

# 2022 Des Plaines River Watershed Workgroup (DRWW) Annual Accomplishments

The DRWW continues to fulfill the monitoring requirements of its members. According to the Illinois EPA, almost all the waterways within the Des Plaines River Watershed are impaired. To remove the watershed from the Illinois EPA's list of impaired waters, the Midwest Biodiversity Institute has developed an Integrated Prioritization Systems (IPS) tool to identify water quality improvement. The DRWW continues to address the NPDES regulatory requirements of its constituents, and provide professional development opportunities to members, stakeholders and constituents. DRWW welcomed two new members in 2022.

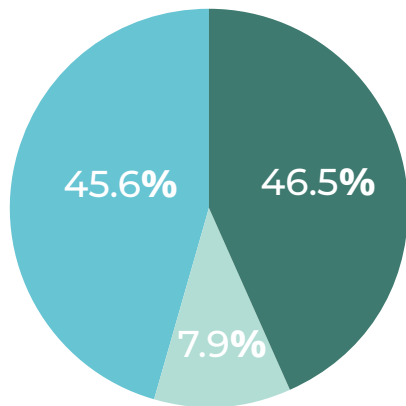
## 2022 Executive Board

- Paul Kendzior, President, Village of Libertyville
- Dave Miller, Vice-President, NSWRD
- Michael Talbett, Treasurer, Village of Kildeer
- Joel Sensenig, Secretary, Lake County Public Works
- Steve Waters, Monitoring Committee Chair, NSWRD
- Mike Adam, Lakes Committee Chair, LCHD
- Gary Glowacki, Member at Large, LCFPD

## 2022 Monitoring Committee

- Steve Waters, Chair, NSWRD
- Mike Adam, LCHD
- Austin McFarlane, LCPW
- Nick Huber, LCFPD
- Brian Kuebker, Village of Libertyville
- Rosemary Heilemann, Illinois Sierra Club
- Vacancy - **DRWW seeking nominations**  
*Contact [Ashley Strelcheck](#) for information*

## 2022 DRWW Expenses



- Biological & Water Quality Monitoring (45.6%)
- Nutrient Assessment Reduction Plan (NARP) (46.5%)
- Administration/Technical Services (7.9%)

## Executive Board

The DRWW Executive Board continues to work with the Monitoring Committee to make financial and technical decisions for the workgroup monitoring activities and the forward progress of the NARP. The DRWW welcomed two new members (City of Waukegan and Illinois Department of Transportation) and one former member (Village of Green Oaks) to the membership.

## 2022 Deicing Workshops

The Des Plaines River Watershed Workgroup continues to sponsor and support the Northeastern Illinois Regional Deicing Workshop. The deicing workshops focus training efforts on ways to keep public and private sector professionals up-to-date on best management practices for winter maintenance that safely reduces road salt use.

The 2022 workshops trained over 900 individuals in winter BMPs for both public roads and parking lots & sidewalks. The DRWW encourages members to look for ways to reduce road salt use while ensuring safe travel on transportation surfaces. Check out the [Salt Smart Collaborative](#) and [Lake County](#) for resources to use and share on winter deicing BMPs.

## Major Accomplishments

— **2015:** The DRWW was officially formed and gained 18 members in the first year!

— **2016-2018:** Illinois EPA awarded a Section 319 grant to develop a watershed-based plan. DRWW monitoring costs of \$279,000 were utilized as grant matching funds. The watershed plan was developed and completed with DRWW's input in June 2018 and approved by the Illinois EPA.

— **2019:** The DRWW contracted with Geosyntec to develop a Preliminary NARP Workplan with a multi-year plan to complete the NARP in 2023, satisfying the POTW NPDES Special Condition permit requirements.

— **2020-2022:** DRWW updated the bylaws and membership dues structure. The DRWW is in the middle of a three-year monitoring program based on the preliminary NARP Workplan recommendations. DRWW contracted with Geosyntec to complete the NARP by December 31, 2023.

# Committee Reports:

## Monitoring/Water Quality Improvement Committee

The DRWW continues to conduct water quality and bioassessment monitoring. Data from this monitoring is the foundation of the Integrated Prioritization System (IPS) and NARP models that will be used to prioritize and implement water quality improvement projects. The Monitoring Committee meets frequently with Geosyntec Consultants for updates and decisions for next steps for completion of the 2023 DRWW NARP. The Committee reviewed and approved the DRWW **2020 Water Quality Monitoring Report**, completed by MBI. Similar to previous years' reports, the report suggests that quality of aquatic life in the Des Plaines River mainstream improves downstream through the workgroup area.



## Nutrient Assessment & Reduction Plan

The DRWW is well on their way to completing a Nutrient Assessment & Reduction Plan (NARP) in 2023. The NARP, required by special condition in the National Pollutant Discharge Elimination System (NPDES) permits of multiple DRWW members, aims to address phosphorus-related impairments in waters receiving discharge from publicly owned treatment works (POTWs). The objectives of this plan include establishing water quality targets, identifying measures to eliminate the phosphorus-related impairments, and determining mechanisms to facilitate cost-effective implementation of the NARP. The plan development includes four phases:

1. Conduct Data Analysis (Complete);
2. Develop Modeling Tools;
3. Evaluate Management Scenarios;
4. Implementation Planning and Schedule

In 2022, the major efforts included the development of modeling tools (Phase 2) to identify the relationships between phosphorus inputs and the identified instream impairments. To estimate discharge rates and pollutant loads from the land surface and tributaries, a Soil and Water Assessment Tool (SWAT) watershed model was developed by project partner Kieser & Associates. The SWAT watershed model estimates the non-point source nutrient loads to the mainstem Des Plaines River. The results of the SWAT model output were then input into a QUAL2kw instream model developed by Geosyntec Consultants. The QUAL2kw model estimates hydrodynamics and water quality according to the governing physical and biological processes for the 2020 growing season (May – October). The instream model was calibrated with historical water quality data from 35 miles of the mainstem Des Plaines River, 7 miles on Hasting's Creek, and 4 miles on Mill Creek. The modeling tools developed in 2022 will be used to assess watershed management strategies (Phase 3) for the best ways to address the phosphorus-related impairments within the watershed.

## Lakes Committee

The Lakes Committee submitted to the Executive Board a **list of recommendations** for future consideration specifically targeting lake water quality in the watershed. The primary focal points of the recommendations include: lake management plans, coordinated education, routine monitoring of lake and stormwater inlets, nutrient reduction, and project implementation.

Lakes Committee Members: Mike Adam, Alana Bartolai, Gerry Urbanozo, Lake County Health Department; Rob Flood, North Shore Water Reclamation District; Tom Morthorst, Village of Third Lake; Nick Huber, Lake County Forest Preserve District

## Illinois EPA Section 319 Grant Update

**Removal of Carp to Reduce Nutrient Enrichment in Impaired Lakes in Lake County** - The Lake County Health Department, Lake County Forest Preserve District and Lake County Stormwater Management Commission completed the Removal of Carp to Reduce Nutrient Enrichment Project in October of 2022. Eight lakes within the Des Plaines River Watershed were selected: Crooked, Hastings, McDonald 2, Slough, Des Plaines, St. Mary's, Big Bear and Little Bear Lakes. Carp removal was identified as a high priority action at all the project locations within the Des Plaines River Watershed-Based Plan.

In total, 11,721 carp equaling 57,433 lbs were removed from the lakes throughout this project. The amount of phosphorus removed from each lake system ranges from an average of 161–351 lbs./year. This project reduced a source of phosphorus for internal loading in the lake, removed phosphorus contained in the flesh of the carp, allowed the re-emergence of aquatic plants to grow and increased water clarity. The Lake County Health Department plans to continue to monitor the water quality of the project lakes and carp removal efforts.

*Funding for this project was provided, in part, by the Illinois Environmental Protection Agency through Section 319 of the Clean Water Act.*

## DRWW Membership

### 32 Agency Members

- City of Lake Forest
- City of Park City
- City of Waukegan
- City of Zion
- Ela Township
- Fremont Township
- Illinois Department of Transportation
- Lake County
- Lake County Division of Transportation
- Lake County Forest Preserve District
- Lake County Public Works
- Libertyville Township
- North Shore Water Reclamation District
- Vernon Township
- Village of Buffalo Grove
- Village of Deer Park
- Village of Deerfield
- Village of Grayslake
- Village of Green Oaks
- Village of Gurnee
- Village of Hawthorn Woods
- Village of Kildeer
- Village of Lake Zurich
- Village of Libertyville
- Village of Lincolnshire
- Village of Lindenhurst
- Village of Long Grove
- Village of Riverwoods
- Village of Round Lake Beach
- Village of Round Lake Park
- Village of Third Lake
- Village of Vernon Hills

### 9 Associate Members

- Applied Technologies, Inc.
- Christopher B. Burke Engineering
- Deuchler Engineering Corp.
- Geosyntec
- Hey & Associates
- Lake County Stormwater Management Commission
- Sierra Club
- Vernon Hills Park District
- Village of Old Mill Creek

For additional information on the DRWW, visit [www.drww.org](http://www.drww.org) or call us at 847-377-7700.

