

NBWW  
WORKPLAN  
2018-2023

North  
Branch  
Chicago  
River  
Watershed  
Workgroup

## Introduction

The North Branch of the Chicago River watershed encompasses over 95 square miles, with northern and southern boundaries roughly extending from Illinois Route 132 (Grand Avenue) in the City of Waukegan in Lake County south to Dempster Street in Morton Grove in Cook County. The total watershed area is 60,658 acres, with 32,240 acres in Lake County and 28,418 acres in Cook County. The watershed is comprised of twenty-five municipalities, eleven townships and four drainage districts. The North Branch of the Chicago River is formed from three tributary streams: the 17-mile Skokie River, 24-mile Middle Fork and the 14-mile West Fork. From their origins in Lake County, these tributaries flow south into Cook County where they converge to form the main stem of the North Branch of the Chicago River.

In response to concerns about water quality, a local group of communities, Publicly Owned Treatment Works Facilities (POTWs) and other organizations have come together to form the North Branch Chicago River Watershed Workgroup (NBWW) and better determine the stressors to the aquatic systems through a long-term water quality monitoring program.

## 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. Develop and implement short and long-term viable management strategies and recommendations that accurately address water quality problems identified by the monitoring program.

## Vision

A watershed where biodiversity is high and streams fully support their designated uses.

## Long Term Goals (2018-2030)

- Water bodies meet or exceed water quality standards and designated uses within the North Branch of the Chicago River in Lake County and Cook County.

## Short Term Goals

- The Workgroup will develop a database of monitoring data including fish, macroinvertebrates, habitat, and water and sediment chemistry.
- The Workgroup will implement a comprehensive monitoring program that includes chemical, physical, and biological components that accurately identifies the quality of the aquatic ecosystems as well as stressors associated with non-attainment of water quality standards and designated uses.
- The monitoring program will be refined based on first-year implementation and advice from industry experts.
- Lake County Stormwater Management Commission will update the North Branch of the Chicago River Watershed-Based Plan with support through matching funds from the NBWW.

- The Workgroup will develop a chloride reduction strategy.
- The Workgroup will develop a Nutrient Assessment and Reduction Program (NARP).
- The Workgroup will develop and implement interim/short-term management strategies to address water quality issues identified during the monitoring program.
- The Workgroup will identify nonpoint source pollution issues and develop and implement short and long-term strategies to address these issues (NPDES Phase II).
- 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.

## Strategy 1 – Monitoring and Water Quality Assessment

### OBJECTIVE 1:

Assess water quality status and trends in the watershed and enhance these efforts as impairments and pollution sources are identified and resources allow (see Attachment A NBWW scorecard).

### 5-YEAR ACTION STEPS

The Workgroup’s Monitoring & Water Quality Impairment Abatement Committee will:

- Annually review the monitoring program to assess site locations, data parameters, and budget.
- Consult with outside experts to ensure the most efficient use of resources in data collection, and that appropriate parameters are being monitored to achieve the goals of the NBWW.
- Make data available for watershed planning and to Workgroup members.
- Use monitoring results to identify and prioritize impaired waters.
- Analyze monitoring results to pinpoint the sources of pollution.
- Compile the data in a format to be included in an annual report prepared to satisfy the National Pollutant Discharge Elimination System (NPDES) water quality monitoring permit reporting requirements.
- Use the monitoring results to evaluate effectiveness of watershed projects and initiatives.
- Develop and maintain appropriate water quality models of the watershed to assess attainment of the Workgroup’s long-term goals.

### OBJECTIVE 2:

Assess the feasibility of creating a watershed-wide database of monitoring data.

## 5-YEAR ACTION STEPS

The Workgroup's Monitoring & Water Quality Impairment Abatement Committee will:

- Determine data needs of Workgroup members.
- Identify other databases and evaluate the ease of interfacing with them, cost to create and maintain them, and the frequency that members query the database.

## Strategy 2 – Regulatory Relationships and Requirements

### OBJECTIVE 1:

Create a working relationship with Illinois Environmental Protection Agency (Illinois EPA), US Environmental Protection Agency (US EPA), and other agencies with regulatory oversight within the watershed to discuss NPDES Publicly Owned Treatment Works (POTWs) and Municipal Separate Storm Sewer Systems (MS4) permit requirements and explore the feasibility of alternative means to achieve water quality goals, such as the implementation of projects to improve water quality and feasibility of a water quality trading program.

## 5-YEAR ACTION STEPS

The NBWW Executive Board & Staff will:

- Meet one-on-one with Regulators
  - Discuss the Workgroup's goals, implementation plan, and resource needs.
  - Keep them informed of Workgroup progress.
  - Stay abreast of regulatory program nuances and new requirements.
  - Explore options regarding alternative methods to achieve water quality goals.
  - Explore economically beneficial permit allowances for POTWs.
- Provide input to the IEPA regarding the TMDL report for the North Branch watershed based on data obtained during the Workgroup's water quality monitoring effort.
- Develop a chloride reduction strategy that includes an education and outreach component (such as involvement in workshops or training opportunities).
- Attend other workgroup meetings or trainings, as time permits, to stay informed about what other groups are doing and proposed regulatory changes.
- Create an annual report to satisfy the NPDES water quality monitoring component of the annual permit reporting requirements of its members.

### OBJECTIVE 2:

Encourage and support MS4's to review and revise local ordinances to include innovative water quality guidelines and best management practices (BMPs).

## 5-YEAR ACTION STEPS

The NBWW Executive Board & NBWW Staff will:

- Identify MS4s who are leaders in this field.
- Organize an annual tour/training event of BMPs and green infrastructure projects/sites.
- Provide support and attendance at Municipal meetings as requested, for technical support.
- Identify MS4 permit requirements that the NBWW can provide supplemental services to address.

## Strategy 3 – Water Quality Improvement Initiatives

### OBJECTIVE 1:

Encourage MS4 communities to identify and implement Water Quality Improvement initiatives and assist with developing funding and support for these initiatives.

#### 5-YEAR ACTION STEPS

To support MS4 member initiatives, the NBWW Staff will:

- Create a list of potential initiatives.
- Provide education about the benefits of these initiatives.
- Encourage municipalities to adopt at least one initiative.
- Attend board meetings when these initiatives are being discussed.
- Provide input on funding sources and strategies, educational and marketing materials.

### OBJECTIVE 2:

Identify funding sources and provide support for watershed projects.

#### 5-YEAR ACTION STEP

- Develop a list of high priority watershed improvement projects based on the action plan recommendations from the North Branch of the Chicago River Watershed-Based Plan.
- Investigate and list all possible sources of funding, including in-kind services and local sponsor contributions to implement watershed improvement projects.
- Inquire how other groups are funding watershed projects.
- Assist in identifying and coordinating multi-jurisdictional implementation projects.
- Enlist watershed experts to review funding proposals for projects and offer advice to applicants, helping them to develop better, more competitive proposals.
- Request funding and/or in-kind services and/or draft permit language.
- Manage and administer the funding sources.
- Develop educational/outreach materials or other support services for the project.
- Implement the chloride reduction strategy.

## Strategy 4 – Leadership & Engagement

### OBJECTIVE 1:

Grow our members into game changer leaders through education, training, watershed experiences, and role modeling.

#### 5-YEAR ACTION STEPS

- Allow every member to express and employ their talents, ideas, experiences, skills and expertise.
- Sponsor quarterly guest speaker series to educate about pressing watershed issues and to identify collaborative opportunities to address them.
- Collaborate with existing groups to sponsor a variety of Watershed awareness events (i.e. stream/lake clean ups, canoe trips, Earth Day events, deicing events, etc.) with an education component.

### OBJECTIVE 2:

Develop an education and information program that identifies benefits the Workgroup provides to the public (stakeholders) in the watershed for recruitment of members and public education.

#### 5-YEAR ACTION STEPS

##### NBWW Staff with assistance from the Workgroup will:

- Maintain an informative and useful web site.
- Prepare an annual accomplishments publications.
- Host events and speaking engagements with public officials in order to update them on crucial watershed issues and identify partnership opportunities.
- Reach out to additional public-sector stakeholders – townships, park districts, drainage districts, school districts etc. - to inform them of the Workgroup’s activities and invite them to become Workgroup members.
- Reach out to private sector stakeholders – developers, consultants, homeowner and lake owner associations, large property owners, farmers, churches – to inform them of the Workgroup’s activities and invite them to partner with us.
- Recognize individuals and groups who are making substantial contribution to the Workgroup’s Vision.

### OBJECTIVE 3:

Maintain day to day and annual operations of the Workgroup.

#### ANNUAL ACTION STEPS

- Develop, adopt, and disseminate an annual:
  - Work plan for the Workgroup.
  - Budget for the Workgroup.

- Report on Workgroup accomplishments.
- Review member dues annually, and send out notices for dues payment.
- Review Workgroup By-laws.
- Organize and facilitate 4 quarterly general member meetings each year in conjunction with the North Branch Planning Committee (February, May and August meetings) and North Branch Watershed Consortium (November quarterly meeting).
- Review NBWW scorecard (see Appendix A) annually to monitor progress towards achieving the workplan goals and objectives.

**APPENDIX A: NORTH BRANCH CHICAGO RIVER WATERSHED WORKGROUP SCORECARD**

**Year Assessed: 2019**

*The following strategy tables are specific program activities that can be included as measurable goals to meet the minimum control measures (MCM) of the NPDES ILR40 permit requirements. "Corresponding MS4 MCM" column should be reflected as measurable goals in the Stormwater Management Program Plan (SMPP) as well as annual facility inspection report. "Water Quality (WQ) Requirement" supports Part 5 of the NPDES ILR40 Permit.*

**Strategy 1: Monitoring and Water Quality Assessment**

Work Plan Objective	Action Steps	Corresponding MS4 MCM	NBWW Status
1	Review monitoring program to assess site locations, data parameters and budget.	WQ Monitoring Requirement	Completed as part of the Monitoring Strategy Documented, dated 3/19/19 and later revised 4/2/19.
1	Consult with outside experts to ensure the most efficient use of resources in data collection, and that appropriate parameters are being monitored to achieve the goals of the NBWW.	WQ Monitoring Requirement	Consulted with Chris Yoder (MBI) during development of the Monitoring Strategy and QAPP Document revisions, dated 4/2/19 and 4/3/19.
1	Make data available for watershed planning and to Workgroup members.	WQ Monitoring Requirement	<i>Not completed: Full data cycle not yet available, still considered "draft".</i>
1	Use monitoring results to identify and prioritize impaired waters.	WQ Monitoring Requirement	<i>Not completed: Initial monitoring schedule spanned 2 years. First year of monitoring was completed in 2018 and second year in 2019, but a full analysis of those 2 years has not yet been completed.</i>
1	Analyse monitoring results to pinpoint the sources of pollution.	WQ Monitoring Requirement	<i>Not completed: Initial monitoring schedule spanned 2 years. First year was completed in 2018 and second year in 2019, but a full analysis of those 2 years has not yet been completed.</i>
1	Compile the data in a format to be included in an annual report prepared to satisfy the National Pollutant Discharge Elimination System (NPDES) water quality monitoring permit reporting requirements of its Workgroup members.	WQ Monitoring Requirement	First year of monitoring data (2018) was compiled and submitted to the Illinois EPA in March 2019. Second year of monitoring data (2019) will be compiled and submitted to the Illinois EPA March 2020.
1	Use the monitoring results to evaluate effectiveness of watershed projects and initiatives.	WQ Monitoring Requirement	<i>Not completed: The full cycle of monitoring data and results will be available in 2020. This task will be completed after the full data cycle is available.</i>

**APPENDIX A: NORTH BRANCH CHICAGO RIVER WATERSHED WORKGROUP SCORECARD**

**Year Assessed: 2019**

Work Plan Objective	Action Steps	Corresponding MS4 MCM	NBWW Status
1	Develop and maintain appropriate water quality models of the watershed to assess attainment of the Workgroup's long-term goals.	WQ Monitoring Requirement	<i>Not completed: Currently finishing up Year 2 monitoring data analysis. NBWW will be potentially pursuing an Integrated Prioritization System (IPS) Model in 2020 with one full cycle of data.</i>
2	Determine data needs of Workgroup members.	N/A	Data needs requested from NBWW meetings throughout 2019 at Executive Board, Monitoring Committee and quarterly General Membership meetings.
2	Identify other databases and evaluate the ease of interfacing with them, cost to create and maintain them, and the frequency that members query the database.	N/A	<i>Not completed: Potential future task with all the monitoring data collected and evaluated.</i>

**Strategy 2: Regulatory Relationships and Requirements**

Work Plan Objective	Action Steps	Corresponding MS4 MCM	NBWW Status
1	Meet one-on-one with regulators.	B.7	NBWW members attended two Nutrient Assessment and Reduction Program (NARP) meetings on 3/6/19 and 11/14/19
1	Develop a chloride reduction strategy that includes a training component.	C.10	<i>Chloride reduction strategy not completed, but NBWW sponsored Lake County Deicing Workshop (9/30/19, 10/1/19, &amp; 10/2/19).</i>
1	Attend other workgroup meetings or trainings to stay informed about what other groups are doing and proposed regulatory changes.	B.3	Many NBWW Board members as well as Lake County Stormwater Management Commission (SMC) staff attend the Des Plaines River Watershed Workgroup (DRWW) meetings on a regular basis.

**APPENDIX A: NORTH BRANCH CHICAGO RIVER WATERSHED WORKGROUP SCORECARD**

**Year Assessed: 2019**

Work Plan Objective	Action Steps	Corresponding MS4 MCM	NBWW Status
1	Create an annual report to satisfy the NPDES water quality monitoring component of the annual permit reporting requirement.	WQ Monitoring Requirement	First year of monitoring data (2018) was compiled and submitted to the Illinois EPA, March 2019. Second year of monitoring data (2019) will be compiled and submitted to the Illinois EPA March 2020.
2	Identify MS4s who are leaders in the field.	B.6	Continued this process with MS4s and other watershed entities that are active with the NBWW and/or are implementing BMPs in their communities.
2	Organize annual tour/training event of BMP and green infrastructure projects/sites.	A.4	Coordinated with Lake County Forest Preserve District for a BMP tour of Middlefork Savanna Forest Preserve in Lake Forest, Illinois during a General Membership Meeting on 8/14/19.
2	Provide support and attendance at Municipal meetings as requested, for technical support.	B.4	NBWW provided workgroup documentation to several municipalities and workgroup members to bring to their Boards and Committees. NBWW continues to offer technical support as requested.
2	Identify MS4 permit requirements that the NBWW can provide supplemental services to address.	N/A	NBWW created a workplan and corresponding scorecard with specific program activities that can be included as measurable goals to meet the minimum control measures (MCM) of the NPDES ILR40 permit requirements. "Corresponding MS4 MCM" column should be reflected as measurable goals in the Stormwater Management Program Plan (SMPP) as well as annual facility inspection report. "Water Quality (WQ) Requirement" supports Part 5 of the NPDES ILR40 Permit.

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Year Assessed: **2019**

### Strategy 3: Water Quality Improvement Initiatives

Work Plan Objective	Action Steps	Corresponding MS4 MCM	NBWW Status
1	Create a list of potential water quality improvement initiatives.	B.7	<i>Not completed. Currently using the 2008 North Branch Chicago River Watershed-Based Plan action plan. 2020 watershed-based plan update in progress and supported by NBWW.</i>
1	Provide education about the benefits of these initiatives.	A.6	NBWW hosted 4 general membership meetings in 2019 (02/13, 05/08, 08/14, 11/13) that include water quality improvement initiatives; chloride reduction education, water quality monitoring efforts, turtle habitat projects, plastic litter in freshwater ecosystems, dam removals, fish collections, etc...
1	Encourage municipalities to adopt at least one initiative.	B.7	<i>Not completed.</i>
1	Attend board meetings when these initiatives are discussed.	B.4	<i>Not completed.</i>
1	Provide input on funding sources and strategies, education and marketing materials.	A.6	NBWW has provided a forum for the North Branch Planning Committee at General Membership meetings for updating the 2008 watershed-based plan. The meeting topics include goals and objectives for the watershed, education and outreach strategy (messages and communication marketing/methods) and flooding (sources of funding for flood mitigation, etc)
2	Develop a list of high priority watershed improvement projects based on the action plan recommendations from the North Branch Chicago River Watershed-Based Plan.	B.7	<i>Not completed. SMC is currently updating the 2008 North Branch Chicago River Watershed-Based Plan (2020). NBWW will be potentially pursuing an IPS Model in 2020.</i>
2	Investigate and list all possible sources of funding, including in-kind services and local sponsor contributions to implement watershed improvement projects.	B.7	<i>Not completed. SMC is currently updating the 2008 North Branch Chicago River Watershed-Based Plan (2020). NBWW will be potentially pursuing an IPS Model in 2020.</i>

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Year Assessed: **2019**

Work Plan Objective	Action Steps	Corresponding MS4 MCM	NBWW Status
2	Inquire how other groups are funding watershed projects.	B.7	Many NBWW Board members as well as SMC staff attend the DRWW meetings on a regular basis. <ul style="list-style-type: none"> <li>• 3 NBWW members received Illinois EPA Section 319 grants in the 2019 cycle; these 3 projects submitted letters of support from NBWW for their 2018 grant application.</li> </ul>
2	Assist in identifying and coordinating multi-jurisdictional implementation projects.	B.6	<i>Not completed.</i>
2	Enlist watershed experts to review funding proposals for projects and offer advice to applicants, helping them to develop better, more competitive proposals.	B.7	SMC worked with three watershed workgroup members to submit competitive proposals towards an Illinois EPA Section 319 grant application August 2018. All grants were awarded, but NBWW has not supported any new funding proposals this year.
2	Request funding and/or in-kind services and/or draft permit language.	B.7	In November 2018, SMC was awarded an Illinois EPA 319 grant for updating the 2008 North Branch Chicago River Watershed-Based Plan. NBWW has provided a forum for the North Branch Planning Committee at General Membership meetings for updating the 2008 watershed-based plan. NBWW is currently provided in-kind services (monitoring data) for that grant.
2	Manage and administer the funding sources.	N/A	Providing in-kind support (monitoring data) for the update of the 2008 North Branch Chicago River Watershed-Based Plan.
2	Develop educational/outreach materials or other support services for the project.	A.1	The 2018 annual newsletter was distributed to the watershed members and stakeholders in January and February 2019 with information on NBWW's accomplishments and monitoring activities. NBWW is currently drafting the 2019 annual newsletter which will be distributed in January and February 2020.
2	Implement the Chloride Reduction Strategy.	C.10	<i>Not completed. See Strategy 2, Objective 1.</i>

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Year Assessed: **2019**

### Strategy 4: Leadership and Engagement

Work Plan Objective	Action Steps	Corresponding MS4 MCM	NBWW Status
1	Allow every member to express and employ their talents, ideas, experiences, skills and expertise.	B.7	Each NBWW meeting is open to the public and attendees are encouraged to participate.
1	Sponsor quarterly guest speaker series to educate about pressing watershed issues and to identify collaborative opportunities to address them.	B.3	Guest educational speakers were coordinated for presentations at General membership meetings held on 2/13/19, 5/8/19, 8/14/19 and 11/13/19.
1	Collaborate with existing groups to sponsor a variety of Watershed awareness events (i.e. stream/lake clean ups, canoe trips, Earth Day events, Deicing events, etc.) with an education component.	B.7	NBWW sponsored the 2019 Lake County De-icing Workshop (9/30/19, 10/1/19, & 10/2/19) in conjunction with the DRWW, SMC and other Lake County departments.
2	Maintain an informative and useful web site.	A.6	Ongoing - <a href="https://www.nbwwil.org/">https://www.nbwwil.org/</a>
2	Host events and speaking engagements with public officials in order to update them on crucial watershed issues and identify partnership opportunities.	B.7	NBWW and SMC have been engaging all watershed stakeholders (including public officials) through out the process of updating the North Branch Chicago River Watershed-Based Plan.
2	Reach out to additional public-sector stakeholders – townships, park districts, drainage districts, school districts etc. - to inform them of the Workgroup’s activities and invite them to become Workgroup members.	B.7	Ongoing (meeting announcements, SMC social media outreach, word-of-mouth through members).
2	Reach out to private sector stakeholders – developers, consultants, homeowner and lake owner associations, large property owners, farmers, churches – to inform them of the Workgroup’s activities and invite them to partner with us.	B.7	Ongoing (meeting announcements, SMC social media outreach, word-of-mouth through members).
2	Recognize individuals and groups who are making substantial contribution to the Workgroup’s Vision.	B.7	At the 4 NBWW General Membership meetings, the agenda includes a “Watershed Project Updates or Other Announcements/Discussion” section which recognizes individuals and groups implementing projects in the watershed and discussion items for the members.

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**Year Assessed: 2019**

Work Plan Objective	Action Steps	Corresponding MS4 MCM	NBWW Status
3	Develop, adopt, and disseminate an annual work plan, annual budget and annual report on Workgroup accomplishments.	B.7	A work plan covering 2018-2023 was developed in 2018. The budget is reviewed at each NBWW meeting. An annual newsletter (2019) is being prepared and will be distributed in January 2020.
3	Review member dues annually, and send out notices for dues payment.	N/A	Completed for 2019 (42 workgroup members).
3	Review Workgroup By-laws.	B.7	Bylaws were reviewed and updated September 12, 2019.
3	Organize and facilitate 4 quarterly general member meetings each year.	B.3	Completed – 2/13/19, 5/8/19, 8/14/19 and 11/13/19
3	Review scorecard.	B.7	Completed December 2019.