



North Branch Chicago River Watershed Workgroup

2020 Annual Newsletter

Executive Board

President
Brandon Janes, Deerfield
Alternate: Mark Olszewski

Vice President
Matt Farmer, Northbrook
Alternate: Jim Baxa

Committee Chair
Rob Flood, NSWRD
Alternate: Steve Waters

Members-At Large
Matt Ueltzen, LCFPD
Alternate: Nick Huber

Robyn Flakne, Glenview
Alternate: Joe Kenney

Al Giertych, LCDOT
Alternate: Mike Zemaitis

James Bernahl, Winnetka
Alternate: Steve Saunders

Monitoring & Water Quality Impairment Abatement Committee

Committee Chair
Rob Flood, NSWRD
Alternate: Steve Waters

Members-At-Large
Eric Otto, FPDC
Alternate: Becky Collings

Kate Amoruso, Wilmette
Alternate: Dan Manis

Damon Cederberg, Libertyville Twp.
Alternate: Kathleen O'Connor

Larry Bridges, ESDD
Alternate: Bill Schrimpf

Wally Dittrich, Lincolnshire
Alternate: Marc Facchini

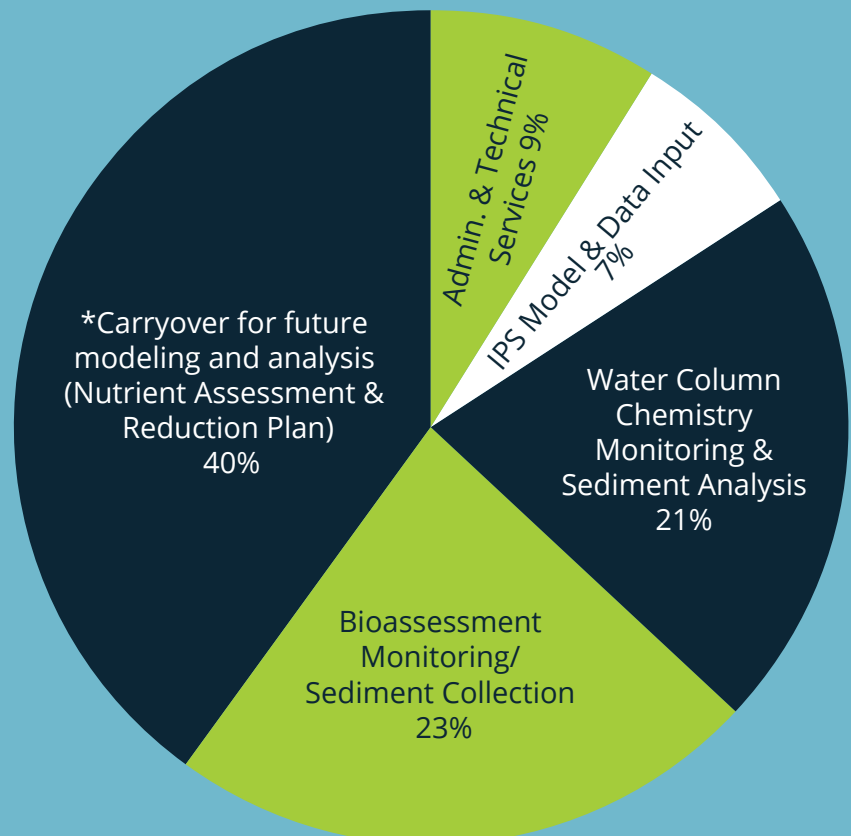
Jeff Nehila, Deerfield Park District
Alternate: Jay Zahn

The North Branch Chicago River Watershed Workgroup (NBWW) is a voluntary, dues-paying organization. The workgroup is governed by bylaws, an elected Executive Board, and voting dues-paying members. The NBWW monitors water quality in the North Branch Chicago River watershed planning area upstream (north) of Dempster Street in Morton Grove, which includes the three subwatersheds: West Fork, Middle Fork and Skokie River. In addition to meeting members' Illinois Environmental Protection Agency (Illinois EPA) National Pollutant Discharge Elimination System (NPDES) permit requirements, the NBWW can prevent duplicated monitoring efforts and will accomplish more with less! Membership dues are used to implement the water quality program, which includes: data collection, analysis and identification of potential water quality impairments based on collected water quality data.

Workgroup Mission

To bring together a diverse coalition of stakeholders to preserve and improve water quality in the North Branch Chicago River and its tributaries through long term monitoring and gaining a better understanding of the stressors to the aquatic system.

2020 NBWW Financials



2020 Accomplishments

NPDES Permitting

- Completed Year 3 water quality monitoring efforts, which includes water column chemistry, bioassessment and sediment sampling. See page 4 for more detailed information.
- Compiled and submitted the March 1, 2019 - March 1, 2020 annual report to the Illinois EPA to satisfy the NPDES water quality monitoring component of the annual permit reporting requirements for NBWW members.
- Updated the 2018-2023 NBWW Workplan scorecard.
 - This scorecard can be used by watershed workgroup members as support for Part 5 of the NPDES ILR40 Permit requirements and measurable goals in Stormwater Management Program Plans.
- Updated the NBWW Monitoring Strategy (2021) & created a Notice of Intent (NOI) spreadsheet for NBWW members. This spreadsheet can be used as an MS4 program reference and can be included as an NOI reference in the Water Quality & Sediment Monitoring Programs Section of the NOI.
- NBWW Monitoring Committee reviewed the draft 2018-2019 Bioassessment & Water Quality Assessment Report. See Page 3 for more information.

Education & Outreach

- NBWW held 13 meetings in 2020; 6 executive board, 3 general membership and 4 monitoring & water quality impairment abatement committee meetings. Since April 2020, all meetings were held on a virtual platform due to COVID-19 meeting regulations.
- Continued outreach to public-sector stakeholders – townships, park districts, drainage districts, school districts etc. to inform them of the Workgroup’s activities and invite them to become members.
- Continued support of the North Branch Chicago River

Watershed-Based Plan update by utilizing NBWW’s 2018 - 2020 monitoring program as local match towards an Illinois EPA 319 grant. The 2018 - 2020 monitoring data was submitted to the Illinois EPA in December 2020.

- Maintained NBWW website; www.nbwwil.org, for posting information on the workgroup and distributing updates to NBWW members and the public.

Water Quality Modeling

- NBWW contributed funds to complete the Identification and Prioritization System Model (IPS Model). NBWW’s 2018 - 2019 monitoring data was integrated into the IPS Model. This model will be utilized to prioritize projects that will improve aquatic assemblages in a measurable and systemic manner.
- NBWW created and sent out a Request for Qualifications (RFQ) seeking a qualified consultant to assist NBWW with a Preliminary Nutrient Reduction & Assessment Plan (NARP) Workplan.
 - The NARP is a requirement in the Special Conditions of the NPDES discharge permits for major publicly owned treatment works (POTWs) in Illinois. The deadline for delivery of a Preliminary NARP Workplan deadline to the Illinois EPA is December 31, 2021.

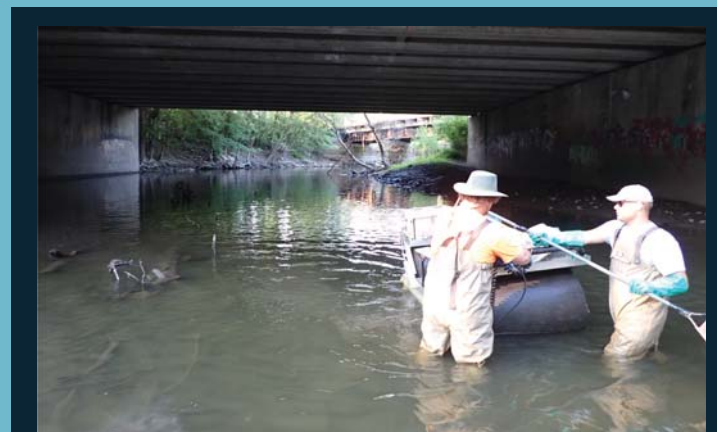


Figure 1: MBI 2020 fish assemblage sampling at MF 19 (Middle Fork Station 19)

Monitoring Activities

Bioassessment & Sediment

Midwest Biodiversity Institute (MBI) was contracted to perform bioassessment monitoring and sediment collection in the watershed. MBI sampled 11 out of 25 monitoring sites for fish index of biotic integrity (fIBI), qualitative habitat evaluation index (QHEI), macroinvertebrate index of biological integrity (mIBI) and sediment chemistry. Datasonde units were deployed at 6 out of the 25 monitoring sites in the Skokie and Middle Fork of the North Branch Chicago River for collection of dissolved oxygen (D.O.), pH, temperature and specific conductance. Benthic chlorophyll a was also collected at those 6 sites.

Water Column Chemistry

North Shore Water Reclamation District (NSWRD) was contracted to conduct water column chemistry monitoring at all 25 Tier 1 & Tier 2 monitoring sites and laboratory analysis of the sediment chemistry samples collected at 11 sites. NSWRD sampled water column chemistry four to six times a year in the months of February, May, July, August, September and October. The water column chemistry sampling consists of on-site field measurements and water samples which are analyzed within the laboratory. All monitoring is conducted under an Illinois EPA approved NSWRD Quality Assurance Project Plan (QAPP) and the North Branch Chicago River Watershed QAPP.

Bioassessment & Water Quality Assessment Report

In Fall 2020, MBI created a draft 2018-2019

Bioassessment & Water Quality Assessment Report detailing the 2018 - 2019 monitoring data including the chemical/physical data, POTW loadings data, calculation of the Illinois fish and macroinvertebrate IBI scores and metrics, and the assignment of causes and sources to any documented biological impairments. The synthesis of results provide conclusions about impairment causes and sources and include any patterns observed in the study area such as the differences in results observed between POTW influenced and nonpoint source influenced sites and reaches. NBWW Executive Board & Monitoring Committee members are currently in the review process and anticipate a final report from MBI in early 2021. Once this report has been approved by the NBWW Monitoring & Water Quality Impairment Abatement Committee, the report will be sent to the Illinois EPA for approval and posted on NBWW's website.

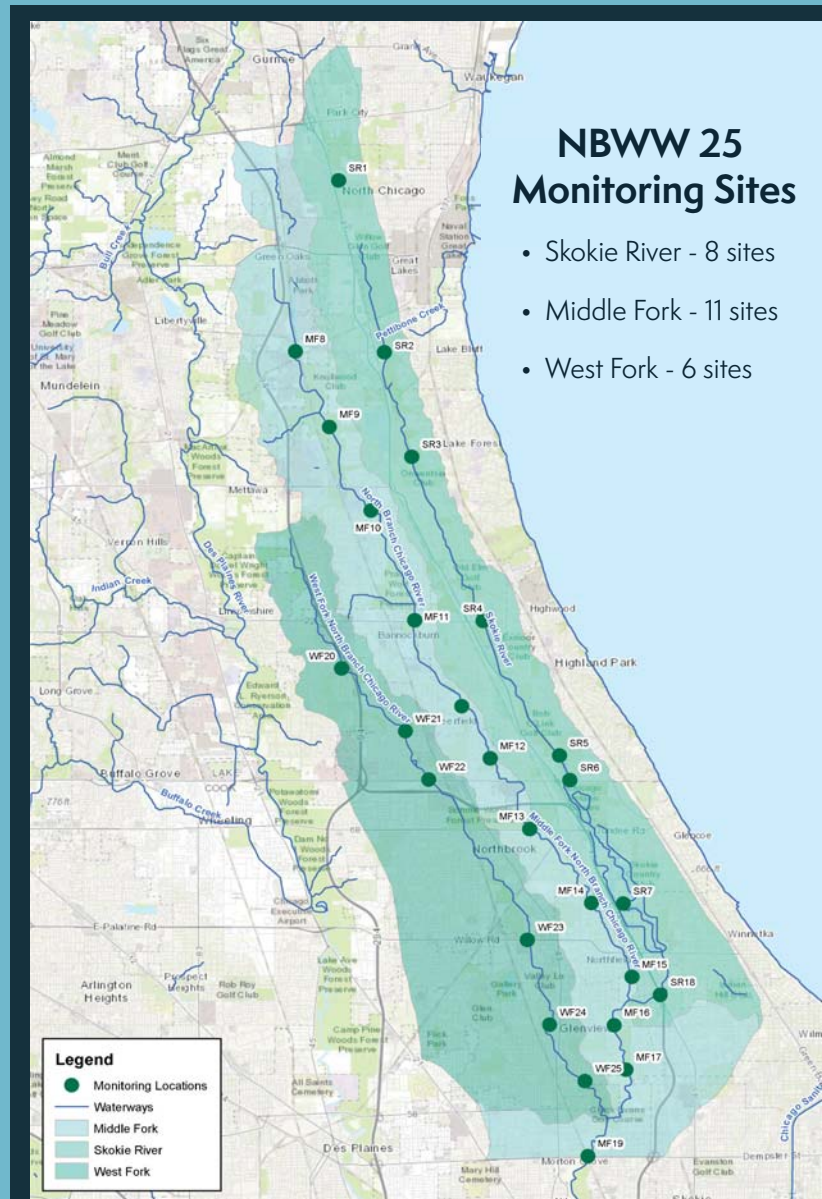


Figure 2: NBWW Monitoring Map. Monitoring data collected from these monitoring efforts is submitted annually to the Illinois EPA to fulfill the NPDES water quality monitoring permit reporting requirements of its workgroup members.

NBWW Members

2020 Annual Membership Dues \$127,806.00 & 42 NBWW Members

Agency Members

- City of Highland Park
- City of Lake Forest
- City of North Chicago
- City of Park City
- Cook County
- Cook County Div. of Trans. & Highways
- East Skokie Drainage District
- Forest Preserve District of Cook County
- Lake County
- Lake County Division of Transportation
- Libertyville Township
- North Shore Water Reclamation District
- Union One Middle Fork DD
- Union One West Fork DD
- Vernon Township
- Village of Bannockburn
- Village of Deerfield
- Village of Glencoe
- Village of Glenview
- Village of Green Oaks
- Village of Lincolnshire
- Village of Morton Grove
- Village of Niles
- Village of Northbrook
- Village of Northfield
- Village of Riverwoods
- Village of Skokie
- Village of Wilmette
- Village of Winnetka
- West Deerfield Township

Associate Members

- Christopher Burke Engineering
- Deerfield Park District
- Friends of the Chicago River
- Gewalt-Hamilton Associates
- Hey & Associates
- Illinois Sierra Club
- Integrated Lakes Management
- Lake County Forest Preserve District
- Lake County Stormwater Management Commission
- Lake Forest Open Lands
- Metropolitan Water Reclamation District of Greater Chicago

What are the Membership Benefits for My Community?

NBWW membership dues provide significant cost savings to the watershed and individual communities. If an MS4 community performed monitoring individually, costs would be based on a number of factors but the minimum requirement would at least be two monitoring sites. What does the cost comparison look like?

- The cost to MS4 communities managing an individual monitoring program is estimated at upwards of \$10,000 for upstream and downstream monitoring sites (*General NPDES Permit No. ILR40, Part V, Item A, Section 2b*), bidding, contract management, reporting and data formatting for permitting and monitoring requirements.
- The cost to NBWW for annual water column chemistry and biological assessments is \$87,500 for the entire watershed, which equates to roughly \$ 3,500 per monitoring site and includes 25 sites in the monitoring program. Our membership includes 24 IEPA permit holders, which if performed independently, would cost approximately \$240,000. Collectively, the economy of scale provided by the workgroup and its membership save the watershed upwards of \$150,000 in yearly monitoring.

Other quantifiable advantages of your membership include the following:

- MS4 permit compliance for water quality monitoring is met
- Monitoring data formatted to meet Illinois EPA annual submittal requirements
- Monitoring data analyzed and summarized into comprehensive report
- MS4 permit compliance for chlorides is met – If the permittee performs any deicing activities that can cause or contribute to a violation of an applicable State chloride water quality standard, the permittee must participate in any watershed group(s) organized to implement control measures which will reduce the chloride concentration in any receiving stream in the watershed. (*General NPDES Permit No. ILR40, Part III, Item D*)

NBWW 2021 Goals

NPDES Permitting

- Analyze third-year (Skokie River) monitoring results and complete the fourth-year (Middle Fork & West Fork) sampling.
- Compile the March 1, 2020 - March 1, 2021 NBWW monitoring data in a format to be included in an annual report prepared to satisfy the NPDES water quality monitoring permit reporting requirements.
- Maintain the NOI NBWW monitoring strategy spreadsheet for water column chemistry, fish, macroinvertebrates, habitat and sediment chemistry.
- Develop a database of monitoring data including fish, macroinvertebrates, habitat, and water and sediment chemistry.

Water Quality Modeling

- Select a qualified consultant to assist with the completion of the Preliminary NARP Workplan.
 - Work with the selected consultant to prepare a draft Preliminary NARP workplan to the Illinois EPA by December 31, 2021.
 - Based on preliminary NARP workplan results, start adjusting the NBWW monitoring strategy for any data gaps identified (if necessary).
- Begin MBI's IPS Model training with regional workgroups to use monitoring data and assessment results with water quality management goals and objectives in order to better guide decision-making at regional and local watershed scales.
- Refine the monitoring program based on monitoring years one through three and advice from industry experts.

Education & Outreach

- Continue to host meetings that provide education and outreach targeted towards achieving attainment of water quality standards and designated uses for the watershed.
 - Support the North Branch Watershed Planning Committee and the North Branch Watershed Consortium through fostering general membership forums.
 - Support SMC with the update to the North Branch of the Chicago River Watershed-Based Plan through the NBWW general membership meetings.
- Support and sponsorship local deicing education and outreach efforts meeting NBWW bylaw goals and objectives.



Figure 3: MBI 2020 fish assemblage sampling at MF 16 (Middle Fork Station 16)

Preliminary NARP Workplan

In November 2020, NBWW issued a Request for Qualifications (RFQ) for a qualified consultant to assist in completing a Preliminary Nutrient Assessment and Reduction Plan (NARP) Workplan by December 31, 2021 for submittal to the Illinois EPA. The purpose of this Preliminary NARP Workplan is to:

- identify Illinois EPA NARP requirements,
- compile background data previous studies and plans and all watershed monitoring data,
- develop a scope and schedule for completing the NARP (deadline Dec. 31, 2024) and
- develop cost estimates based on individual tasks.