NBWW EXECUTIVE BOARD MEETING MINUTES

1. **Call Meeting to Order**
   Introductions & Roll Call
   Brandon Janes, North Branch Chicago River Watershed Workgroup (NBWW) President, called the meeting to order at 1:31 pm via a public zoom meeting. Executive Board members present were Brandon Janes (President), Village of Deerfield; Matt Farmer (Vice President), Village of Northbrook; Rob Flood, North Shore Water Reclamation District (NSWRD); Al Giertych, Lake County Division of Transportation (LCDOT); and Matt Ueltzen, Lake County Forest Preserve District (LCFPD). A roll call was performed and an NBWW Executive Board quorum was present.

2. **Public Comment** – None

3. **Approve January 13, 2021 NBWW Executive Board Meeting Minutes & February 10, 2021 Special Executive Board Meeting Minutes**
   The January 13, 2021 NBWW Executive Board Meeting Minutes & February 10, 2021 Special Executive Board Meeting Minutes were approved, with a modification to the January 13, 2021 meeting minutes Item #3, “Exist” to “Exit”. First Motion: Matt Farmer, Village of Northbrook, Second Motion: Al Giertych, LCDOT. The motion passed with unanimous consensus via roll call vote.

4. **Financial Report**
   a. Ashley Strelcheck, NBWW Coordinator presented the expenditures and revenues to the NBWW Executive Board for ratification. In FY21 there are two additional NBWW members (as reflected in the Revenues/Expenditures); ERA Consultants and the City of Evanston. Ratify Revenues/Expenditures: First Motion: Matt Ueltzen, LCFPD, Second Motion: Rob Flood, NSWRD. The motion passed with unanimous consensus via roll call vote.

5. **New Business**
   a. FY21 Membership Dues – Additional Members: Ashley Strelcheck brought up a discussion of reaching out to potential new NBWW members in the watershed this year prior to any changes that will be made in the next year or two for completing the NARP or changes to the existing bylaws. There was no objections or discussion from the Board for this action.

6. **Old Business**
   a. Open Meetings Act – Public Body Officers Training Reminder: Ashley Strelcheck reminded the Executive Board and Monitoring Committee to complete their Public Body Officers OMA training online and submit their certifications to Ashley to keep on file during their elected terms. Many Board and Committee members have already turned in their certifications. No other discussion or questions were asked.

7. **Member Remarks** - None

8. **NBWW NARP Subcommittee**
   Geosyntec Consultants, Adrienne Nemura, Brian Valleskey, Rishab Mahajan gave a kickoff presentation for the Preliminary NARP Workplan they will be completing for the NBWW by December 31, 2021. The Geosyntec staff detailed each phase of the NARP workplan process, including what data will be collected and analyzed, regulatory and workgroup objectives to be incorporated, potential results for addressing the NARP requirement, and stakeholder involvement. Geosyntec asked the NBWW Executive Board to consider objectives for the NARP beyond the regulatory requirements, including the MS4 community stakeholder input in this process. Questions/Answers:
Q: How will the IPS Model be incorporated into the Preliminary NARP Workplan?
A: The IPS Model will be assessed as part of the data collection. The IPS tool identifies specific locations for top stressors in the watershed that are preventing aquatic life use designation attainment.

Q: Does the NBWW envision a focus on nitrogen removal?
A: The Deerfield WWTP has not discussed total nitrogen removal for the wastewater treatment plant, and currently they are in a planning phase of their current permit.

Q: Has there been any specific MS4 specific management objectives that should be considered while compiling the NARP (beyond phosphorus)? Effort to consider new ordinances for development or redevelopment?
A: None that are known right now. It may be a good idea to have a separate focused conversation with Geosyntec and Lake County SMC in the future. This should be the focus of the NBWW to determine what objectives are important to the workgroup and it’s members.

Q: Should the focus for watershed information be gathered from the 2008 North Branch Chicago River Watershed-Based Plan or the update currently underway?
A: The answer is it depends, if a chapter of the updated plan is completed when Geosyntec needs that information, it can be provided, but if the information necessary is not ready then SMC would recommend that Geosyntec refer to the 2008 plan.

Q: Does the NBWW foresee any collaboration with MWRD on future projects or collaboration efforts that benefit the North Branch Chicago River watershed?
A: Yes, the NBWW is open to collaborating with MWRD on future projects depending on their benefits and currently MWRD is an NBWW member.

9. Next Meeting: April 14, 2021

10. Adjournment – 2:33 pm
First Motion: Matt Farmer, Village of Northbrook, Second Motion: Al Giertych, LCDOT. The motion passed with unanimous consensus via roll call vote.

### NBWW Executive Board Meeting Attendees

<table>
<thead>
<tr>
<th>NAME</th>
<th>ORGANIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adrienne Nemura</td>
<td>Geosyntec Consultants, Inc.</td>
</tr>
<tr>
<td>Al Giertych</td>
<td>Lake County Division of Transportation</td>
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<tr>
<td>Ashley Strelcheck</td>
<td>Lake County Stormwater Management Commission &amp; NBWW Coordinator</td>
</tr>
<tr>
<td>Brandon Janes</td>
<td>Village of Deerfield</td>
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<tr>
<td>Brian Valleskey</td>
<td>Geosyntec Consultants, Inc.</td>
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<tr>
<td>Chuck Bodden</td>
<td>North Shore Water Reclamation District</td>
</tr>
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<td>Dave Miller</td>
<td>North Shore Water Reclamation District</td>
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<td>Eric Otto</td>
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<td>Jacob Jozefowski</td>
<td>Lake County Stormwater Management Commission</td>
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<td>Kate Amoruso</td>
<td>Village of Wilmette</td>
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<tr>
<td>Larry Bridges</td>
<td>East Skokie Drainage District</td>
</tr>
<tr>
<td>Matt Farmer</td>
<td>Village of Northbrook</td>
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<td>Matt Ueltzen</td>
<td>Lake County Forest Preserve District</td>
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<td>Rishab Mahajan</td>
<td>Geosyntec Consultants, Inc.</td>
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<td>Rob Flood</td>
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<tr>
<td>Steve Waters</td>
<td>North Shore Water Reclamation District</td>
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</table>
1. **Call Meeting to Order**
   Introductions & Roll Call
   Brandon Janes, North Branch Chicago River Watershed Workgroup (NBWW) President, called the meeting to order at 12:31 pm via a public zoom meeting. Executive Board members present were Brandon Janes (President), Village of Deerfield; Matt Farmer (Vice President), Village of Northbrook; Rob Flood, North Shore Water Reclamation District (NSWRD); Al Giertych, Lake County Division of Transportation (LCDOT) entered during the Executive Session portion of the meeting; Matt Ueltzen, Lake County Forest Preserve District (LCFPD); Robyn Flakne, Village of Glenview; and newly appointed Emily Grimm, Village of Winnetka alternate (see Board approval below). A roll call was performed and an NBWW Executive Board quorum was present.

2. **Agenda Amendment: New Business: Village of Winnetka Alternate Change**
   Brandon Janes and Ashley Strelcheck, NBWW Coordinator suggested adjust the agenda to move the “Village of Winnetka Alternate Change” to the beginning of the meeting so Emily Grimm, Village of Winnetka could be a voting NBWW Executive Board Member for the following agenda items and Executive Session. Emily Grimm is replacing Steve Saunders, who no longer works for the Village of Winnetka, as the Village of Winnetka Alternate. James Bernahl, NBWW Executive Board Member for the Village of Winnetka, wrote a letter to Brandon Janes requesting the alternate change. The Executive Board was asked for approval of Emily Grimm as the new Village of Winnetka Executive Board Alternate and to have voting authority. First Motion: Matt Ueltzen, LCFPD, Second Motion: Robyn Flakne, Village of Glenview. The motion passed with unanimous consensus via roll call vote.

3. **NBWW Executive Session:** The NBWW Executive Board and Monitoring Committee members entered into Executive Session at 12:37pm to discuss the results of the Preliminary NARP Workplan consultant evaluation. The Executive Session concluded at 12:49pm.
   *Enter Executive Session: First Motion: Rob Flood, NSWRD, Second Motion: Matt Ueltzen, LCFPD. The motion passed with unanimous consensus via roll call vote.
   *Exist Executive Session: First Motion: Matt Farmer, Village of Northbrook, Second Motion: Matt Ueltzen, LCFPD. The motion passed with unanimous consensus via roll call vote.

4. **Approve December 9, 2020 NBWW Executive Board Meeting Minutes**
   The December 9, 2020 NBWW Executive Board Meeting Minutes were approved, with no questions or discussion from the Board. First Motion: Matt Ueltzen, LCFPD, Second Motion: Rob Flood, NSWRD. The motion passed with unanimous consensus via roll call vote.

5. **Public Comment** – None

6. **Financial Report**
   a. Ashley Strelcheck presented the expenditures and revenues to the NBWW Executive Board for ratification.
   *Ratify Revenues/Expenditures: First Motion: Al Giertych, LCDOT, Second Motion: Matt Ueltzen, LCFPD. The motion passed with unanimous consensus via roll call vote.

7. **New Business**
   a. NBWW 2020 Annual Newsletter: Ashley Strelcheck, NBWW Coordinator, presented draft NBWW 2020 Annual Newsletter. The NBWW Executive Board had no additional input or questions for the newsletter. Ashley will post the newsletter on NBWW's website on Friday, January 15, 2021 and include a link to the newsletter in the February 10, 2021 meeting invite for the NBWW members.
8. Old Business

a. Finalize Monitoring Strategy Update: Ashley Strelcheck presented a revised NBWW Monitoring Strategy. Rob Flood commented that this monitoring strategy update adjusted the number of datasondes deployed for 2020 and 2021 from seven datasondes to 6 datasondes due to a malfunctioned datasonde in 2020. No other discussion or questions were asked. Ashley Strelcheck asked for approval of the updated Monitoring Strategy so she can submit this document to the Illinois EPA for approval. First Motion: Rob Flood, NSWRD, Second Motion: Robyn Flakne, Village of Glenview. The motion passed with unanimous consensus via roll call vote.

b. MBI 2018 -2019 Comprehensive Monitoring Report: Ashley Strelcheck provided an update on MBI’s draft monitoring report. Rob and Ashley are currently performing a second review of MBI’s monitoring report and will be working with Chris Yoder on the remaining comments. Once the comments have been addressed by Chris Yoder, Rob and Ashley will bring a revised version to the Monitoring Committee and Executive Board for final approval.

9. Next Meeting: February 10, 2021
The NBWW Executive Board may need to hold a Special Meeting for the Preliminary Nutrient Assessment Reduction Plan (NARP) Workplan prior to the next regularly scheduled NBWW meeting.

10. Consultant Interviews: The NBWW Executive Board and Monitoring Committee interviewed the two consultants that submitted proposals for developing NBWW’s Preliminary NARP Workplan. ECT Engineering, LLC and Geosyntec introduced their project teams, their firms and staff’s experience with NARP related documentation and regulations and their approach to developing the Preliminary NARP Workplan. The NBWW Executive Board and Monitoring Committee were offered an opportunity to ask both consultants remaining questions pertaining their proposals, experience and proposed approaches.

11. Consultant Discussion: After discussion about both consultant’s project approaches, interviews, experience and project teams, the NBWW Executive Board elected to pursue contract negotiations with Geosyntec Consultants to develop the NBWW Preliminary NARP Workplan. Brandon asked for a motion to pursue contract negotiations with Geosyntec Consultants. First Motion: Rob Flood, NSWRD, Second Motion: Matt Ueltzen, LCFPD. The motion passed with unanimous consensus via roll call vote.

12. Adjournment – 3:25 pm
First Motion: Rob Flood, NSWRD, Second Motion: Matt Ueltzen, LCFPD. The motion passed with unanimous consensus via roll call vote.

<table>
<thead>
<tr>
<th>NAME</th>
<th>ORGANIZATION</th>
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</thead>
<tbody>
<tr>
<td>Adrienne Nemura</td>
<td>Geosyntec Consultants, Inc.</td>
</tr>
<tr>
<td>Al Giertych</td>
<td>Lake County Division of Transportation</td>
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<tr>
<td>Andi Cooper</td>
<td>Environmental Consulting &amp; Technology, Inc.</td>
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<tr>
<td>Annette DeMaria</td>
<td>Environmental Consulting &amp; Technology, Inc.</td>
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<td>Ashley Strelcheck</td>
<td>Lake County Stormwater Management Commission &amp; NBWW Coordinator</td>
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<td>Village of Deerfield</td>
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<tr>
<td>Brian Valleskey</td>
<td>Geosyntec Consultants, Inc.</td>
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<td>Chuck Bodden</td>
<td>North Shore Water Reclamation District</td>
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<tr>
<td>Emily Grimm</td>
<td>Village of Winnetka</td>
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<tr>
<td>Eric Otto</td>
<td>Forest Preserve District of Cook County</td>
</tr>
<tr>
<td>NAME</td>
<td>ORGANIZATION</td>
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<tr>
<td>Jacob Jozefowski</td>
<td>Lake County Stormwater Management Commission</td>
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<tr>
<td>Jeff Nehila</td>
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<td>Village of Wilmette</td>
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<td>Mark Olszewski</td>
<td>Village of Deerfield</td>
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<tr>
<td>Matt Farmer</td>
<td>Village of Northbrook</td>
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<tr>
<td>Matt Ueltzen</td>
<td>Lake County Forest Preserve District</td>
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<tr>
<td>Mike Prusila</td>
<td>Lake County Stormwater Management Commission</td>
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<tr>
<td>Rishab Mahajan</td>
<td>Geosyntec Consultants, Inc.</td>
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<td>Rob Flood</td>
<td>North Shore Water Reclamation District</td>
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<td>Robyn Flakne</td>
<td>Village of Glenview</td>
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<tr>
<td>Sara Phelps</td>
<td>Environmental Consulting &amp; Technology, Inc.</td>
</tr>
<tr>
<td>Thomas Price</td>
<td>Environmental Consulting &amp; Technology, Inc.</td>
</tr>
</tbody>
</table>
1. **Call Meeting to Order**
   **Introduction & Roll Call**
   Brandon Janes, North Branch Chicago River Watershed Workgroup (NBWW) President, called the meeting to order at 12:02 pm via a public zoom meeting. Executive Board members present were Brandon Janes (President), Village of Deerfield; Matt Farmer (Vice President), Village of Northbrook; Rob Flood, North Shore Water Reclamation District (NSWRD); Al Giertych, Lake County Division of Transportation (LCDOT); Matt Ueltzen, Lake County Forest Preserve District (LCFPD); Robyn Flakne, Village of Glenview; and Emily Grimm, Village of Winnetka alternate. A roll call was performed and an NBWW Executive Board quorum was present.

2. **Public Comment:** None

3. **Old Business**
   a. **Geosyntec Preliminary NARP Workplan Agreement Review:** Ashley Strelcheck, NBWW Coordinator, presented the revised Geosyntec Preliminary NARP Workplan Agreement to the NBWW Executive Board. Several NBWW Executive Board Members sent their revision requests to Ashley to update the agreement. Ashley worked with Geosyntec on these changes. Rob Flood noted that the Scope of Work document had one mistake; one section has a “DRWW” instead of an “NBWW”. With no further discussion, Brandon asked for a motion to approve the Geosyntec Preliminary NARP Workplan Agreement with the grammar revision (DRWW changed to NBWW). First Motion: Matt Ueltzen, LCFPD, Second Motion: Al Giertych, LCDOT. The motion passed with unanimous consensus via roll call vote.

4. **New Business**
   a. **Open Meetings Act:** Ashley briefly explained that she was going through an Open Meetings Act (OMA) training and noted that the NBWW officers will need to be OMA trained with a certification in March 2021 since that has not been done yet. Ashley will send the link information for that training so officers can complete it. If officers have already taken the training, then they could provide their certification to Ashley to keep in the NBWW files. Ashley also explained the new email procedures that will be in place for reviewing meeting materials between meetings to remain within OMA regulations. Lastly, Ashley explained that the NBWW Executive Board may want to consider a policy for the “public comment” section for a time limit either per person or total amount to make sure NBWW can conduct normal meeting business but still hear from the public.

5. **Adjournment** – 12:31 pm
   First Motion: Rob Flood, NSWRD, Second Motion: Robyn Flakne, Village of Glenview. The motion passed with unanimous consensus via roll call vote.

### NBWW Special Executive Board Meeting Attendees

<table>
<thead>
<tr>
<th>NAME</th>
<th>ORGANIZATION</th>
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<tbody>
<tr>
<td>Al Giertych</td>
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<tr>
<td>Ashley Strelcheck</td>
<td>Lake County Stormwater Management Commission &amp; NBWW Coordinator</td>
</tr>
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<td>Brandon Janes</td>
<td>Village of Deerfield</td>
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<td>Chuck Bodden</td>
<td>North Shore Water Reclamation District</td>
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<td>Emily Grimm</td>
<td>Village of Winnetka</td>
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<td>Eric Otto</td>
<td>Forest Preserve District of Cook County</td>
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<tr>
<td>Kate Amoruso</td>
<td>Village of Wilmette</td>
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<tr>
<td>Larry Bridges</td>
<td>East Skokie Drainage District</td>
</tr>
<tr>
<td>NAME</td>
<td>ORGANIZATION</td>
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<tr>
<td>Matt Farmer</td>
<td>Village of Northbrook</td>
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<tr>
<td>Matt Ueltzen</td>
<td>Lake County Forest Preserve District</td>
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<td>Rob Flood</td>
<td>North Shore Water Reclamation District</td>
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<tr>
<td>Robyn Flakne</td>
<td>Village of Glenview</td>
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### Ending Balance

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<th>Date Deposited</th>
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<td>Hey and Associates</td>
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<td>2/17/2021</td>
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<td>Village of Northfield</td>
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<td>LC Drainage District</td>
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<td>Libertyville Township</td>
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#### Other Contributions Received

- Total Received: $ 13,726.00
- Total Received + Carryover: $ 100,446.17

### Expenditures Paid:

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<th>Date Received</th>
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Total Expenditures Paid: $ -

Revenue-Expenditures: $ 100,446.17
## North Branch Chicago River Watershed Workgroup (NBWW) Budget

### FY2021 Budget of Accounts - Revenues Expenditures

<table>
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<th>Actual FY2020</th>
<th>Projected FY2021</th>
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<td><strong>Total Expenses</strong></td>
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<td><strong>Unexpended Carryover/Reserve</strong></td>
<td>$86,720.17</td>
<td>$24,173.00</td>
<td>$100,446.17</td>
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</tbody>
</table>
Development of NARP Workplan for the North Branch Chicago River Watershed Workgroup (NBWW)

March 10, 2021
Our NARP Team

Meet the Team

Technical Lead
Rishab Mahajan, P.E.

Project Director
Adrienne Nemura, P.E.

Project Manager
Brian Valleskey, CFM, CLP
Maybe change title to "Meet the Team"
Adrienne Nemura, 3/8/2021

Can we see if graphics can change the gray in the NBWW logo to white so it shows up?
Adrienne Nemura, 3/8/2021
Agenda

• NARP Background

• Task 1: Identify Necessary NARP Components and Project Management

• Task 2: Review Background Data

• Task 3: Identify Missing Data and Components for the NARP

• Task 4: Develop the Preliminary NARP Workplan

• Next Steps
NARP Workplan Tasks

Task 1: Identify Necessary NARP Components

Task 2: Review Background Data

Task 3: Identify Missing Data and Components for the NARP

Task 4: Develop the Preliminary NARP Workplan
NARP Background
NARP Background

- NARP provides permittees the flexibility to establish the appropriate nutrient-related criteria
  - US EPA ecoregion criteria are too conservative and based on little data
  - Illinois’ Nutrient Science Advisory Committee criteria are unsupportable (but referenced in the NARP permit language)

- NARP presumes that there are cost-effective means to address the phosphorus-related impairments
  - Does not identify what a permittee can do if point and nonpoint source reductions and other measures needed to eliminate the impairment are not cost-effective or unaffordable
Impaired Reaches

- Impaired reaches
  - NARP-related impairments downstream of Deerfield WRF and NSWRD WRF:
    - Dissolved oxygen
    - Total phosphorus

Based on IEPA data only*
Possible NARP Outcomes for NBWW

- Point source reductions in P not needed
- Point source reductions in P needed
- Both point and nonpoint source reductions in P needed
- Other or additional measures needed
Task 1: Identify Necessary NARP Components and Project Management
Task 1: Identify Necessary NARP Components

- Review the proposed NARP special conditions
  - Deerfield NPDES Permit Special Conditions #16,23,24 (IL0028347)
  - North Shore Clavey Road NPDES Permit Special Conditions #22,23,24 (IL0030171)

- Develop draft outline for the NARP workplan identifying the necessary NARP components
  - What are the minimum components?
  - What are the desired objectives?
  - What are the desired outcomes?
  - Permit compliance vs larger stakeholder objectives?
Potential NBWW NARP Objectives

- Establish watershed-specific nutrient targets
- Determine the most cost-effective point and nonpoint source phosphorus reductions or other measures to remove the phosphorus-related impairments
- Identify specific, achievable projects and establish timeline for implementation, with specific actions for the NPDES permittees
- Develop a plan for tracking and reporting progress

Models
IPS Tool
Establish watershed-specific targets for Skokie River, Middle Fork North Branch and West Fork North Branch

- Chlorophyll-a (benthic algae)
- Total phosphorus & dissolved reactive phosphorus
- Possibly nitrogen

*Effluent Dominated Stream*
Potential NBWW NARP Objective 2

Determine phosphorus reductions or other measures needed to achieve watershed-specific targets

- **Point sources**
  - Wastewater treatment plants
    - Deerfield WRF
    - NSWRD Clavey Rd WRF

- **Nonpoint sources**
  - Municipal Separate Storm Sewer Systems (MS4s)
    - Undeveloped land

- **Other measures**
  - Riparian shading
  - Wetlands
  - Remove/treat legacy nutrients in sediments
Identify specific, achievable projects to eliminate the phosphorus-related impairments and establish timeline for implementation
Potential NBWW NARP Objective 4

Develop a plan for tracking and reporting progress

• Identify parameters for long-term monitoring
• Identify the critical time periods for monitoring
Task 1: Milestones

- Develop a draft outline of the NARP Workplan based on the necessary NARP components based on review of NPDES permits (base objectives)
- Incorporate standardized approach
- Incorporate NBWW Objectives
- Review with NBWW and incorporate feedback from discussion
- Present results to NBWW at membership meeting
Task 2: Review Background Data
Task 2: Review Background Data

**USGS**
- Flow
- Gage height

**IEPA**
- Water Quality
- Discrete, Continuous & TMDL Data

**NOAA**
- Meteorology
  - Lake Co
  - Cook Co

**Database**

**POTWs**
Acquire and review existing data from NBWW and other publicly available sources:

- **NBWW/EPA**
  - Water quality chemistry data
  - Continuous DO sonde data
  - Bioassessment data

- **FEMA** – Cross sectional data (flood studies)
- **USGS** – continuous and periodic flow data
- **NOAA/Lake/Cook Counties** – meteorological data
- **Other sources that may become pertinent/known during the process**

Information and graphic from NBWW Bioassessment (2018), MBI
Acquire and review past watershed studies and reports:

- 2008 Watershed plan for NBCR
- 2020 Draft Watershed plan for NBCR
- 2020 Approved IL EPA TMDL report
- NBWW Monitoring Reports

Information and graphic from NBWW Bioassessment (2018), MBI
## USGS Data Coverage

<table>
<thead>
<tr>
<th>Waterway</th>
<th>Data Type</th>
<th>#Sites</th>
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<tr>
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<tr>
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<td>1</td>
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<tr>
<td></td>
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<td>Skokie River</td>
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<td></td>
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<tr>
<td>Chicago River</td>
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Graphic taken from StreamStats: [https://streamstats.usgs.gov/ss/](https://streamstats.usgs.gov/ss/)
Temporal Coverage

Continuous Data – Dissolved Oxygen, Temperature, pH
Discrete – Instream Nutrients and Chlorophyll


June-September 2011

June-September 2016

USGS Flow Data  Continuous IEPA  Discrete IEPA  Client data  Huff & Huff Data
Cross-section data required for developing hydraulic and water quality model

- All three waterways (Skokie, Middle Fork and West Fork have detailed hydraulic models)
  - Request cross-section from FEMA
- Additional cross-section data may need to be collected

Graphic from Lake County GIS with FEMA Streaming NFHL
### Bioassessment Data (MBI)

<table>
<thead>
<tr>
<th>North Branch Sample Locations</th>
<th>Street</th>
<th>NBWW Station IDs</th>
<th>Illinois EPA Station IDs</th>
<th>Illinois EPA AUIDs</th>
<th>Tier Designation</th>
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<tr>
<td>Skokie River</td>
<td>Northern Boundary of the Foss Park Golf Course</td>
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<td>Rockland Road, Lake Bluff</td>
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<td>HCCC-08</td>
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<td>Skokie River</td>
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<td>North Branch Chicoisan River</td>
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</tbody>
</table>

Information and graphic from NBWW Bioassessment (2018), MBI

**Legend**
- **Fossing Location**
- **Stations**
- **Watershed**

GEOSYNTEC CONSULTANTS
Data Summary Process

• **Summarized data from the various sources in a spreadsheet**
  - Identify and review breath of parameters
  - Station information and sources
  - Water quality data statistics (daily, periodic, continuous, etc.)

• **Create summary maps and graphs presented in the summary slides**
  - Help team and stakeholders identify with the results
  - Hotspot relationships
  - Data Gap identification and display
  - Scalar relationships
Task 2: Milestones

- Comprehensive review of all data sets obtained
- Geosyntec’s observations and trend assessment of information as it pertains to the NARP and potential NARP implications
- Presentation slides and summary presenting the data review to the NBWW and its stakeholders
- Summarize and detail in the NARP Workplan Report
Task 3: Identify Missing Data and Components for the NARP
Is the information reviewed under Task 2 sufficient to meet the objectives of the NBWW and NARP?

- Typical objectives necessitate the need for prediction
- Assess the impact of alternatives
- Substantiate and validate data trends

Model Development
Why do we need models for NARP?

• Fill in spatial and temporal data gaps
• Simulate and better understand the linkage between phosphorus and dissolved oxygen/nuisance algae
• Evaluate watershed management scenarios’ effectiveness in reducing impairments
  – Nutrient load reductions
• Help with policy or management decisions
  – Priority projects
  – Ordinances
• Support NPDES permitting and water quality trading
• If needed, explain why (or why not) something unexpected occurred
Types of Models

1. Watershed Model
   - **Output**: Tributaries’ Flows, Tributaries’ Concentrations (Nutrients & Sediment)

2. Hydraulic Model
   - **Output**: Flows, Velocities, Water levels

3. Water Quality Model
   - **Output**: Temperature, Total Suspended Solids, Nutrients, Chlorophyll-α, Dissolved Oxygen

Instream Model
Using information compiled from Task 2 and Task 3, our team will assess what additional information may be needed to:

- Refine model
- Improve outcomes
- Calibrate models
Task 3 Milestones

At the completion of Task 3:

- Recommendations provided for model platforms for:
  - Watershed model
  - In-stream model (hydraulic water quality model)

- Identify data gaps and any monitoring recommendations

- Conduct review meeting with NBWW the above recommendations work to tailor any approaches as needed to meet objectives of Task 1.
should we add a bullet on How to use the IPS tool in the development of the NARP?

Adrienne Nemura, 3/8/2021
Task 4: Develop the Preliminary NARP Workplan
Task 4: Develop the Preliminary NARP Workplan

This Workplan will serve as the roadmap for the NBWW for the actual development of the full NARP.

• Detailed – full description of task needed to support NARP development
  o Meet NARP language objectives
  o Meet NBWW additional objectives

• Develop the schedule, scope and budgetary needs

• Review with NBWW – compile questions and comments

• Address those comment and questions
  o Review with NBWW
  o Present to membership
Task 4 Milestones

Ensure the NBWW understands how the NARP Workplan communicates the path forward

- Regulatory Needs
  - POTW Needs
  - MS4 Needs

- NBWW / Stakeholder Needs
Task 4 Milestones

Ensure the NBWW understands how the NARP Workplan communicates the path forward

- **Schedule**: Define how to meet all the regulatory requirements and agreed upon objectives prior to the NARP deadline (Dec 31, 2024)

- **Scope**: Define how each of the NARP elements are anticipated to play out in the timeline to meet the Schedule

- **Budget**: Define a budget that fits within the agreed upon Schedule
Task 4 Milestones

Finalize all work objectives and memorialize within the Workplan Report

- Address all final comments and questions

- Present the final Workplan to the NBWW and membership

- Work with the NBWW to present the Workplan to IEPA
  - Refine Workplan with IEPA feedback if needed
  - Chart a path forward with the NBWW to undertake the full NARP
QUESTIONS

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When is a NARP Required?

**PHOSPHORUS RELATED IMPAIRMENT**
Listed on 303(d) list for:
- Dissolved oxygen
- Offensive condition (algae and/or aquatic plant growth)

**RISK OF EUTROPHICATION**
Information that plant, algal, or cyanobacterial growth is causing or will cause violations of water quality standards
- pH
- Dissolved oxygen
- Chlorophyll-a

**OTHER**
Permit can be re-opened if
- Phosphorus related impairment
- Risk of eutrophication
Develop NARP Objectives

Establish water quality targets

Determine phosphorus input reductions to address impairments

Establish timeline of required phosphorus input reductions

Point and/or Nonpoint Source

Nutrient Science Advisory Committee or site-specific watershed targets

Graphic based on IEPA NPDES Permitting Language
1) Establish watershed-specific nutrient targets
2) Determine the most cost-effective point and nonpoint source phosphorus reductions or other measures to remove the phosphorus-related impairments
3) Identify specific, achievable projects and establish timeline for implementation, with specific actions for the wastewater NPDES permits
4) Develop a plan for tracking and reporting progress
Task 1: Identify Necessary NARP Components

- Review the proposed NARP special conditions
- Develop draft outline for the NARP workplan identifying the necessary NARP components
- Develop the preliminary NARP objectives
- Conduct meeting to get feedback from NBWW
  - Transfer of data
  - Communication logistics
  - Questions and concerns
- Finalize the outline for the NARP workplan based on feedback from NBWW