



**NBWW EXECUTIVE BOARD MEETING MINUTES**

**1. Call Meeting to Order**

Brandon Janes, North Branch Chicago River Watershed Workgroup (NBWW) President, called the meeting to order at 1:35pm.

**2. Roll Call**

Executive Board members present were **Brandon Janes** (President), Village of Deerfield; **Jack Bielak**, Village of Northbrook; **Matt Ueltzen**, Lake County Forest Preserve District (LCFPD); **Joe Kenney**, Village of Glenview (joined meeting at agenda item 5a.); **Chuck Boddin**, North Shore Water Reclamation District (NSWRD); and **Rob Flood**, NSWRD and Monitoring Committee Chair. A roll call was performed, and a NBWW Executive Board quorum was present.

**3. Public Comment – None**

**4. Approve October 11, 2023, NBWW Executive Board Meeting Minutes**

Bielak motioned to accept the October 11, 2023, Executive Board Meeting Minutes, seconded by Ueltzen. The motion passed with unanimous vote.

**5. Financials**

**a. Ratify FY23 Revenues-Expenditures:** Ashley Strelcheck, NBWW Coordinator, presented the expenditures and revenues to the NBWW Executive Board for ratification. There were no questions. Ueltzen motioned to ratify the revenues and expenditures, seconded by Flood. The motion passed with unanimous consensus via a roll call vote.

**b. NBWW Budget Review:** Strelcheck presented the FY2023 budget. There were no comments or questions.

**c. FY24 NBWW Proposed Budget Approval:** Strelcheck presented the FY24 NBWW Proposed Budget. There were no comments or questions. Ueltzen motioned to approve the FY24 NBWW Proposed Budget, seconded by Bielak. The motion passed with unanimous consensus via a roll call vote.

**d. FY24 NBWW Proposed Membership Dues Approval:** Strelcheck presented the FY24 NBWW Proposed Membership Dues. There were no comments or questions. Flood motioned to approve the FY24 NBWW Proposed Membership Dues, seconded by Bielak.

**6. Old Business**

**a. Monitoring Committee & NARP Update**

Flood gave an update for the Monitoring Committee. The Monitoring Committee voted in two new alternates, Michele Mrachek, Skokie Consolidated Drainage District, and Karoline Qasem, Fehr Graham Engineering & Environmental. Strelcheck led the Monitoring Committee through the 2018-2023 Workplan and Scorecard and asked the group to consider how both documents might be updated in 2026 once the NARP is complete. Flood and Strelcheck agreed that it would be beneficial to send the Workplan to the Monitoring Committee and Executive Board. Brian Valleskey, Geosyntec, gave an update on the NARP, modeling efforts and timeline of services. At the next Monitoring Committee meeting, Geosyntec will likely present some results from the watershed modeling. The Monitoring Committee discussed using the NBWW water quality data to create a



Water Quality Summary Report that shows general trends and is more accessible. Contracting a consultant will likely cost between \$5,000-\$10,000. SMC will draft an RFP, and NSWRD will review the draft and offer feedback; this RFP will be brought to the Executive Board for approval. The Monitoring Committee is aiming to publish the RFP in Winter 2024. Bodden asked if the Scorecard will need to be updated to reflect the new MS4 NPDES Permit that is potentially being released. If the new MS4 Permit is available before February 2024, Strelcheck will update the Scorecard. Otherwise, the new MS4 Permit will be reflected in the following year's scorecard.

**b. FY24 NBWW Meeting Schedule Approval**

Strelcheck presented the FY24 NBWW Meeting Schedule for approval. There were no comments or questions. Bodden motioned to approve the FY24 NBWW Meeting Schedule, seconded by Ueltzen.

**7. New Business**

**a. SMC FY24 Contract Review**

Strelcheck presented the SMC FY24 Contract for review. There were no questions or concerns.

**b. NSWRD FY24 Contract Approval**

Strelcheck presented the NSWRD FY24 Contract for approval. There were no comments or questions. Bielak motioned to approve the NSWRD FY24 Contract, seconded by Ueltzen. The motion passed with consensus via a roll call vote; Flood and Bodden abstained.

**c. Geosyntec Service Order for FY24 NARP Services Approval**

Strelcheck presented the Geosyntec Service Order for FY24 NARP Services for approval. There were no comments or questions. Bodden motioned to approve the Geosyntec Service Order for FY24 NARP Services, seconded by Bielak. The motion passed with unanimous consensus via a roll call vote.

**8. Member Remarks**

Strelcheck will send a draft of the NBWW 2023 Annual Newsletter to the Monitoring Committee and Executive Board for review in December and will bring a revised version to the January meeting for final comments and approval. Strelcheck will send the Monitoring Strategy to Flood & Bodden for review.

Ueltzen shared that the Lake County Forest Preserve District (LCFPD) is a part of the Chicago Region Trees Initiative (CRTI). Through CRTI, LCFPD was approached by Quantified Ventures, an organization that is looking to support projects involving nature-based solutions. Ueltzen noted that Quantified Ventures could be a potential funding source for future projects post-NARP and will keep the NBWW updated as he learns more. Strelcheck added that Friends of the Chicago River worked with Quantified Ventures and that NBWW could ask about their experience. Bielak asked if there is a way to keep track of funding opportunities as NBWW learns about them. Strelcheck is keeping track of opportunities like this, and SMC also keeps a list of potential funding and technical assistance sources for watershed projects and programs on its website.

**9. Next Meeting:** NBWW Executive Board Meeting: January 10, 2024, Village of Deerfield, Village Hall, 850 Waukegan Rd, Deerfield, IL 60015 (Council Chambers Board Room)

**10. Adjournment – 2:12pm**



Ueltzen motioned to adjourn, seconded by Bielak. The motion passed with unanimous vote.

**NBWW Executive Board Meeting Attendees**

<b>NAME</b>	<b>ORGANIZATION</b>
Alana Bartolai	Lake County Health Department
Ashley Strelcheck	Lake County Stormwater Management Commission, NBWW Coordinator
Brandon Janes	Village of Deerfield, NBWW President
Chuck Bodden	North Shore Water Reclamation District
Jack Bielak	Village of Northbrook
Joe Kenney	Village of Glenview
Leonard Dane	Fehr Graham Engineering & Environmental
Matt Ueltzen	Lake County Forest Preserve District
Rob Flood	North Shore Water Reclamation District, NBWW Monitoring Committee Chair
Sharene Gould Dulabaum	Lake County Stormwater Management Commission



## NBWW EXECUTIVE BOARD MEETING MINUTES

### 1. Call Meeting to Order

Brandon Janes, North Branch Chicago River Watershed Workgroup (NBWW) President, called the meeting to order at 1:32pm.

### 2. Roll Call

Executive Board members present were **Brandon Janes** (President), Village of Deerfield; **Jack Bielak**, Village of Northbrook; **Matt Ueltzen**, Lake County Forest Preserve District (LCFPD); **Robyn Flakne**, Village of Glenview; **Chuck Bodden**, North Shore Water Reclamation District (NSWRD); and **Rob Flood**, NSWRD and Monitoring Committee Chair. A roll call was performed, and a NBWW Executive Board quorum was present.

### 3. Public Comment – None

### 4. Approve June 14, 2023, NBWW Executive Board Meeting Minutes

Bodden motioned to accept the June 14, 2023, Executive Board Meeting Minutes, seconded by Bielak. The motion passed with unanimous vote.

### 5. Old Business

#### a. Monitoring Committee & NARP Update

Flood gave an update for the Monitoring Committee. The Monitoring Committee voted in a new member, Anna Braum with the Forest Preserve District of Cook County, Larry Bridges, now with the Skokie Consolidated Drainage District (SCDD – combined West Skokie and East Skokie Drainage District) and a new alternate, Ethan Hoffman with Village of Lincolnshire. The Monitoring Committee recommends not to put the IPS model report on the NBWW website at this time and to revisit this discussion once NBWW has received training on the model. NSWRD finished their September 2023 NBWW water quality sampling. NSWRD has data from February, May, July, August, and September, which will be used for the NBWW annual report that is published in April. NSWRD also concluded the continuous monitoring on the Skokie River that was conducted from May to September. NSWRD has shared the data with Geosyntec to use in their modeling for the NARP. The NARP is proceeding along, and Geosyntec will provide an update next month.

#### i. FY24 Proposed Monitoring Costs

The Monitoring Committee decided to table a decision on when to perform the next cycle of bioassessment monitoring until after the NARP is complete. For budgeting purposes, Ashley Strelcheck, NBWW Coordinator, will account for potential bioassessment monitoring costs in 2026.

### 6. Financial Report

a. **Ratify FY23 Revenues-Expenditures:** Strelcheck presented the expenditures and revenues to the NBWW Executive Board for ratification. There were no questions. Ueltzen motioned to ratify the revenues and expenditures, seconded by Bielak. The motion passed with consensus via a roll call vote; Flood and Bodden abstained.

b. **NBWW Budget Review:** Strelcheck presented the FY2023 budget. There was a question about the projected MBI IPS model expense. Strelcheck shared that training could potentially take place in Spring 2024. The projected IPS model training expense is from a proposal estimate, not a contract. Previous MBI contracts just



involved IPS model integration, not training on the IPS model. The projected IPS model training expense is in the budget, so NBWW has the option to complete the IPS model training. However, NBWW is not contractually obligated.

- c. **FY24 NBWW Proposed Budget:** Strelcheck presented the draft FY24 NBWW Proposed Budget. There were no questions. Strelcheck will revise the 2026 revenues amount for approval at the November NBWW Executive Board meeting.
  - d. **FY24 NBWW Proposed Membership Dues:** Strelcheck presented the draft FY24 NBWW Proposed Membership Dues. Bodden asked about translating NBWW's monitoring data into a form that is usable by everyone. The Executive Board discussed what this could look like and whether this could be a role for NSWRD, Lake County Stormwater Management Commission (SMC), or a consultant. Strelcheck noted that SMC does not have the capacity to take this on. The Executive Board agreed to table this idea and to discuss it again at the next meeting. Strelcheck will check the proper procedure for requesting proposals. Strelcheck will bring this agenda item for approval at the November NBWW Executive Board meeting.
- 7. New Business**
- a. **Vote for NBWW Letter of Support: Skokie River Channel Improvements Park District Highland Park Countywide BMP Implementation Proposed Project**  
Strelcheck noted that NBWW has previously sent Letters of Support for proposed water quality projects to help bolster their grant applications. Strelcheck gave a brief overview of the Skokie River Channel Improvements Park District Highland Park Countywide BMP Implementation Proposed Project and presented a past NBWW Letter of Support template that could be updated for this project. Flood motioned to send a NBWW Letter of Support for the Skokie River Channel Improvements Park District Highland Park Countywide BMP Implementation Proposed Project, seconded by Ueltzen. The motion passed with unanimous vote.
  - b. **FY24 NBWW Meeting Locations**  
Strelcheck explained why the Patty Turner Center is not an ideal meeting location anymore and that she is trying to find a central meeting location for everyone. Strelcheck noted that the Monitoring Committee supports continuing to meet at the Village of Deerfield Village Hall. The Executive Board agreed that the Village of Deerfield Village Hall is an ideal meeting location. Strelcheck will coordinate with Janes offline about reserving the Village of Deerfield Village Hall for NBWW 2024 meetings. Strelcheck added that the Deerfield Public Library could be a backup meeting location. There were no objections.
- 8. Member Remarks - None**
- 9. Next Meeting:** NBWW Executive Board Meeting: November 08, 2023, Village of Deerfield, Village Hall, 850 Waukegan Rd, Deerfield, IL 60015 (Council Chambers Board Room)
- 10. Adjournment – 2:18pm**  
Bodden motioned to adjourn, seconded by Bielak. The motion passed with unanimous vote.



**NBWW Executive Board Meeting Attendees**

<b>NAME</b>	<b>ORGANIZATION</b>
Ashley Strelcheck	Lake County Stormwater Management Commission, NBWW Coordinator
Brandon Janes	Village of Deerfield, NBWW President
Chuck Bodden	North Shore Water Reclamation District
Jack Bielak	Village of Northbrook
Joesphine Meincke	North Shore Water Reclamation District
Leonard Dane	Fehr Graham Engineering & Environmental
Matt Ueltzen	Lake County Forest Preserve District
Rob Flood	North Shore Water Reclamation District, NBWW Monitoring Committee Chair
Robyn Flakne	Village of Glenview
Sharene Gould Dulabaum	Lake County Stormwater Management Commission

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<b>2023 NBWW Accounts</b>			
<b>778-4230010-46010 NBWW Revenue</b>			
<b>Name</b>	<b>Actual Expense</b>	<b>Ratification Date</b>	<b>Invoice Number</b>
FY23 NBWW Membership LF Open Lands (copy)	\$ 200.00	1/12/2023	
FY2023 NBWW Membership Dues: Chicago Botaic Garden (copy)	\$ 200.00	3/8/2023	INV-00068902
FY23 NBWW Hey and Associates	\$ 200.00	3/8/2023	INV-00069086
FY22 NBWW IDOT (copy)	\$ 4,077.77	3/8/2023	INV-00068904
FY23 NBWW Northfield	\$ 4,130.92	4/12/2023	INV-00069121
FY23 NBWW Fehr Engineering (copy)	\$ 200.00	4/12/2023	INV-00069082
FY23 NBWW LCFPD Unincorporated	\$ 1,372.25	4/12/2023	INV-00069093
FY23 NBWW City of Park City (copy)	\$ 2,023.55	4/12/2023	INV-00069034
FY23 NBWW City of Highland Park (copy)	\$ 8,883.25	4/12/2023	INV-00069031
FY23 NBWW Union One Middle Fork (copy)	\$ 1,460.00	4/12/2023	INV-00069104
FY23 NBWW CBBEL (copy)	\$ 200.00	4/12/2023	INV-00069029
FY23 NBWW MSWRDGC (copy)	\$ 200.00	4/12/2023	INV-00069099
FY23 NBWW City of North Chicago (copy)	\$ 2,849.96	4/12/2023	INV-00069033
FY23 NBWW CookCounty DOT (copy)	\$ 1,932.34	4/12/2023	INV-00069037
FY23 NBWW GHA (copy)	\$ 200.00	4/12/2023	INV-00069085
FY23 NBWW Winnetka (copy)	\$ 3,706.95	4/12/2023	INV-00069125
FY23 NBWW City of Lake Forest (copy)	\$ 12,774.08	4/12/2023	INV-00069032
FY23 NBWW Deerfield PD (copy)	\$ 200.00	4/12/2023	INV-00069038
FY23 NBWW LCSCMC (copy)	\$ 200.00	4/12/2023	INV-00069091
FY23 NBWW ESDD (copy)	\$ 1,460.00	4/12/2023	INV-00069040
FY23 NBWW Morton Grove (copy)	\$ 4,225.62	4/12/2023	INV-00069115
FY23 NBWW WSDD (copy)	\$ 1,460.00	4/12/2023	INV-00069126
FY23 NBWW Linconshire (copy)	\$ 2,549.83	6/14/2023	INV-00069114
FY23 NBWW Engineering Resources	\$ 200.00	6/14/2023	INV-00069081
FY23 NBWW LCDOT	\$ 1,632.71	6/14/2023	INV-00069090
FY23 NBWW NSWRD	\$ 64,376.94	6/14/2023	INV-00069100
FY23 NBWW Village of Deerfield	\$ 21,433.50	6/14/2023	INV-00069109
FY23 NBWW Green Oaks	\$ 3,580.12	6/14/2023	INV-00069113
FY23 NBWW Geosyntec	\$ 200.00	6/14/2023	INV-00069084
FY23 NBWW Northbrook	\$ 11,320.72	6/14/2023	INV-00069118
FY23 NBWW Wilmette	\$ 4,127.33	6/14/2023	INV-00069124
FY23 NBWW City of Evanston	\$ 1,571.80	6/14/2023	INV-00069030
FY23 NBWW Sierra Club	\$ 200.00	6/14/2023	INV-00069087
FY23 NBWW Libertyville Township	\$ 1,616.63	6/14/2023	INV-00069098
FY23 NBWW Union One West Fork	\$ 1,460.00	6/14/2023	INV-00069104
FY23 NBWW Glencoe	\$ 3,131.24	6/14/2023	INV-00069110
FY23 NBWW Skokie	\$ 2,557.31	6/14/2023	INV-00069123
FY23 NBWW Village of Bannockburn	\$ 3,254.43	8/9/2023	INV-00069107
FY23 NBWW CCFPD	\$ 3,635.19	6/14/2023	INV-00069039
FY23 NBWW Cook County Unincorporated	\$ 2,845.49	6/14/2023	INV-00069036
FY23 NBWW Vernon Township	\$ 1,464.17	8/9/2023	INV-00069106
FY23 NBWW ILM	\$ 200.00	8/9/2023	INV-00069088
FY23 City of Waukegan	\$ 4,672.23	8/9/2023	INV-00069035
FY23 NBWW Glenview	\$ 11,809.21	8/9/2023	INV-00069111
FY23 NBWW Riverwoods	\$ 2,829.67	8/9/2023	INV-00069122
FY23 NBWW FOCR	\$ 200.00	8/9/2023	INV-00069083
FY23 NBWW Niles	\$ 1,577.22	9/13/2023	INV-00069116
	<b>\$ 204,602.43</b>		
<b>FY23 invoices NBWW EXP-REV</b>			
<b>Name</b>	<b>Actual Expense</b>	<b>Ratification Date</b>	<b>Invoice Number</b>
NBWW FY23 Geosyntec Payment #1	\$ 12,594.18	3/8/2023	181497927
NBWW FY23 SMC Q1 Payment	\$ 6,299.50	4/12/2023	420000810
NBWW MBI FY22 Payment #3	\$ 1,267.74	3/8/2023	2084
NBWW NSWRD February 2023	\$ 4,271.00	4/12/2023	MISC00000127663
NBWW Geosyntec FY23 Payment #2	\$ 9,828.00	4/12/2023	181503617
NBWW Geosyntec FY23 Payment #3	\$ 10,635.65	6/14/2023	181507874
NBWW FY22 MBI FINAL Payment	\$ 17,575.61	6/14/2023	2099
NBWW SMC FY23 Quarter 2 Payment	\$ 3,731.50	6/14/2023	420000810
NBWW FY23 Geosyntec Payment #4	\$ 22,960.68	6/14/2023	181511257
NBWW FY23 NSWRD Payment #2	\$ 4,946.00	6/12/2023	MISC00000128427
NBWW Geosyntec FY23 Payment #5	\$ 13,433.00	8/9/2023	181514341
NBWW FY23 Geosyntec Payment #6	\$ 6,358.15	8/9/2023	181518132
NBWW FY23 Annual Deicing Sponsorship	\$ 250.00	8/9/2023	13112
NBWW FY23 NSWRD Payment #3	\$ 4,946.00	10/11/2023	MISC00000129108
NBWW FY23 NSWRD Payment #4	\$ 4,946.00	10/11/2023	MISC00000129290
NBWW FY23 Geosyntec Payment #7	\$ 3,326.25	10/11/2023	181521183
NBWW Geosyntec FY23 Payment #8 (copy)	\$ 9,690.66	10/11/2023	181524919
NBWW FY23 SMC Payment #3 (copy)	\$ 5,170.46	10/11/2023	420000930
NBWW FY23 Geosyntec Payment #9 (copy)	\$ 15,016.75		181529047
NBWW FY23 NSWRD FINAL PAYMENT (copy)	\$ 4,946.00		MISC00000129632
NBWW FY23 DRSCW Payment for IPS Model Services	\$ 732.90		417
	<b>\$ 162,926.03</b>		



**North Branch Chicago River Watershed Workgroup (NBWW) Budget**

**FY2023 Budget of Accounts - Revenues Expenditures (Approved at 02/08/23 NBWW General Membership Meeting)**

	SMC Account #	Actual FY2022	Projected 2023	Actual FY2023	Projected 2024
<b>REVENUE</b>					
Dues - Membership dues	778-4230010-46010	\$224,835.83	\$207,613.65	\$204,602.43	\$206,353.65
WMAG Local Grant - Awarded Jan. 2018	778-4230010-45350				
Carryover Addition	778-4230010-46010	\$ 41,245.35	\$40,094.21	\$40,094.21	\$ 35,749.51
	778-4230010-45350	\$70.60		\$65.87	
<b>Total Revenue</b>		<b>\$266,151.78</b>	<b>\$247,707.86</b>	<b>\$244,762.51</b>	<b>\$242,103.16</b>
<b>EXPENSES</b>					
<b>2022</b>					
Consultants - Administrative & Technical Support	778-4230010-71150	\$ 24,000.00			
Education	778-4230010-72980	\$ 250.00			
Consultants - MBI Year 4 Part 2 Contract	778-4230010-71310	\$ 19,103.81			
Contractuals - NSWRD - Water Column Chemistry Monitoring	778-4230010-71310	\$ 23,255.00			
MBI IPS Model - Training	778-4230010-79940	\$ -			
Consultant - Preliminary NARP Workplan Part 2 (2021 PO# )	778-4230010-71150	\$ 5,160.25			
NARP Year 1 - Targeted Approach Sampling & Analysis Estimate	778-4230010-71150	\$ 154,288.51			
<b>2023</b>					
Consultants - Administrative & Technical Support	778-4230010-71150		\$ 24,000.00	\$ 15,201.46	
Education	778-4230010-72980		\$ 250.00	\$ 250.00	
Contractuals - NSWRD - Water Column Chemistry Monitoring & Sediment Analysis	778-4230010-71310		\$ 24,055.00	\$ 24,055.00	
Consultants - MBI Year 4 Part 2 Contract (2022 PO Continued...)	778-4230010-71310		\$ 18,843.35	\$ 18,843.35	
MBI IPS Model Expense	778-4230010-79940		\$ 5,000.00		
DRSCW & NBWW MOU for IPS Model Completion Services	778-4230010-79940		\$ -	\$ 732.90	
NARP Year 2	778-4230010-71150		\$ 139,810.00	\$ 103,843.32	
<b>Total Expenses</b>		<b>\$ 226,057.57</b>	<b>\$ 211,958.35</b>	<b>\$ 162,926.03</b>	<b>\$ 223,825.00</b>
<b>Unexpended Carryover/Reserve</b>		<b>\$ 40,094.21</b>	<b>\$ 35,749.51</b>	<b>\$81,836.48</b>	<b>\$ 18,278.16</b>



**North Branch Chicago River Watershed Workgroup (NBWW) Budget**  
**FY2024 Proposed Budget of Accounts**

	SMC Account #	Projected 2023	Actual FY2023	Projected 2024	Projected 2025	Projected 2026
<b>REVENUE</b>						
Dues - Membership dues	778-4230010-46010	\$207,613.65	\$208,016.42	\$206,353.65	\$206,353.65	\$131,238.97
	778-4230010-45350					
Carryover Addition	778-4230010-46010	\$40,094.21	\$40,094.21	\$ 41,218.15	\$ 38,996.80	\$ 53,503.80
Interest	778-4230010-45350		\$65.87			
<b>Total Revenue</b>		<b>\$247,707.86</b>	<b>\$248,176.50</b>	<b>\$247,571.80</b>	<b>\$245,350.45</b>	<b>\$184,742.77</b>
<b>EXPENSES</b>						
<b>2022</b>						
Consultants - Administrative & Technical Support	778-4230010-71150					
Education	778-4230010-72980					
Consultants - MBI Year 4 Part 2 Contract	778-4230010-71310					
Contractuals - NSWRD - Water Column Chemistry Monitoring	778-4230010-71310					
MBI IPS Model - Training	778-4230010-79940					
Consultant - Preliminary NARP Workplan Part 2 (2021 PO#)	778-4230010-71150					
NARP Year 1 - Targeted Approach Sampling & Analysis Estimate	778-4230010-71150					
<b>2023</b>						
Consultants - Administrative & Technical Support	778-4230010-71150	\$ 24,000.00	\$ 15,201.46			
Education	778-4230010-72980	\$ 250.00	\$ 250.00			
Contractuals - NSWRD - Water Column Chemistry Monitoring & Sediment Analysis	778-4230010-71310	\$ 24,055.00	\$ 24,055.00			
Consultants - MBI Year 4 Part 2 Contract (2022 PO Continued...)	778-4230010-71310	\$ 18,843.35	\$ 18,843.35			
MBI IPS Model Expense	778-4230010-79940	\$ 5,000.00				
NARP Year 2	778-4230010-71150	\$ 139,810.00	\$ 103,843.32			
<b>2024</b>						
Consultants - Administrative & Technical Support	778-4230010-71150			\$ 24,000.00		
Education	778-4230010-72980			\$ 1,000.00		
Contractuals - NSWRD - Water Column Chemistry Monitoring & Sediment Analysis	778-4230010-71310			\$ 24,055.00		
MBI IPS Model Expense	778-4230010-79940			\$ 5,000.00		
NARP Year 3	778-4230010-71150			\$ 154,520.00		
<b>2025</b>						
Consultants - Administrative & Technical Support	778-4230010-71150				\$ 24,000.00	
Education	778-4230010-72980				\$ 1,500.00	
Contractuals - NSWRD - Water Column Chemistry Monitoring & Sediment Analysis	778-4230010-71310				\$ 24,776.65	
NARP Year 4	778-4230010-71150				\$ 141,570.00	
<b>2026</b>						
Consultants - Administrative & Technical Support	778-4230010-71150					\$ 24,000.00
Education	778-4230010-72980					\$ 2,000.00
Contractuals - NSWRD - Water Column Chemistry Monitoring & Sediment Analysis	778-4230010-71310					\$ 25,519.95
Consultants - MBI 25 Site Sampling	778-4230010-71310					\$ 77,258.87
<b>Total Expenses</b>		<b>\$ 211,958.35</b>	<b>\$ 162,193.13</b>	<b>\$ 208,575.00</b>	<b>\$ 191,846.65</b>	<b>\$ 128,778.82</b>
<b>Unexpended Carryover/Reserve</b>		<b>\$35,749.51</b>	<b>\$85,983.37</b>	<b>\$38,996.80</b>	<b>\$53,503.80</b>	<b>\$55,963.95</b>

**North Branch Chicago River Watershed Workgroup (NBWW)  
2024 Proposed Membership Dues Structure**

Name	Acres in Planning Boundary	Design Average Flow (MGD)	Fixed Component 17%	Fixed Component for Permit Monitoring	WTP Contribution 33%	Acres within NEW Planning Boundary	Acreage Contribution 50%	NBWW Base Dues	2024 NARP Special Assessment Fee (46%)	2024 Membership Dues (TOTAL)
CCFPD - Unincorporated	1,530.51	0	\$ 200	\$ 800	\$ -	1,530.51	\$ 1,489.86	\$ 2,489.86	\$ 1,145.33	\$ 3,635.19
Chicago Botanical Garden	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
Christopher Burke	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
City of Evanston	78.67	0	\$ 200	\$ 800	\$ -	78.67	\$ 76.58	\$ 1,076.58	\$ 495.23	\$ 1,571.80
City of Highland Park	5,223.14	0	\$ 200	\$ 800	\$ -	5,223.14	\$ 5,084.41	\$ 6,084.41	\$ 2,798.83	\$ 8,883.25
City of Lake Forest	7,960.81	0	\$ 200	\$ 800	\$ -	7,960.81	\$ 7,749.37	\$ 8,749.37	\$ 4,024.71	\$ 12,774.08
City of North Chicago	978.01	0	\$ 200	\$ 800	\$ -	978.01	\$ 952.03	\$ 1,952.03	\$ 897.93	\$ 2,849.96
City of Park City	396.52	0	\$ 200	\$ 800	\$ -	396.52	\$ 385.99	\$ 1,385.99	\$ 637.56	\$ 2,023.55
City of Waukegan	2,260.19	0	\$ 200	\$ 800	\$ -	2,260.19	\$ 2,200.16	\$ 3,200.16	\$ 1,472.07	\$ 4,672.23
Cook County - Unincorporated	974.85	0	\$ 200	\$ 800	\$ -	974.85	\$ 948.96	\$ 1,948.96	\$ 896.52	\$ 2,845.49
Cook County DOTH	332.35	0	\$ 200	\$ 800	\$ -	332.35	\$ 323.52	\$ 1,323.52	\$ 608.82	\$ 1,932.34
Deerfield Park District	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
Fehr Graham Engineering & Environmental	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
Engineering Resources Associates	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
Friends of the Chicago River	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
Geosyntec	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
Gewalt Hamilton	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
Hey & Associates	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
Illinois DOT	1,558.54	0	\$ 200	\$ 800	\$ -	1,558.54	\$ 1,517.14	\$ 2,517.14	\$ 1,157.89	\$ 3,675.03
Illinois Sierra Club	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
ILM	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
Lake County - Unincorporated	1,374.86	0	\$ 200	\$ 800	\$ -	1,374.86	\$ 1,338.35	\$ 2,338.35	\$ 1,075.64	\$ 3,413.99
Lake County DOT	121.52	0	\$ 200	\$ 800	\$ -	121.52	\$ 118.29	\$ 1,118.29	\$ 514.41	\$ 1,632.71
Lake County SMC	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
Lake Forest Openlands	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
LCFPD - Unincorporated	760.09	0	\$ 200	\$ -	\$ -	760.09	\$ 739.90	\$ 939.90	\$ 432.35	\$ 1,372.25
Libertyville Township	110.20	0	\$ 200	\$ 800	\$ -	110.20	\$ 107.28	\$ 1,107.28	\$ 509.35	\$ 1,616.63
MWRDGC	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
NSWRD Clavey Road WRF	0.00	17.8	\$ 200	\$ 800	\$ 34,817	0.00	\$ -	\$ 35,816.55	\$ 28,560.39	\$ 64,376.94
Skokie Consolidated Drainage District	0.00	0	\$ 200	\$ 800	\$ -	0.00	\$ -	\$ 1,000.00	\$ 460.00	\$ 1,460.00
Stantec	0.00	0	\$ 200	\$ -	\$ -	0.00	\$ -	\$ 200.00	\$ -	\$ 200.00
Union One Middle Fork Drainage District	0.00	0	\$ 200	\$ 800	\$ -	0.00	\$ -	\$ 1,000.00	\$ 460.00	\$ 1,460.00
Union One West Fork Drainage District	0.00	0	\$ 200	\$ 800	\$ -	0.00	\$ -	\$ 1,000.00	\$ 460.00	\$ 1,460.00
Vernon Township	2.94	0	\$ 200	\$ 800	\$ -	2.94	\$ 2.86	\$ 1,002.86	\$ 461.31	\$ 1,464.17
Village of Bannockburn	1,262.59	0	\$ 200	\$ 800	\$ -	1,262.59	\$ 1,229.06	\$ 2,229.06	\$ 1,025.37	\$ 3,254.43
Village of Deerfield	3,356.57	3.5	\$ 200	\$ 1,600	\$ 6,846	3,356.57	\$ 3,267.42	\$ 11,913.37	\$ 9,520.13	\$ 21,433.50
Village of Glencoe	1,175.91	0	\$ 200	\$ 800	\$ -	1,175.91	\$ 1,144.68	\$ 2,144.68	\$ 986.55	\$ 3,131.24
Village of Glenview	7,281.91	0	\$ 200	\$ 800	\$ -	7,281.91	\$ 7,088.50	\$ 8,088.50	\$ 3,720.71	\$ 11,809.21
Village of Green Oaks	1,491.75	0	\$ 200	\$ 800	\$ -	1,491.75	\$ 1,452.13	\$ 2,452.13	\$ 1,127.98	\$ 3,580.12
Village of Lincolnshire	766.83	0	\$ 200	\$ 800	\$ -	766.83	\$ 746.46	\$ 1,746.46	\$ 803.37	\$ 2,549.83
Village of Morton Grove	1,945.95	0	\$ 200	\$ 800	\$ -	1,945.95	\$ 1,894.26	\$ 2,894.26	\$ 1,331.36	\$ 4,225.62
Village of Niles	82.48	0	\$ 200	\$ 800	\$ -	82.48	\$ 80.28	\$ 1,080.28	\$ 496.93	\$ 1,577.22
Village of Northbrook	6,938.19	0	\$ 200	\$ 800	\$ -	6,938.19	\$ 6,753.92	\$ 7,753.92	\$ 3,566.80	\$ 11,320.72
Village of Northfield	1,879.31	0	\$ 200	\$ 800	\$ -	1,879.31	\$ 1,829.40	\$ 2,829.40	\$ 1,301.52	\$ 4,130.92
Village of Riverwoods	963.73	0	\$ 200	\$ 800	\$ -	963.73	\$ 938.13	\$ 1,938.13	\$ 891.54	\$ 2,829.67
Village of Skokie	772.09	0	\$ 200	\$ 800	\$ -	772.09	\$ 751.58	\$ 1,751.58	\$ 805.73	\$ 2,557.31
Village of Wilmette	1,876.78	0	\$ 200	\$ 800	\$ -	1,876.78	\$ 1,826.94	\$ 2,826.94	\$ 1,300.39	\$ 4,127.33
Village of Winnetka	1,581.00	0	\$ 200	\$ 800	\$ -	1,581.00	\$ 1,539.01	\$ 2,539.01	\$ 1,167.94	\$ 3,706.95
<b>TOTALS</b>	<b>55,136.84</b>	<b>21.30</b>	<b>\$ 10,200</b>	<b>\$ 28,000</b>	<b>\$ 41,663</b>	<b>55,136.84</b>	<b>\$ 53,672.41</b>	<b>\$ 131,238.97</b>	<b>\$ 75,114.68</b>	<b>\$ 206,353.65</b>

## North Branch Chicago River Watershed Workgroup (NBWW)

### Proposed 2024 Meeting Schedule

Meeting Type	Recurrence		1/10/2024	2/14/2024 - Membership Dues Approval	3/13/2024	4/10/2024	5/8/2024	6/12/2024	7/10/2024	8/14/2024 - Annual Meeting NBWW Elections	9/11/2024	10/9/2024	11/13/2024
Monitoring/ WQ Improvement Committee	Monthly	2nd Wednesday of each month	12:30 PM		12:30 PM	12:30 PM	12:30 PM	12:30 PM	12:30 PM		12:30 PM	12:30 PM	12:30 PM
Executive Board	Monthly		1:30 PM		1:30 PM	1:30 PM	1:30 PM	1:30 PM	1:30 PM		1:30 PM	1:30 PM	1:30 PM
General Membership	Biannually			1:00pm - 3:00pm							1:00pm - 3:00pm		
LOCATIONS			Village of Deerfield, Village Hall	Lake Forest Municipal Services Building, Training Room	Village of Deerfield, Village Hall	Village of Deerfield, Village Hall	Village of Deerfield, Village Hall	Village of Deerfield, Village Hall	Village of Deerfield, Village Hall	Lake Forest Municipal Services Building, Training Room	Village of Deerfield, Village Hall	Village of Deerfield, Village Hall	Village of Deerfield, Village Hall

*Meeting Locations:*

*Monitoring Committee & Executive Board: Village of Deerfield, Village Hall, 850 Waukegan Rd, Deerfield, IL 60015 (Council Chambers Board Room);*

*General Membership Meetings: Lake Forest Municipal Services Building, Training Room, 800 N Field Dr, Lake Forest, IL 60045*



STORMWATER MANAGEMENT COMMISSION

**AGREEMENT**  
**between the**  
**NORTH BRANCH CHICAGO RIVER WATERSHED WORKGROUP**  
**and the**  
**LAKE COUNTY STORMWATER MANAGEMENT COMMISSION**  
**for providing ADMINISTRATIVE AGENT & NARP TECHNICAL SERVICES**

WHEREAS, the North Branch Chicago River Watershed Workgroup (NBWW) is an organization formed individually and collectively, pursuant to the Intergovernmental Cooperation Act, 5 ILCS 220/1 et seq.; Article VII, Section 10 of the 1970 Constitution of the State of Illinois; the Local Land Resource Management Planning Act, 50 ILCS 805/1 et seq.; the Illinois Drainage Act, 70 ILCS 605/1 et seq.; and other statutory authority, the Environmental Protection Act, 415 ILCS 5 et seq.; The Green Infrastructure for Clean Water Act, 415 ILCS 56/1 et seq.; and other applicable law; and

WHEREAS, the Lake County Stormwater Management Commission ("SMC") formed pursuant to 55 ILCS 5/5-1062 et seq., providing authority to the Stormwater Management Commission; is desirous of acting as the 'Administrative Agent' for the NBWW and having related organizational mission and objectives; and

WHEREAS, the Administrative Agent duties provided to the NBWW shall include but are not limited to, communication and coordination, membership development, website management, financial accounting, meeting implementation following the Illinois Open Meetings Act requirements, providing Illinois Freedom of Information Act services per that Act's requirements, technical support, providing recommendations and support for purchasing and procurement of contractual services following Illinois Professional Services Selection Act and the Lake County Purchasing Policies when applicable; and

WHEREAS, the NBWW will allow membership dues collected and applied to water quality monitoring program costs; and

WHEREAS, the parties hereto, by their respective governing boards, find this Agreement to be fair and to the mutual benefit of the parties hereto.

NOW, THEREFORE, the NBWW and the SMC agree, by their authorized representatives, to the following:

- 1) That the recitals above be and are incorporated by reference as a part of this Agreement.
- 2) Mutual Agreements. NBWW and SMC agree:
  - a) Sub-consultants hired by the NBWW shall be approved by the NBWW Executive Board and invoices received shall be paid by SMC from the NBWW account as part of the administrative services provided under this agreement.
  - b) Mutually review the terms of this agreement, at a minimum, within the second fiscal quarter of each calendar year, to ensure both the SMC services rendered are meeting expectations of the NBWW and that SMC staff expenses are being remunerated appropriately.
- 3) NBWW Agreements. NBWW agrees as follows:
  - a) The NBWW agrees to allow SMC to perform invoice payments to sub-consultants approved per 2.a) above.

4) SMC Agreements. SMC agrees as follows:

- a) SMC agrees to provide the Administrative Agent services, effectively and efficiently for an amount not-to-exceed \$19,000 annually.
  - i. SMC agrees each year, starting in January 2020 and annually thereafter, to develop a yearly budget for the NBWW Executive Board approval and three-year budget estimate, based on projected membership dues received and expenses.
  - ii. SMC agrees to provide financial reporting of revenues and expenditures on a monthly and year-end basis, so that the NBWW may make informed decisions on financial matters, regarding expenses and dues adjustments that may be necessary per the NBWW bylaws.
- b) SMC agrees to provide NARP Coordinator services as needed, towards the development of the NARP workplan for an amount not-to-exceed \$5,000.

5) Effective date of agreement: The effective date of this Agreement shall be December 1, 2020.

6) Terms of Agreement:

- a) The terms of this Agreement are valid until November 30, 2021, at which time this Agreement shall automatically renew each year thereafter on December 1<sup>st</sup> provided, however, that an event of termination occurs, then the applicable renewal term shall be shortened to the date of the event of termination.
- b) Either party may terminate this Agreement upon 30 days written notice to the other party. In the event of such termination, the NBWW shall reimburse the SMC for eligible workgroup coordinator services and NARP technical services made up to the date of notice of termination, up to the maximum not-to-exceed amount of \$24,000.
- c) All adjustments, additions, and/or deletions to this Agreement are subject to the written approval of both parties.
- d) This Agreement shall be governed by and construed according to the laws of the State of Illinois.

Agreed and executed by the parties hereto, by their duly authorized representatives, on the date first written above.

**North Branch Chicago River Watershed Workgroup**

By:   
President

Attest:   
Vice-President

**Lake County Stormwater Management Commission**

By:  Michael Warner  
Executive Director

Attest:  Kurt Woolford  
Chief Engineer

**2024 TECHNICAL SERVICES AGREEMENT** between the  
**NORTH BRANCH CHICAGO RIVER WATERSHED WORKGROUP**  
and  
**NORTH SHORE WATER RECLAMATION DISTRICT** for  
**WATER CHEMISTRY MONITORING**

1. This is an agreement (Agreement) by and between the **NORTH BRANCH CHICAGO RIVER WATERSHED WORKGROUP, 500 West Winchester Road, Libertyville, Illinois 60048 (NBWW)** and **NORTH SHORE WATER RECLAMATION DISTRICT, 14770 W. Wm. Koepsel Drive, P.O. Box 750, Gurnee, Illinois 60031 (DISTRICT)**.

**PURPOSE**

The NBWW wishes to engage the District to provide technical services to assist the NBWW in conducting water chemistry monitoring within the North Branch Chicago River Watershed located in Lake and Cook Counties, Illinois. The water chemistry monitoring consists of the collection and analyses of water column samples within the Watershed. The NBWW has selected 25 sampling locations within the North Branch of the Chicago River Watershed in Lake and Cook Counties, Illinois.

**SERVICES**

The District will perform the water chemistry monitoring by collecting and analyzing water column samples and providing the analytical data to the NBWW in accordance with the IEPA-approved NBWW Quality Assurance Project Plan (QAPP). The detailed Scope of Services to be provided by the District to accomplish the NBWW's objectives for the water chemistry monitoring is further described in Attachment A, 2024 North Branch Watershed Workgroup (NBWW) Water Chemistry Scope of Work.

**COMPENSATION**

1. The District agrees to perform the Scope of Services and furnish the items included in the Scope of Services for a fee (Agreement Amount) not to exceed \$24,055.00 for water column sampling in accordance with the unit price rates identified in Attachment B – Project Budget.
2. The District shall bill the NBWW monthly, with net payment due in accordance with the Illinois Local Prompt Payment Act (50 ILCS 505/1 et seq.). Itemized invoices shall be submitted detailing the work completed during the current billing period.
3. The District will notify NBWW if scope changes require modifications to the Agreement Amount. Services relative to scope changes will not be initiated without authorization from NBWW.

## **SCHEDULE AND DELIVERABLES**

Generally, sampling will be conducted at the appropriate sites in accordance with the Sampling Schedule below within a single week per month and approximately the same week every month.

### Sampling Schedule

- February 2024
- May 2024
- July 2024
- August 2024
- September 2024

### Project Deliverables:

- Electronic data deliverables (EDDs) and the sample results in an editable Microsoft Excel file.
- A final report consisting of a pdf file of all analytical results, analytical methods, chain(s) of custody, and a field log. Any sampling or testing observations which may have affected accuracy will be noted in the report narrative. Any applicable data qualifiers (e.g., matrix spike failure) will also be noted in the project specific comments portion of the report narrative page.

## **TERMS and CONDITIONS**

1. The NBWW may, by written Order, make changes in the scope of work if such changes are within the general scope of the Agreement. If such changes cause an increase or decrease in the District's cost or the time required to complete the project, the parties hereto shall agree to an adjustment in the Agreement Amount, prior to issuance of the Change Order. Adjustment of the Agreement Amount shall be based on the unit price rates identified in Attachment B – Project Budget. The District will not perform additional services without an approved Change Order.
2. Either party may terminate this Agreement by providing thirty (30) day written notice to the other party. NBWW shall pay District for all expenses incurred prior to the date of termination. Any and all services or deliverables provided to the NBWW by the District shall remain the property of the NBWW.
3. This Agreement shall be governed by and construed according to the laws of the State of Illinois.
4. This Agreement supersedes any and all other agreements, oral or written, between the parties hereto with respect to the subject matter hereof.
5. This Agreement shall not be assigned, altered or modified without the express written consent of both parties.



**NOTICES AND COMMUNICATION**

All notices and communications given to either party by the other relative to this Agreement shall be addressed to the respective parties as follows:

**To the NBWW:** North Branch Chicago River Watershed Workgroup  
500 West Winchester Road  
Libertyville, Illinois 60048  
ATTENTION: Ashley Strelcheck, Administrative Agent  
AStrelcheck@lakecountyil.gov

**To the District:** North Shore Water Reclamation District  
14770 W. Wm. Koepsel Drive  
P.O. Box 750  
Gurnee, IL 60031  
ATTENTION: Toni Favero, Laboratory Supervisor  
tofavero@northshorewrd.org

**For the North Branch Chicago River Watershed Workgroup:**

**Attest:**

\_\_\_\_\_  
Brandon Janes, President  
North Branch Chicago River Watershed Workgroup

\_\_\_\_\_  
North Branch Chicago River Watershed Workgroup

\_\_\_\_\_  
Date

**For the North Shore Water Reclamation District:**

**Attest:**

\_\_\_\_\_  
Stephen J. Drew, President  
North Shore Water Reclamation District

\_\_\_\_\_  
North Shore Water Reclamation District

\_\_\_\_\_  
Date

## ATTACHMENT A

### 2024 North Branch Watershed Workgroup (NBWW) Water Chemistry Scope of Work

- The North Branch Chicago River Watershed Workgroup (NBWW) proposes to contract with the North Shore Water Reclamation District (NSWRD) to perform 2024 water chemistry monitoring in the North Branch Chicago River Watershed located in Lake and Cook Counties, Illinois by collecting and analyzing water column samples and providing the analytical data to the NBWW in accordance with the IEPA-approved NBWW Quality Assurance Project Plan (QAPP). The water chemistry monitoring plan outlined in this 2024 Scope of Work (SOW) will support the NBWW's watershed monitoring program and aid the NBWW's evaluation whether the North Branch Chicago River Watershed meets criteria that support water quality goals.
- **Sampling Schedule**

#### Water Column Sampling and Analysis

- Water column sampling and analysis will begin in February 2024, after Technical Services Agreement approval. The North Shore Water Reclamation District's (NSWRD) Laboratory will sample twenty-five (25) sites over a one-week period. The sampling will occur during the following months: February, May, July, August and September 2024. Sample collection will follow methods outlined in the NSWRD Surface Water Collection Procedures (Attachment C). Samples will be analyzed for the water quality monitoring parameters listed in Table 1. All sample analyses will follow methods listed in Table 2 and the NSWRD Standard Operating Procedures (SOPs) outlined in the NSWRD Quality Assurance Project Plan. The reporting limits and the laboratory method detection limits (MDLs) are listed in Table 2 (Test Methods and Reporting Limits).
  - **Field QA/QC Samples**
- For every 25 samples collected, NSWRD will also collect a blank and duplicate samples. The blank will be made up in the field by pouring deionized water into the same type of sample containers that are used for the surface water. The deionized water will be NSWRD Lab reagent grade water. This water will be placed inside a pre-cleaned container.

**Table 1: 2024 Water Column Sampling Parameters and Frequency**

Parameter	NBWW Routine Sampling Frequency	Number of Sample Events
<b>General Water Quality Parameters</b>		
Chloride	February, May, July, Aug, Sept	5
Conductivity	February, May, July, Aug, Sept	5
pH	February, May, July, Aug, Sept	5
TSS	February, May, July, Aug, Sept	5
DO	February, May, July, Aug, Sept	5
Temperature	February, May, July, Aug, Sept	5
BOD5	February, May, July, Aug, Sept	5
<b>Nutrients</b>		
Ammonia	February, May, July, Aug, Sept	5
Total Nitrates (NO <sub>3</sub> +NO <sub>2</sub> )	February, May, July, Aug, Sept	5
TKN	February, May, July, Aug, Sept	5
Total phosphorus	February, May, July, Aug, Sept	5
<b>Bacteria</b>		
E. coli	May, July, August, Sept	4

**Table 2: Test Methods and Reporting Limits**

Parameter	Method	MDL/Reporting Limit
<b>Demand</b>		
BOD5	SM5210B	1 mg/L
DO	YSI field meter	0.1 mg/L
Chloride	SM 4500-Cl <sup>-</sup> E	5 mg/L
Conductivity	YSI field meter	1 umhos/cm
pH	Orion field meter	0.1 units
Temperature	170.1	0.1°C
TSS	SM 2450D	1 mg/L
<b>Nutrients</b>		
Ammonia	SM4500 NH <sub>3</sub> D	0.1 mg/L
Phosphorous, Total	EPA 365.1, Re. 2.0	0.041 mg/L
TKN	SM 4500N <sub>org</sub> C	0.40 mg/L
Total Nitrates (NO <sub>3</sub> + NO <sub>2</sub> )	EPA 353.2 Rev 2.0	0.10 mg/L
<b>Bacteria</b>		
E-coli	9223B	1CFU/100ml

## **Field Parameters**

NSWRD shall perform onsite field analysis for the following parameters:

- Conductivity
- pH
- Temperature
- Dissolved Oxygen

The results of these parameters will be reported after each sampling event and on the final report along with the results of the analyses performed in the laboratory. The field meters shall be calibrated on a daily basis.

## **Field Reporting**

### **Field Log**

A field log will be kept each day that samples are collected. The field log will include:

- Name and signature of the person collecting the samples
- Location and sampling site
- Weather information
- Dates and times of sample collection
- Field measurements
- Descriptions of any unusual conditions at the sample locations
- Chains of Custody
- Indication of duplicate sample location

## **Sample Custody and Handling**

### **Labeling and Storage**

All samples will be placed in appropriate containers provided by NSWRD. All containers will be properly labeled. The duplicate sample will be labeled with the sample location and identified as “duplicate”. When preservation is required, pre-preserved bottles will be used. Samples will be placed inside a cooler with wet ice until they reach the laboratory.

### **Chain of Custody**

Proper chain of custody documentation will accompany the collected samples. The chain of custody will contain the sample IDs, analyses to be performed, date and time of

collection, type and number of containers, preservatives added, date and time of transfers, and the signature of each person involved in custody transfer. The chain of custody will be placed in a water-resistant plastic bag inside each cooler. Indelible ink will be used on the container labels and chain of custody records. Upon receipt at the laboratory, sample temperature will be recorded on the chain of custody form. A copy of the chain of custody form will be included with the final report.

### **Sample Preservation**

When necessary, preservatives will be added to sample bottles prior to sample collection. The preservative added will be indicated on the sample bottle.

### **Project Deliverables**

#### **Final Report**

The final report will consist of a PDF file of all analytical results, analytical methods, chain(s) of custody and a field log. Any sampling or testing observations which may have affected accuracy will be noted in the report narrative. Any applicable data qualifiers (e.g. matrix spike failure) will also be noted in the project specific comments portion of the report narrative page.

#### **Electronic Data Deliverable**

An electronic data deliverable (EDD) which includes the sample results in an editable Microsoft Excel file will be included for every report.

#### **Turnaround Time**

The results for all analytical analyses will be provided no later than 20 business days following the date of collection.

Attachment B

**2024 PRICE QUOTATION**

Demand

	Quoted Price	Proposed Quantity	Total Tier 1
Chloride	\$ 12.00	135	\$ 1,620.00
BOD5	\$ 25.00	135	\$ 3,375.00
Conductivity*	\$ 5.00	130	\$ 650.00
pH*	\$ 5.00	130	\$ 650.00
TSS	\$ 12.00	135	\$ 1,620.00
DO*	\$ 5.00	130	\$ 650.00
Temperature*	\$ 2.00	130	\$ 260.00
		Total	\$ 8,825.00

Nutrients

Ammonia	\$ 18.00	135	\$ 2,430.00
Total Nitrates (NO2+NO3)	\$ 15.00	135	\$ 2,025.00
TKN	\$ 20.00	135	\$ 2,700.00
Total Phosphorus	\$ 20.00	135	\$ 2,700.00
		Total	\$ 9,855.00

Bacteria

E. Coli	\$ 25.00	108	\$ 2,700.00
		Total	\$ 2,700.00

\* denotes field measurement

Sampling Charge	\$ 2,675.00
<b>Grand Total</b>	<b>\$ 24,055.00</b>

Note 1: Field Sampling Charge \$21.40 per site visit

Note 2: Includes Field Blank and Duplicates

Total for 5 sample events at 25 sites 2024 = \$ 24,055.00  
Grand Total = \$ 24,055.00

Quotation Accepted By:

\_\_\_\_\_  
Signature Title

\_\_\_\_\_  
Name (Print) Date

## ATTACHMENT C



**Procedure** FLD-RIV  
**Revision No.** 0  
**Org. Date:** 04/13/18  
**Rev. Date**

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**TITLE:**

**Surface Water Collection Procedures**

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**WRITTEN BY:**

**Robert Flood**

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**APPROVED BY:**

**Antoinette L. Favero**

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*The use of this SOP is governed by the North Shore Water Reclamation District's Quality Assurance Manual and associated Quality SOPs. Implementation of this SOP must always comply with the requirements of the Quality Assurance Manual and the Quality SOPs.*

**SCOPE AND APPLICATION:**

This SOP is applicable to the collection of representative surface water samples from rivers, streams, lakes or any other surface waters. This procedure is a grab sample method that utilizes a stainless steel bucket or dip sampler to collect a surface water grab sample.

**SUMMARY OF METHOD:**

Sampling situations can vary widely depending on the location and characteristics of the water body. Generally, a surface water grab sample is accomplished through the use of one of the following techniques:

- Dip sampler
- Stainless steel or polyethylene bucket (polyethylene not for collection of organic samples)
- Direct method

**SAFETY PRECAUTIONS:**

1. Personal Protection

Work or disposable gloves are recommended. Hip boots or waders may or may not be required during sample collection.



2. Chemical hazards  
Pre-preserved sample containers may contain hazardous chemicals. Handle all samples carefully to minimize exposure.
3. Biological Hazards  
Water samples may contain potential health hazards. Handle all samples carefully to minimize exposure.

### **INTERFERENCES:**

The two most common interferences in surface water collection include cross contamination and improper collection technique.

1. Cross contamination can be eliminated through the use of dedicated or disposable sampling equipment or proper cleaning/decontamination procedures.
2. Improper sample collection can occur when using contaminated sampling equipment or poor technique. It is important to collect the sample in the most representative area. Care should be taken to minimize bottom substrate disturbance and avoid surface scum or debris.

### **EQUIPMENT AND SUPPLIES:**

1. Stainless steel bucket with rope or dip sampler
2. Deionized rinse water
3. Decontamination equipment and supplies
3. Appropriate sample bottles
4. Cooler with ice packs
5. Field Instrumentation
5. Field Log Book and Sample Chain of Custody

### **REAGENTS AND STANDARDS:**

Reagents may be used for preservation of samples. Preservatives will be specific to the analysis and determined by the laboratory. Cleaning solutions may be used for decontamination of sampling equipment.

### **SAMPLE PRESERVATION, CONTAINERS, HANDLING AND STORAGE:**

Once samples have been collected, the following procedures should be followed:

1. Transfer the sample into a suitable, properly labeled sample container specific for the analysis to be performed.
2. Preserve the sample, if appropriate. Pre-preserved sample containers are preferred for simplicity and convenience. Do not overfill containers if they are pre-preserved.

3. Cap the container securely and cool immediately by placing in a sample cooler with wet ice or reusable ice packs.
4. Record all relevant information in the sample log book and NSWRD Field Collection Sheets.
5. Deliver samples to the laboratory and follow NSWRD chain of custody procedures. See the appropriate section of the NSWRD Laboratory QAP for additional guidance.

### **QUALITY CONTROL:**

All personnel involved in the sample collection process must be properly trained and understand the sampling SOP. Any deviations must be recorded in the field book and/or on the field collection sheet. The laboratory supervisor must be notified of any deviations from the SOP and evaluate appropriately.

All field equipment shall be maintained following manufacturers recommendations. All field equipment shall be inspected, calibrated and tested prior to sampling events and after the equipment returns from the field. Any problems encountered or maintenance required must be noted in the equipment maintenance log book.

### **CALIBRATION AND STANDARDIZATION:**

Field meters must be calibrated daily following manufacturers calibration procedures and documented in the field instrument calibration log book.

### **PROCEDURE:**

Prior to being used for sample collection or holding, all sampling equipment is decontaminated and cleaned following procedures outlined in the NSWRD Laboratory Quality Assurance Project Plan.

1. Preparation
  - a. Determine the sample locations by performing a general site survey if possible. Prior knowledge of the locations will aid in determining exact equipment needs and safety considerations. Sample sites may need to be adjusted based on access, property boundaries or obstructions.
  - b. Determine the equipment needs and make sure everything is in working order.
2. Sample Collection
  - a. Take sample at the specified location. If sampling a river or stream, sample at the middle of the main channel at mid-depth. Collect the sample from a representative site on the stream. Try to locate an area where the water is well mixed and the velocity of flow is great enough that the chance of solids settling is minimal. Depending on the site

characteristics, the sampler may use a bucket, pole sampler or wade in and collect the sample. Lower the sampling device into the stream. When it is properly positioned, activate the bucket to collect a sample by tipping the bucket gently. Avoid top floating debris if possible. It is important not to disturb the bottom substrate during the collection process. If excess dirt, gravel, or other foreign material is collected, discard the sample, and repeat the sampling. Once the sample has been collected, fill each sample bottle to the appropriate mark taking care not to overfill pre-preserved bottles.

- b. Field measurements should be performed on site after all of the sample bottles have been filled.
- c. Record collection date, time and field measurements in the field book and/or field collection sheet.

## **REFERENCES:**

1. North Shore Water Reclamation District Quality Assurance Plan
2. Standard Methods for the Examination of Water and Wastewater, 22<sup>nd</sup> ed, 2012.

Service Order for FY 2024  
Effective Date: December 1, 2023  
Project No. \_\_\_\_\_

This Service Order is issued pursuant to and subject to the terms and conditions of the Professional Services Agreement (“Agreement”) between North Branch Chicago River Watershed Workgroup (NBWW, “Client”) and Geosyntec Consultants, Inc., and its subsidiaries and affiliates (collectively “Geosyntec”) dated January 22, 2021, which is hereby incorporated herein as Appendix A. Capitalized terms used in this Service Order are defined in the Agreement.

**Project Name, Description and Location of Project Site:** Development of Nutrient Assessment Reduction Plan for NBWW

**Service Order Authorized Representatives:**

For NBWW:

Name: Brandon Janes, P.E., NBWW President  
Address: 1045 Hackberry Road, Deerfield, Illinois 60015  
Telephone #: 847-719-7447  
Email Address: bjanes@deerfield.il.us

For Geosyntec:

Name: Matt Bardol  
Address: 1420 Kensington Road, Suite 103  
Telephone #: 630-432-5675  
Email Address: mbardol@geosyntec.com

**Scope of Services, Schedule and Compensation:**

Geosyntec will perform the services (“Services”) at Client’s site located at North Branch Chicago River Watershed (“Project Site”), in accordance with the Scope, Schedule and Compensation set forth in Geosyntec’s offer to render services dated December 1, 2023 – November 30, 2024 (“Offer”) and/or as described on separate pages attached to this Service Order as Exhibit A and incorporated herein. For time and materials compensation, if a rate schedule is not included in the Offer or attached hereto, Geosyntec’s standard rates in effect as of the Effective Date above shall apply.

**Basis of Compensation:**

- on a time and materials basis subject to a budget of \$154,520 which will not be exceeded without Client’s advance written consent.
- on a lump sum basis in the amount of \_\_\_\_\_, subject to mutually acceptable equitable adjustments as the Services are amended.
- on a fixed unit price basis in accordance with Geosyntec’s price schedule as set forth in its Offer or in Exhibit A.

**Additional Terms and Conditions:**

This Service Order applies to December 1, 2023 - November 30, 2024 (FY2024). An updated service order will be approved by the NBWW Executive Board prior to expending the next fiscal year funds (FY2025). Fiscal Year 2025 is subject to possible revised based on discoverable results of Fiscal Year 2024. This Service Order serves as the third year of work (Phase 3) for an approval to provide services to the NBWW from June 1, 2022 – November 30, 2024, subject to yearly funding availability.

Pursuant to an agreement to execute “Outcome B” as agreed upon by the NBWW per meeting date 10/27/2022.

Pursuant to modified “Outcome B” budget and schedule as approved by NBWW executive committee approved 11/9/2022, provided under attachments. These work items are further summarized as:

- Completion of SWMM watershed model to develop and calibrate system flow and watershed loading.
- Development of QUAL2Kw instream hydraulic and water quality model necessary to assess the impacts of wastewater inputs from the Deerfield Water Reclamation Facility and North Shore Water Reclamation District (NSWRD) Clayvey Road Water Reclamation Facility on the West Fork North Branch of the Chicago River and the Skokie River respectively, and how those discharges further impact the North Branch of the Chicago River downstream.
- Completion of initial scenarios necessary to identify watershed improvements needed to reach water quality goals. Final scenarios may be identified and executed as part of the NBWW FY2025 contract.

See Attachments below.

**IN WITNESS WHEREOF**, the Parties hereby accept the terms of this Service Order as executed by their duly authorized representatives, as follows:

North Branch Chicago River Watershed Workgroup

Geosyntec Consultants, Inc.

By: \_\_\_\_\_

By: \_\_\_\_\_

Name:

Name: Matthew Bardol

Title:

Title: Senior Principal

Date of Signature:

Date of Signature:

List of Attachments: Appendix A – Scope of Work

Attachment 1: Geosyntec Consultants 2023 Rate Schedule

Attachment 2: Revised Outcome B budget and schedule

Appendix A

Geosyntec's Offer to Render Services, Proposal, Quotation or Written Scope of Work, Schedule and Rate Sheet

## Appendix A: Geosyntec Scope of Work

### Scope of Work

Geosyntec has teamed with the Illinois Institute of Technology (IIT) to develop the NBWW NARP. The Geosyntec Team proposes the following scope of work to develop the North Branch Chicago River Watershed Workgroup (NBWW) Nutrient Assessment Reduction Plan (NARP). The methodology and results of each phase will be documented in the NARP report, for submittal to the Illinois EPA to meet the NARP National Pollutant Discharge Elimination System (NPDES) special conditions and NBWW's objectives. Project management tasks will be included in each phase of the NARP.

#### Phase 1: Conduct Targeted Data Collection and Data Analysis

##### **Objective**

The objective of this phase is to determine the underlying cause of water quality impairments in the North Branch Chicago River (NBCR) streams (NARP objective 1).

##### **Approach**

The Geosyntec Team will collect continuous and discrete water quality at instream locations as per the targeted monitoring plan described in the NARP workplan. The data collection will take place over a three-month period targeting low flow summer conditions, which are ideal for growth of algae. The collected data will be analyzed to assess whether the DO impairments are due to high phosphorus levels or other causes such as SOD and low reaeration in the NBCR streams. Geosyntec will analyze the data using this methodology to identify NBCR stream reaches with phosphorus-related impairments.

##### **Activities**

- Conduct a **kickoff meeting** for information transfer, establishing communication logistics, and defining NBWW's preferred means of interaction as the progress proceeds.
- Document members' collective and individual interests and concerns.
- Develop a **Quality Assurance Project Plan (QAPP)** to document the data collection methodology.
- Submit the QAPP to NBWW for review.
- Address comments from NBWW on the QAPP and submit to Illinois EPA for approval.
- Finalize the QAPP by addressing the comments from Illinois EPA.
- Deploy YSI EXO sondes or equivalent sondes at eight locations identified to collect continuous water quality monitoring data for dissolved oxygen (DO), temperature, pH, and conductivity.



- Conduct visits every two weeks to the sonde locations for a period of three (3) months to download the data, change batteries, clean the sondes, conduct any necessary calibrations, and complete the field logs.
- Install specialized chambers for measurement of sediment oxygen demand (SOD) during one of the visits.
- Collect water quality grab samples every two weeks at eight locations. The grab samples will be analyzed for the following parameters: Carbonaceous Biochemical Oxygen Demand (CBOD), Total Phosphorus (TP), Dissolved Reactive Phosphorus, Total Nitrogen, Ammonia, Nitrate-Nitrite, Total Kjeldahl Nitrogen, Sestonic Chlorophyll-*a*.
- Collect river bottom samples to analyze for benthic algae.
- Conduct **Quality Assurance/Quality Control (QA/QC)** to flag any erroneous values and assess consistency with the system understanding that already exists. Any issues will be brought to the NBWW's attention along with suggestions for resolution.
- Prepare longitudinal plots of DO, nutrients and chlorophyll-a (sestonic and benthic ) along the NBCR and its three tributaries to develop an understanding of the relationships between sestonic algae, benthic algae dissolved oxygen, and phosphorus and to confirm the growing season.
- Review the data to test the hypothesis that non-nutrient factors (described above) are responsible for low DO observed in certain NBCR streams.
- **Determine which path (Outcome A or Outcome B)**, as described in the NBWW workplan, needs to be taken for development of NBWW Workplan.
- Develop a presentation summarizing the data analysis results.
- Conduct a **meeting** with NBWW to present the results of data analysis.
- Incorporate feedback with NBWW and conduct a meeting with Illinois EPA to present the results of data analysis.
- Document the data analysis results within a **chapter of the NARP report**.

#### **Deliverables**

- Monthly progress reports documenting the work done and any QA/QC issues in the data collection.
- Presentation slides and summary presenting the data review.
- Report chapter in the NARP document summarizing the data analysis.

#### **Assumptions**

- The draft QAPP will undergo one round of review with NBWW before being submitted to Illinois.
- The revised QAPP undergoes one round of review with Illinois EPA before being finalized.
- One meeting with NBWW and one meeting with Illinois EPA is budgeted under this task. The meetings will be attended by up to two Geosyntec personnel.

Work will occur in FY2022 (unless QAPP approval from IEPA delays monitoring efforts, work may extend into FY2023)

## Phase 2: Develop Modeling Tools

### **Objective**

The objective of this phase is to develop the modeling tools to support the development of the NBWW NARP including identifying phosphorus load reductions and other measures to eliminate phosphorus-related impairments in the NBCR streams (NARP Objective 2).

### Sub-Phase 2A: SWMM Model Development

### **Approach**

The Geosyntec Team will develop and utilize a linked watershed and instream model to simulate the impact of nutrients on instream water quality in NBCR. The linked modeling framework will be developed for the portion of the watershed that includes stream reaches determined to have phosphorus-related impairments under Phase 2. The linked model will be developed using the platforms specified in the NARP workplan - SWMM for the watershed model and WASP for the instream model.

The watershed model will be developed using the following input datasets, at a minimum:

- Elevation: LiDAR Data for Lake/Cook County.
- Soil Survey: United States Department of Agriculture Web Soil Survey.
- Land Use: 2015 Chicago Metropolitan Agency for Planning land use data.
- Rainfall: Lake County.

The watershed model will be used to develop the timeseries of flow and load estimates for nutrients and sediments from non-point sources. The watershed model will be calibrated to match the flow and water quality data in the NBCR and its tributaries.

### **Activities**

- Acquire and review the necessary data and studies for the SWMM model development from NBWW, municipal separate storm sewer systems (MS4s), Lake County, and other publicly available sources.
- Conduct a review of the County Stormwater Ordinance which all the communities implement
- Process datasets such as landuse and elevation data for SWMM model setup.
- Delineate the NBCR watershed into subwatersheds using the 2018 Lake County topography data.
- Conduct QA/QC of the SWMM model input files (peer and senior reviews).
- Develop a **SWMM model** for the watershed.
- Calibrate the hydrology for the SWMM model to match available flow data.
- Conduct preliminary water quality calibration for the SWMM model to match available instream water quality loading data in the tributaries.
- Conduct a sensitivity analysis to identify which SWMM model input parameters are the largest sources of potential uncertainty in the model results to understand implications on watershed implementation scenarios.

- Develop a presentation describing the watershed model development and calibration results.
- Conduct a **meeting** to present the results of the initial watershed model development and calibration/validation results.
- Update the model based on the feedback received from NBWW.
- Document the watershed model development and calibration in a **report chapter**.

#### **Deliverables**

- A calibrated SWMM model for the NBCR watershed.
- Presentation slides and meeting presenting the watershed model development and calibration.
- A report chapter summarizing the SWMM model development and calibration process.

#### **Assumptions**

- One meeting will be conducted to present the watershed model development and calibration/validation. Up to two Geosyntec personnel will participate virtually.

#### *Phase 2B: WASP Model Development*

The instream model of the phosphorus-impaired reaches of the NBCR and relevant tributaries will be developed using the WASP modeling platform. The WASP model is a time variable one-dimensional model that is capable of simulating nutrient dynamics and their impact on phytoplankton and DO in receiving waters. The data sets that will be utilized for instream model include, at minimum:

- Cross-section data: Lake County.
- Upstream water quality: NBWW discrete and continuous Sonde measured data.

The instream model will include the capability to simulate hydraulics (flow, velocity and depth) and water quality (nutrients, chlorophyll-*a*, sestonic algae, benthic algae, DO, and temperature). The reach segments that will be included in the instream model will depend on the outcome of Phase 1. These are listed below:

- Outcome A: Skokie River downstream of the Skokie Lagoons and mainstem NBCR to station WF19.
- Outcome B: West Fork, Skokie River downstream of the Skokie Lagoons and mainstem NBCR to station WF19.

The instream model will be calibrated to datasets collected under Phase 1 to help ensure the model is representative of existing conditions.

#### **Activities**

- Process SWMM model output for incorporating into the WASP model.
- Process other datasets to develop WASP model inputs including cross-section data, point source flow and water quality data.
- Conduct QA/QC of the instream model input files (peer and senior reviews).
- Develop the segmentation for the NBCR and other relevant tributaries.

- Conduct QA/QC of the instream model output files (peer and senior reviews).
- Calibrate the **instream model** to field collected, instream data under Phase 1.
- Conduct a sensitivity analysis to identify which WASP model input parameters are the largest sources of potential uncertainty in the model results.
- Develop a presentation documenting the development and calibration of the WASP model.
- Develop a presentation documenting the calibration of the instream model.
- Conduct a **meeting** with the NBWW to present the calibration of the instream model.
- Update the model based on the feedback received from NBWW.
- Document the instream model development and calibration in a **report chapter**.

#### **Deliverables**

- A calibrated WASP model for the modeled reaches.
- Presentation slides and meeting presenting and instream model development.
- Presentation slides and meeting presenting the final calibration of the WASP model.
- A report chapter describing the instream model development.

#### **Assumptions**

- One meeting will be conducted to present the WASP model development and calibration. Up to two Geosyntec Team members will participate.
- Presentation slides and meeting presenting the development and calibration of WASP model.
- A report chapter describing the development of the WASP model.

Phase 3 work will occur in FY2023.

#### [Phase 3: Watershed Management Scenarios](#)

##### **Objective**

This objective of this phase is to explore and identify point and non-point source phosphorus reductions and other measures to eliminate the phosphorus-related impairments and achieve site-specific water quality targets (NARP Objective 2).

##### **Approach**

The Geosyntec Team will work with the NBWW to develop a list of recommended measures to address the phosphorus-related impairments. The recommended measures will be evaluated using the modeling tools developed under Phase 2. The scenarios used in the model simulations to evaluate the recommended measures will include baseline conditions, point source load reductions, non-point source load reductions, other measures, and combinations of potential watershed management scenarios. The

Geosyntec Team will work with the NBWW to streamline these scenarios based on model sensitivity to provide the cost-effective benefit to the NBWW NARP.

After analyzing the combinations of potential watershed management actions, the model results will be evaluated to identify the potential site-specific nutrient targets (or recommended NNC). This will include consideration of magnitude, duration, and frequency which is necessary for specifying water quality criteria. The team will also note whether there are information gaps that should be addressed before the targets can be used as water quality criteria. One potential outcome is that there are no combinations of feasible and cost-effective measures to eliminate all of the phosphorus-related impairments. In this case, the Geosyntec Team will help the NBWW understand how to indicate that a Use Attainability Analysis (UAA) should be conducted in the future. The outcome of the UAA would be to establish the highest attainable use and NNC to protect that use.

The Geosyntec Team will also utilize the models developed in Phase 2 to help inform the IPS tool to better identify projects for improving the biological health of the streams. The IPS tool requires inputs, which are based on monitoring data and additional information. The models developed under Phase 2 will be leveraged to provide inputs for the flow regime (flow flashiness of stream) and water quality to supplement the monitoring data.

### Activities

- Develop a list of recommended watershed management measures to eliminate the phosphorus-related impairments.
- Conduct a **meeting** with NBWW to discuss the proposed suite of measures and refine the list of measures based on NBWW input.
- Identify a critical time period for baseline conditions.
- Develop a baseline model for the identified critical time period.
- Customize the model pre-processor tool for the baseline model and catalog files to efficiently develop and assess alternative scenarios.
- Generate the necessary input files using the model pre-processor for the development of the model scenarios.
- Conduct QA/QC of the model scenario input files.
- Simulate and post-process the model scenario results.
- Evaluate potential site-specific water quality targets and the potential need for a UAA.
- Determine the phosphorus reductions from point and non-point sources and other measures needed to eliminate the phosphorus-related water quality impairments.
- Process the model scenario results to be incorporated into the IPS tool.
- Develop a **technical presentation** describing the model scenario results.
- Provide recommendations for combining scenarios or running any additional model scenarios.

- Develop recommended site-specific nutrient targets or numeric nutrient criteria (if feasible).
- Conduct a **meeting** with the NBWW to present the model scenario results, recommendations, and conclusions.
- Document the work done under this phase in a **report chapter**.

#### **Deliverables**

- Presentation slides summarizing the results of this phase.
- Report chapter documenting the methodology and results of this phase.

#### **Assumptions**

- A total of six watershed management scenarios for eliminating phosphorus-related impairments will be evaluated.
- NBWW will make the final determination of the selected scenario or scenarios that are ultimately chosen to meet the NARP conditions.
- Two meetings will be conducted under this phase to present the findings. Three Geosyntec Team members will participate.
- Development of a Use Attainability Analysis is outside of this scope of work.

Work will occur in FY2023 and FY2023.

#### Phase 4: Implementation Plan and Schedule

##### **Objective**

The objective of this phase is to plan for facilitating cost-effective implementation of measures identified under Phase 3 to reduce phosphorus loadings and ultimately developing a plan to track success of those proposed measures (NARP Objective 3).

##### **Approach**

The Geosyntec Team will identify specific implementation projects based on the results of Phase 3 which will individually and cumulatively help achieve the desired water quality changes in the NBCR and its tributaries. The Team will work with the NBWW to develop a project timeline that serves the best interests of the NBWW members and stakeholders while addressing the requirements of the NPDES permits. The Geosyntec Team will leverage the watershed-based plan (currently under development) and the Lake County Green Infrastructure Model and Strategy<sup>1</sup> and partnership opportunities with area stakeholders to identify potential green infrastructure opportunities in the NBCR watershed.

A draft implementation plan and schedule will be developed for the recommended implementation projects. These projects will be developed considering the budget allocations in the Capital Improvement

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<sup>1</sup> The Conservation Fund. Green Infrastructure Model and Strategy for Lake County, Illinois

Program (CIP) for Lake and Cook Counties and the results of the IPS tool. The implementation plan will provide a comparative cost analysis to examine the relative costs, benefits, and feasibility of various alternatives. If non-point source treatment suggests reduced compliance costs, the implementation plan and schedule will also include the feasibility of a water quality trading program in the watershed. The plan will also identify other potential financing vehicles to support eliminating the phosphorus-related impairments. Depending on the recommended implementation strategies, potential additional sources of funding will be identified to leverage local resources including national and local philanthropic foundations investing in green infrastructure solutions; corporate ESG (Environmental, Social, and Governance) commitments around carbon, water quality, and habitat; mitigation opportunities; and relevant federal programs including FEMA's Building Resilient Infrastructure and Communities (BRIC) program. We will also conduct a comprehensive inventory of aligned stakeholder activity within the watershed along with associated funding sources and identify opportunities to develop innovative partnerships to reduce compliance costs and/or generate additional voluntary action.

The plan will also identify other measures that support eliminating the phosphorus-related impairments. Stakeholders with the potential to implement these other projects (e.g. habitat enhancement or other) will be identified and interviews will be conducted to discuss potential implementation of projects.

The Geosyntec Team will work with the NBWW to develop a long-term schedule for facilitating the NARP implementation plan. The draft implementation plan and schedule will then be compiled in a draft NARP report and combined with the results from the phases above.

### Activities

- Develop a list of implementation projects to be undertaken by the NBWW members to address the phosphorus-related impairments, including a reasonable timeline and planning-level cost estimates.
- Integrate this list of projects with any significant Lake and Cook Counties and other NBWW members projects, developments, or other undertakings to ensure optimal investment of resources and capital.
- Compile the list of prioritized projects into a workable implementation schedule agreeable to the NBWW.
- Develop cost estimates and means to implement the projects with assistance from the NBWW.
- Identify the list of stakeholders that the NBWW can work with to implement the other measures to address the phosphorus-related impairments.
- Document the implementation plan and schedule in a **report chapter** of the NARP.
- Develop a long-term adaptive management plan to document the benefits of implemented projects, track the impact of proposed projects, and adjust the NARP as needed.
- Conduct a **meeting** with the NBWW to discuss the draft implementation schedule.
- Refine the draft implementation plan and schedule based on input from the NBWW members.

- Conduct a series of **meetings** with stakeholders to discuss the Draft NARP.
- Develop a **Draft NARP report** and submit it to the NBWW.
- Revise the Draft NARP based on input from various stakeholders and NBWW.
- Submit the Revised NARP to Illinois EPA for review.
- Finalize the NARP by addressing comments from Illinois EPA.

#### **Outcomes & Deliverables**

- Draft NARP
- Revised NARP
- Final NARP

#### **Assumptions**

- The Draft NARP will undergo two rounds of review before being finalized.
- NBWW will provide one set of consolidated review comments on each draft report.
- A total of two (2) in-person meetings with the NBWW are budgeted under this phase.

Work will occur in FY2024

#### Schedule

Figure 1 provides the proposed schedule. Meetings are scheduled to coincide with NBWW meetings to the greatest extent but are subject to change based on the availability of the NBWW Executive Board, membership, and Geosyntec staff.

#### Compensation

The **tables** below show the phased cost estimate for Outcomes A and B based on the proposed schedule. Costs are broken down by each NBWW fiscal year from December 1<sup>st</sup> to November 30<sup>th</sup>. Geosyntec understands that implementation of each phase is subject to appropriation of sufficient funds by the NBWW Executive Board each year. Geosyntec is willing to extend the NBWW NARP contract and costs to December 31, 2025 with no additional costs pending the 2022 monitoring results (if required).



## GEOSYNTEC CONSULTANTS 2023 U.S. RATE SCHEDULE

(All Values are in \$USD)

	<u>Rate/Hour</u>
Staff Professional	\$144
Senior Staff Professional	\$169
Professional	\$189
Project Professional	\$215
Senior Professional	\$240
Principal	\$259
Senior Principal	\$279
Technician I	\$ 77
Technician II	\$ 82
Senior Technician I	\$ 89
Senior Technician II	\$ 97
Site Manager I	\$107
Site Manager II	\$117
Construction Manager I	\$132
Construction Manager II	\$142
Senior Designer	\$180
Designer	\$150
Senior Drafter/Senior CADD Operator	\$135
Drafter/CADD Operator/Artist	\$120
Project Administrator	\$ 75
Clerical	\$ 60
Direct Expenses	Cost plus 10%
Subcontract Services	Cost plus 12%
Technology/Communications Fee	3% of Professional Fees
Specialized Computer Applications (per hour)	\$ 12
Personal Automobile (per mile)	Current Gov't Rate
Photocopies (per page)	\$ .08

Rates are provided on a confidential basis and are client and project specific.

Unless otherwise agreed, rates will be adjusted annually based on a minimum of the Producer Price Index  
for Engineering Services.

Rates for field equipment, health and safety equipment, and graphical supplies presented upon request.  
Construction management fee presented upon request.

**Attachment 2: Approved Outcome B: Budget and Schedule as of 11/9/2022**

<b>PHASE</b>	<b>DESCRIPTION</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>TOTAL</b>
1	Conduct Targeted Data Collection and Data Analysis	\$154,305	\$0	\$0	\$0	\$154,305
2	Develop Modeling Tools	\$0	\$139,810	\$128,650	\$0	\$268,460
3	Watershed Management Scenarios	\$0	\$0	\$25,870	\$81,570	\$107,440
4	Implementation Plan and Schedule	\$0	\$0	\$0	\$60,000	\$60,000
<b>Total Budget Estimate:</b>		<b>\$154,305</b>	<b>\$139,810</b>	<b>\$154,520</b>	<b>\$141,570</b>	<b>\$590,205</b>