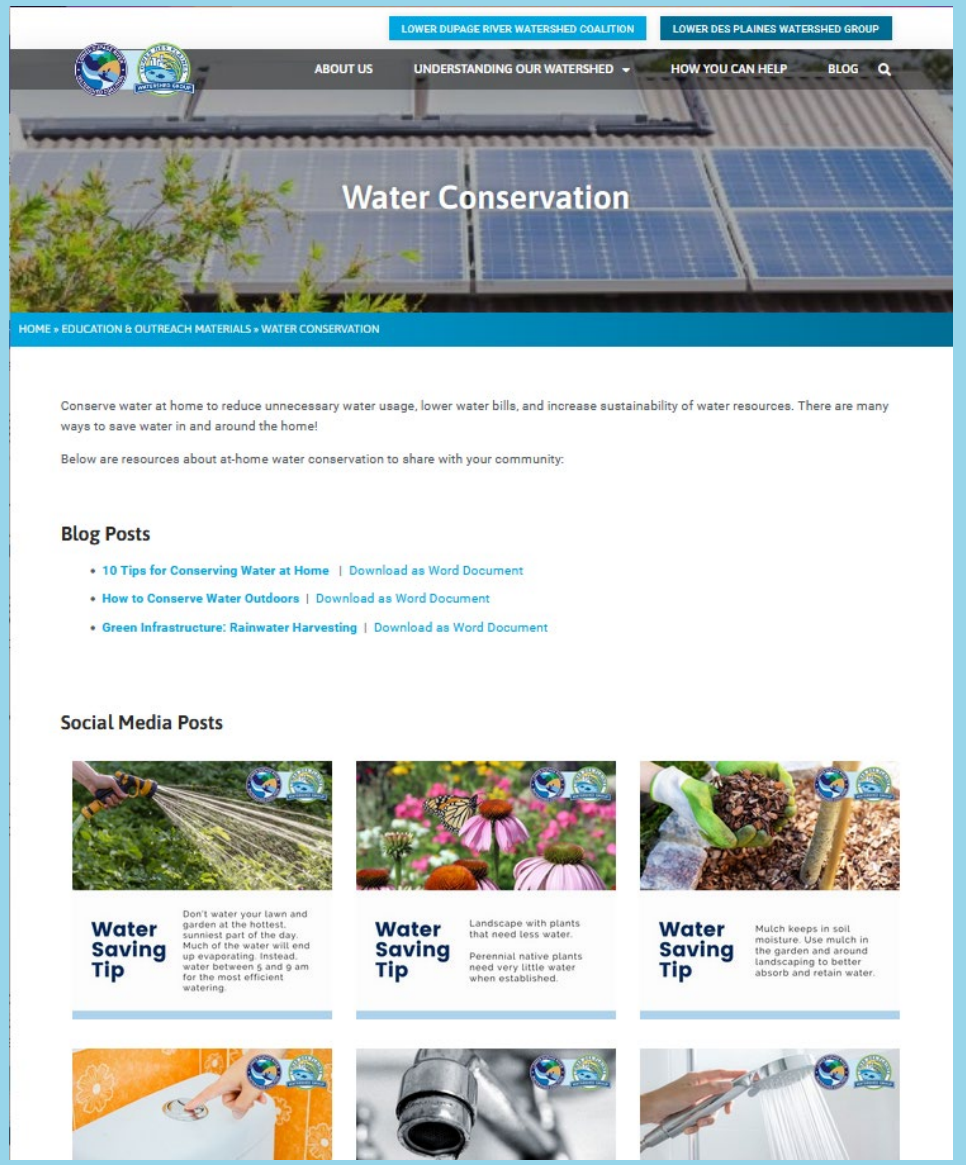
All chloride-related materials are also available on www.saltsmart.org

2023 Spring Outreach Materials

Spring Topics:

- Water conservation
- Green infrastructure series
- Materials targeted to specific audiences

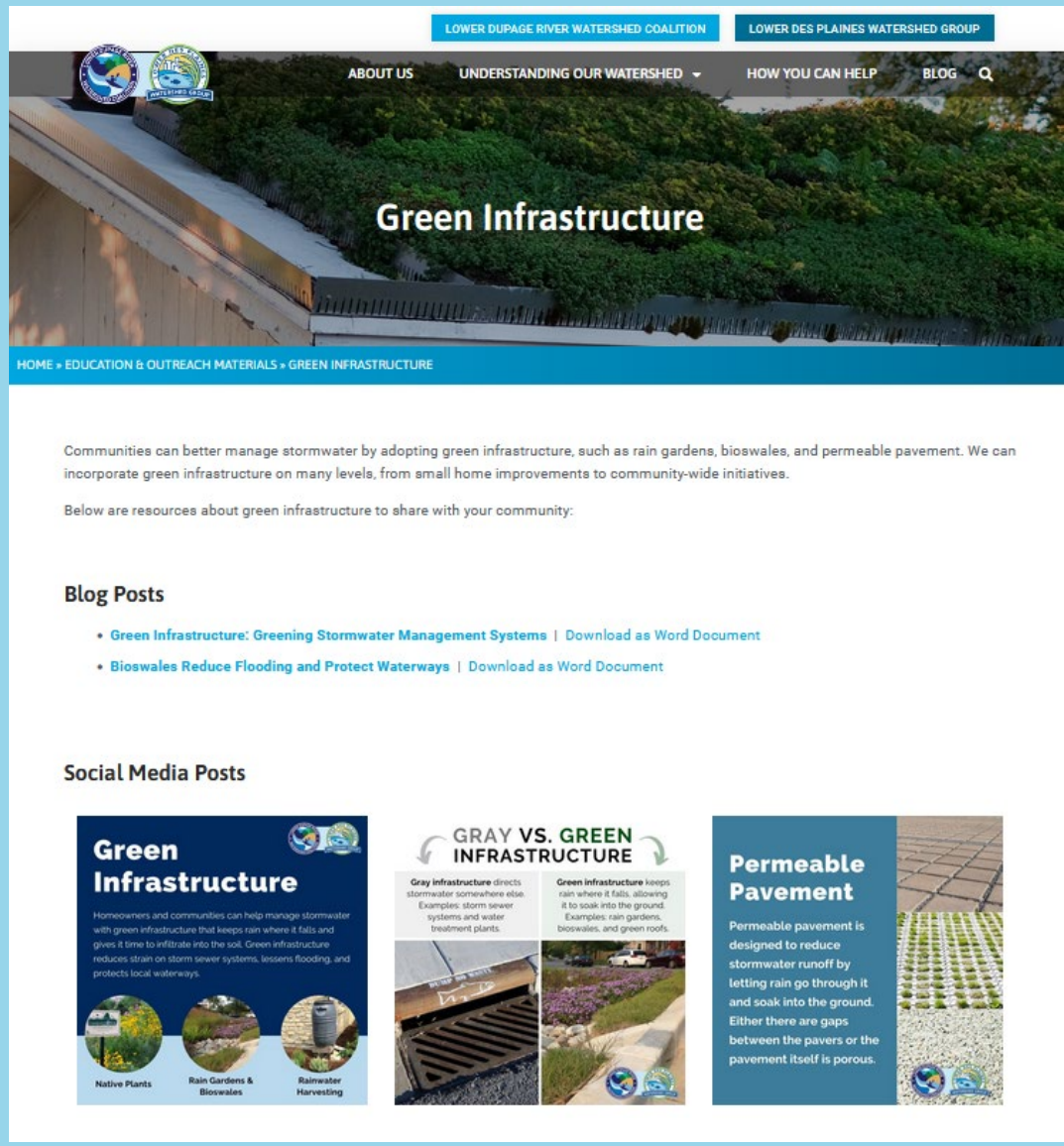




2023 Spring Outreach Materials

Spring Topics:

- Water conservation
- Green infrastructure series
- Materials targeted to specific audiences



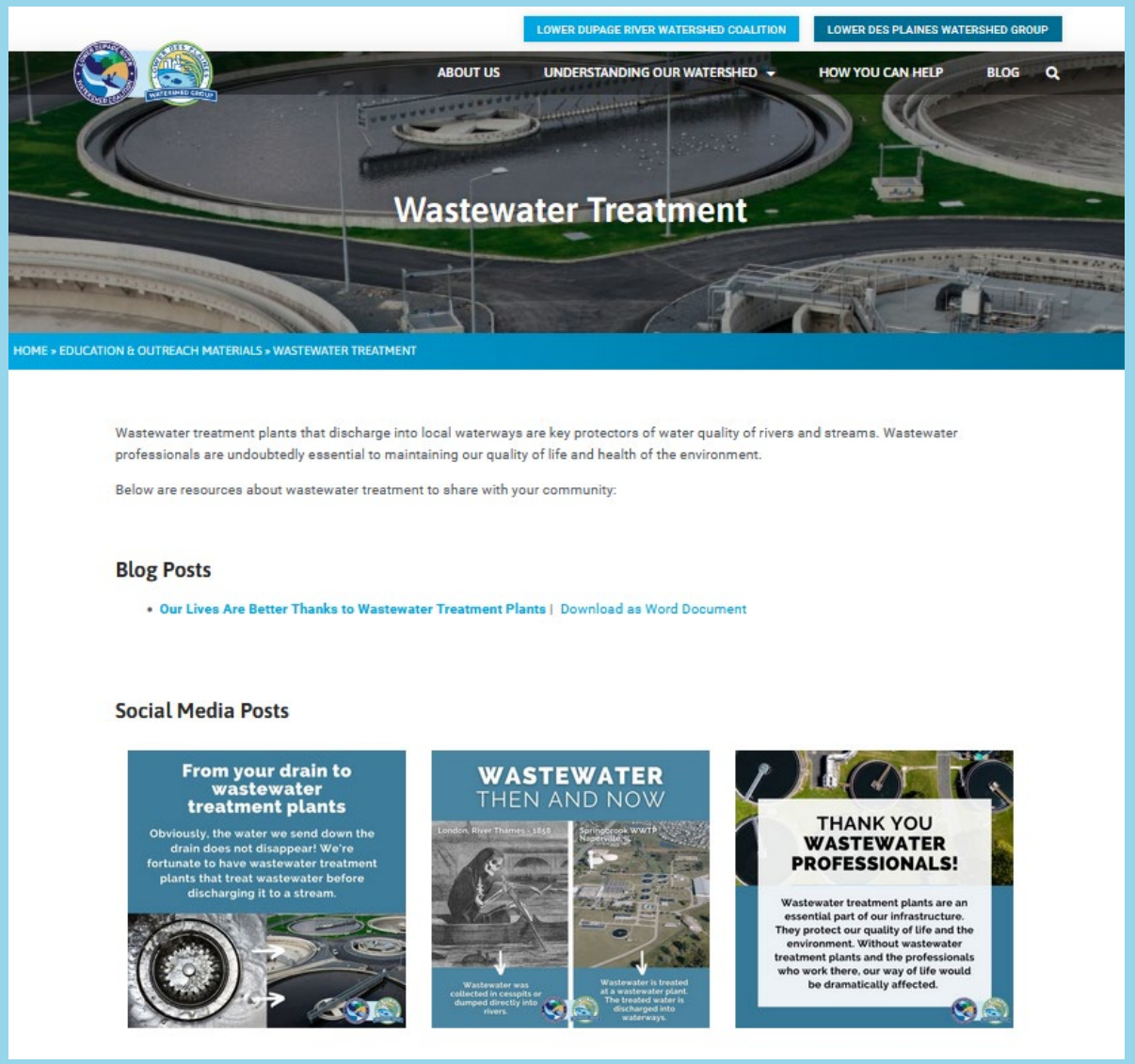
Continued Pet Waste Campaign

Remind residents to scoop the poop to protect water quality!

2023 Summer Outreach Materials

Summer Topics:

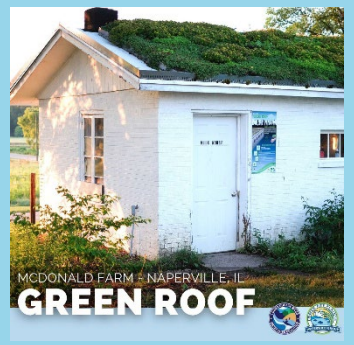
- Wastewater Treatment Plants - Overview
- Green infrastructure series – Green Roofs
- Watershed Ecology - Macroinvertebrates

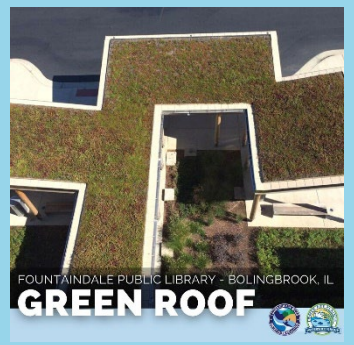


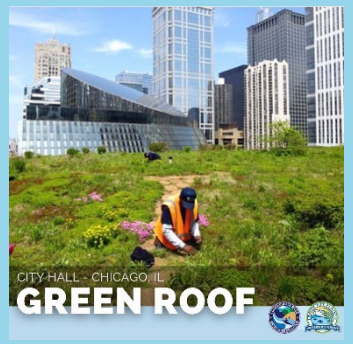
2023 Summer Outreach Materials

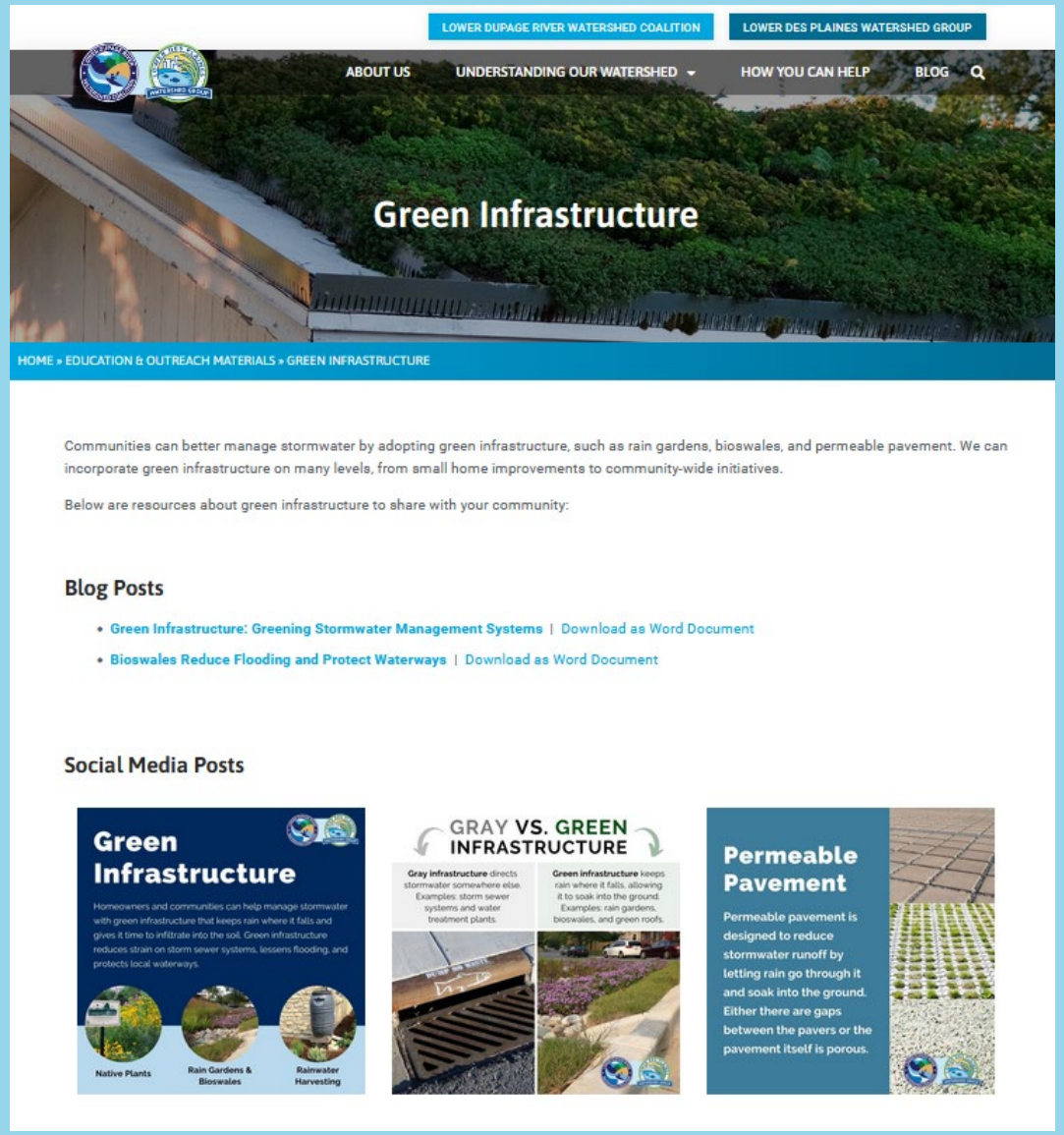
Summer Topics:

- Wastewater Treatment Plants - Overview
- Green infrastructure series – Green Roofs
- Watershed Ecology - Macroinvertebrates





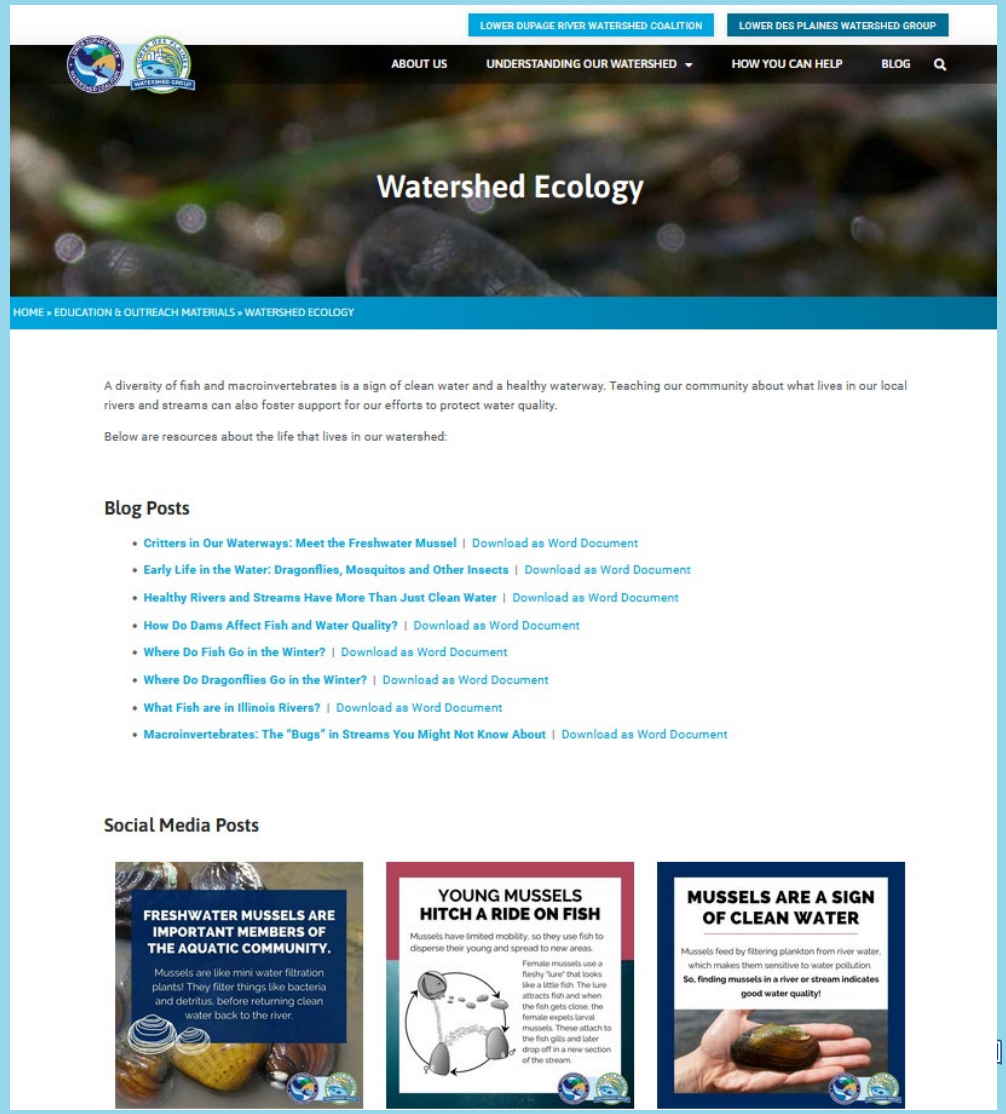




2023 Summer Outreach Materials

Summer Topics:

- Wastewater Treatment Plants - Overview
- Green infrastructure series – Green Roofs
- Watershed Ecology - Macroinvertebrates



We can customize!

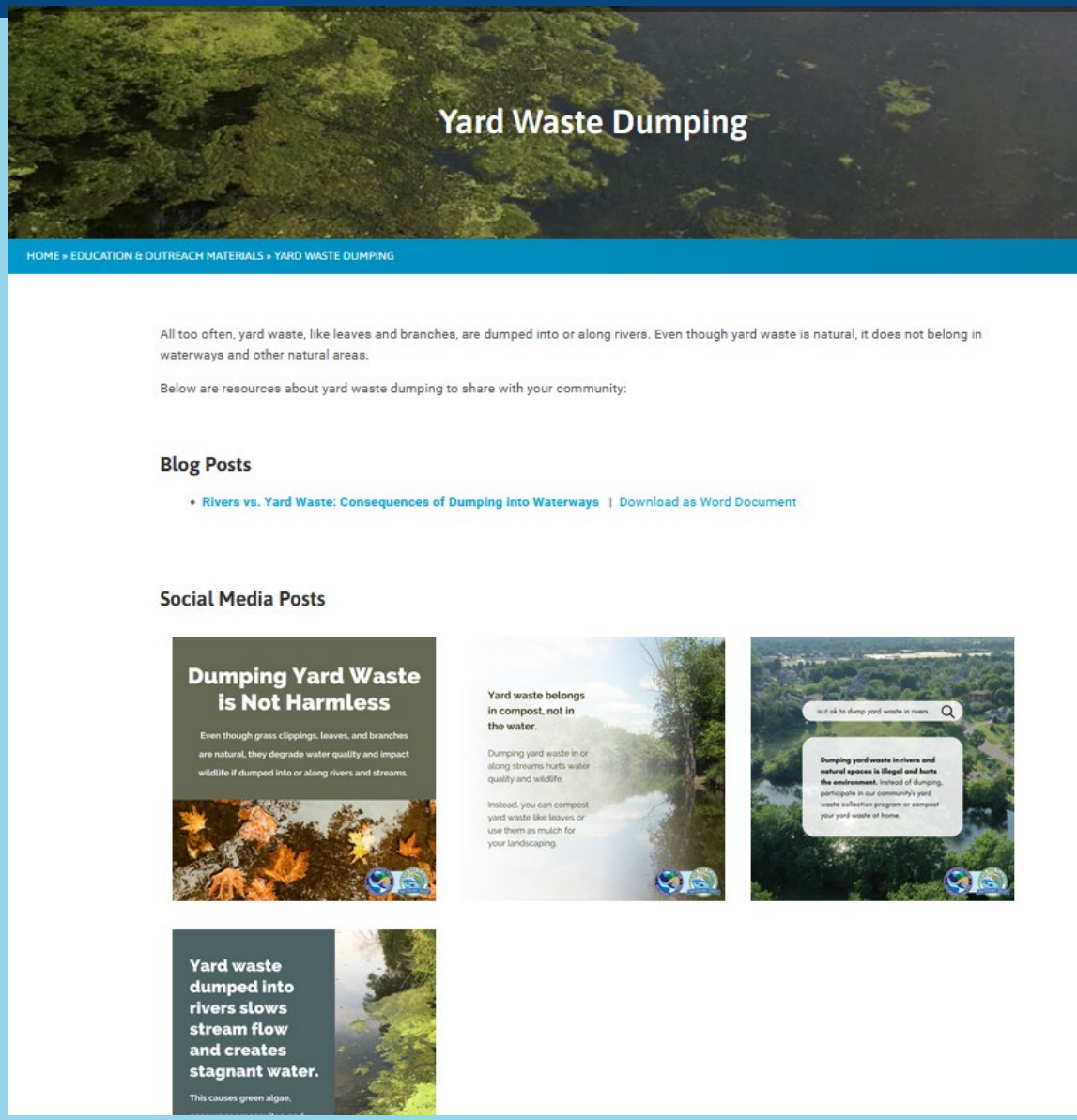
Add Your Logo?

Link to your website?

2023 Fall Outreach Materials

Fall Topics:

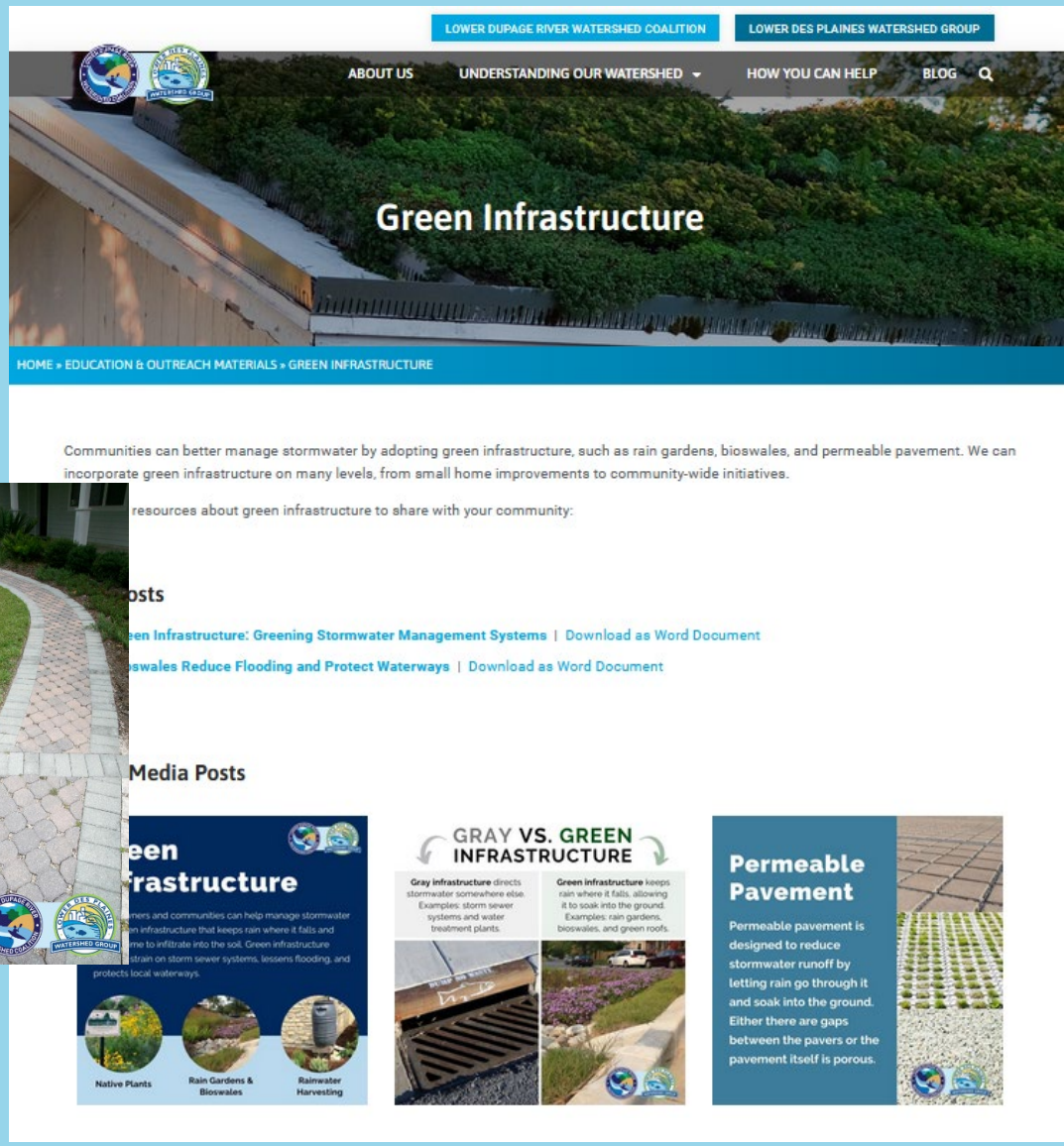
- Yard Waste & Dumping



2023 Fall Outreach Materials

Fall Topics:

- Green infrastructure series



2023 Winter Outreach Materials

Winter Topics:

- Stay Safe & Salt Smart
- Find Your “Why” to be Salt Smart
- Salt Smart Practices

Blog Posts

Salt Smart Practices for Safe Parking Lots and Sidewalks

Explore some of the Salt Smart practices snow clearing crews use to create safe parking lots and sidewalks during the winter.

READ MORE »

Stay Safe and Salt Smart This Winter!

Using Salt Smart practices to prepare for and respond to winter storms, we can stay safe at home, on the road, and in our communities.

READ MORE »

Find Your WHY for Being Salt Smart

Prioritizing clean water, avoiding waste, and even protecting your pet are a few reasons why you’ll want to be Salt Smart this winter.

READ MORE »

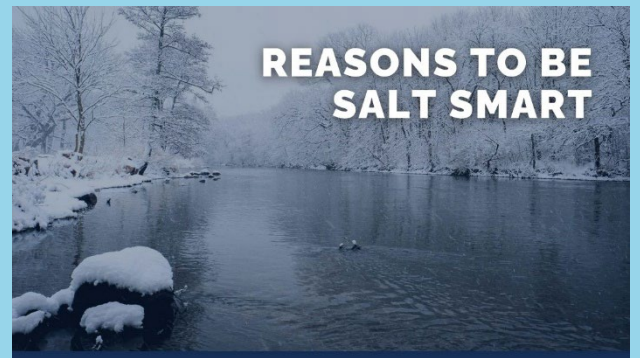
2023 Winter Outreach Materials

HAPPY PETS

When dogs walk on salt-covered surfaces, salt can irritate their paws and potentially make them sick when they lick it off. Being Salt Smart at home supports your pet's safety and well-being.

HEALTHY LANDSCAPING

Deicers often bounce into vegetation next to roads and sidewalks, causing harm to plants. Using the right amount of salt protects your landscaping.



CLEAN WATER

Because Salt Smart practices reduce the amount of deicing salt that enters rivers, streams, and ponds, being Salt Smart protects clean water in local waterbodies.

LESS WASTE

Outdated salting techniques overuse salt, which wastes money and unnecessarily harms the environment. Using Salt Smart practices minimizes waste and saves money.

SAFE ROADS + WALKWAYS

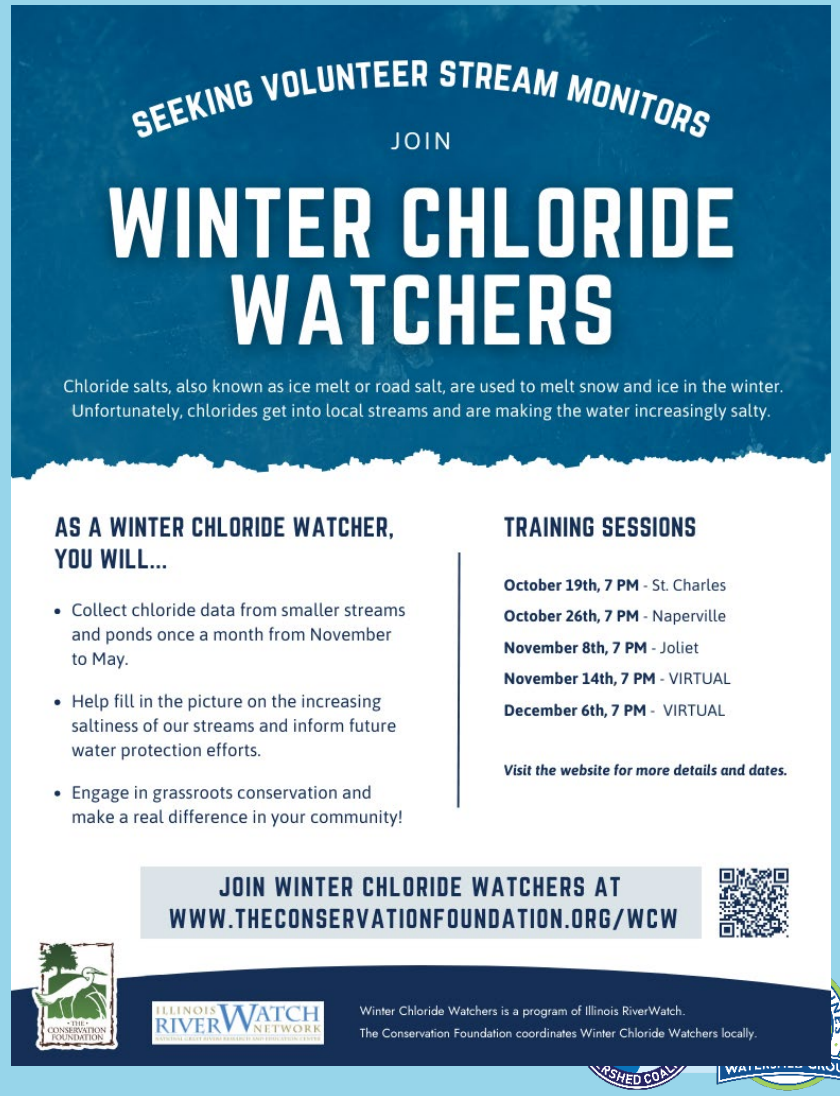
Salt Smart communities apply the **right deicers** for the **right conditions** in the **right amount.** This approach allows them to create safe roads, parking lots, and sidewalks without overusing salt.

LASTING INFRASTRUCTURE

Salt corrodes infrastructure and vehicles, eventually leading to costly repairs. Being Salt Smart improves the lifespan of cars, roads, bridges, doorways, and more.

Winter Chloride Watchers

- Volunteer Monitoring Project
- 1 Hr. Training & materials provided
- Partnership with TCF & Illinois RiverWatch



Salt Smart & You Exhibit

Bring the **Salt Smart and You** exhibit to your library this fall and winter! Engage your community in a dialogue about responsible salt use to protect the environment and ensure winter safety.

8 Pop-Up Displays

The exhibit presents educational content across eight two-sided pop-up displays.

Bilingual Experience

One side of the pop-ups is in English and the other is in Spanish, facilitating a broader reach within your diverse community.

Educate and Inspire

Raise awareness about the consequences of excessive salt use on water quality, infrastructure, landscaping, and pet health. The exhibit aims to inspire action by promoting responsible salting and tips for winter safety.

HOW TO RESERVE

To reserve the **Salt Smart and You** exhibit, visit our website at **www.ldpwatersheds.org/exhibit** to submit the reservation form.

SCAN CODE

Salt Smart & You Exhibit

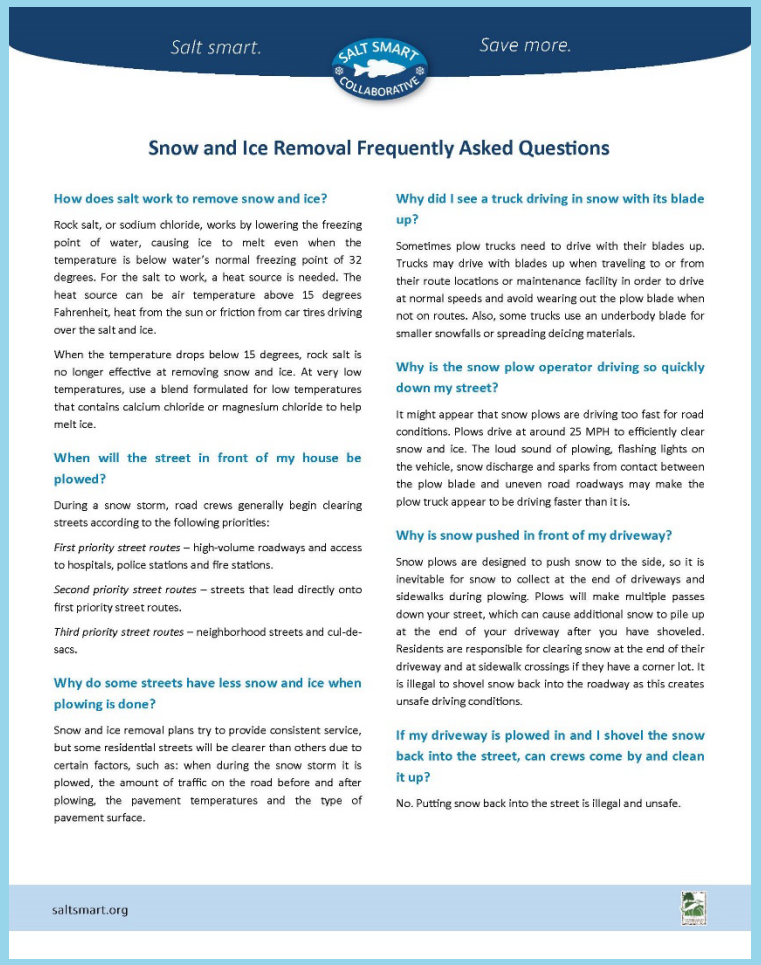
Panel Graphics

Panel Graphics

Winter – Salt Smart

Safe Driving Poster/Graphic

Snow + Ice Removal FAQ



Salt smart. Save more.

Snow and Ice Removal Frequently Asked Questions

How does salt work to remove snow and ice?

Rock salt, or sodium chloride, works by lowering the freezing point of water, causing ice to melt even when the temperature is below water's normal freezing point of 32 degrees. For the salt to work, a heat source is needed. The heat source can be air temperature above 15 degrees Fahrenheit, heat from the sun or friction from car tires driving over the salt and ice.

When the temperature drops below 15 degrees, rock salt is no longer effective at removing snow and ice. At very low temperatures, use a blend formulated for low temperatures that contains calcium chloride or magnesium chloride to help melt ice.

When will the street in front of my house be plowed?

During a snow storm, road crews generally begin clearing streets according to the following priorities:

First priority street routes – high-volume roadways and access to hospitals, police stations and fire stations.

Second priority street routes – streets that lead directly onto first priority street routes.

Third priority street routes – neighborhood streets and cul-de-sacs.

Why do some streets have less snow and ice when plowing is done?

Snow and ice removal plans try to provide consistent service, but some residential streets will be clearer than others due to certain factors, such as: when during the snow storm it is plowed, the amount of traffic on the road before and after plowing, the pavement temperatures and the type of pavement surface.

Why did I see a truck driving in snow with its blade up?

Sometimes plow trucks need to drive with their blades up. Trucks may drive with blades up when traveling to or from their route locations or maintenance facility in order to drive at normal speeds and avoid wearing out the plow blade when not on routes. Also, some trucks use an underbody blade for smaller snowfalls or spreading deicing materials.

Why is the snow plow operator driving so quickly down my street?

It might appear that snow plows are driving too fast for road conditions. Plows drive at around 25 MPH to efficiently clear snow and ice. The loud sound of plowing, flashing lights on the vehicle, snow discharge and sparks from contact between the plow blade and uneven road roadways may make the plow truck appear to be driving faster than it is.

Why is snow pushed in front of my driveway?

Snow plows are designed to push snow to the side, so it is inevitable for snow to collect at the end of driveways and sidewalks during plowing. Plows will make multiple passes down your street, which can cause additional snow to pile up at the end of your driveway after you have shoveled. Residents are responsible for clearing snow at the end of their driveway and at sidewalk crossings if they have a corner lot. It is illegal to shovel snow back into the roadway as this creates unsafe driving conditions.

If my driveway is plowed in and I shovel the snow back into the street, can crews come by and clean it up?

No. Putting snow back into the street is illegal and unsafe.

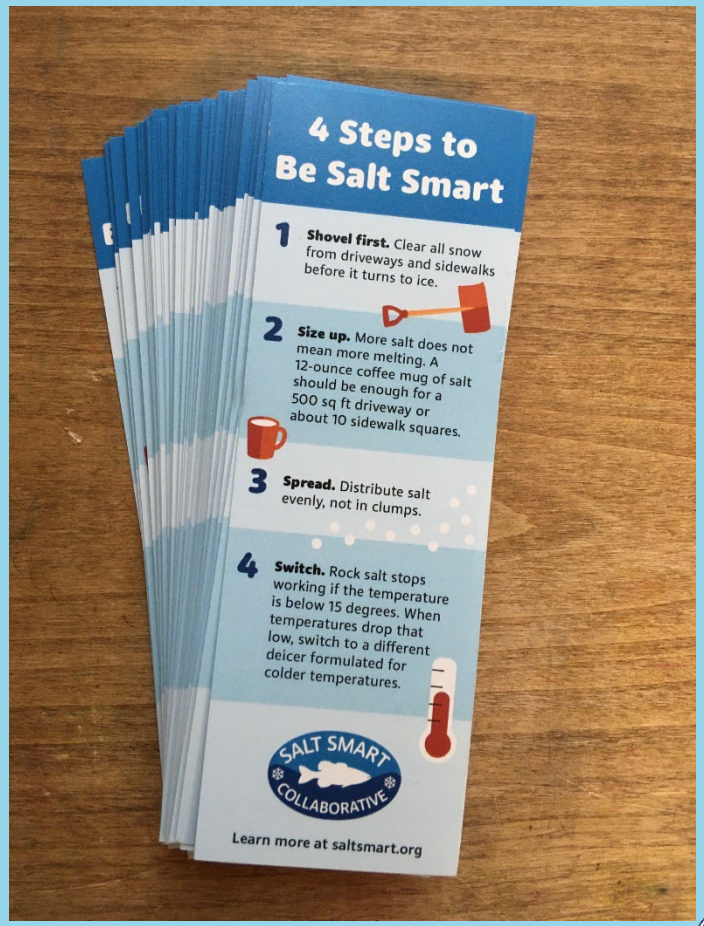
saltsmart.org

Bookmark

Winter – Salt Smart

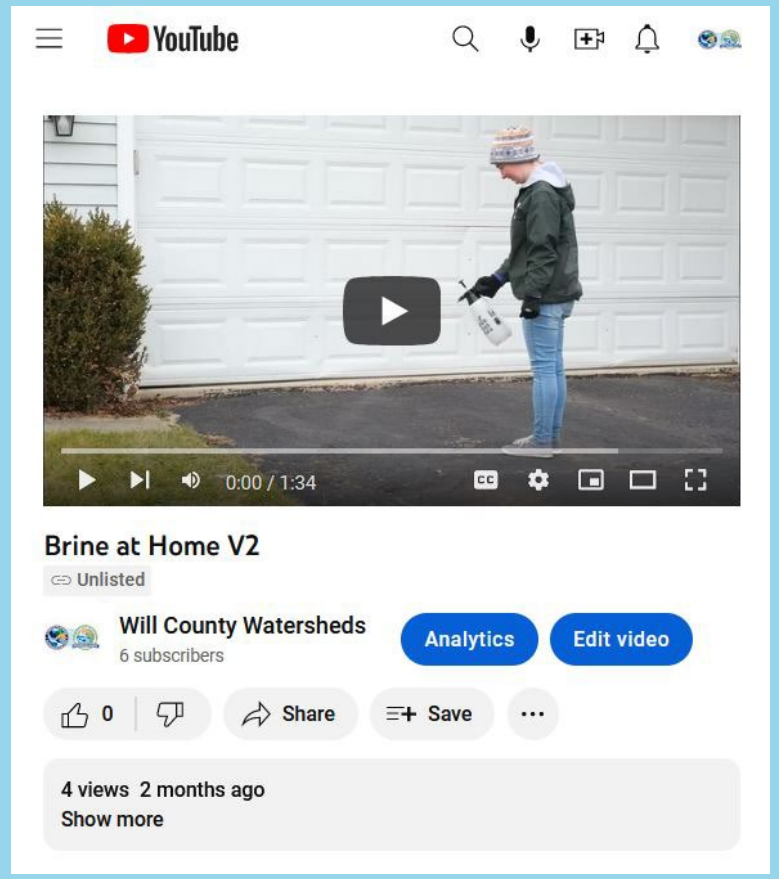
Cups and bookmarks are available now – contact Jennifer or Lea to put in your order

Scatter cups

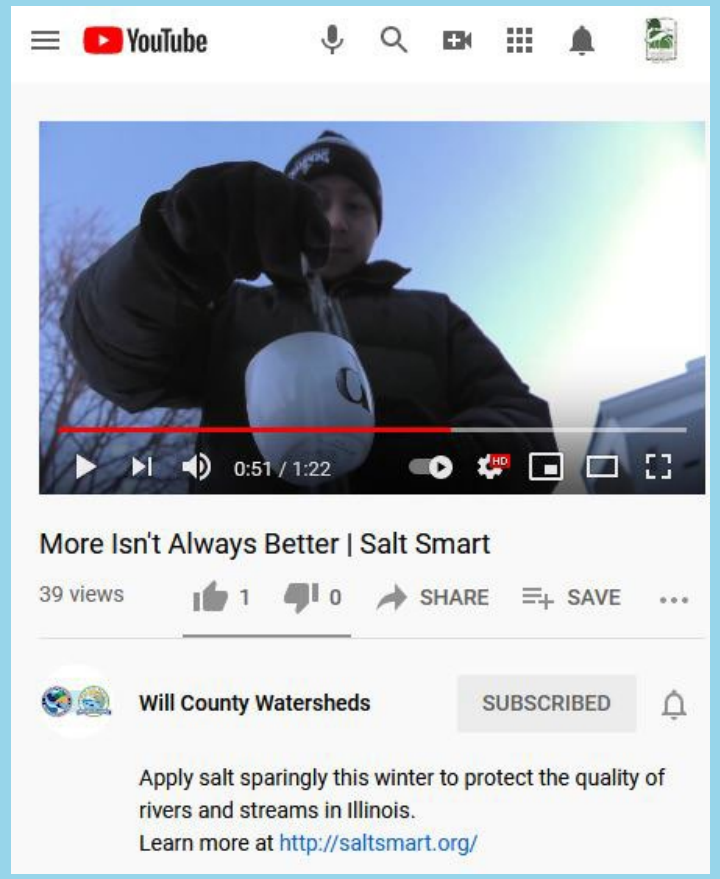


Bookmarks

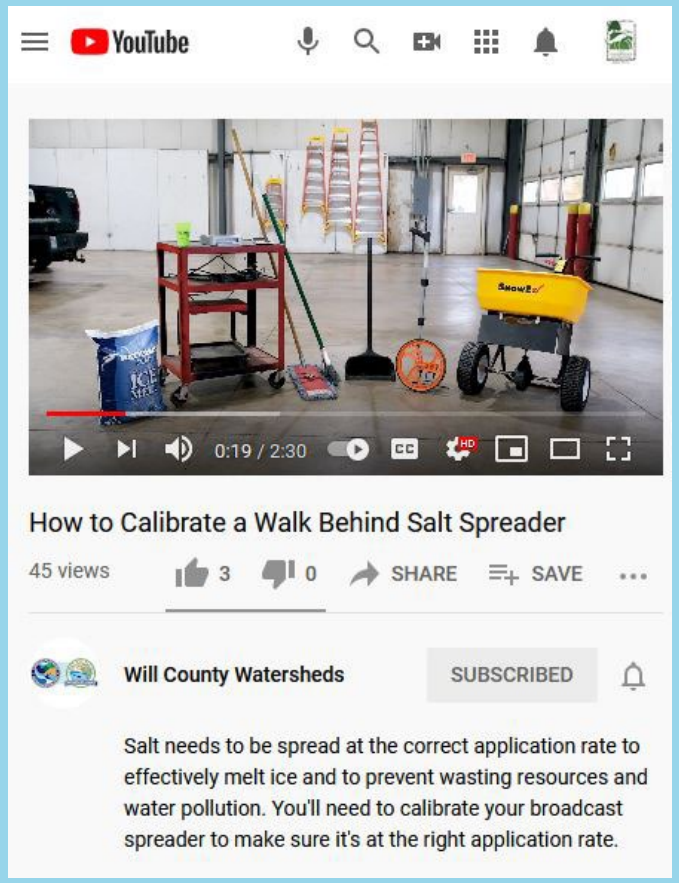
Winter – Salt Smart



Making Brine at Home

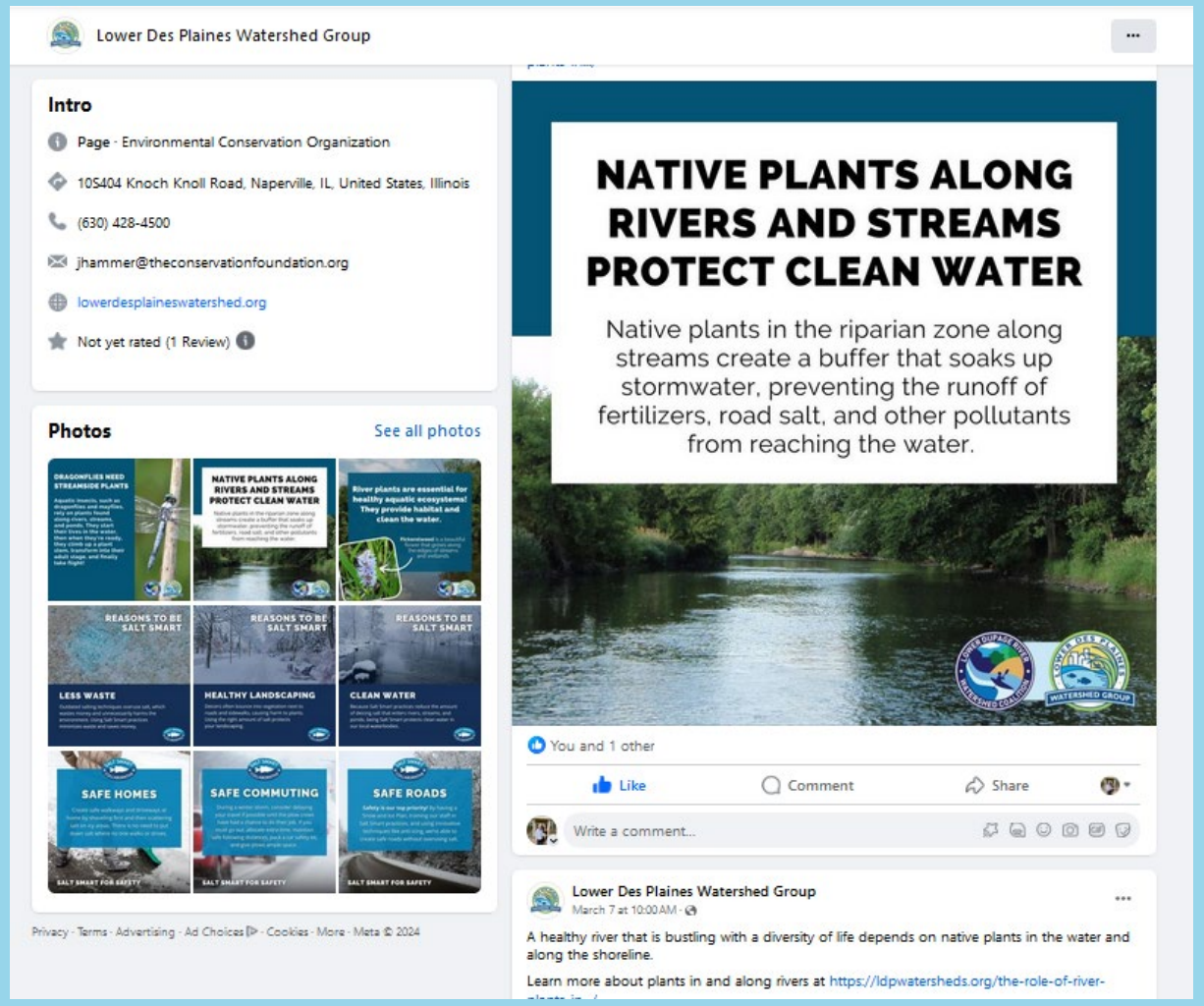


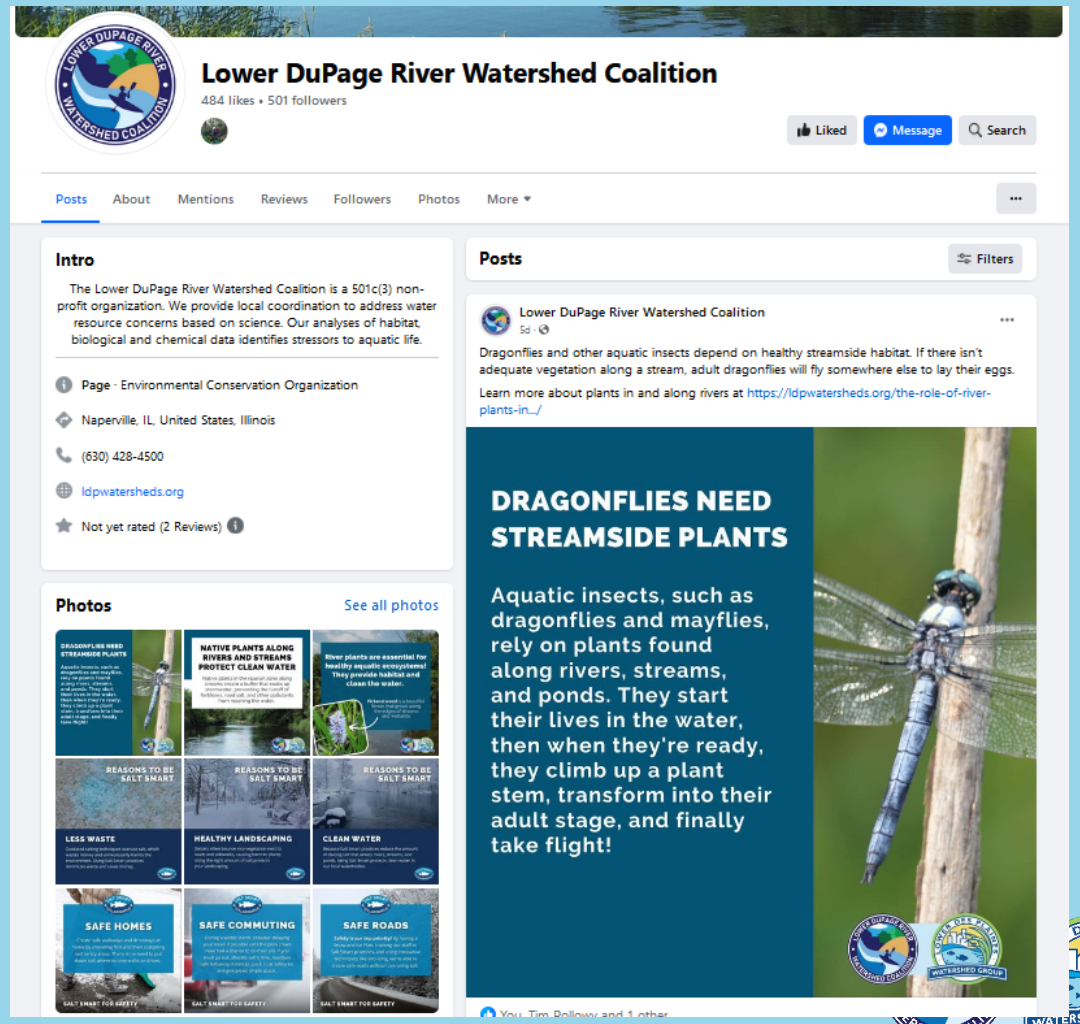
Fun PSA for Residents



Salt Spreader Calibration Tutorial

Connect With Us on Facebook!





Will County Watershed YouTube Channel

Lower DuPage River Watershed Coalition (LDRWC)
ILR40 Activities
March 2023 – February 2024

PART I. COVERAGE UNDER GENRAL PERMITS ILR40

Not applicable to the work of the LDRWC.

PART II. NOTICE OF INTENT (NOI) REQUIREMENTS

Not applicable to the work of the LDRWC.

PART III. SPECIAL CONDITIONS

Not applicable to the work of the LDRWC.

PART IV. STORM WATER MANAGEMENT PROGRAMS

A. Requirements

Not applicable to the work of the LDRWC.

B. Minimum Control Measure

1. Public Education and Outreach on Stormwater Impacts

LDRWC outreach activities for 2023-2024 included:

- The joint website for the LDRWC and Lower Des Plaines Watershed Group has been maintained with updated information for the general public on local water quality issues and what they can do to help, as well as more information on the monitoring program, outreach program, NARP and Chloride TLWQS. The URL is www.LDPWatersheds.org
- Watershed Outreach Materials were developed and shared with member throughout the year. The "Outreach Materials" page on the website includes all past and present watershed outreach materials for download. Materials are organized by topic to make it easier to see what is available. Materials for each topic include text for websites, newsletters, posters, blogs and social media posts. The website also has a blog page with blogs for all of the topics that members can link to. The blog page also provides a place for site visitors to find information. Examples of materials created are attached at end of report. For the winter season www.SaltSmart.org website is also used as a clearinghouse of winter BMPs for residents, public agencies and private deicing companies. This website provides a wider reach beyond the Lower DuPage River watershed, LDRWC is an active partner in the Salt Smart Collaborative.

  Watershed outreach topics:

  - Spring – Outdoor Water Conservation Tips, Green Infrastructure Series – Rainwater Harvesting & Bioswales

- Summer – Wastewater Treatment Plant Series - Overview, Green Infrastructure Series – Green Roofs, Watershed Ecology - Macroinvertebrates
- Fall – Yard Waste & Dumping, Green Infrastructure Series – Permeable Pavement
- Winter – Stay Safe & Salt Smart, Find Your "Why" to be Salt Smart, Salt Smart Practices

LDRWC also maintains a Facebook page and posts all materials developed so that communities can just share the posts if that is easier. https://www.facebook.com/lowerdupageriverwc

2. Public Involvement and Participation **–** LDRWC worked with members to provide resources on setting up rain barrel sales program and materials to encourage residents to install rain barrels and rain gardens to help minimize stormwater runoff from residential properties.

The LDRWC worked with The Conservation Foundation and the Salt Smart Collaborative to make the "Salt Smart & You" eight panel, bi-lingual exhibit (Figure 1) available to communities to help engage residents in conversations around winter salt use. Salt Smart Save More cups were provided with the exhibit to hand out to residents.

Figure 1 Salt Smart You Exhibit and Salt Smart Cups

Additionally, LDRWC partnered with The Conservation Foundation and the Illinois RiverWatch to expand the Winter Chloride Watchers Program in northeastern Illinois (Figure 2). Four in-person and two virtual volunteer trainings were held regionally with 164 participants. 116 of those participants signed up to monitor chlorides throughout monthly from November to May at 122 new sites. The volunteer trainings including information about how chlorides impact water quality and our local environment, what types of practices can be used by municipalities and residents to reduce chloride impact while keeping people safe and how to use the test kits and upload their data. The program utilizes the Water Rangers online platform which allows participants and the public to see results as soon as they are posted. An annual report will be assembled in June.

Figure 2 Winter Chloride Watchers Flyer

3. Illicit Discharge Detection and Elimination – no activities

4. Construction Site Storm Water Runoff Control - no activities

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

6. Pollution Prevention/Good Housekeeping for Municipal Operations

Chloride Reduction Workshops

In 2023 the LDRWC partnered with Lower Des Plaines Watershed Group, Chicago Area Waterways Chloride Workgroup, DRSCW, The Conservation Foundation and Lake County Stormwater/Health Department to jointly offer five Winter Deicing Workshops, three on Public Roads and two on Parking Lots and Sidewalks using the newly created "Salt Smart Certified Parking Lots & Sidewalks" training based on the newly released *Illinois Winter Maintenance Manual for Parking Lots and Sidewalks*. Registration was widely advertised throughout northeastern Illinois (Figure 3). Accordingly, the webinars were attended by staff in DuPage, Will, Kane, Lake, McHenry, Boone, Cook and Winnebago counties.

Public Roads Deicing Workshops were held on September 26, October 4, and October 10, 2023. Bolton & Menk from Minnesota was engaged to present the material. A registration fee was required per agency in order to participate in the training. The links were sharable so the webinars could be viewed individually or in groups. Based on polling results, a minimum of 680 people participated in the three workshops.

The Salt Smart Certified Parking Lots and Sidewalks Workshop were held on September 27 and October 17 presented by the Salt Smart Collaborative. Based on polling results a minimum of 340 people participated in the two workshops. Certificates of attendance were provided to those who requested them. Evaluation surveys were sent to the persons who logging in to the webinars. A link to the *Illinois Winter Maintenance Manual for Parking Lots and Sidewalks* was provided to each registrant. Participants in all of the workshops were able to ask questions through the chat function and were answered by Bolton & Menk staff, Workgroup staff as well as others participating in the training.

Figure 3 Welcome & Introduction to Parking Lots & Sidewalks Presentation & Registration Flyer

Qualifying State, Country or Local Program

Not applicable to the work of the LDRWC.

C. Sharing Responsibility

This report outlines the activities conducted by the LDRWC 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.

D. Reviewing and Updating Stormwater Management Programs

Not applicable to the work of the LDRWC.

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 LDRWC 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.)

BIOASSESSMENT

Overview and Sampling Plan

A biological and water quality survey, 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 LDRWC bioassessment is the latter. The LDRWC bioassessment program began in 2012 with sampling 26 stations in the Lower DuPage River watershed. In 2015 an additional 15 stations were added for a total of 41 stations monitored. Forty-one stations were sampled in the summer of 2018 and 2021 (Figure 4). The bioassessment program functions under a quality assurance plan agreed on with the Illinois Environmental Protection Agency.

The LDRWC 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 watershed 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 LDRWC at https://ldpwatersheds.org/about-us/lower-dupage-river-watershed-coalition/our-work/reports-resources/ 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 by the DuPage River Salt Creek Workgroup to help determine and prioritize remedial projects and is now updated to incorporate Lower DuPage River watershed data. The updated version of the IPS model update was completed in 2022 and is being utilized to identify and design restoration projects aimed at improving aquatic life scores.

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 1 and illustrated in Figure 4.

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.

Figure 4 Lower DuPage River Watershed bioassessment monitoring sites for 2015, 2018 and 2021

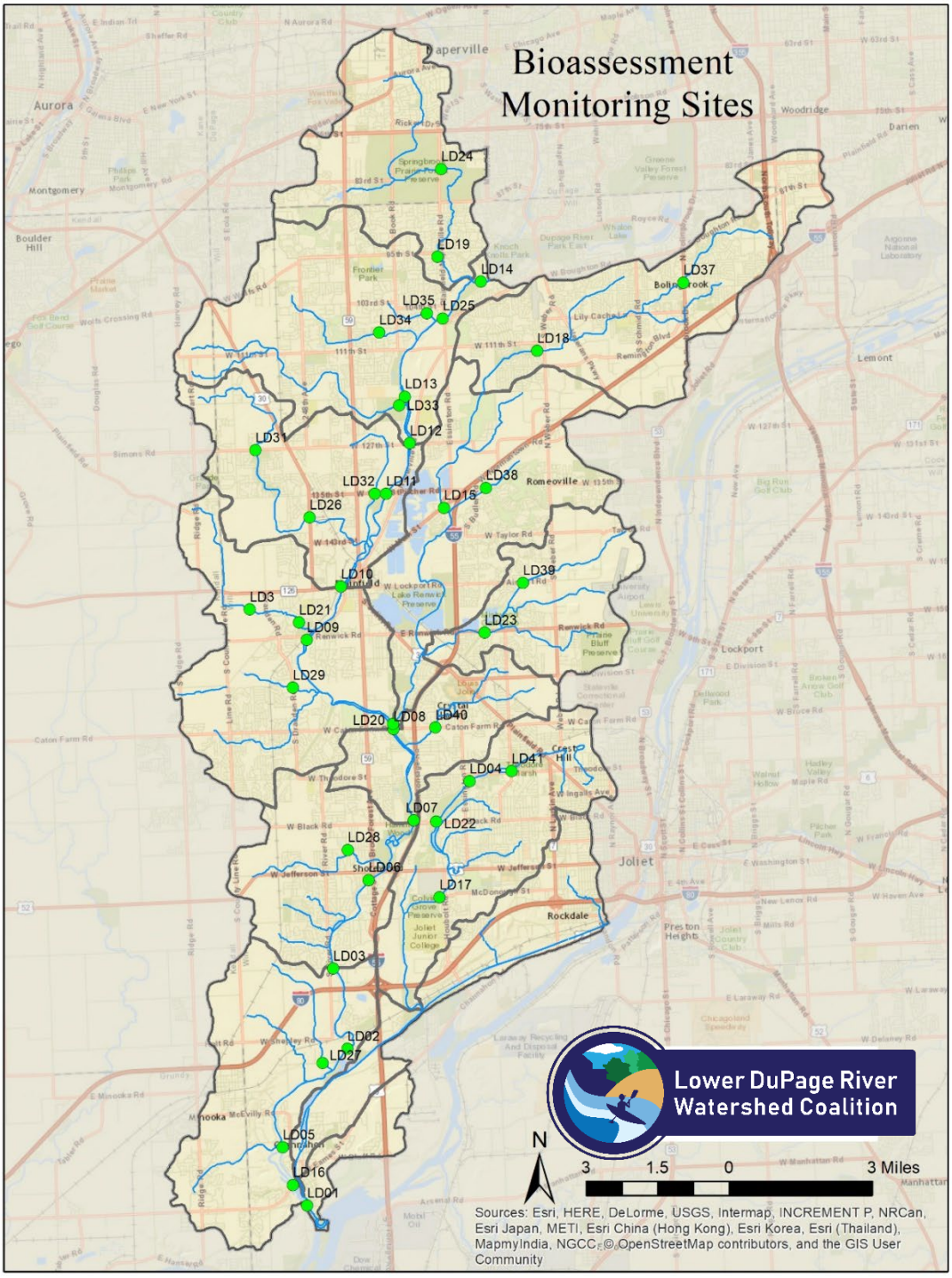


Table 1 Number of sampling sites in the LDRWC project area.

Method/Protocol	Lower DuPage River (2012)	Lower DuPage River (2015, 18 & 21)
Biological sampling	26	41
Fish	26	41
Macroinvertebrates	26	41
QHEI	26	41
Water Column Chemical/Physical Sampling		
Nutrients*	26	41
Water Quality Metals	26	41
Water Quality Organics	8	0
Sediment Sampling	7	7

*Also included indicators of organic enrichment and ionic strength, total suspended solids (TSS), DO, pH and temperature. Chlorophyll a sampling was added in 2021.

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 lineal 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 DuPage River from the 2018 Bioassessment. Information on the tributaries and detailed analysis of all results can be found at https://ldpwatersheds.org/about-us/lower-dupage-river-watershed-coalition/our-work/reports-resources/ Results from the 2021 bioassessment will be available later in 2024.

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 produces 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.

DuPage River

As in previous studies, fish assemblages in the lower DuPage River watershed ranged from poor to good in 2015 (Figure 5), but in 2018 three sites in the mainstem fully attained the Illinois general aquatic life thresholds and a fourth site was added in 2021. The only site with consistently good quality assemblages during all surveys is found in the Channahon Dam tailwaters, a short reach wedged in between the dam and the Des Plains River. Mainstem fish communities at most sites have improved since 2012 and 2015, and no sites were in the poor range in 2021 except for within the Channahon Dam pool. In contrast to the mainstem, conditions in the tributaries tended to improve from mostly poor, to mostly fair quality between 2012 and 2015, regressed somewhat in 2018, and have rebounded in 2021 (Figure 6).

Figure 5 Fish Index of Biotic Integrity (fIBI) scores for the Lower DuPage River from 2012-2021, in relation to municipal WWTPs and existing low head dams (noted by bars adjoining the x-axis). The shaded region demarcates the "fair" narrative range.

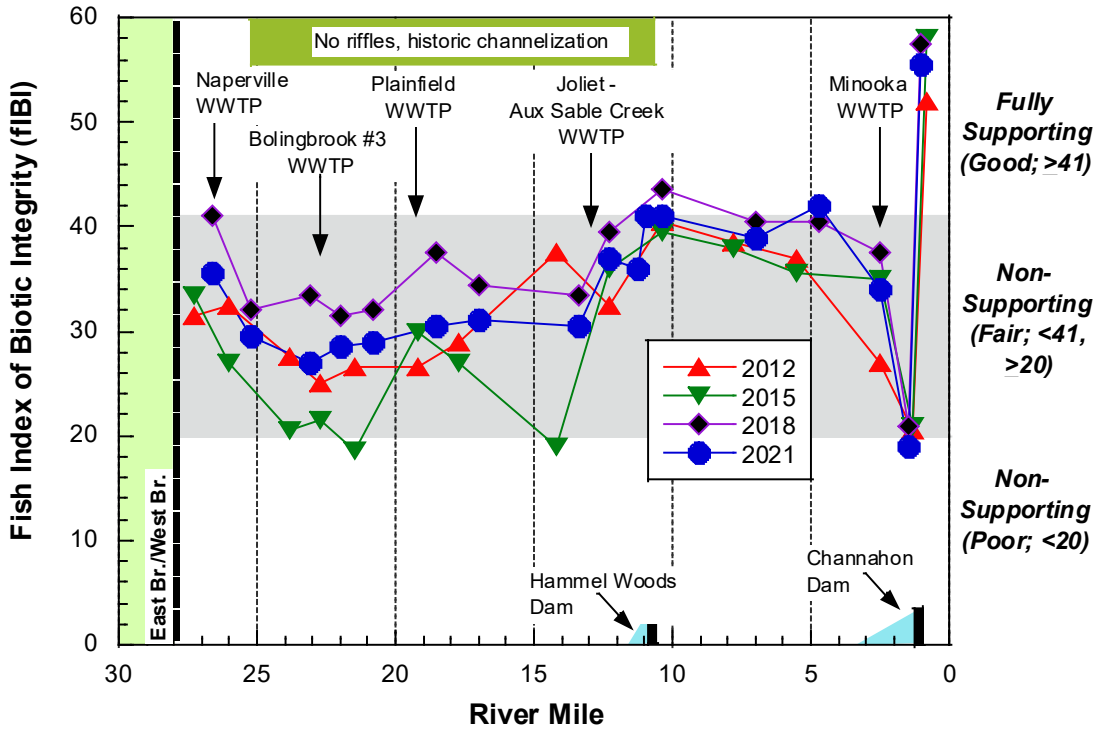
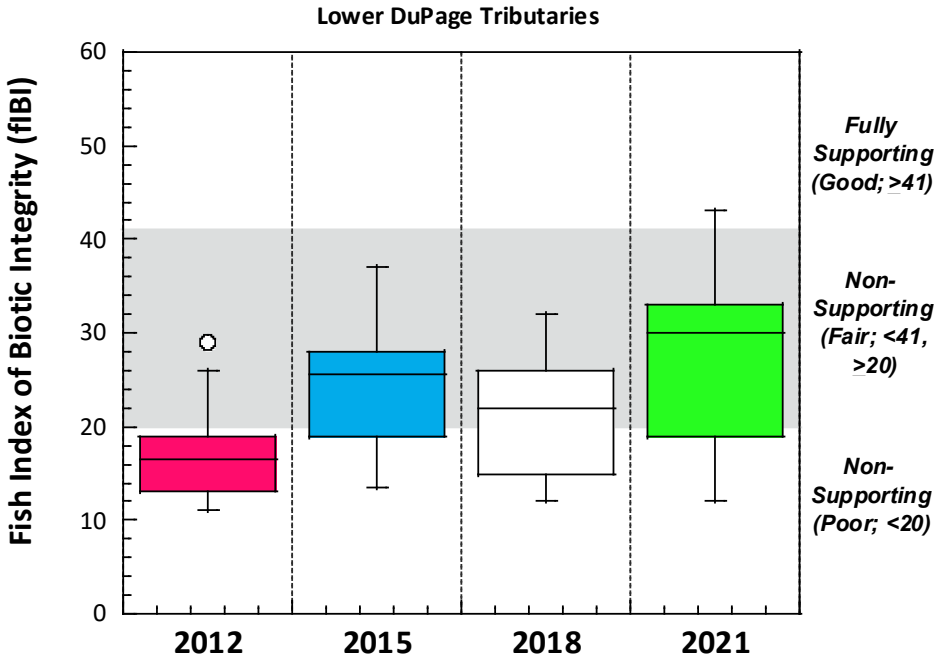


Figure 6 Box and whisker plot of fIBI scores from Lower DuPage River tributary sites from 2012-2021



MACROINVERTEBRATES

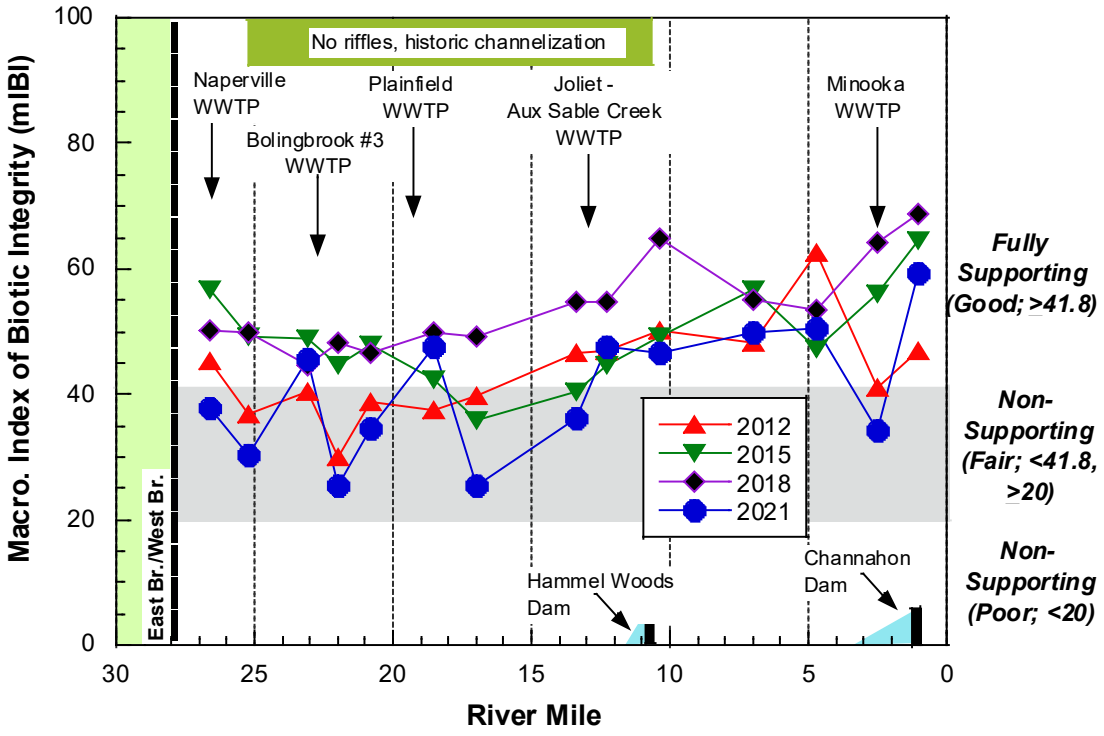
Methodology

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 DuPage River. Information on the tributaries and detailed analysis of all results from 2018 can be found at https://ldpwatersheds.org/about-us/lower-dupage-river-watershed-coalition/our-work/reports-resources/ Figure 7 summarizes data from 2012-2021, further analysis of results will be provided in the final report that will be available later in 2024.

Figure 7 Macroinvertebrate Index of Biotic Integrity (mIBI) scores for the Lower DuPage River from 2012 - 2021 in relation to municipal WWTPs and existing low head dams (noted by bars adjoining the x-axis). The shaded region 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

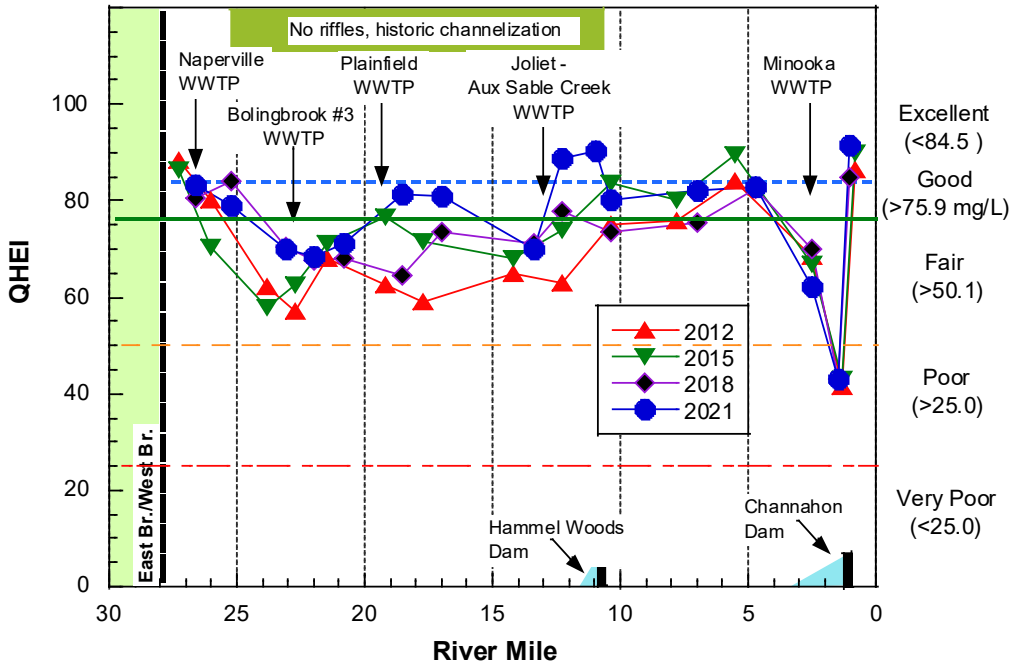
The QHEI data presented in this report summarize the findings for the mainstem reaches of the Lower DuPage River. Information on the tributaries and detailed analysis of all results can be found at https://ldpwatersheds.org/about-us/lower-dupage-river-watershed-coalition/our-work/reports-resources/

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.

DuPage River

As in previous surveys, 2021 DuPage River habitat quality varied by location but was more than adequate to support warm water communities throughout most of its 27.8-mile length (see Figure 8). Extreme upper mainstem habitats remained clearly exceptional, but continued to decline to the lower good range in the sluggish, historically channelized reach between the Naperville WWTP and the Hammel Woods low-head dam (~ RMs 25-10.6). Two projects have been identified to improve habitat and dissolved oxygen levels within this reach. The first project was completed in 2021 to remove the Hammel Woods dam, QHEI data reflects improvement in this stretch. The second project location will be located between Lockport Street and Renwick Road in Plainfield. A design, engineering and permitting contract was signed in February of 2022. Site survey work was completed in the summer of 2022. Final design, engineering, permit submittal was completed in November 2023. Final documents and bid package will be completed as soon as permits are received. Construction of stream restoration project is anticipated to be completed by the end of 2024.

Figure 8 Qualitative Habitat Evaluation Index (QHEI) scores and narrative ranges in the Lower DuPage River in from 2012-2021 in relation to municipal WWTPs and existing low head dams (noted by bars adjoining the x-axis). QHEI scores less than 45 are often typical.



Water and Sediment Chemistry

Methodology

Water column and sediment samples are collected as part of the LDRWC bioassessment programs. The total number of sites sampled is detailed in Table 1. 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. Organics sampling is a single sample done at a subset of sites. Sediment sampling is done at a subset of 41 sites using the same procedures as IEPA.

The parameters sampled for are included in Table 1and can be grouped into demand parameters, nutrients, demand, and metals. Locations of sample sites are shown on Figure 5. All sampling occurs between May and October of the sample year. The Standard Operating Procedure for water quality sampling can be found at https://ldpwatersheds.org/about-us/lower-dupage-river-watershed-coalition/our-work/reports-resources/

Table 2 . Water Quality and sediment Parameters sampled as part of the LDRWC Bioassessment Program.

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

Results

The discussion presented below focuses on the constituents listed in the MS4 permit: total suspended solids, total nitrogen, total phosphorus, and chlorides. Total nitrogen is presented as ammonia, nitrate, and total kjeldahl nitrogen (TKN). Fecal coliform sampling was added to the 2021 bioassessment.

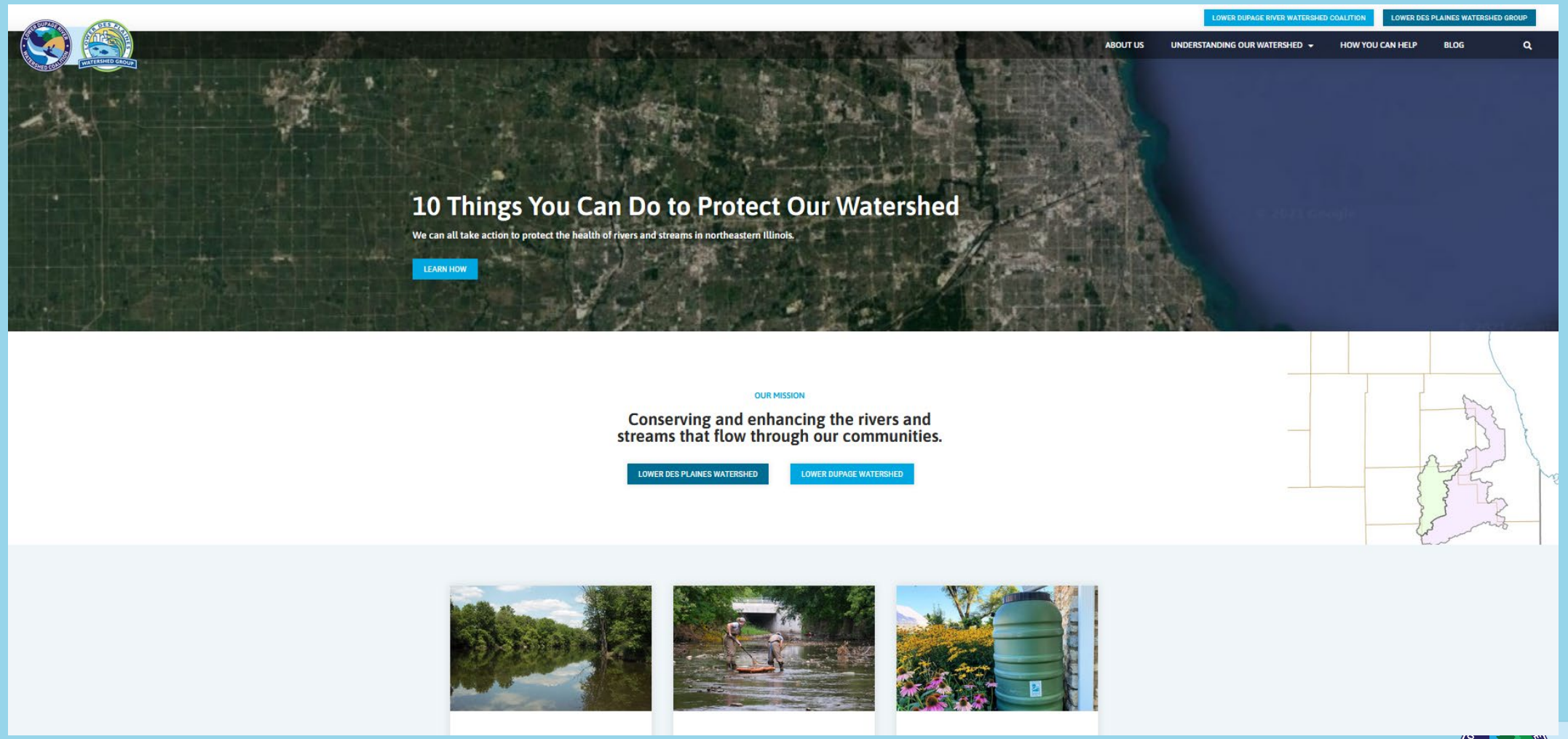
Lower DuPage River - Chemical Water Quality

As discussed in previous reports, nutrient levels in the Lower DuPage River mainstem are heavily influenced by WWTP inputs from its sources upstream, the East and West Branches. In each Lower DuPage survey, phosphorus and nitrate levels have ranged from highly elevated to slightly elevated (based on NE Illinois IPS Model thresholds), depending largely on flow conditions and contributions from upstream point sources. Concentrations have tended to be highest in the extreme upper mainstem, nearer to the confluence with the branches. Under very low-flows in 2012, nitrates routinely exceeded the 10 mg/l criterion in the upper reach and phosphorus was almost entirely above the recommended 1.0 mg/l effluent limit from headwaters to mouth. In both surveys, contributions from WWTPs along the Lower DuPage mainstem may have helped maintain nutrient levels but parameters experience minimal change downstream from the discharges. Both median and mean ammonia concentrations were near or below detection throughout the DuPage River mainstem in 2012 and 2015, but there was an increase in ammonia in 2018, albeit in the IPS fair range, but none were

exceedances of water quality criteria that depend on temperature and pH**.** This likely originated in the upper part of the watershed. The full 2018 Bioassessment Report is available at https://ldpwatersheds.org/about-us/lower-dupage-river-watershed-coalition/our-work/reports-resources/
Results from the 2021 Bioassessment will be available later in 2024.

2023 Watershed Outreach Summary

2023 Outreach Materials



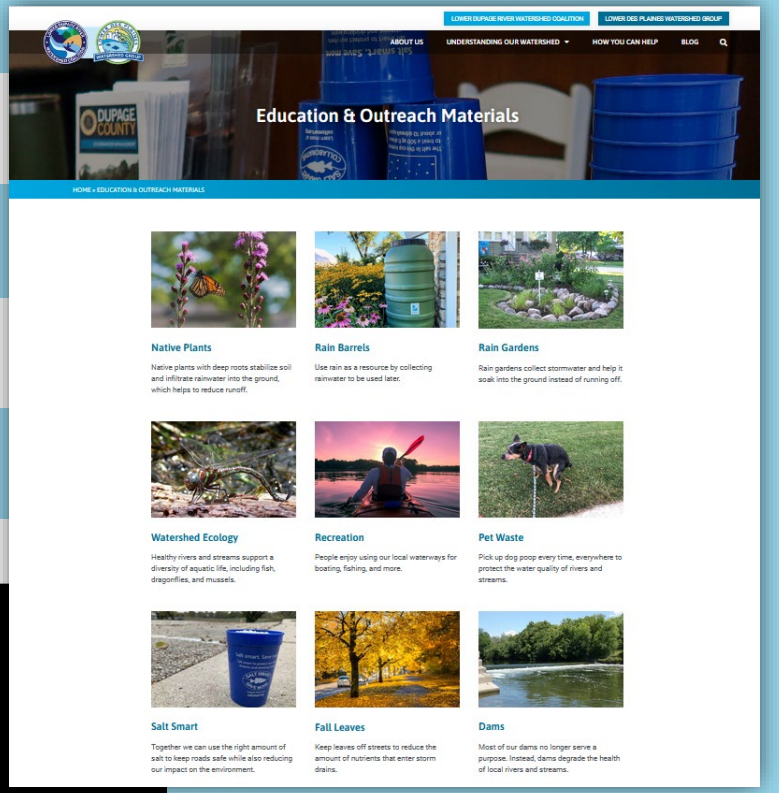
www.LDPWatersheds.org

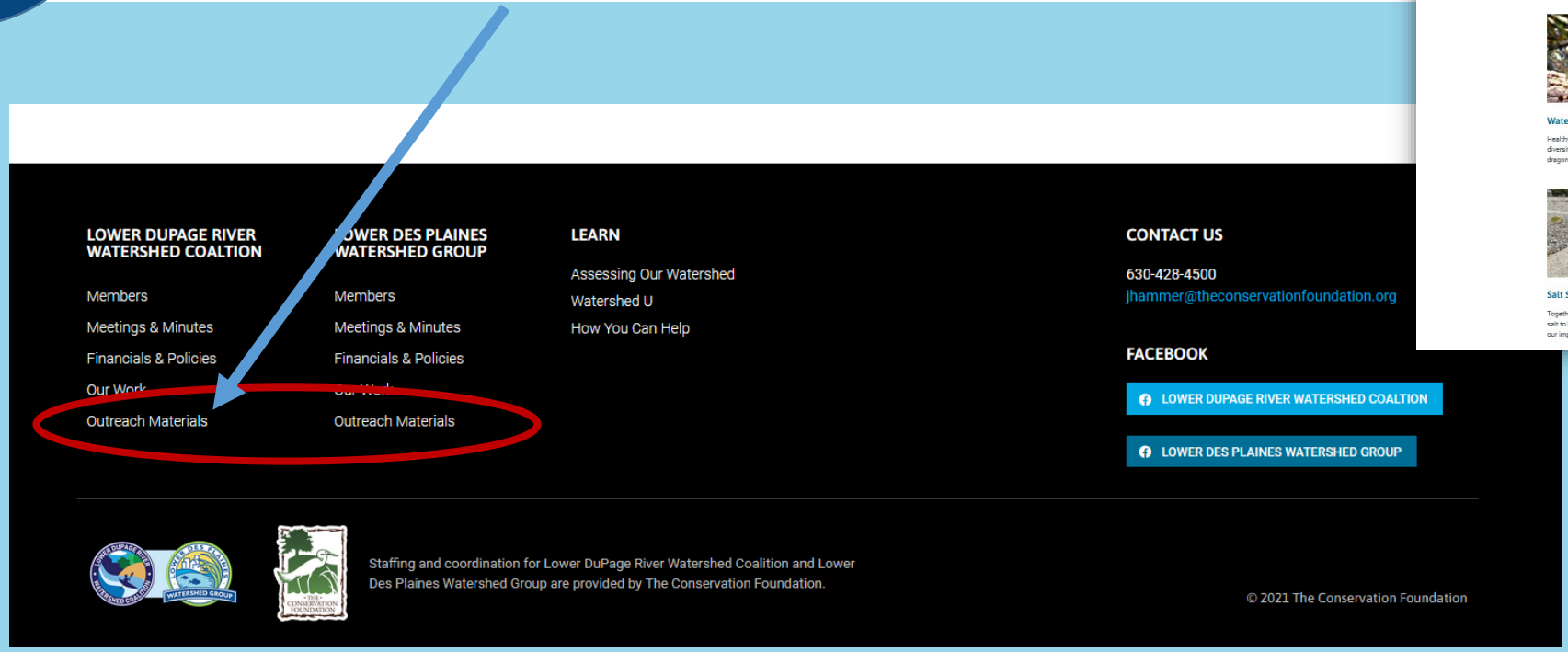
Outreach Materials

Where can I find outreach materials?

LDPwatersheds.org/**outreach**

Bottom of any page on the website



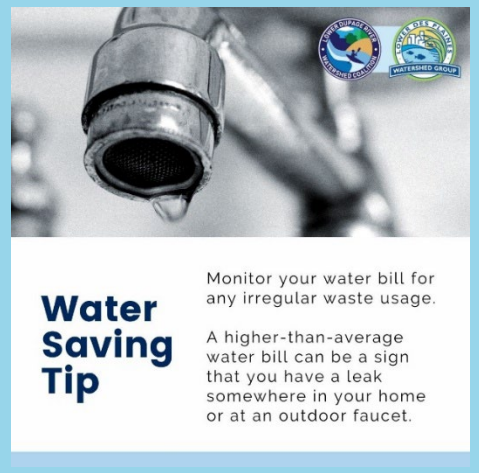


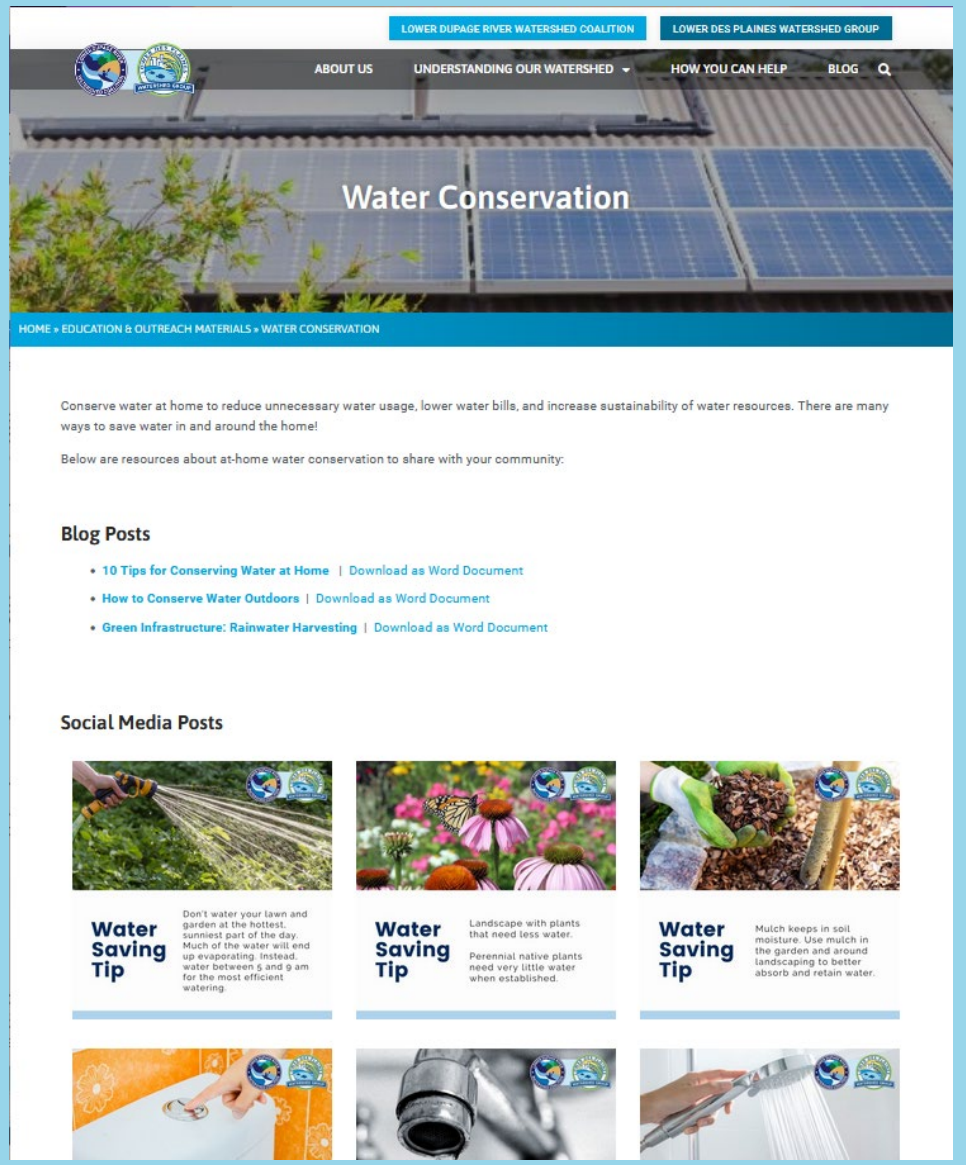
All chloride-related materials are also available on www.saltsmart.org

2023 Spring Outreach Materials

Spring Topics:

- Water conservation
- Green infrastructure series
- Materials targeted to specific audiences

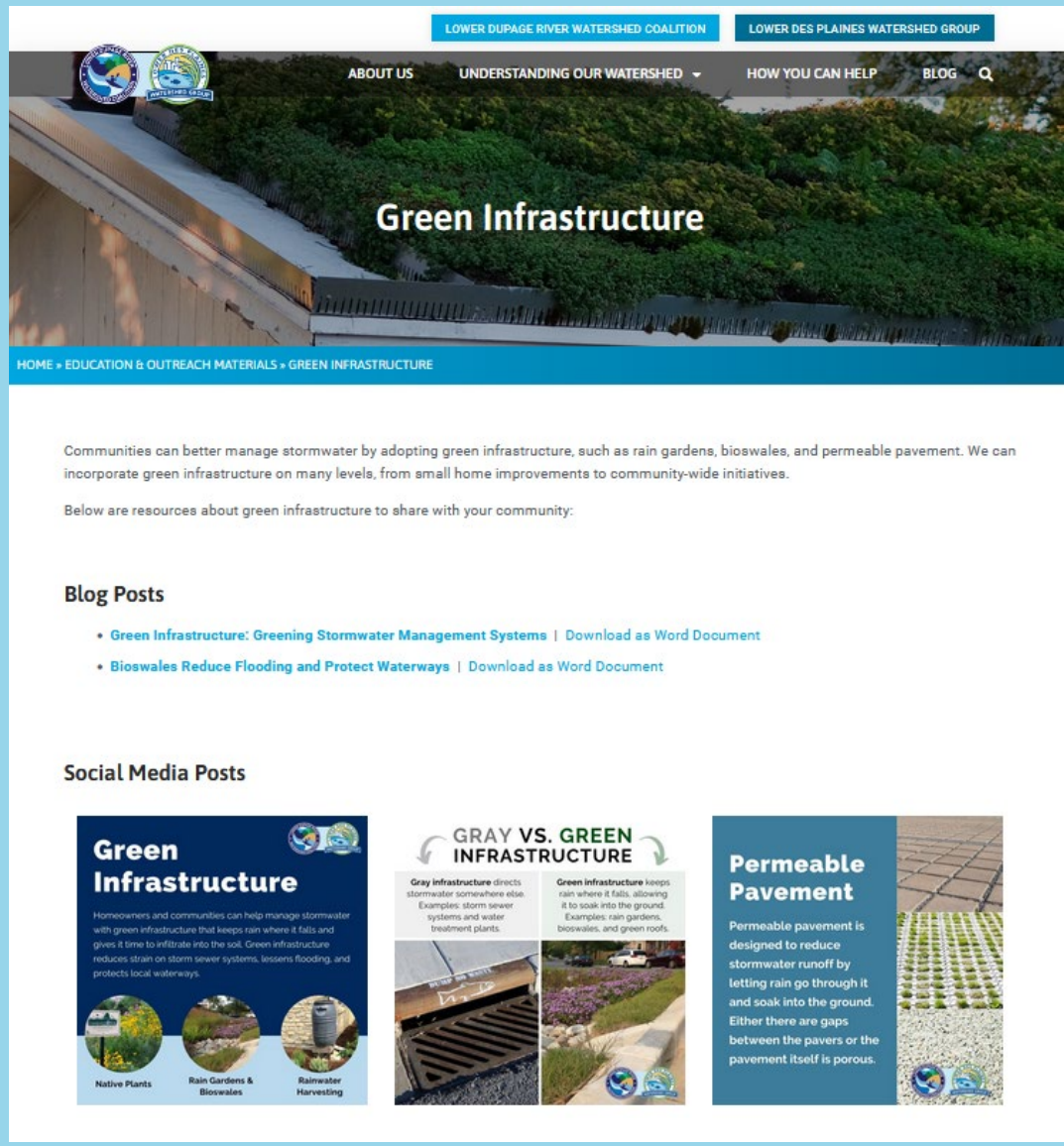




2023 Spring Outreach Materials

Spring Topics:

- Water conservation
- Green infrastructure series
- Materials targeted to specific audiences



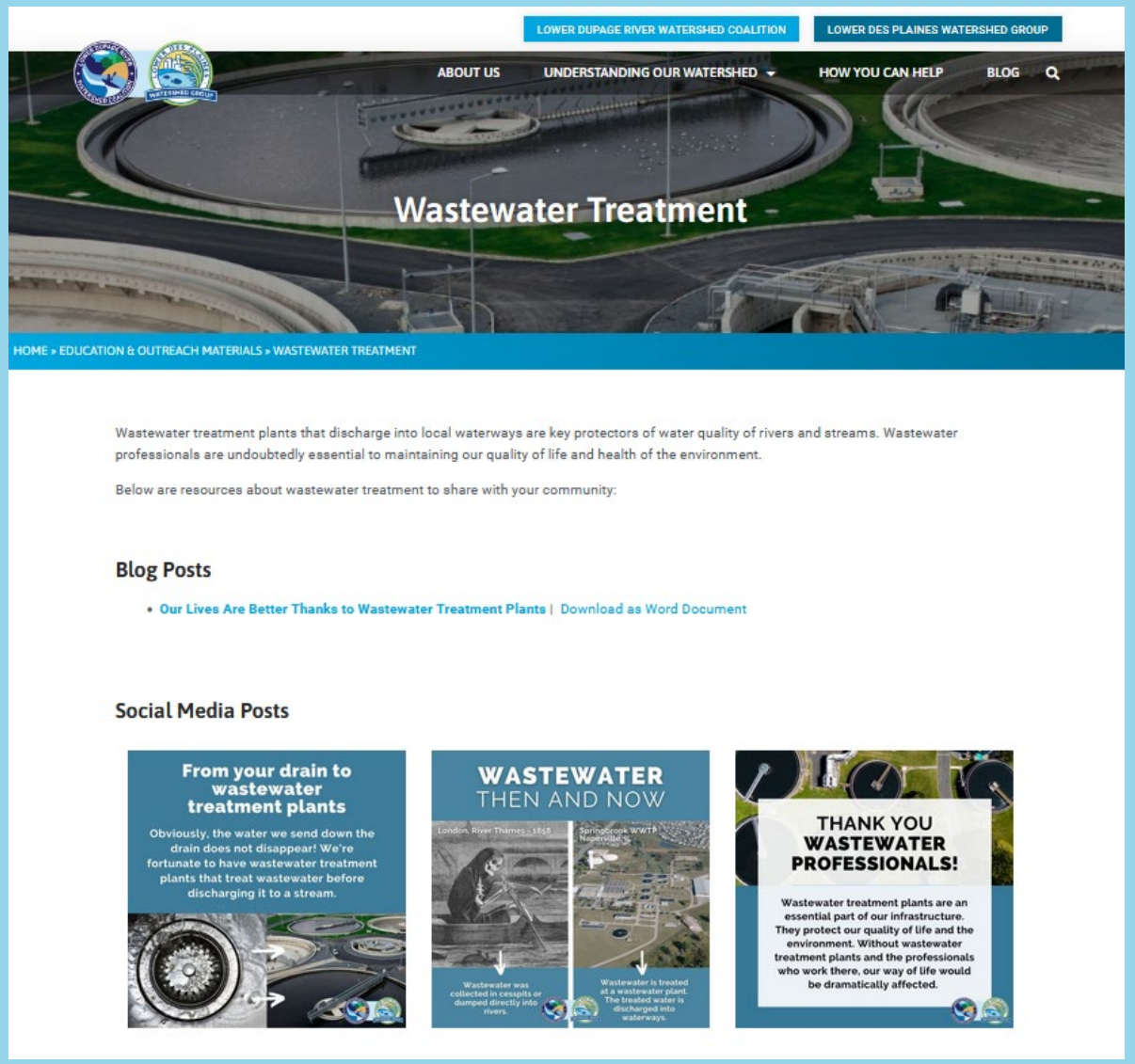
Continued Pet Waste Campaign

Remind residents to scoop the poop to protect water quality!

2023 Summer Outreach Materials

Summer Topics:

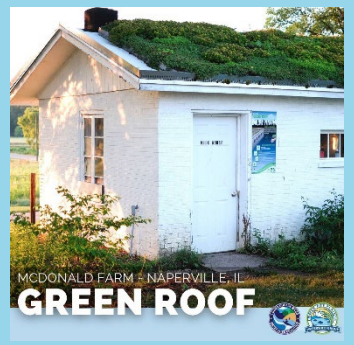
- Wastewater Treatment Plants - Overview
- Green infrastructure series – Green Roofs
- Watershed Ecology - Macroinvertebrates

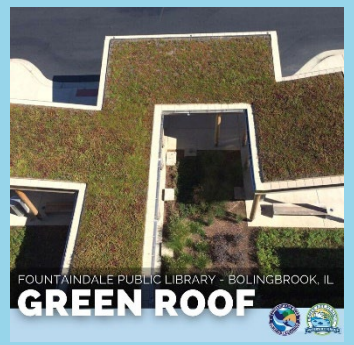


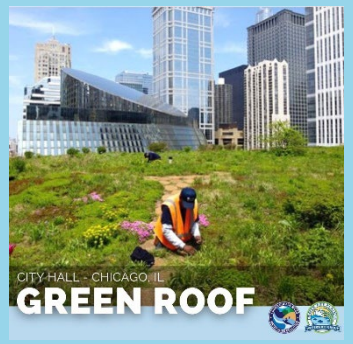
2023 Summer Outreach Materials

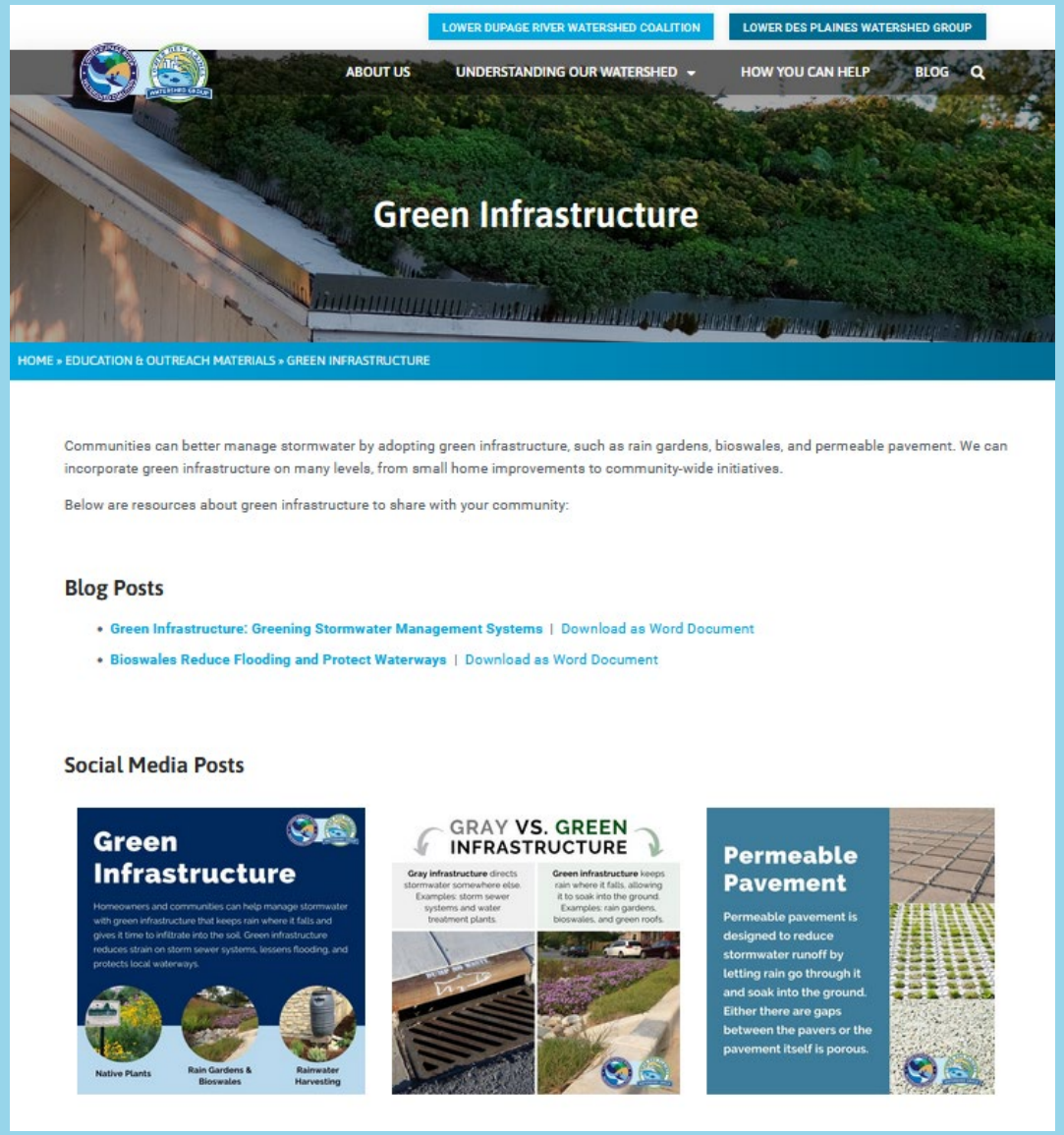
Summer Topics:

- Wastewater Treatment Plants - Overview
- Green infrastructure series – Green Roofs
- Watershed Ecology - Macroinvertebrates





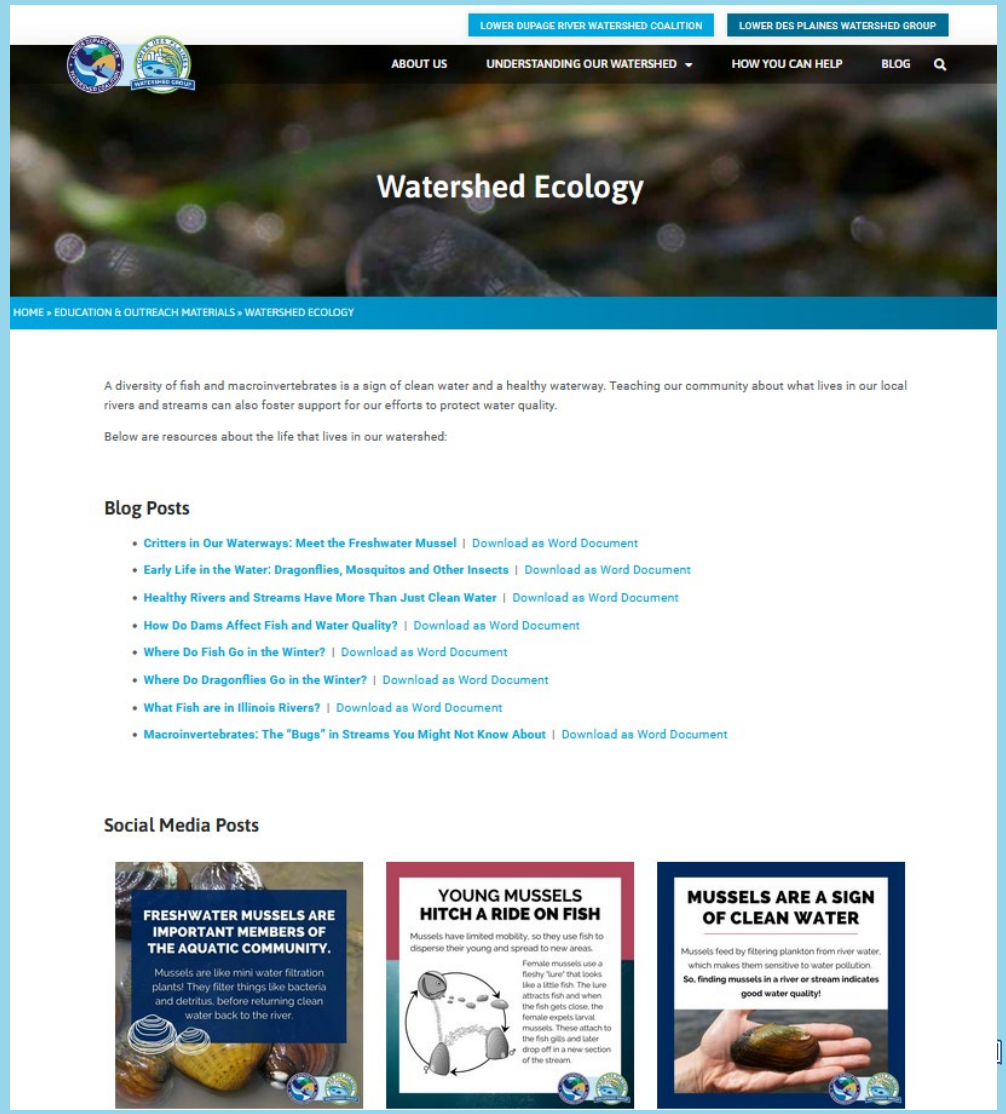




2023 Summer Outreach Materials

Summer Topics:

- Wastewater Treatment Plants - Overview
- Green infrastructure series – Green Roofs
- Watershed Ecology - Macroinvertebrates



We can customize!

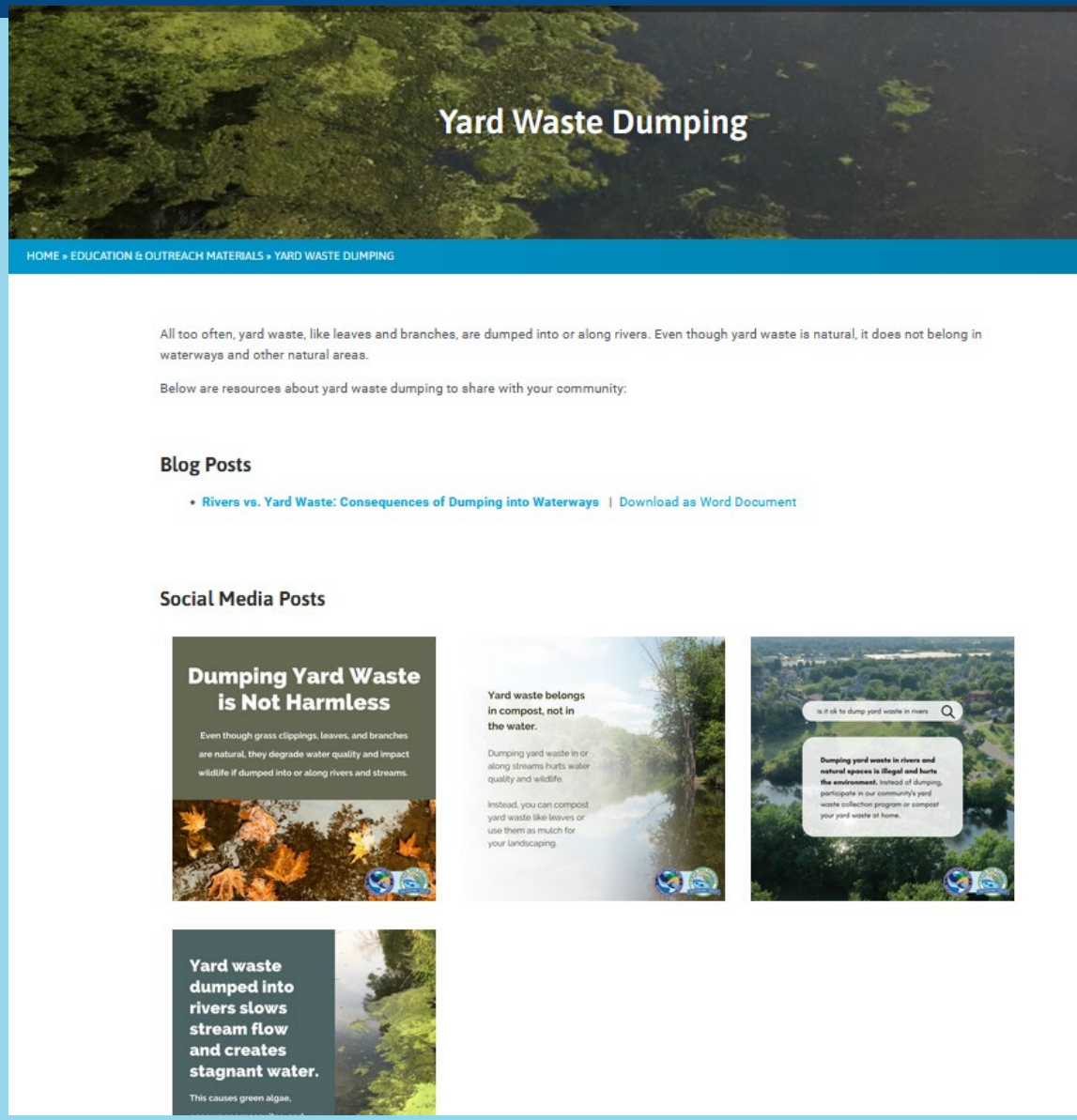
Add Your Logo?

Link to your website?

2023 Fall Outreach Materials

Fall Topics:

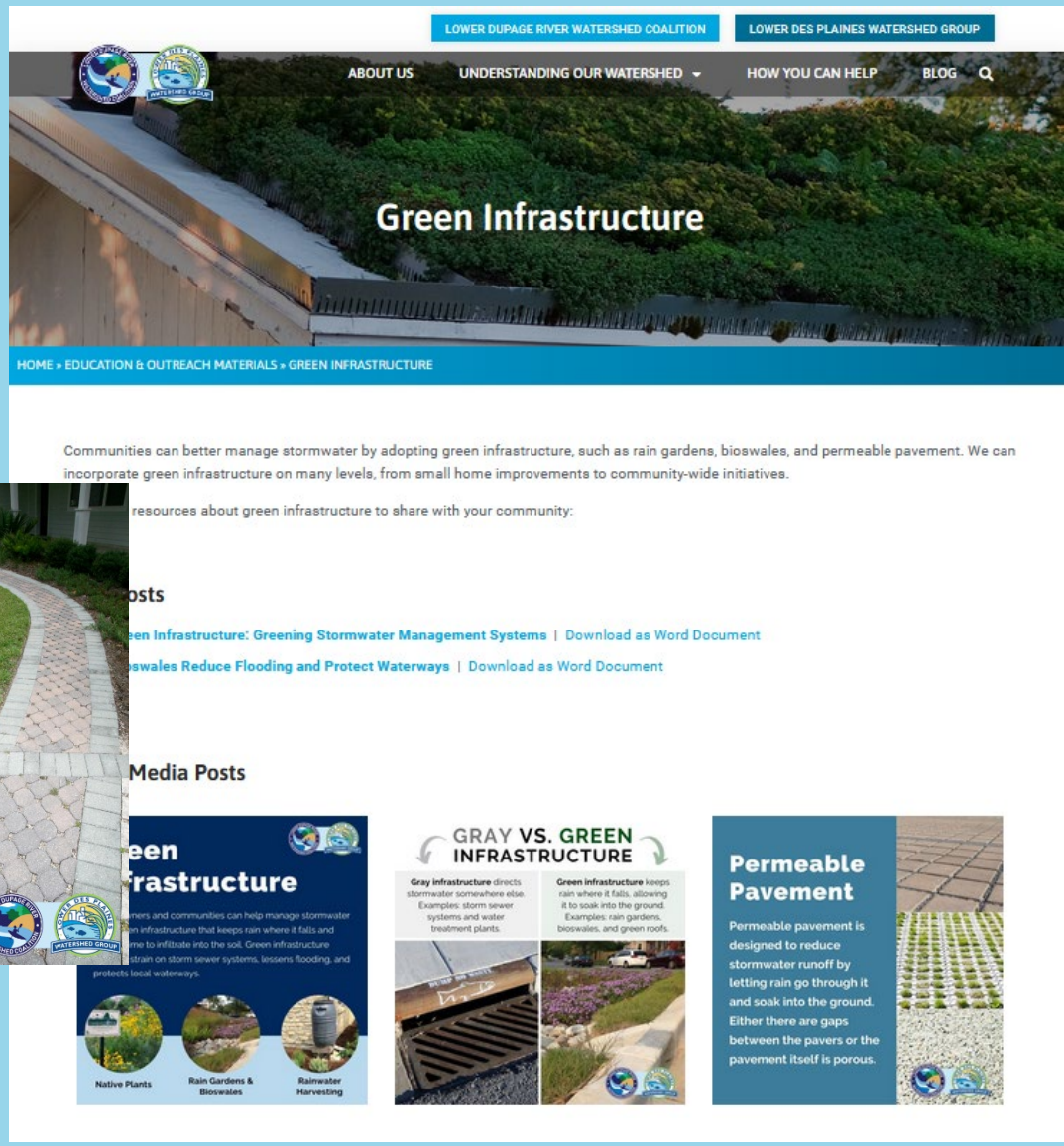
- Yard Waste & Dumping



2023 Fall Outreach Materials

Fall Topics:

- Green infrastructure series



2023 Winter Outreach Materials

Winter Topics:

- Stay Safe & Salt Smart
- Find Your “Why” to be Salt Smart
- Salt Smart Practices

Blog Posts

Salt Smart Practices for Safe Parking Lots and Sidewalks

Explore some of the Salt Smart practices snow clearing crews use to create safe parking lots and sidewalks during the winter.

READ MORE »

Stay Safe and Salt Smart This Winter!

Using Salt Smart practices to prepare for and respond to winter storms, we can stay safe at home, on the road, and in our communities.

READ MORE »

Find Your WHY for Being Salt Smart

Prioritizing clean water, avoiding waste, and even protecting your pet are a few reasons why you’ll want to be Salt Smart this winter.

READ MORE »

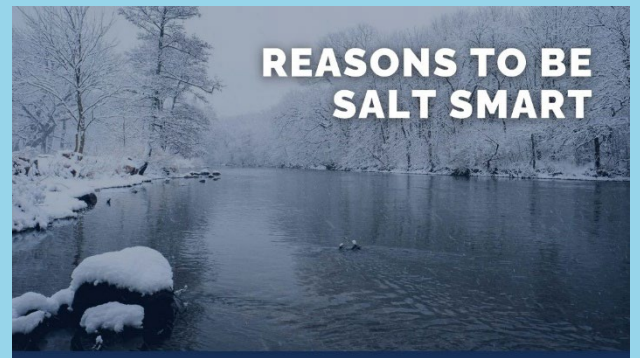
2023 Winter Outreach Materials

HAPPY PETS

When dogs walk on salt-covered surfaces, salt can irritate their paws and potentially make them sick when they lick it off. Being Salt Smart at home supports your pet's safety and well-being.

HEALTHY LANDSCAPING

Deicers often bounce into vegetation next to roads and sidewalks, causing harm to plants. Using the right amount of salt protects your landscaping.



CLEAN WATER

Because Salt Smart practices reduce the amount of deicing salt that enters rivers, streams, and ponds, being Salt Smart protects clean water in local waterbodies.

LESS WASTE

Outdated salting techniques overuse salt, which wastes money and unnecessarily harms the environment. Using Salt Smart practices minimizes waste and saves money.

SAFE ROADS + WALKWAYS

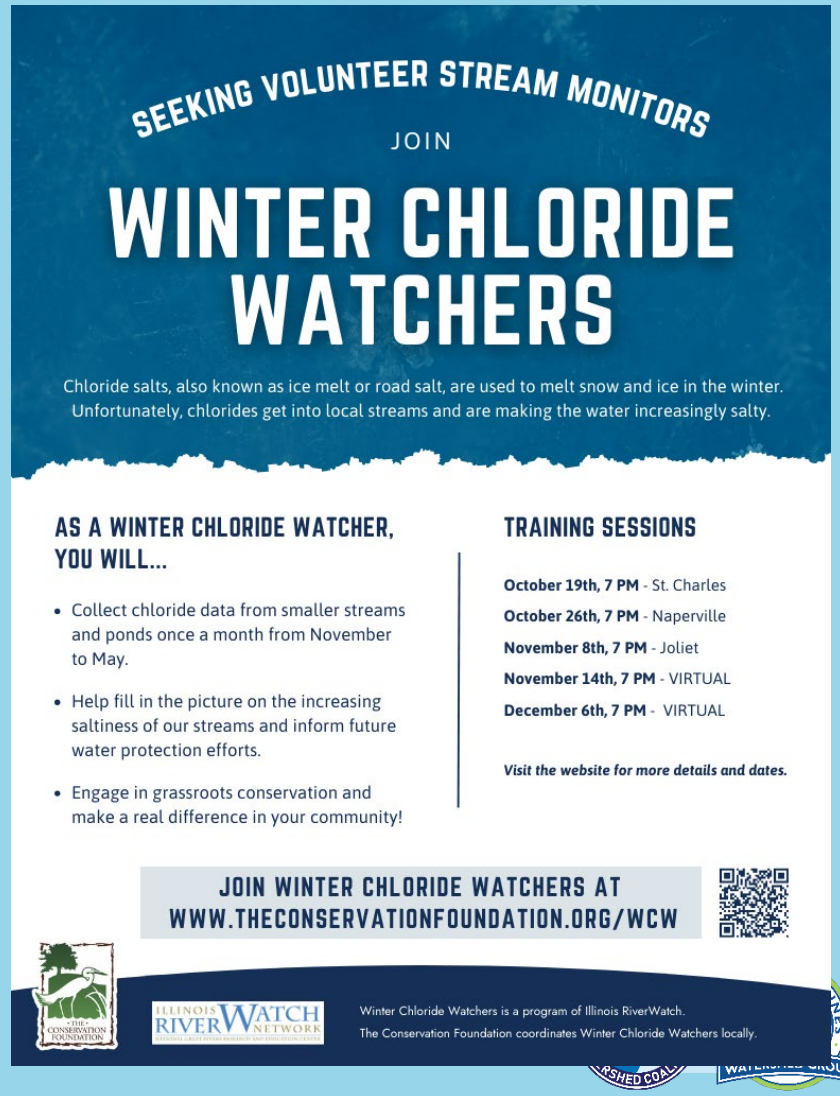
Salt Smart communities apply the **right deicers** for the **right conditions** in the **right amount.** This approach allows them to create safe roads, parking lots, and sidewalks without overusing salt.

LASTING INFRASTRUCTURE

Salt corrodes infrastructure and vehicles, eventually leading to costly repairs. Being Salt Smart improves the lifespan of cars, roads, bridges, doorways, and more.

Winter Chloride Watchers

- Volunteer Monitoring Project
- 1 Hr. Training & materials provided
- Partnership with TCF & Illinois RiverWatch



Salt Smart & You Exhibit

Bring the **Salt Smart and You** exhibit to your library this fall and winter! Engage your community in a dialogue about responsible salt use to protect the environment and ensure winter safety.

8 Pop-Up Displays

The exhibit presents educational content across eight two-sided pop-up displays.

Bilingual Experience

One side of the pop-ups is in English and the other is in Spanish, facilitating a broader reach within your diverse community.

Educate and Inspire

Raise awareness about the consequences of excessive salt use on water quality, infrastructure, landscaping, and pet health. The exhibit aims to inspire action by promoting responsible salting and tips for winter safety.

HOW TO RESERVE

To reserve the **Salt Smart and You** exhibit, visit our website at **www.ldpwatersheds.org/exhibit** to submit the reservation form.

SCAN CODE

Salt Smart & You Exhibit

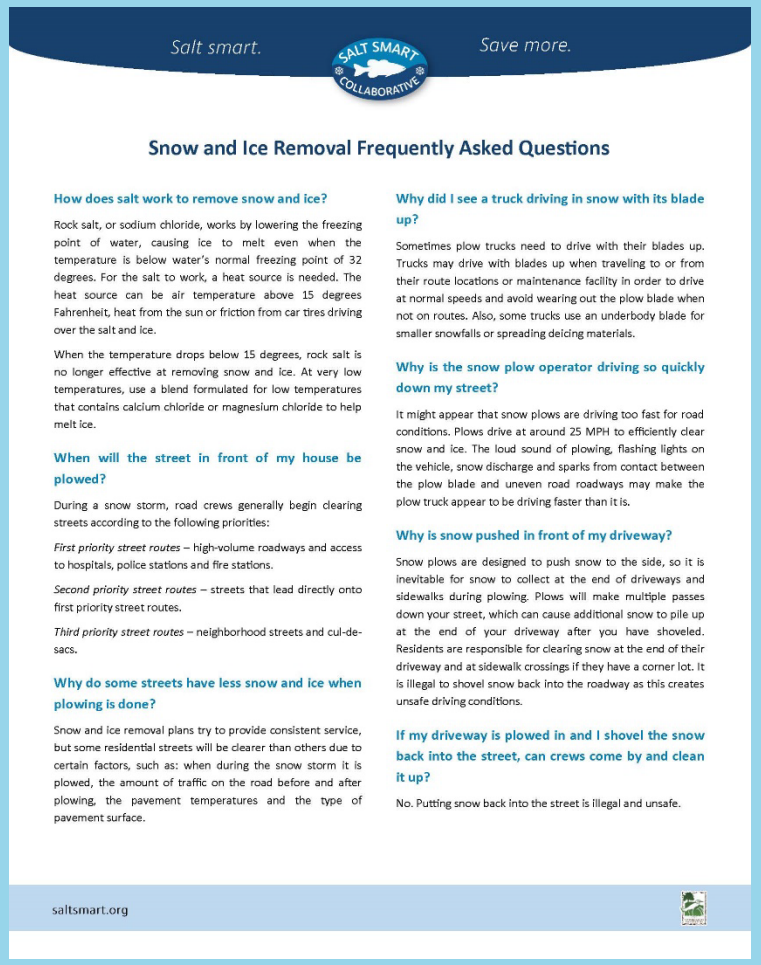
Panel Graphics

Panel Graphics

Winter – Salt Smart

Safe Driving Poster/Graphic

Snow + Ice Removal FAQ



Salt smart. Save more.

Snow and Ice Removal Frequently Asked Questions

How does salt work to remove snow and ice?

Rock salt, or sodium chloride, works by lowering the freezing point of water, causing ice to melt even when the temperature is below water's normal freezing point of 32 degrees. For the salt to work, a heat source is needed. The heat source can be air temperature above 15 degrees Fahrenheit, heat from the sun or friction from car tires driving over the salt and ice.

When the temperature drops below 15 degrees, rock salt is no longer effective at removing snow and ice. At very low temperatures, use a blend formulated for low temperatures that contains calcium chloride or magnesium chloride to help melt ice.

When will the street in front of my house be plowed?

During a snow storm, road crews generally begin clearing streets according to the following priorities:

First priority street routes – high-volume roadways and access to hospitals, police stations and fire stations.

Second priority street routes – streets that lead directly onto first priority street routes.

Third priority street routes – neighborhood streets and cul-de-sacs.

Why do some streets have less snow and ice when plowing is done?

Snow and ice removal plans try to provide consistent service, but some residential streets will be clearer than others due to certain factors, such as: when during the snow storm it is plowed, the amount of traffic on the road before and after plowing, the pavement temperatures and the type of pavement surface.

Why did I see a truck driving in snow with its blade up?

Sometimes plow trucks need to drive with their blades up. Trucks may drive with blades up when traveling to or from their route locations or maintenance facility in order to drive at normal speeds and avoid wearing out the plow blade when not on routes. Also, some trucks use an underbody blade for smaller snowfalls or spreading deicing materials.

Why is the snow plow operator driving so quickly down my street?

It might appear that snow plows are driving too fast for road conditions. Plows drive at around 25 MPH to efficiently clear snow and ice. The loud sound of plowing, flashing lights on the vehicle, snow discharge and sparks from contact between the plow blade and uneven road roadways may make the plow truck appear to be driving faster than it is.

Why is snow pushed in front of my driveway?

Snow plows are designed to push snow to the side, so it is inevitable for snow to collect at the end of driveways and sidewalks during plowing. Plows will make multiple passes down your street, which can cause additional snow to pile up at the end of your driveway after you have shoveled. Residents are responsible for clearing snow at the end of their driveway and at sidewalk crossings if they have a corner lot. It is illegal to shovel snow back into the roadway as this creates unsafe driving conditions.

If my driveway is plowed in and I shovel the snow back into the street, can crews come by and clean it up?

No. Putting snow back into the street is illegal and unsafe.

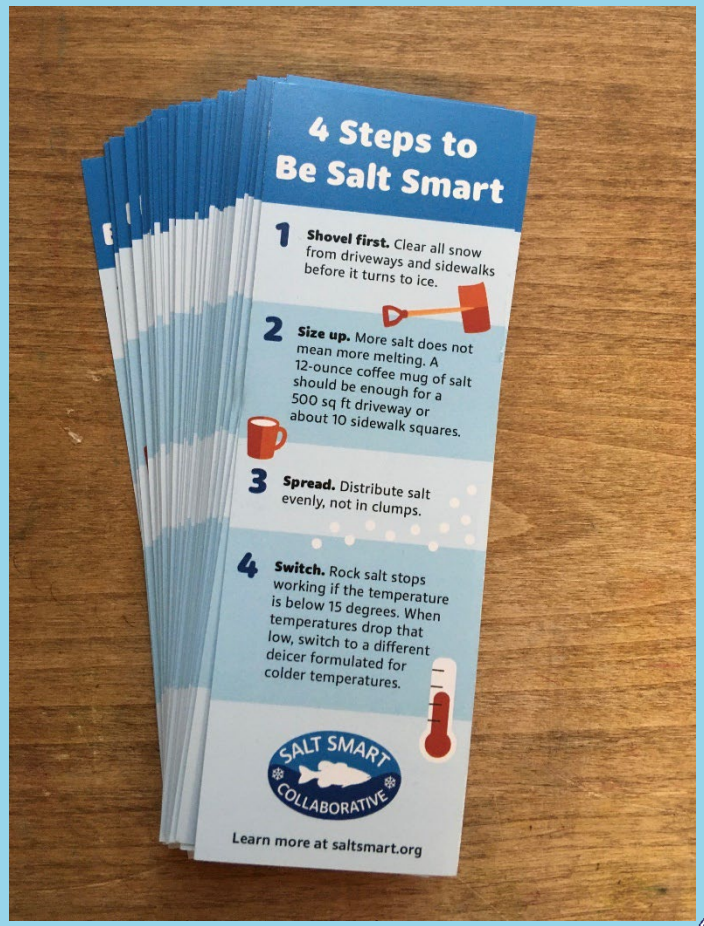
saltsmart.org

Bookmark

Winter – Salt Smart

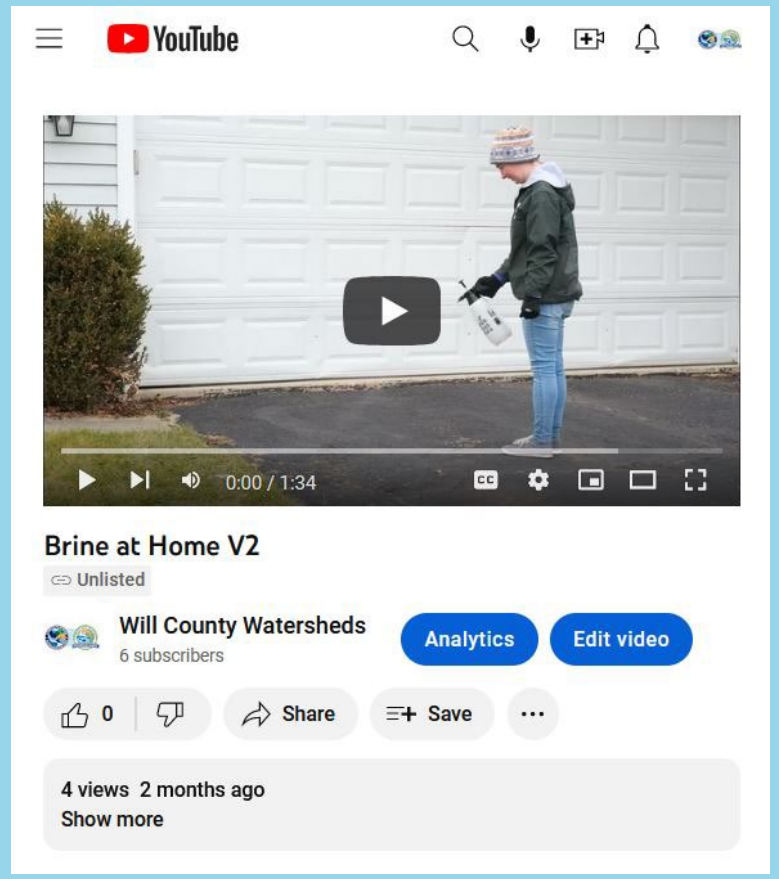
Cups and bookmarks are available now – contact Jennifer or Lea to put in your order

Scatter cups

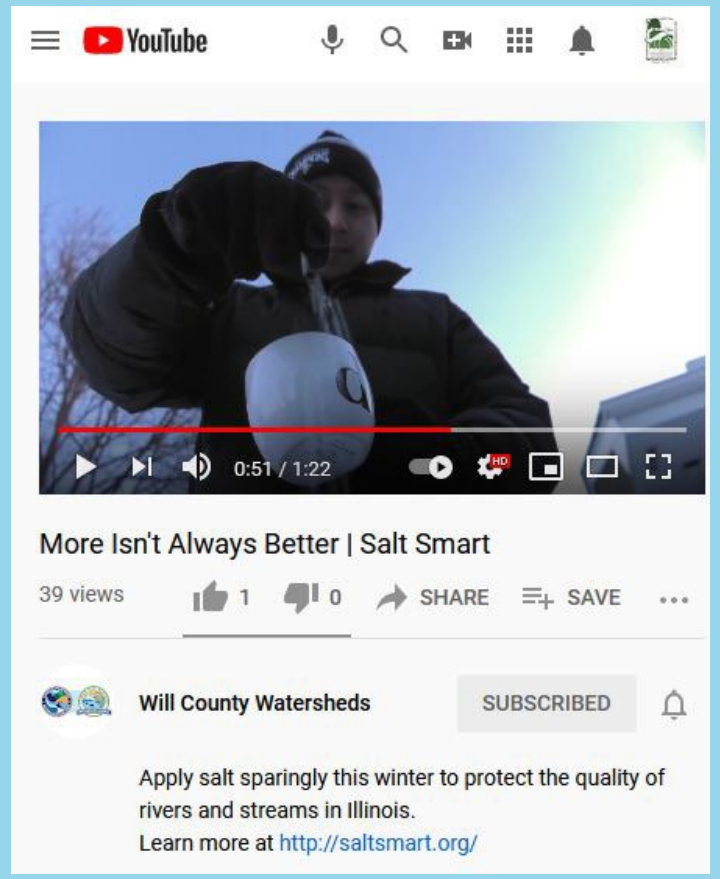


Bookmarks

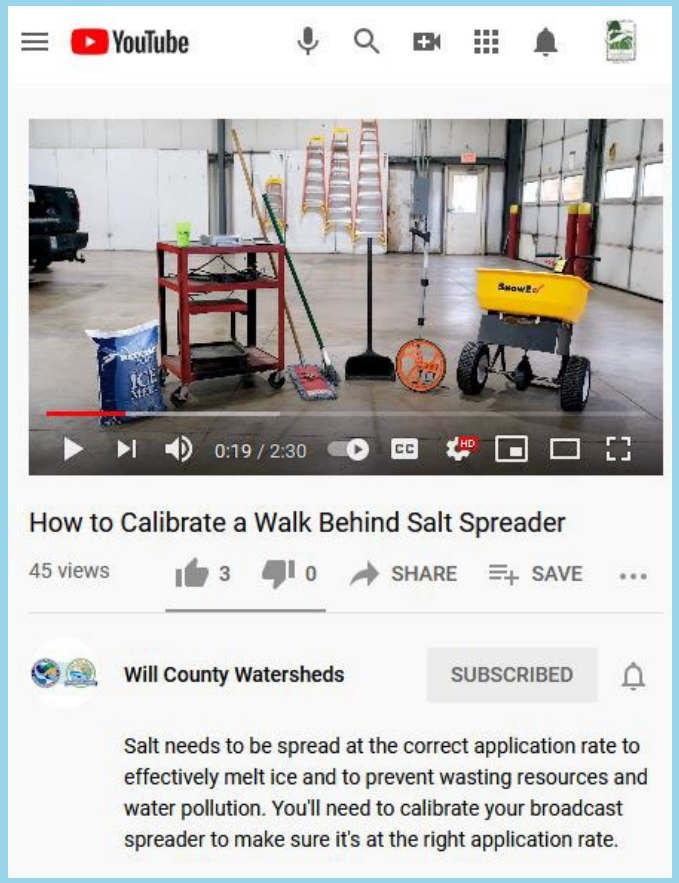
Winter – Salt Smart



Making Brine at Home

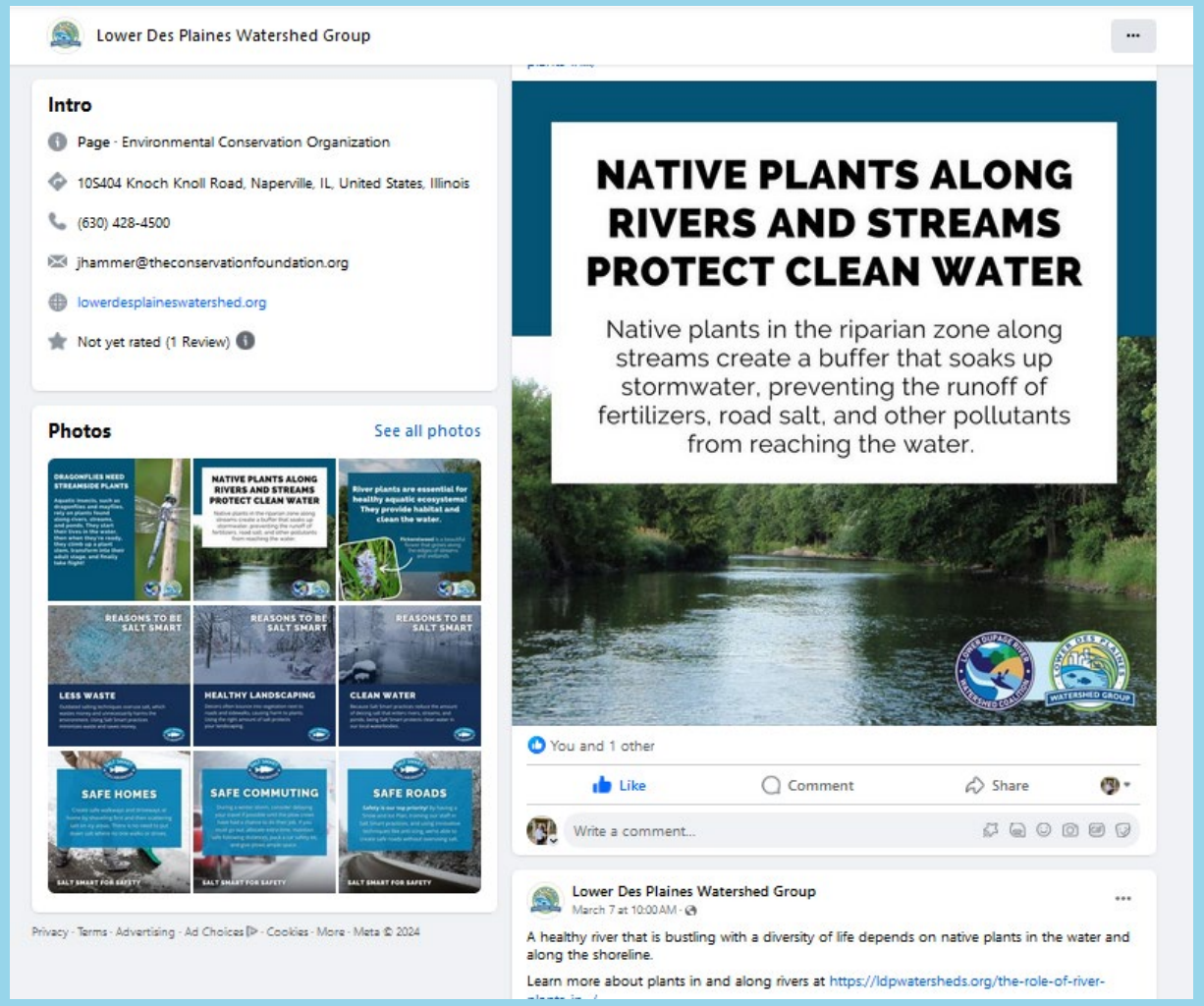


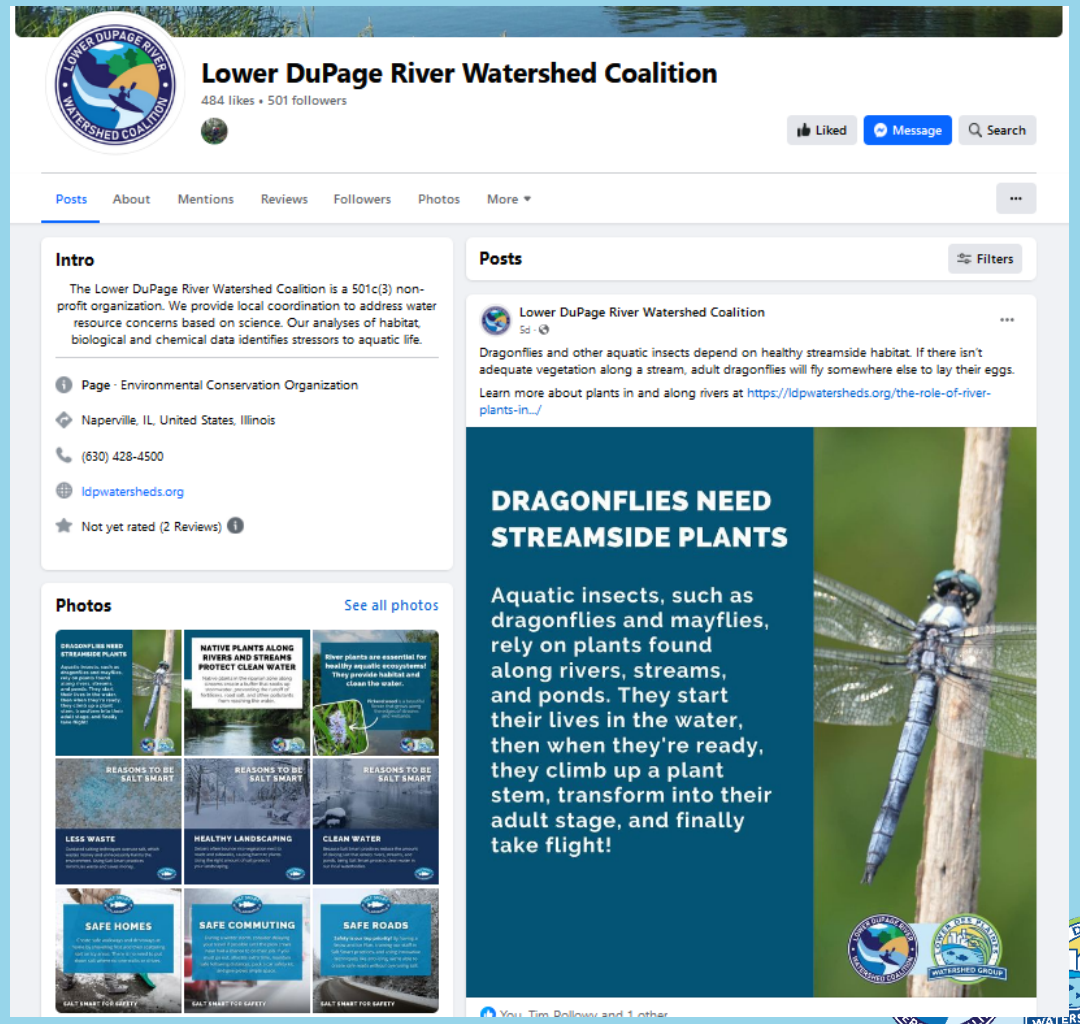
Fun PSA for Residents



Salt Spreader Calibration Tutorial

Connect With Us on Facebook!





Will County Watershed YouTube Channel