Des Plaines River Watershed Workgroup

Executive Board

6/16/2016

2:30PM – 3:30PM

Lake County Central Permit Facility

500 W. Winchester Road, Libertyville IL 60048

(2nd Floor SMC Conference Room)

AGENDA

1. Call the meeting to order
2. Agenda Changes/Approval
3. Approve Previous Meeting minutes - Attached
4. Public Comment
5. Financial Summary Report
6. Action Item: LCFPD/LCDOT Additional Funding IGA/MOU for Expanded Monitoring Study
7. Action Item: Approve Suburban Labs Contract Amendment
8. Action Item: Approve Midwest Biodiversity Institute Contract Amendment
9. Action Item: Approve Geosyntec Professional Services Contract
10. New Business
11. Next EB Meeting July 21st – 2:30PM
12. Adjourn

Des Plaines River Watershed Workgroup

Executive Board

3/17/2016

1:00 PM-2:00 PM

Lake County Central Permit Facility, 500 Winchester Road, Libertyville IL 60048

Meeting Minutes

1. Call the meeting to order: Peter Kolb called the meeting to order at 1:00 pm.
2. Approve Agenda: Brian Dorn made a motion to approve the agenda. Joe Robinson seconded the motion. The motion passed unanimously.
3. Previous Meeting minutes: Brian made a motion to approve the minutes with the change that Paul Kendzoir was listed on the attendance in the minutes twice and it will be changed to once. Mike Adam seconded the motion. The motion passed unanimously.
4. Public Comment: None.
5. Action Item: Approve 2015 Annual POTW Monitoring Report/Draft 5-Year Workplan Items. Section 7 "Five Year Plan" was removed from the POTW Monitoring Report. March 31, 2020 is when Libertyville's permit expires. The Nutrient Implementation Plan is due six months before permit renewal. Peter asked about title change. Andrea will add introductory paragraph and reference the meeting with Marcia. She will also add the language from the special condition. When this is done she will email around for consent. Mike Warner will email Andrea latest version. Paul Kendzoir made a motion to approve the report with the suggested changes. Michael Talbett seconded the motion. The motion passed unanimously.
6. Action Item: Discuss/Approve Revised Meeting Schedule. Mike W suggested moving meetings to the third Thursday of the month. General membership meetings will be moved to the third Thursday. Joe Robinson made a motion to approve the revised schedule. Paul seconded the motion. The motion passed unanimously.
7. Action Item: Financial Report: Ratify Invoices/Dues Receipts/Other. April 30th the end of the fiscal year. Mike W gave an overview. For additional details see the spreadsheet in the EB packet.
8. Discussion Item: Membership Updates. Mike W talked to the Tollway. They are attended the DP Watershed Plan kick off. They are interested in becoming a DRWW member.
9. Discussion Item: Committee Reports (Monitoring/Lakes/Impairments): Joe gave a report on behalf of the Monitoring Committee. The revised monitoring plan was discussed. The plan is to add seven additional sites to Tier 3 and 18 sites to Tier 4 with field water chemistry, fish, macros, and habitat.
   Scott Pippen gave the Impairments Committee report. Scott needs additional point source people on the Committee.

10. New Business: Vince Mosca from Hey and Associates said there may be legislative changes that are necessary for the DRWW to move forward with their goals. Vince handed out Wisconsin Water Quality Trading Manual. Peter recommends investigating the Wisconsin method of water quality trading. Possibly taking a field trip to look. Or Ohio. And then look into supporting legislation. George Wells will be invited to present his research on the Des Plaines at next Executive Board meeting.
11. Next Executive Board Meeting April 21st – 2:30PM at CPF.
12. Adjourn: Scott made a motion to adjourn. Paul seconded the motion. The motion to adjourn was approved unanimously.

Executive Board Members Present:

Peter Kolb, Lake County Public Works

Brian Dorn, NSWRD

Michael Talbett, Kildeer

Paul Kendzoir, Libertyville

Scott Pippen, Lincolnshire

Joe Robinson, NSWRD

Mike Adam, Lake County Health Department

Other Attendees:

Jim Anderson, Lake County Forest Preserve District

Andrea Cline, Geosyntec

Al Giertych, Lake County Department of Transportation

Don Hey, Wetlands Research Inc.

Vince Mosca, Hey and Associates

Steve Vella, Libertyville

Mike Warner, Lake County SMC

DRWW

Des Plaines River Watershed Workgroup-Statement of Account
For the period May 1st thru July 30 2016

1st Quarter

500 W Winchester Rd
Libertyville, Illinois 60048
Phone 847 377 7700

mwarner@lakecountyil.gov
wmorey@lakecountyil.gov

Beginning Balance	**$ 320,277.44**
Ending Balance	**$ 326,213.15**

	Total Prior to Current Period		Current Period	Total To Date	Received Date	Balance
BEGINNING ACCOUNT BALANCE						**$ 320,277.44**
Annual Dues Contributions Received:						
City of Lake Forest			$ 283.00	$ 283.00	5/2/2016	
Village of Green Oaks			$ 782.00	$ 782.00	5/2/2016	
Village of Gurnee			$ 6,736.00	$ 6,736.00	6/3/2016	
Village of Lake Zurich			$ 1,613.00	$ 1,613.00	6/3/2016	
Village of Libertyville			$ 14,488.00	$ 14,488.00	6/3/2016	
Village of Lindenhurst			$ 7,595.00	$ 7,595.00	6/3/2016	
Village of Vernon Hills			$ 4,120.00	$ 4,120.00	6/3/2016	
LCSMC			$ 200.00	$ 200.00	6/13/2016	
				$ -		
				$ -		
Other Contributions Received						
			$ -	$ -		
			$ -	$ -		
Total Received:	$ -		$ 35,817.00	$ 35,817.00		

Expenditures Paid:					**DRWW Ratification**	
Geosyntec #18161151			$ 5,467.50	$ 5,467.50	4/18/2016	
Geosyntec #18161177			$ 2,872.50	$ 2,872.50	5/4/2016	
Suburban Labs #132946			$ 6,619.00	$ 6,619.00	4/26/2016	
Suburban Labs #133670			$ 6,298.00	$ 6,298.00	4/26/2016	
Burns & McDonnell # 89796-1			$ 7,596.76	$ 7,596.76	4/4/2016	
Burns & McDonnell # 89796-2			$ 1,027.53	$ 1,027.53	6/10/2016	
				$ -		
				$ -		
Total Expenditures Paid	$ -	*	$ 29,881.29	$ 29,881.29		

ENDING ACCOUNT BALANCE						**$ 326,213.15**

Des Plaines River Watershed Workgroup		**Adopted FY2015**	**FY2015 Actual**	**Approved Budget FY2016**	**FY2016 Actual**	**Projected FY2017**
REVENUE/Description	**Account #**					
Dues/Membership dues	775-4220010-46010	$ 210,000	$ 230,986	$ 225,000	$ 210,705	$ 210,000
Expendable Carryover Addition	775-4220010-46010			$ 172,523	$ 172,523	$ 89,435
Other State Funds/Illinois EPA 319 Grant	775-4220010-45350	$ 47,500	$ -	$ 47,500	$ 47,500	
Other (FPD/LCDOT)					$ 47,707	-
Total Revenue		**$ 257,500**	**$ 230,986**	**$ 445,023**	**$ 478,435**	**$ 299,435**
EXPENSES/Description						
Consultants/Technical Coordinator (GeoSyntec thru 4/30/16) **PO 154955**	775-4220010-71150	$ 50,000	$ 22,058	$ 48,506	***$ 95,000***	$ 90,000
Consultants/Technical Coordinator (Post May 1st, 2016)	775-4220010-71150	$ -	$ -	$ 55,000	$ -	$ -
Monitoring Statistics, Future Work Program Efforts, Project Prioritization	775-4220010-71150		$ -		$ -	-
Field Reconaissaance (**Bland**)	775-4220010-71150		$ 149			
Monitoring Strategy and QAPP Refinement (IEPA Reimbursable)	775-4220010-71170	$ 47,500	$ -	$ 47,500	$ 47,500	-
WQ-Sediment Analysis - (Suburban Labs)	775-4220010-71310	$ 66,508	$ 36,256	$ 33,252	***$ 115,000***	
Laboratory Fees/Water Chemistry Monitoring (July 2016 - March 2017)	775-4220010-71310			$ 45,000		$ 75,000
Pollutant Load Flow Analysis - (**Burns and McDonnell thru 2/1/17**)	775-4220010-71310		$ -	$ 39,600	$ 39,600	$ 13,755
MBI - Bioassessment Monitoring/Sediment Collection (thru 12/31/17) - 1/3 Watershed Each Year After	775-4220010-71310		$ -	$ 77,168	***$ 91,900***	$ 103,435
Projected Expenses		**$ 164,008**	**$ 58,463**	**$ 346,026**	**$ 389,000**	**$ 282,190**
Projected Unexpended Carryover		$ 199,037	$ 172,523	$ 98,997	$ 89,435	$ 17,245

AGREEMENT between the
LAKE COUNTY STORMWATER MANAGEMENT COMMISSION
and LAKE COUNTY FOREST PRESERVE DISTRICT for the
Des Plaines Watershed Workgroup Monitoring Program (DRWW-MP)

This is an agreement by and between the LAKE COUNTY STORMWATER MANAGEMENT COMMISSION (hereinafter referred to as **SMC**), 500 West Winchester Road, Libertyville, Illinois 60048 and LAKE COUNTY FOREST PRESERVE DISTRICT, (hereinafter referred to as **LCFPD**), 1899 W Winchester Road, Libertyville, Illinois 60048.

PURPOSE AND SCOPE OF WORK

Through this Agreement, the LCFPD agrees to provide forty thousand ($40,000) of funding to enhance (Increase) the number of sampling locations for the DRWW-MP as shown in the Budget Summary Option 3. The general Scope of Work for the DRWW-MP is described as follows. SMC, as the DRWW administrative agent, will contract to implement the bioassessment program consisting of the collection and assessment of field water column chemistry, fish, macroinvertebrates, and habitat, collection of sediment samples and flow monitoring data. Initial startup tasks include refining the monitoring plan, revising and obtaining Illinois EPA's approval of the Quality Assurance Project Plan (QAPP), and collecting and analyzing background data. The entire effort will be summarized and analyzed in a final report.

SCHEDULE

All sampling shall be completed by October 31, 2016. The project, including all reporting, shall be completed by December 31, 2017 and proceed according to the schedule detail summarized below.

Task 1: QAPP Revisions and Approval	January 1 – 31, 2016
Task 2: Refine Monitoring Plan	January 1 – June 30, 2016
Task 3: Background Data Compilation and Analysis	January 1, 2016 – December 15, 2017
Task 4: Bioassessment Sampling	July 1, 2016 – December 15, 2017
Task 5: Sediment Sampling	October 15, 2016 – December 15, 2017
Task 6: Flow Monitoring	January 1, 2016 – December 15, 2017
Task 7: Project Management and Data Analysis	January 1, 2016 – December 15, 2017
Task 8: Monitoring Draft and Final Report	October 31, 2017 and December 15, 2017

PROJECT DELIVERABLES

- DRWW and Illinois EPA approved monitoring plan.
- Illinois EPA approved QAPP. MBI will supply the technical information to others who will develop and coordinate the final QAPP for submittal to Illinois EPA.
- Monthly progress reports highlighting work accomplished, work planned for the upcoming month, and any issues and proposed resolution.
- Compiled data in approved IEPA format (excel).
- A comprehensive final report detailing the data and conclusions based on the analyses of the data including background and current watershed analysis and the analysis of the results of the water column and sediment chemistry as well as the fish, macroinvertebrate, habitat and field water chemistry data.

DRWW-MP Budget Summary

The cost estimates below are based upon 7 sampling episodes (May-16, June -16, July-16, Aug,16, Sept-16, Nov-16, & Mar-17) for water chemistry, sediment analyses at Tier 1 -3 sites, flow data collection, along with Fish & macroinvertebrate sampling & analyses.

- Option 1 is the original costs of the Monitoring Program
- Option 2 provides for adding 25 additional sites as proposed by MBI. Eighteen (18) of the added sites would become a new Tier 4 site and would include fish & field chemistry analyses along with habitat evaluation (macroinvertebrates would not be included). The other 7-sites would be added as Tier 3 sites.

- Option 3, as agreed to in this instrument, would be the same as Option 2 with the addition of macroinvertebrate sampling and analyses at each of the 25 sites. Option three is the most desirable option in that it would provide a comprehensive evaluation of the entire watershed. This would be very valuable in the future when assessing improvement measures taken in an effort to improve water quality.

Option	Water	Sediment	Fish/Macro	Flow	Total	Cost Add
Option 1	$67,338	$41,265	$165,000	$36,000	$309,603	$0
Option 2	$75,525	$50,435	$165,000	$36,000	$326,960	$17,357
Option 3	***$75,525***	***$50,435***	***$195,350***	***$36,000***	***$357,310***	***$47,707***
% Increase	***12%***	***22%***	***18%***	***0%***	***15%***	***15%***

COMPENSATION

The LCFPD shall provide forty thousand ($40,000) to the DRWW through its Administrative Agent (SMC) for costs incurred during the completion of the tasks and within the time period as defined in the Schedule.

The SMC shall invoice the LCFPD for the $40,000 and apply those funds as shown in Option 3 above; and as the DRWW-MP progresses, shall provide copies of approved contractor invoices for expenditures and documentation of services and deliverables performed.

TERMS AND CONDITIONS

1. All preliminary or draft documentation, data and deliverables produced as referenced in this Agreement may be subject to the review by all parties to determine its acceptability in meeting the terms and intent of this Agreement.
2. All final documentation, data and deliverables produced as referenced in this Agreement may be subject to the review by all parties to determine its acceptability prior to final delivery.
3. All adjustments, additions and/or deletions to this Agreement are subject to the written approval of SMC and the LCFPD.
4. This Agreement shall be governed by and construed according to the laws of the State of Illinois.
5. This Agreement supersedes any and all other agreements, oral or written, between the parties hereto with respect to the subject matter hereof.

Correspondence related to the PROJECT covered by this Agreement should reference the DRWW-MP and be directed as follows:

LCFPD Contact:	SMC:
Jim Anderson/Leslie Berns	Mike Warner/Patty Werner
Lake County Forest Preserve District	Lake County Stormwater Management Commission
1899 W. Winchester Rd.	500 W. Winchester Road
Libertyville, IL 60048	Libertyville, IL 60048
Email: janderson@lcfpd.org - LBerns@lcfpd.org	Email: mwarner@lakecountyil.gov - pwerner@lakecountyil.gov
Phone:847-367-6640	Phone: 847-377-7700

_____ _____

Alex Ty Kovach, Executive Director — Date
Lake County Forest Preserve

_____ _____

Michael Warner, Executive Director — Date
Lake County Stormwater Management Commission

MEMORANDUM OF UNDERSTANDING
between
the LAKE COUNTY DIVISION OF TRANSPORTATION
and
the LAKE COUNTY STORMWATER MANAGEMENT COMMISSION
for
the Des Plaines River Watershed Workgroup Monitoring Program (DRWW-MP)

This is a Memorandum of Understanding between the LAKE COUNTY STORMWATER MANAGEMENT COMMISSION (hereinafter referred to as **SMC**), 500 West Winchester Road, Libertyville, Illinois 60048 and the LAKE COUNTY DIVISION OF TRANSPORTATION, (hereinafter referred to as **LCDOT**), 600 WEST Winchester Road, Libertyville, Illinois 60048.

PURPOSE AND SCOPE OF WORK

Through this Memorandum of Understanding, the LCDOT agrees to provide seven thousand seven hundred and seven dollars ($7,707) of funding to enhance (Increase) the number of sampling locations for the DRWW-MP as shown in the Budget Summary Option 3. The general Scope of Work for the DRWW-MP is described as follows. SMC, as the DRWW administrative agent, will contract to implement the bioassessment program consisting of the collection and assessment of field water column chemistry, fish, macroinvertebrates, and habitat, collection of sediment samples and flow monitoring data. Initial startup tasks include refining the monitoring plan, revising and obtaining Illinois EPA's approval of the Quality Assurance Project Plan (QAPP), and collecting and analyzing background data. The entire effort will be summarized and analyzed in a final report.

SCHEDULE

All sampling shall be completed by October 31, 2016. The project, including all reporting, shall be completed by December 31, 2017 and proceed according to the schedule detail summarized below.

Task 1: QAPP Revisions and Approval	January 1 – 31, 2016
Task 2: Refine Monitoring Plan	January 1 – June 30, 2016
Task 3: Background Data Compilation and Analysis	January 1, 2016 – December 15, 2017
Task 4: Bioassessment Sampling	July 1, 2016 – December 15, 2017
Task 5: Sediment Sampling	October 15, 2016 – December 15, 2017
Task 6: Flow Monitoring	January 1, 2016 – December 15, 2017
Task 7: Project Management and Data Analysis	January 1, 2016 – December 15, 2017
Task 8: Monitoring Draft and Final Report	October 31, 2017 and December 15, 2017

PROJECT DELIVERABLES

- DRWW and Illinois EPA approved monitoring plan.
- Illinois EPA approved QAPP. MBI will supply the technical information to others who will develop and coordinate the final QAPP for submittal to Illinois EPA.
- Monthly progress reports highlighting work accomplished, work planned for the upcoming month, and any issues and proposed resolution.
- Compiled data in approved IEPA format (excel).
- A comprehensive final report detailing the data and conclusions based on the analyses of the data including background and current watershed analysis and the analysis of the results of the water column and sediment chemistry as well as the fish, macroinvertebrate, habitat and field water chemistry data.

<u>DRWW-MP Budget Summary</u>

The cost estimates below are based upon 7 sampling episodes (May-16, June -16, July-16, Aug,16, Sept-16, Nov-16, & Mar-17) for water chemistry, sediment analyses at Tier 1 -3 sites, flow data collection, along with Fish & macroinvertebrate sampling & analyses.

- Option 1 is the original costs of the Monitoring Program

- Option 2 provides for adding 25 additional sites as proposed by MBI. Eighteen (18) of the added sites would become a new Tier 4 site and would include fish & field chemistry analyses along with habitat evaluation (macroinvertebrates would not be included). The other 7-sites would be added as Tier 3 sites.
- Option 3, as agreed to in this instrument, would be the same as Option 2 with the addition of macroinvertebrate sampling and analyses at each of the 25 sites. Option three is the most desirable option in that it would provide a comprehensive evaluation of the entire watershed. This would be very valuable in the future when assessing improvement measures taken in an effort to improve water quality.

Option	Water	Sediment	Fish/Macro	Flow	Total	Cost Add
Option 1	$67,338	$41,265	$165,000	$36,000	$309,603	$0
Option 2	$75,525	$50,435	$165,000	$36,000	$326,960	$17,357
Option 3	***$75,525***	***$50,435***	***$195,350***	***$36,000***	***$357,310***	***$47,707***
% Increase	***12%***	***22%***	***18%***	***0%***	***15%***	***15%***

COMPENSATION

The LCDOT shall provide seven thousand seven hundred and seven dollars ($7,707) to the DRWW through its Administrative Agent (SMC) for costs incurred during the completion of the tasks and within the time period as defined in the Schedule.

The SMC shall invoice the LCDOT for the $7,707 and apply those funds towards the total as shown in Option 3 above; and as the DRWW-MP progresses, shall provide copies of approved contractor invoices for expenditures and documentation of services and deliverables performed.

TERMS AND CONDITIONS

1. All preliminary or draft documentation, data and deliverables produced as referenced in this Memorandum of Understanding may be subject to the review by all parties to determine its acceptability in meeting the terms and intent.
2. All final documentation, data and deliverables produced as referenced in this Memorandum of Understanding may be subject to review by all parties to determine its acceptability prior to final delivery.
3. All adjustments, additions and/or deletions to this Memorandum of Understanding are subject to the written approval of SMC and the LCDOT.

Paula Trigg

May 18, 2016

Paula Trigg, P.E.
Director of Transportation/County Engineer
Lake County Division of Transportation

Date

Michael Warner

5/19/16

Michael Warner, P.E.
Executive Director
Lake County Stormwater Management Commission

Date

TECHNICAL SERVICES AGREEMENT between the
DES PLAINES RIVER WATERSHED WORKGROUP
and
SUBURBAN LABORATORIES, INC. for
WATER CHEMISTRY MONITORING

This is an agreement (Agreement) by and between the DES PLAINES RIVER WATERSHED WORKGROUP, 500 West Winchester Road, Libertyville, Illinois 60048 (DRWW) and SUBURBAN LABORATORIES 1950 S Batavia Avenue, Geneva, IL 60134 (Subcontractor).

PURPOSE

The DRWW wishes to engage the Subcontractor to provide technical services to assist the DRWW in conducting water chemistry monitoring in the Des Plaines River watershed located in Lake County, Illinois. The water chemistry monitoring will satisfactorily collect and process water column chemistry monitoring samples within the watershed. The DRWW has selected approximately 69 sampling locations within the Des Plaines River watershed in Lake County, Illinois.

SERVICES

The Subcontractor will conduct water column chemistry sampling by collecting samples, analyzing the samples collected, and providing the data to the DRWW based on the approved DRWW Quality Assurance Project Plan. The Scope of Services to be provided by the Subcontractor to accomplish the DRWW's objectives for the water column chemistry monitoring is set forth in Attachment A, Suburban Laboratories Quote.

COMPENSATION

1. The Subcontractor 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 $67,000 for water column sampling and analysis and $48,000 for sediment analysis for a total of $115,000, according to the rates in the Project Budget Attachment B.

2. The DRWW agrees to pay the Subcontractor for a total project cost not to exceed $115,000 using the compensation schedule identified in Attachment B. The final ten percent of the Agreement Amount shall be retained by the DRWW until the project is successfully completed and all deliverables have been received and approved.

3. The Subcontractor shall furnish the DRWW with an itemized invoice on a monthly basis. Invoices shall describe the work completed; show the actual number hours worked by team member; and actual travel and other expenses that have occurred. Payments by the DRWW shall be made in accordance with the Illinois Local Prompt Payment Act (50 ILCS 505/1 et seq.).

SCHEDULE AND DELIVERABLES

All sampling shall be completed by May 30, 2017. The project, including all reporting, shall be completed by June 15, 2017 and proceed according to the schedule details outlined and as follows. Generally, sampling will be conducted at all sites within one week per month and approximately the same week every month.

Sampling Schedule

- July 2016
- August 2016
- September 2016
- November 2016
- March 2017
- May 2017

Project Deliverables:

- Monthly reports including 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 DRWW 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 Subcontractor'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 estimated change in the number of staff hours required plus any changes in the Subcontractor's expense. The Subcontractor will not be compensated for additional services performed without an approved Change Order.

2. The DRWW may at any time terminate this Agreement in whole or in part by ten day written or telegraphic notice or verbal notice confirmed in writing. Upon termination for convenience of the DRWW, the DRWW will assume responsibility for services rendered and costs incurred prior to notification. Any and all services, property, publications or materials provided during or resulting from the Subcontractor shall be the property of the DRWW.

3. This Agreement shall be governed by and construed according to the laws of the State of Illinois.

4. The Subcontractor agrees to comply with the Conditions/Certifications outlined in Lake County Stormwater Management Commission's (SMC's) grant agreement #3191506 with the Illinois Environmental Protection Agency. The Certifications/Conditions are provided in Attachment C. Please note that "Recipient" refers to SMC, not the Subcontractor.

5. This Agreement supersedes any and all other agreements, oral or written, between the parties hereto with respect to the subject matter hereof.

6. This Agreement shall not be assigned, altered or modified without the express written consent of both parties except as provided in paragraph one above. The Subcontractor shall not reject any reasonable change proposed in the best interest of the project by DRWW.

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 DRWW: Des Plaines River Watershed Workgroup
500 West Winchester Road
Libertyville, Illinois 60048
ATTENTION: Mike Warner, Administrative Agent
mwarner@lakecountyil.gov

To the Subcontractor: Suburban Laboratories, Inc.
1950 S Batavia Avenue, Suite 150
Geneva, IL 60134
ATTENTION: Kaleb Meihls, Project Manager
kaleb@suburbanlabs.com

For the DRWW:

_____
Peter Kolb, President
DRWW

Date: _____

Attest:

_____
DRWW

For the Subcontractor:

_____
Dan Galeher, Vice President of Sales and Service
Suburban Laboratories, Inc.

Date: _____

Attest:

_____
Suburban Laboratories, Inc.

ATTACHMENT A

DRWW Water Column Chemistry Monitoring
SCOPE OF SERVICES

1.Sampling Schedule

1.1 Tier 1, 2, 3 Water Sampling

Water sampling for Tier 1, 2 and 3 will begin immediately after contract approval. Suburban Labs will sample the 69 sites during the course of one week. The weekly sampling will continue throughout the following months: July, August, September, November, and March and May 2017. These collected samples will be tested for the water quality monitoring parameters listed in Appendix 1. The analytical methods and Suburban Laboratory's Standard Operating Procedures (SOPs) for analyzing the samples are listed in Appendix 2. The reporting limits and the laboratory method detection limits (MDLs) are listed in Appendix 3.

1.2 Field QA/QC samples

For every 20 samples collected, Suburban 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 laboratory grade water from Suburban Laboratories Geneva location. This water will be placed inside a pre-cleaned and certified container.

1.3 Field Parameters

Suburban Laboratories is equipped with an YSI field meter. This meter will be utilized for the following analyses in the field:

- Conductivity
- pH
- Temperature
- Dissolved Oxygen

The results of these parameters will be reported on the final report along with the results of the analyses performed in the laboratory. This meter is calibrated each day prior to sampling.

2.Field Reporting

2.1 Field Log

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

- Name and signature of the field services technician;
- Location of sampling site
- Weather and water conditions (if unordinary condition apply);
- Dates and times of sample collection;
- GPS location of sampling (in latitude/longitude and state plane) for first event on each site;
- Preservatives;
- Field measurements
- Descriptions of any unusual conditions at the sample locations
- Chains of Custody
- Indication of duplicate sample location

3.Sample Custody and Handling

3.1 Labeling and Storage

All samples will be placed in non-contaminated containers provided by Suburban Laboratories. 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.

3.2 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 (shown in Figure B) will be included with the final report.

3.3 Sample preservation

Preservatives will be added to sample bottles prior to sample collection. Sample containers must only be purchased from reputable suppliers and cannot be re-used.

A. 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 10 business days following the date of collection.

Appendix A: Water Quality Sampling Parameters

Parameter	DRWW Frequency	Tier 1	Tier 2	Tier 3
Demand		Number of Sample Events		
Chloride	monthly May-Sept, Nov, Mar	6	6	6
Conductivity	monthly May-Sept, Nov, Mar	6	6	6
pH	monthly May-Sept, Nov, Mar	6	6	6
TOC	monthly May-Sept, Nov, Mar	6	0	0
Sulfate	monthly May-Sept, Nov, Mar	6	0	0
TSS	monthly May-Sept, Nov, Mar	6	6	0
Volatile Suspended Solids	monthly May-Sept, Nov, Mar	6	6	0
DO	monthly May-Sept, Nov, Mar	6	6	6
Temperature	monthly May-Sept, Nov, Mar	6	6	6
Turbidity	monthly May-Sept, Nov, Mar	6	6	6
Metals				
Total Hardness	annually under low flow conditions	1	1	0
Iron	annually under low flow conditions	1	0	0
Sodium	annually under low flow conditions	1	0	0
Arsenic	annually under low flow conditions	1	0	0
Manganese	annually under low flow conditions	1	1	0
Mercury	annually under low flow conditions	1	0	0
Copper	annually under low flow conditions	1	0	0
Nickel	annually under low flow conditions	1	0	0
Zinc	annually under low flow conditions	1	0	0
Nutrients				
Ammonia	monthly May-Sept, Nov, Mar	6	6	0
Total Nitrates (NO2 + NO3)	monthly May-Sept, Nov, Mar	6	6	6
TKN	monthly May-Sept, Nov, Mar	6	6	0
Total phosphorus	monthly May-Sept, Nov, Mar	6	6	6
Dissolved reactive phosphorus	monthly May-Sept, Nov, Mar	6	6	0
Bacteria				
E. coli	monthly May-Sept, Nov, Mar	6	6	6
Water Organics				
PCBs	annually under low flow conditions	1	0	0
Pesticides	annually under low flow conditions	1	0	0
Methoxychlor	annually under low flow conditions	1	0	0
PNAs	annually under low flow conditions	1	0	0
VOCs	annually under low flow conditions	1	0	0
Sediment Metals				
Aluminum	concurrent w/ bioassessment	1	1	1
Arsenic	concurrent w/ bioassessment	1	1	1
Barium	concurrent w/ bioassessment	1	1	1
Beryllium	concurrent w/ bioassessment	1	1	1
Boron	concurrent w/ bioassessment	1	1	1
Cadmium	concurrent w/ bioassessment	1	1	1
Chromium	concurrent w/ bioassessment	1	1	1
Cobalt	concurrent w/ bioassessment	1	1	1

Appendix A (cont.): Water Quality Sampling Parameters

Parameter	DRWW Frequency	Tier 1	Tier 2	Tier 3
Sediment Metals		Number of Sample Events		
Copper	concurrent w/ bioassessment	1	1	1
Fluoride	concurrent w/ bioassessment	1	1	1
Iron	concurrent w/ bioassessment	1	1	1
Lead	concurrent w/ bioassessment	1	1	1
Manganese	concurrent w/ bioassessment	1	1	1
Mercury	concurrent w/ bioassessment	1	1	1
Nickel	concurrent w/ bioassessment	1	1	1
Potassium	concurrent w/ bioassessment	1	1	1
Silver	concurrent w/ bioassessment	1	1	1
Sodium	concurrent w/ bioassessment	1	1	1
Strontium	concurrent w/ bioassessment	1	1	1
Vanadium	concurrent w/ bioassessment	1	1	1
Zinc	concurrent w/ bioassessment	1	1	1
Sediment Organics				
PCBs	concurrent w/ bioassessment	1	1	1
Pesticides	concurrent w/ bioassessment	1	1	1
Methoxychlor	concurrent w/ bioassessment	1	1	1
PNAs	concurrent w/ bioassessment	1	1	1
VOCs	concurrent w/ bioassessment	1	1	1
TKN	concurrent w/ bioassessment	1	1	1
Phosphorus	concurrent w/ bioassessment	1	1	1
Cyanide	concurrent w/ bioassessment	1	1	1
Herbicides (2, 4, D, 2,4,5 TP)	concurrent w/ bioassessment	1	1	1
Phenols	concurrent w/ bioassessment	1	1	1

Appendix B: Standard Operating Procedures

COLLECTION OF STREAM WATER SAMPLES

These methods allow for the collection of grab samples utilizing a high density polyethylene (HDPE) bucket or wide mouth HDPE or glass bottle. This standard operating procedure document (SOP) has been developed to maintain consistent data collection procedures and to ensure the quality of the data collected.

1.0 FIELD EQUIPMENT

The following equipment listed is necessary for sampling procedures.

1. 1-gallon HDPE bucket, nylon rope

2. Distilled or reagent-grade deionized water

3. Sample bottles:

    a. One 1000 mL HDPE with H_2SO_4 preservative for NH_3-N, TKN and Total Nitrates

    b. One 1000 mL HDPE unpreserved bottle for BOD, TSS, TDS, Chloride, Sulfate

    c. One 1000 mL HDPE bottle with HNO_3 preservative for Metals, (including Phosphorous and Mercury)

    d. Two 1000 mL amber glass bottles unpreserved for Pesticides, PCBs and PNAs

    e. Three 40 mL VOA vials with HCl preservative for VOCs

4. Disposable gloves

5. Cooler and ice

6. Antibacterial soap

7. Sharpie markers and labels

8. Field books/log sheets/chain of custody

9. Portable pH meter

10. Sampling pole

2.0 PREPARATION

Before samples are collected, sample bottles should be labeled correctly with sampling point, sampling I.D. number, the sampler's initials, and a space for the date and time to be filled in later. Sample bottle lids should also be labeled to prevent contamination between samples.

Coolers and samples bottles should be inspected before samples are collected. If dirt, residual chemicals, or any other types of contaminants are present, the sample bottle should be discarded. The coolers should be washed with mild soap and wiped down if any contaminants are present.

Sampling buckets shall be scrubbed with a solution of soap and water. Make sure the cleaning detergent is free of phosphates (orthophosphate sample).

The sampler's hands should be washed with antibacterial soap prior to sampling events. Disposable gloves will be worn during sample collection, and special care should be taken to avoid touching the inner surface of sample lids or bottles.

3.0 PROCEDURE

Sample bottles should be kept closed until they are filled. At each sample collection site, the sampler will wear a new pair of gloves for decontamination and a new pair for sample collection.

If samples are taken from a bridge, collect the sample from the upstream side of the structure unless otherwise noted in site description maps.

When sample during precipitation events, the sample bucket shall be covered at all times with a lid.

A log-sheet/chain of custody should be maintained during sampling and should include the following information:

a. Date and time of sample
b. Signature of collector and transporter
c. Signature of person who relinquished the sample to lab
d. Weather conditions during sampling (i.e., air temperature; cloudy, rain, snow)
e. Time
f. Sample storage temperature upon receipt in lab
g. Visual observation of sample
h. Field measurements such as pH

3.1 Sample Collection HDPE Bucket or Wide Mouth Bottle

The bucket shall be inspected to ensure that it is in good condition. The nylon rope attached should not be frayed or torn.

3.1.1 Decontamination

The bucket and wide mouth bottle must be cleaned before samples are collected and between sampling sites. The equipment shall be cleaned with phosphate-free detergent and blank water. Blank water should be deionized water. The equipment should be scrubbed with detergent and deionized water before the rinsing steps below are followed. Alternatively, a new bottle may be used for each sample.

Step 1 – Blank Water Rinse

- Rinse the inside of the bucket or wide mouth bottle by swirling with blank water.
- Discard the remaining blank water.
- Repeat Step 1.

3.2 Sample Collection Procedure

The stream depth will determine the equipment to be used to collect the sample. To reduce the chance of disturbing the substrate/sediment the following protocols will be followed. Samples may be collected from the bridge with a bucket if the depth is at least twice the height of the bucket. At shallower depths the field technician will use a sampling poll with a wide mouth bottle at the end. As a last resort, the field technician will wade into stream and collect the sample, standing downstream of the collection point so as not to collect kicked up sediment.

Step 1a – River Rinse and Field Measurements from Bucket

- Lower the bucket into the stream and fill.
- Discard the contents.

Step 1b – River Rinse Wide Mouth Bottle

- River rinse by filling the bottle with river water.
- Discard the remaining contents.

Step 2 – Sample Collection - Bucket

- Lower the bucket to mid-depth at center of flow, do not disturb bottom sediment.

Step 2b – Sample Collection - Pole

- Lower the sample bottle attached to the sampling pole to mid-depth at center of flow, do not disturb bottom sediment.

Step 3 – Fill Sample Bottles

Fill each sample bottle. Over filling of sample bottles with preservative should be avoided to prevent loss of preservative.

3.3 Field Measurements

Sample pH must be measured on site within 15 minutes of collection. Follow the laboratory and manufacturer's instructions for calibrating, cleaning and using the pH meter. The pH results shall be recorded on the log-sheet/chain of custody.

4.0 SAMPLE HANDLING, TRANSPORTATION, QUALITY ASSURANCE, AND BLANKS

All samples are placed in a cooler with ice after labeling. Samples are to be transported to the laboratory within the prescribed holding times. All samples will be taken to Suburban Laboratory, Inc.

4.1 Quality Assurance

Field blank and duplicates shall be collected. The laboratory shall adhere to their Quality Assurance Plan Revision 8 for samples received in the lab. Quality control limits and frequency of field quality control samples is specified at the end of this SOP.

4.2 Duplicate Samples

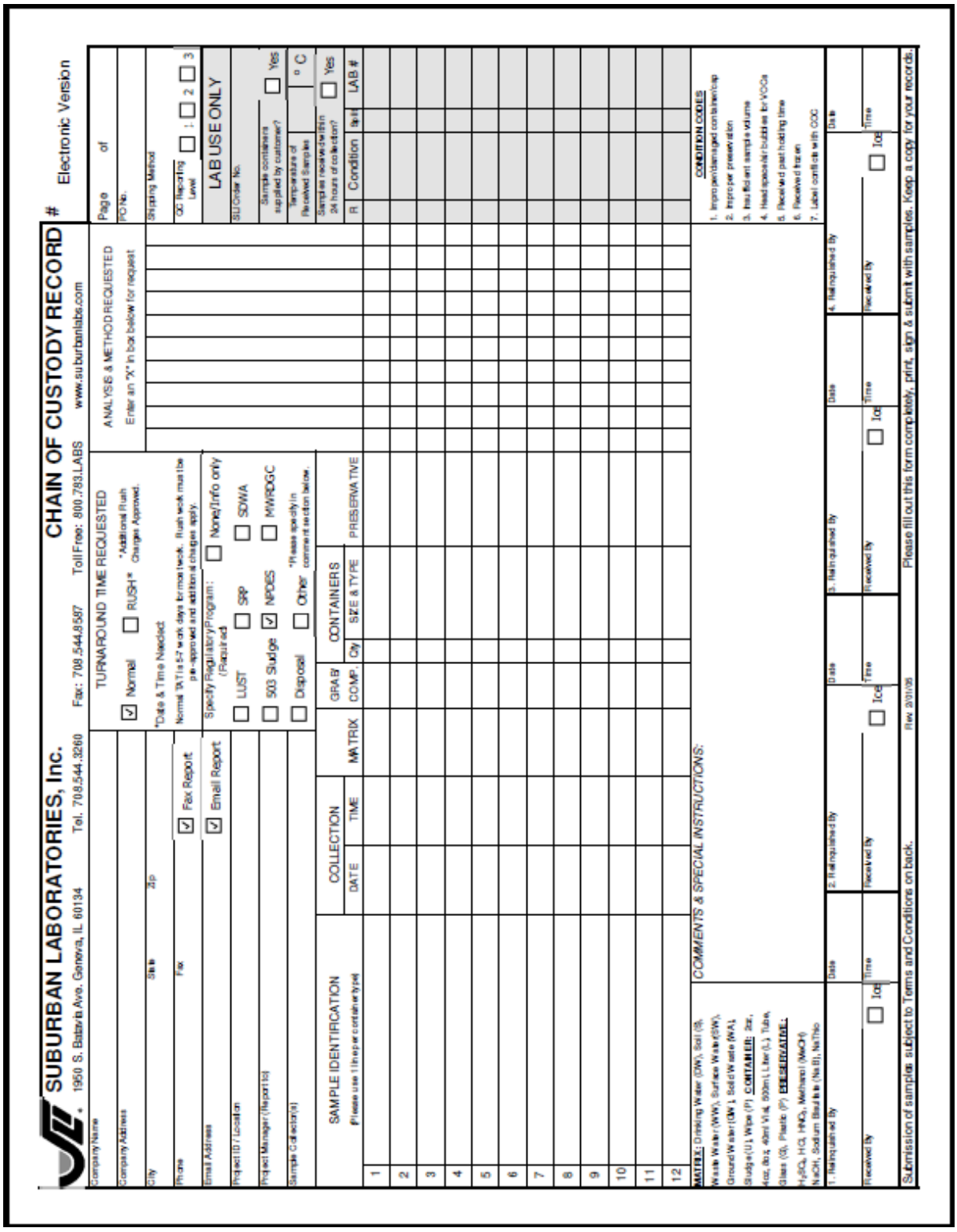
Duplicate samples are to be filled from the same round of stream water. Duplicate samples will be taken for all parameters once per month.

4.3 Field Blank

Sample bottles should be filled with blank water from unopened blank water containers. One field blank should be performed for VOCs and Metals including Phosphorous and Mercury once per year.

5.0 CHAIN OF CUSTODY

Chain of Custody forms must be filled out and accompany all samples to their laboratory. An example is below.



SUBURBAN LABORATORIES, Inc.
1950 S. Batavia Ave. Geneva, IL 60134 Tel. 708.544.3260 Fax: 708.544.8597 Toll Free: 800.783.LABS www.suburbanlabs.com

CHAIN OF CUSTODY RECORD # Electronic Version

Company Name
Company Address
City State Zip
Phone Fax ☑ Fax Report
Email Address ☑ Email Report
Project ID / Location
Project Manager (Report to)
Sample Collector(s)

TURNAROUND TIME REQUESTED
☑ Normal ☐ RUSH* *Additional Rush Charges Approved.
*Date & Time Needed:
Normal TAT is 5-7 work days for most tests. Rush work must be pre-approved and additional charges apply.
Specify Regulatory Program: /Required ☐ None/Info only
☐ LUST ☐ SRP ☐ SDWA
☐ 503 Sludge ☑ NPDES ☐ MWRDGC
☐ Disposal ☐ Other *Please specify in comment section below.

ANALYSIS & METHOD REQUESTED
Enter an "X" in box below for request

Page of
PO No.
Shipping Method
QC Reporting Level ☐ 1 ☐ 2 ☐ 3

LAB USE ONLY
SUI Order No.
Sample containers supplied by customer? ☐ Yes
Temperature of Received Samples °C
Samples received within 24 hours of collection? ☐ Yes

	SAMPLE IDENTIFICATION (Please use 1 line per container/syst)	COLLECTION DATE	COLLECTION TIME	MATRIX	GRAB/ COMP.	CONTAINERS Qty	CONTAINERS SIZE & TYPE	PRESERVATIVE	R	Condition	(lab)	LAB #
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

MATRIX: Drinking Water (DW), Soil (S), Waste Water (WW), Surface Water (SW), Ground Water (GW), Solid Waste (WA), Sludge (U), Wipe (P) CONTAINER: 2oz., 4oz., 8oz., 40ml Vial, 950ml, Liter (L), Tube, Glass (G), Plastic (P) PRESERVATIVE: H_2SO_4, HCl, HNO_3, Methanol (MeOH), NaOH, Sodium Bisulfate ($NaHSO_4$), $Na_2S_2O_3$

COMMENTS & SPECIAL INSTRUCTIONS:

CONDITION CODES
1. Improper/damaged container/cap
2. Improper preservation
3. Insufficient sample volume
4. Headspace/air bubbles for VOCs
5. Received past holding time
6. Received frozen
7. Label conflicts with COC

1. Relinquished by Date 2. Relinquished by Date 3. Relinquished by Date 4. Relinquished by Date
Received by Time Received by Time Received by Time Received by Time
☐ Ice ☐ Ice ☐ Ice ☐ Ice

Submission of samples subject to Terms and Conditions on back. Rev 2010.5 Please fill out this form completely, print, sign & submit with samples. Keep a copy for your records.

Appendix C: Test Methods and Reporting Limits

	Method	MDL/Reporting Limit
Demand		
Chloride	325.2, EPA	0.5 mg/L
Conductivity	2510B, SM18th Ed.	2 µmhos/cm
pH	4500-H B, SM18th Ed.	N/A
TOC	5310B	1 mg/L
Sulfate	375.4, EPA	1 mg/L
TSS	2540D, SM18th Ed.	0.2 mg/L
VSS	2540E	0.2 mg/L
DO	4500 YSI field meter	0.1 mg/L
Temperature	170.1	°C
Turbidity	180.1	0.1 mg/L
Metals		
Total Hardness	2340B. SM18th Ed.	0.05 mg/L
Iron	200.7, EPA	0.005 mg/L
Sodium	200.7	0.1 mg/L
Arsenic	200.8	0.0008 mg/L
Manganese	200.8	0.002 mg/L
Mercury *	245.1, EPA or *1631 low det	0.0002 mg/L or 0.5 Ng/L
Copper	200.8, EPA	0.0005 mg/L
Nickel	200.8	0.0004 mg/L
Zinc	200.8, EPA	0.007 mg/L
Nutrients		
Ammonia	4500 NH3 D, SM18th Ed.	0.1 mg/L
Total Nitrates (NO2 + NO3)	352.1, EPA	0.05 mg/L
TKN	4500 NH3 C, SM18th Ed.	0.124 mg/L
Phosphorous	200.8, EPA	0.02 mg/L
Dissolved reactive Phosphorus	SM4500P E	0.026 mg/L
Bacteria		
E-coli	9213D	1 CFU/100ml
Water Organics		
PCBs	8082, EPA	0.1 ug/L
Pesticides	8081, EPA	0.025 ug/L
Methoxychlor	8081 EPA	0.25 ug/L
PNAs	8270, EPA	0.1 ug/L
VOCs	8260, EPA	1.0 ug/L
Sediment Organics		
PCBs	8082, EPA	16.7 ug/Kg
Pesticides	8081, EPA	0.833 ug/Kg
Methoxychlor	8081 EPA	0.833 ug/Kg
PNAs	8270, EPA	40 ug/Kg
VOCs	8260, EPA	1.0 ug/Kg
Herbicides (2,4,D & 2,4,5 TP)	8321	0.004 ug/Kg
Sediment inorganics		
TKN	4500 NH3E	100 mg/Kg
Phosphorus	6010B, EPA	2.3 mg/Kg
Cyanide	9014	0.005 mg/Kg
Phenols	420.1	0.005 mg/Kg

Appendix C: (cont.) Methods and Reporting Limits

	Method	MDL/Reporting Limit
Sediment Metals		
Aluminum	6010B, EPA	2.50 mg/Kg
Arsenic	6010B, EPA	1.15 mg/Kg
Barium	6010B, EPA	0.125 mg/Kg
Beryllium	6010B, EPA	0.0025 mg/Kg
Boron	6010B, EPA	0.05 mg/Kg
Cadmium	6010B, EPA	0.075 mg/Kg
Chromium	6010B, EPA	0.0600 mg/Kg
Cobalt	6010B, EPA	0.625 mg/Kg
Copper	6101B EPA	0.150 mg/Kg
Iron	6010B, EPA	0.625 mg/Kg
Lead	6010B, EPA	0.6 mg/Kg
Manganese	6010B, EPA	0.625 mg/Kg
Mercury	245.1	0.02 mg/Kg
Nickel	6010B, EPA	0.235 mg/Kg
Potassium	6010B, EPA	2.5 mg/Kg
Silver	6010B, EPA	0.06 mg/Kg
Sodium	6010B EPA	1.25 mg/Kg
Strontium	6010B, EPA	0.120 mg/Kg
Vanadium	6101B EPA	0.150 mg/Kg
Zinc	6010B, EPA	0.075 mg/Kg
Fluoride	4500	0.05 mg/Kg

- If Low level Hg method 1631 is needed, the detection limit for that method is 0.5 Ng/L

ATTACHMENT B

Project Budget – Water Chemistry

PRICE QUOTATION	Quoted Price	Proposed Quantity	Total Tier 1		Proposed Quantity	Total Tier 2		Proposed Quantity	Total Tier 3
Demand									
Chloride	$ 14.00	67	$ 938.00		60	$ 840.00		186	$ 2,604.00
Conductivity*	$ 5.00	67	$ 335.00		60	$ 300.00		186	$ 930.00
pH	$ 5.00	67	$ 335.00		60	$ 300.00		186	$ 930.00
TOC	$ 25.00	67	$ 1,675.00		60	$ 1,500.00		0	$ -
Sulfate	$ 20.00	67	$ 1,340.00		60	$ 1,200.00		0	$ -
TSS	$ 8.00	67	$ 536.00		60	$ 480.00		0	$ -
Volatile Suspended Solids	$ 8.00	67	$ 536.00		60	$ 480.00		0	$ -
DO	$ 5.00	67	$ 335.00		60	$ 300.00		186	$ 930.00
Temperature	$ 5.00	67	$ 335.00		60	$ 300.00		186	$ 930.00
Turbidity	$ 5.00	67	$ 335.00		60	$ 300.00		186	$ 930.00
	Total		$ 6,700.00		Total	$ 6,000.00		Total	$ 7,254.00
Metals									
Total Hardness	$ 4.00	11	$ 44.00		10	$ 40.00		0	$ -
Metals (Fe, Na, As, Mn, Hg, Cu, Ni, Zn)	$ 56.00	11	$ 616.00		0	$ -		0	$ -
Manganese	$ 7.00				10	$ 70.00		0	$ -
	Total		$ 660.00		Total	$ 110.00		Total	$ -
Nutrients									
Ammonia	$ 15.00	67	$ 1,005.00		60	$ 900.00		0	$ -
Total Nitrates (NO2+NO3)	$ 20.00	67	$ 1,340.00		60	$ 1,200.00		186	$ 3,720.00
TKN	$ 28.00	67	$ 1,876.00		60	$ 1,680.00		0	$ -
Total Phosphorus	$ 15.00	67	$ 1,005.00		60	$ 900.00		186	$ 2,790.00
Dissolved Reactive Phosphorus	$ 30.00	67	$ 2,010.00		60	$ 1,800.00		0	$ -
	Total		$ 7,236.00		Total	$ 6,480.00		Total	$ 6,510.00
Bacteria									
E. Coli	$ 25.00	67	$ 1,675.00		60	$ 1,500.00		186	$ 4,650.00
	Total		$ 1,675.00		Total	$ 1,500.00		Total	$ 4,650.00
Water Organics									
PCBs/Pesticides	$ 105.00	11	$ 1,155.00		0	$ -		0	$ -
Methoxychlor	$ 100.00	11	$ 1,100.00		0	$ -		0	$ -
PNAs	$ 80.00	11	$ 880.00		0	$ -		0	$ -
VOCs	$ 90.00	11	$ 990.00		0	$ -		0	$ -
	Total		$ 2,255.00		Total	$ -		Total	$ -
* denotes field measurement		Sampling Charge	$ 3,350.00		Sampling Charge	$ 3,000.00		Sampling Charge	$ 9,300.00
Note 1: Quantity of samples is estimated		Analysis Subtotal	$ 18,526.00		Analysis Subtotal	$ 14,090.00		Analysis Subtotal	$ 18,414.00
Note 2: Field QC samples billed as actual		**Grand Total**	$ 21,876.00		**Grand Total**	$ 17,090.00		**Grand Total**	$ 27,714.00
samples (~15 duplicates and ~15 Field Blanks)									
Note 3: If Low Level Hg (1631) is needed									
$120/sample									
			Grand Total for July 1, 2016 through May 30, 2017 = $66,680						
Quotation Accepted By:									
Signature		Title							
Name (Print)		Date							

Project Budget – Sediment

SEDIMENT PRICE QUOTATION	Quoted Price	Proposed Quantity	Total Tier 1		Proposed Quantity	Total Tier 2		Proposed Quantity	Total Tier 3
Sediment Metals									
Metals (19)	$ 152.00	11	$ 1,672.00		10	$ 1,520.00		31	$ 4,712.00
Mercury	$ 20.00	11	$ 220.00		10	$ 200.00		31	$ 620.00
Fluoride	$ 15.00	11	$ 165.00		10	$ 150.00		31	$ 465.00
		Total	$ 2,057.00		Total	$ 1,870.00		Total	$ 5,797.00
Sediment Organics									
PCBs/Pesticides	$ 105.00	11	$ 1,155.00		10	$ 1,050.00		31	$ 3,255.00
Methoxychlor	$ 100.00	11	$ 1,100.00		10	$ 1,000.00		31	$ 3,100.00
PNAs	$ 80.00	11	$ 880.00		10	$ 800.00		31	$ 2,480.00
VOCs	$ 90.00	11	$ 990.00		10	$ 900.00		31	$ 2,790.00
TKN	$ 28.00	11	$ 308.00		10	$ 280.00		31	$ 868.00
Phosphorus	$ 15.00	11	$ 165.00		10	$ 150.00		31	$ 465.00
Cyanide (low)	$ 32.00	11	$ 352.00		10	$ 320.00		31	$ 992.00
Herbicides (2,4,D, 2,4,5 TP)	$ 250.00	11	$ 2,750.00		10	$ 2,500.00		31	$ 7,750.00
Phenols	$ 30.00	11	$ 330.00		10	$ 300.00		31	$ 930.00
		Total	$ 8,030.00			$ 7,300.00			$ 22,630.00
* denotes field measurement									
Note 1: Quantity of samples is estimated			Analysis Subtotal	$ 10,087.00		Analysis Subtotal	$ 9,170.00		Analysis Subtotal	$ 28,427.00
Note 2: Field QC samples billed as actual			**Grand Total**	$ 10,087.00		**Grand Total**	$ 9,170.00		**Grand Total**	$ 28,427.00
samples (~2 duplicates and ~2 Field Blanks)										
Note 3: If Low Level Hg (1631) is needed										
$120/sample										
Quotation Accepted By:										
Signature	Title									
Name (Print)	Date									

Grand Total for Sediment = $47,684

ATTACHMENT C

Terms and Conditions

PRICE QUOTATION	Quoted Price	Proposed Quantity	Total Tier 1	Proposed Quantity	Total Tier 2	Proposed Quantity	Total Tier 3
Demand							
Chloride	$ 14.00	67	$ 938.00	60	$ 840.00	186	$ 2,604.00
Conductivity*	$ 5.00	67	$ 335.00	60	$ 300.00	186	$ 930.00
pH	$ 5.00	67	$ 335.00	60	$ 300.00	186	$ 930.00
TOC	$ 25.00	67	$ 1,675.00	60	$ 1,500.00	0	$ -
Sulfate	$ 20.00	67	$ 1,340.00	60	$ 1,200.00	0	$ -
TSS	$ 8.00	67	$ 536.00	60	$ 480.00	0	$ -
Volatile Suspended Solids	$ 8.00	67	$ 536.00	60	$ 480.00	0	$ -
DO	$ 5.00	67	$ 335.00	60	$ 300.00	186	$ 930.00
Temperature	$ 5.00	67	$ 335.00	60	$ 300.00	186	$ 930.00
Turbidity	$ 5.00	67	$ 335.00	60	$ 300.00	186	$ 930.00
		Total	$ 6,700.00	Total	$ 6,000.00	Total	$ 7,254.00
Metals							
Total Hardness	$ 4.00	11	$ 44.00	10	$ 40.00	0	$ -
Metals (Fe, Na, As, Mn, Hg, Cu, Ni, Zn)	$ 56.00	11	$ 616.00	0	$ -	0	$ -
Manganese	$ 7.00			10	$ 70.00	0	$ -
		Total	$ 660.00	Total	$ 110.00	Total	$ -
Nutrients							
Ammonia	$ 15.00	67	$ 1,005.00	60	$ 900.00	0	$ -
Total Nitrates (NO2+NO3)	$ 20.00	67	$ 1,340.00	60	$ 1,200.00	186	$ 3,720.00
TKN	$ 28.00	67	$ 1,876.00	60	$ 1,680.00	0	$ -
Total Phosphorus	$ 15.00	67	$ 1,005.00	60	$ 900.00	186	$ 2,790.00
Dissolved Reactive Phosphorus	$ 30.00	67	$ 2,010.00	60	$ 1,800.00	0	$ -
		Total	$ 7,236.00	Total	$ 6,480.00	Total	$ 6,510.00
Bacteria							
E. Coli	$ 25.00	67	$ 1,675.00	60	$ 1,500.00	186	$ 4,650.00
		Total	$ 1,675.00	Total	$ 1,500.00	Total	$ 4,650.00
Water Organics							
PCBs/Pesticides	$ 105.00	11	$ 1,155.00	0	$ -	0	$ -
Methoxychlor	$ 100.00	11	$ 1,100.00	0	$ -	0	$ -
PNAs	$ 80.00	11	$ 880.00	0	$ -	0	$ -
VOCs	$ 90.00	11	$ 990.00	0	$ -	0	$ -
		Total	$ 2,255.00	Total	$ -	Total	$ -
* denotes field measurement		Sampling Charge	$ 3,350.00	Sampling Charge	$ 3,000.00	Sampling Charge	$ 9,300.00
Note 1: Quantity of samples is estimated		Analysis Subtotal	$ 18,526.00	Analysis Subtotal	$ 14,090.00	Analysis Subtotal	$ 18,414.00
Note 2: Field QC samples billed as actual		**Grand Total**	$ 21,876.00	**Grand Total**	$ 17,090.00	**Grand Total**	$ 27,714.00
samples (~15 duplicates and ~15 Field Blanks)							
Note 3: If Low Level Hg (1631) is needed							
$120/sample							

Grand Total for July 1, 2016 through May 30, 2017 = $66,680

Quotation Accepted By:

Signature Title

Name (Print) Date

SEDIMENT PRICE QUOTATION	Quoted Price	Proposed Quantity	Total Tier 1	Proposed Quantity	Total Tier 2	Proposed Quantity	Total Tier 3
Sediment Metals							
Metals (19)	$ 152.00	11	$ 1,672.00	10	$ 1,520.00	31	$ 4,712.00
Mercury	$ 20.00	11	$ 220.00	10	$ 200.00	31	$ 620.00
Fluoride	$ 15.00	11	$ 165.00	10	$ 150.00	31	$ 465.00
		Total	$ 2,057.00	Total	$ 1,870.00	Total	$ 5,797.00
Sediment Organics							
PCBs/Pesticides	$ 105.00	11	$ 1,155.00	10	$ 1,050.00	31	$ 3,255.00
Methoxychlor	$ 100.00	11	$ 1,100.00	10	$ 1,000.00	31	$ 3,100.00
PNAs	$ 80.00	11	$ 880.00	10	$ 800.00	31	$ 2,480.00
VOCs	$ 90.00	11	$ 990.00	10	$ 900.00	31	$ 2,790.00
TKN	$ 28.00	11	$ 308.00	10	$ 280.00	31	$ 868.00
Phosphorus	$ 15.00	11	$ 165.00	10	$ 150.00	31	$ 465.00
Cyanide (low)	$ 32.00	11	$ 352.00	10	$ 320.00	31	$ 992.00
Herbicides (2,4,D, 2,4,5 TP)	$ 250.00	11	$ 2,750.00	10	$ 2,500.00	31	$ 7,750.00
Phenols	$ 30.00	11	$ 330.00	10	$ 300.00	31	$ 930.00
		Total	$ 8,030.00		$ 7,300.00		$ 22,630.00
		Analysis Subtotal	$ 10,087.00	Analysis Subtotal	$ 9,170.00	Analysis Subtotal	$ 28,427.00
		Grand Total	$ 10,087.00	**Grand Total**	$ 9,170.00	**Grand Total**	$ 28,427.00

* denotes field measurement

Note 1: Quantity of samples is estimated

Note 2: Field QC samples billed as actual samples (~2 duplicates and ~2 Field Blanks)

Note 3: If Low Level Hg (1631) is needed $120/sample

Grand Total for Sediment = $47,684

Quotation Accepted By:

Signature Title

Name (Print) Date

Date: June 8, 2016
To: Des Plaines River Watershed Workgroup Executive Board
From: Andrea Cline, DRWW Technical Advisor
Re: Contract Amendment for Midwest Biodiversity Institute

ACTION REQUESTED: Discussion and Approval of Contract Amendment at 6/16/16 Executive Board

The DRWW entered into a contract with Midwest Biodiversity Institute (MBI) to conduct biological and habitat sampling at 44 sites for $165,000. The DRWW has added 25 additional sites to the monitoring program. The cost shall be adjusted to $195,350 to reflect the biological monitoring at these additional sites.

Signature of this agreement amendment cover document will constitute agreement with the additional sites for biological sampling and additional cost associated with this.

For the DRWW: Attest:

_____	_____	_____
Peter Kolb, President	Date	Signature, Title

For Midwest Biodiversity Institute: Attest:

_____	_____	_____
Peter Precario Executive Director	Date	Signature, Title

Task Descriptions	2016				2017-18			
Task 1 - Refine Monitoring Plan	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**
Project Manager - Review & Modify Plan	$63.69	40	$2,547.60		$65.60	0	$0.00	
GIS Analyst - Geometric Design Options	$25.00	24	$600.00		$25.75	0	$0.00	
Direct Labor Costs		64	$3,147.60			0	$0.00	
Task 1 Labor Fee (OM 1.5 applied)			**$4,721.40**				**$0.00**	
Project Manager Travel - Meet with DRWW	$1,000.00	1	$1,000.00		$1,000.00	0	$0.00	
ODC Subtotal			**$1,000.00**				**$0.00**	
Task 1 Subtotal				**$5,721.40**				**$0.00**
Task 2 - QAPP Revisions	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**
Project Manager - Review & Revise QAPP	$63.69	16	$1,019.04		$65.60	4	$262.40	
Research Associate - Review & Revise Methods	$27.05	8	$216.40		$27.86	0	$0.00	
Direct Labor Costs		24	$1,235.44			4	$262.40	
Task 2 Labor Fee (OM 1.5 applied)			**$1,853.16**				**$393.60**	
Task 2 Subtotal				**$1,853.16**				**$393.60**
Task 3 - Background Data Compilation & Analysis	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**
Project Manager - Write & Edit Summary Report	$63.69	16	$1,019.04		$65.60	0	$0.00	
Senior Research Associate - Acquire & Evaluate Data	$56.34	40	$2,253.60		$58.03	0	$0.00	
GIS Analyst - Assist with Data Acquisition	$25.00	16	$400.00		$25.75	0	$0.00	
Direct Labor Costs		72	$3,672.64			0	$0.00	
Task 3 Labor Fee (OM 1.5 applied)			**$5,508.96**				**$0.00**	
Task 3 Subtotal				**$5,508.96**				**$0.00**
Task 4 - Bioassessment Sampling								
Task 4A Mobilization & Demobilization	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**
Project Manager - Project Management & Oversight	$63.69	24	$1,528.56		$65.60	0	$0.00	
Fish Crew Leader - Mobilize/Demobilze Equipment	$27.05	40	$1,082.00		$27.86	0	$0.00	
Macroinvertebrate Crew Leader - Field Prep.	$30.05	16	$480.80		$30.95	0	$0.00	
Field Technician X2 - Assist Crew Leaders	$15.86	80	$1,268.80		$16.34	0	$0.00	
Direct Labor Costs		160	$4,360.16			0	$0.00	
Task 4A Labor Fee (OM 1.5 applied)			**$6,540.24**				**$0.00**	
Task 4A Subtotal				**$6,540.24**				**$0.00**
Task 4B - Fish/Habitat Sampling	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**
Fish Crew Leader - Lead Fish Crew (77 sites in 2016)	$27.05	260	$7,033.00		$27.86	0	$0.00	
Field Technician X2 - Field Sampling Labor	$15.86	420	$6,661.20		$16.34	0	$0.00	
Field Technician X2 (OT) - Field Samling Labor	$23.79	100	$2,379.00		$24.51	0	$0.00	
Direct Labor Costs		780	$16,073.20				$0.00	
Task 4B Labor Fee (OM 1.5 applied)			**$24,109.80**				**$0.00**	

Task Descriptions	2016				2017-18			
Task 4B - Fish/Habitat Sampling - ODCs	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**
Vehicle & Equipment Use - Vehicle, Boats, E-Fishing Gear	$500.00	4	$2,000.00		$500.00	0	$0.00	
Vehicle Mileage - Travel to sites	$0.575	1400	$805.00		$0.575	0	$0.00	
Supplies - miscellaneous items, preservatives	$1,000.00	2	$2,000.00		$1,000.00	0	$0.00	
Lodging/Food/Misc. - Daily allowance per person	$125.00	45	$5,625.00		$125.00	0	$0.00	
ODC Subtotal			**$10,430.00**				**$0.00**	
Task 4B Subtotal			**$34,539.80**				**$0.00**	
Task 4C - Macroinvertebrate Sampling	**Unit Cost**	**Est. Project Units**	**Cost Estimate**		**Unit Cost**	**Est. Project Units**	**Cost Estimate**	
Macroinvert. Crew Leader - Lead Macro. Crew (69 sites)	$30.05	196	$5,889.80		$30.95	0	$0.00	
Field Technician - Field Sampling Labor	$15.86	160	$2,537.60		$16.34	0	$0.00	
Field Technician (OT) - Field Sampling Labor	$23.79	36	$856.44		$24.51	0	$0.00	
Direct Labor Costs		392	$9,283.84	**Increase over base**		0	$0.00	
Task 4C Labor Fee (OM 1.5 applied)			**$13,925.76**	**$5,186.16**			**$0.00**	
Vehicle & Equipment Use - Vehicle	$300.00	3.5	$1,050.00		$300.00	0	$0.00	
Vehicle Mileage - Travel to sites	$0.575	1800	$1,035.00		$0.575	0	$0.00	
Field Supplies - miscellaneous items, preservatives	$1,000.00	3	$3,000.00		$1,000.00	0	$0.00	
Lodging/Food/Misc. - Daily allowance per person	$125.00	32	$4,000.00		$120.00	0	$0.00	
ODC Subtotal			**$9,085.00**	**$3,295.00**			**$0.00**	
Task 4C Subtotal			**$23,010.76**	**$8,481.16**			**$0.00**	
Task 4D - Biological Laboratory	**Unit Cost**	**Est. Project Units**	**Cost Estimate**		**Unit Cost**	**Est. Project Units**	**Cost Estimate**	
Fish Vouchers - i.d. verifications per QAPP	$27.05	0	$0.00		$27.86	24	$668.64	
Macroinvertebrate Sample Sorting & QA - sort samples	$27.05	0	$0.00		$27.86	560	$15,601.60	
Macroinvertebrate Taxonomy & QA - i.d. samples	$30.05	0	$0.00		$30.95	630	$19,498.50	
Direct Labor Costs		0	$0.00			1214	$35,768.74	**Increase Over Base**
Task 4D Labor Fee (OM 1.5 applied)			**$0.00**				**$53,653.11**	**$19,035.75**
Lab Supplies - preservatives, slides, containers	$1,000.00	0	$0.00		$1,000.00	3	$3,000.00	
Lab Equipment Usage - Binocular & microscopes	$150.00	0	$0.00		$150.00	7	$1,050.00	
Macroinvertebrate QA/QC (n = 4)	$400.00	0	$0.00		$400.00	7	$2,800.00	
ODC Subtotal			**$0.00**				**$6,850.00**	**$2,350.00**
Task 4D Subtotal			**$0.00**				**$60,503.11**	**$21,385.75**
Task 4 Subtotal				**$64,090.80**				**$60,503.11**
Task 5 - Sediment Chemistry Sampling	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**
Chemical Crew Leader - Lead Sediment Crew	$27.05	96	$2,596.80		$27.86	0	$0.00	
Field Technician X 1 - Field Labor	$15.86	80	$1,268.80		$15.86	0	$0.00	
Field Technician (OT) - Field Labor	$23.79	16	$380.64		$24.51	0	$0.00	
Direct Labor Costs		192	$4,246.24			0	$0.00	
Task 5 Labor Fee (OM 1.5 applied)			**$6,369.36**				**$0.00**	

Task Descriptions	2016	2017-18

Task 5 - Sediment Chemisrty Sampling - ODCs	Unit Cost	Est. Project Units	Cost Estimate	Task Subtotal	Unit Cost	Est. Project Units	Cost Estimate	Task Subtotal
Equipment Use - Vehicle	$300.00	2	$600.00		$300.00	0	$0.00	
Vehicle Mileage - Travel to sites	$0.575	1,200	$690.00		$0.575	0	$0.00	
Lodging/Food/Misc. - Daily allowance per person	$125.00	20	$2,500.00		$125.00	0	$0.00	
ODC Subtotal Task 5			**$3,790.00**				**$0.00**	
Task 5 Subtotal				**$10,159.36**				**$0.00**
Task 6 - Project Management and Data Analysis								
Task 6A - Project Management	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**
Principal Investigator - Project Management & Oversight	$63.69	12	$764.28		$65.60	8	$524.80	
Fish Crew Leader - Track Progress	$27.05	6	$162.30		$27.86	0	$0.00	
Macroinvertebrate Crew Leader - Track Progress	$30.05	6	$180.30		$30.95	0	$0.00	
Direct Labor Costs		24	$1,106.88			8	$524.80	
Task 1 Labor Fee (OM 1.5 applied)			**$1,660.32**				**$787.20**	
Task 6A Subtotal			**$1,660.32**				**$787.20**	
Task 6B - Data Management	**Unit Cost**	**Est. Project Units**	**Cost Estimate**		**Unit Cost**	**Est. Project Units**	**Cost Estimate**	
Research Associate - Fish & Habitat Entry	$27.05	32	$865.60		$27.86	0	$0.00	
Research Associate - Macroinvertebrate Entry	$27.05	0	$0.00		$27.86	52	$1,448.72	
Research Assoc. - POTW Loadings & Water Chemistry Data	$27.05	40	$1,082.00		$27.86	0	$0.00	
Direct Labor Costs		72	$1,947.60			0	$1,448.72	**Increase Over Base**
Task 6B Labor Fee (OM 1.5 applied)			**$2,921.40**				**$2,173.08**	**$167.16**
Task 6B Subtotal			**$2,921.40**				**$2,173.08**	**$167.16**
Task 6C - Data Analysis	**Unit Cost**	**Est. Project Units**	**Cost Estimate**		**Unit Cost**	**Est. Project Units**	**Cost Estimate**	
Sr. Res. Assoc. - POTW Loadings	$30.05	0	$0.00		$30.95	32	$990.40	
Sr. Res. Assoc. - Water Column & Sediment Chemical WQ	$56.34	0	$0.00		$58.03	32	$1,856.96	
Sr. Res. Assoc. - Fish & Macroinvertebrate IBIs	$56.34	0	$0.00		$58.03	32	$1,856.96	
Sr. Res. Assoc. - Habitat & Field Chemistry	$56.34	0	$0.00		$58.03	32	$1,856.96	
Sr. Res. Assoc. - Use Attainability & Attainment	$30.05	0	$0.00		$30.95	40	$1,238.00	
Sr. Res. Assoc. - Causes & Sources	$56.34	0	$0.00		$58.03	60	$3,481.80	
Direct Labor Costs		0	$0.00			228	$11,281.08	
Task 6C Labor Fee (OM 1.5 applied)			**$0.00**				**$16,921.62**	
Task 6C Subtotal			**$0.00**				**$16,921.62**	
Task 6 Subtotal				**$4,581.72**				**$19,881.90**
Task 7 - Monitoring Report	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**	**Unit Cost**	**Est. Project Units**	**Cost Estimate**	**Task Subtotal**
Sr. Res. Assoc. - Introduction/Study Area/Methods	$30.05	0	$0.00		$30.95	24	$742.80	
Sr. Res. Assoc. - Chemical WQ Results	$56.34	0	$0.00		$58.03	60	$3,481.80	
Sr. Res. Assoc. - Habitat Quality	$56.34	0	$0.00		$58.03	32	$1,856.96	

Task Descriptions	2016	2017-18

Task 7 - Monitoring Report (continued)	Unit Cost	Est. Project Units	Cost Estimate	Task Subtotal	Unit Cost	Est. Project Units	Cost Estimate	Task Subtotal
Sr. Res. Assoc. - Biological Assemblage Assessment	$56.34	0	$0.00		$58.03	52	$3,017.56	
Sr. Res. Assoc. - Discussion & Conclusions	$30.05	0	$0.00		$30.95	60	$1,857.00	
Project Manager - Review & Editing	$63.69	0	$0.00		$58.03	60	$3,481.80	
Direct Labor Costs		0	$0.00			288	$14,437.92	**Increase Over Base**
Task 7 Labor Fee (OM 1.5 applied)			**$0.00**				**$21,656.88**	**$348.18**
Project Manager Travel - Present Report to DRWW	$0.00	0	$0.00		$1,000.00	1	$1,000.00	
ODC Subtotal			**$0.00**				**$1,000.00**	
Task 7 Subtotal				**$0.00**				**$22,656.88**
Total 2016 & 2017 Upper Desplaines R. Bioassessment				**$91,915.40**				**$103,435.49**
Grand Total 2016-17 Upper Desplaines Alternate Plan								**$195,350.89**

Over $165K = **$30,350.89**

Estimate Includes:
One sampling pass for fish at 69 sites in 2016
IEPA multihabitat invert sampling at 69 sites in 2016
QHEI at all sites
No sampling for reference sites - suggest adding to plan
Full data analysis and report per established format

Total Increase Over Base
$30,382.25

Bugs Field	**$8,481.16**
Bugs Lab	**$21,385.75**
Bugs Data	**$167.16**
Bugs Report	**$348.18**
	$30,382.25

MASTER PROFESSIONAL SERVICES AGREEMENT
BETWEEN
GEOSYNTEC CONSULTANTS, INC.

AND

Des Plaines River Watershed Workgroup

This Master Professional Services Agreement ("Agreement") is made effective June 16, 2016 by and between Des Plaines River Watershed Workgroup ("Client") with a mailing or registered address of 500 W. Winchester Road, Libertyville, IL 60048 and **Geosyntec Consultants, Inc.** ("Consultant/Engineer" or "C/E") and its subsidiaries and affiliates[1] with a mailing or registered address of 1420 Kensington Road, Suite 103; Oak Brook, Illinois 60523.

This Agreement shall cover Services performed by C/E as authorized in mutually acceptable Service Orders.

NOW, THEREFORE, in consideration of the promises set forth below, the parties hereby agree as follows:

1. SERVICE ORDERS

The Scope of Services ("Services") and the schedule and charges for the Services are to be set forth in a written Service Order or other mutually acceptable form of written authorization to this Agreement ("Service Order"). The terms and conditions of this Agreement shall apply to each Service Order, except to the extent expressly modified by the Service Order. Unless otherwise stated in the Service Order, the method of charging for the Services shall be on a time and materials basis and based on the Rate Schedule in effect when the Services are performed, unless otherwise provided in C/E's proposal. The rates shall be subject to annual adjustment based on the mutual consent of the parties. The rates are inclusive of all taxes except such value added, sales, service or withholding taxes that are imposed in some jurisdictions, for which such taxes shall be reimbursable by Client. Where charges are "not to exceed" a specified sum either as a contract total or by task, C/E shall notify Client before such total or specified task sum is exceeded and shall not continue to provide the Services beyond such sum unless Client authorizes an increase in the sum. . Rates for days of actual testimony at depositions, trials, or hearings will be two times the rate shown on the Rate Schedule.

2. PAYMENT CONDITIONS

C/E shall periodically submit invoices to Client." Payment by Client to C/E hereunder shall be in full compliance with the governing statutory requirements of the Local Government Prompt Payment Act. (50 ILCS 505/1 et seq.).

3. NOT USED

4. RECOGNITION OF RISK

Client recognizes that opinions relating to environmental, geologic, and geotechnical conditions are based on limited data and that actual conditions may vary from those encountered at the times and locations where data are obtained, and that the limited data results in uncertainty with respect to the interpretation of these conditions, despite the use of due professional care. It is further recognized that the state of practice, particularly with respect to contaminated site and waste conditions, is changing and evolving, and, further, that certain of the governmental regulations relating to hazardous waste sites purport to require achievement of results which cannot be accomplished in an absolute sense (e.g., the construction of entirely impermeable liners).

5. STANDARD OF CARE

C/E shall be obligated to comply with applicable professional standards of care in the performance of the Services but does not guarantee results. C/E shall also comply with all applicable state, federal, and local laws, executive orders, rules, and regulations.

6. NOT USED

7. INDEMNIFICATION

If any claim is brought against Client and/or C/E, its employees, agents, and subcontractors (hereinafter for purposes of this Section 7 referred to collectively as "C/E"), by a third party, relating in any way to services under this Agreement, including all Service Orders, then C/E and Client shall each indemnify the other against any loss or judgment on a comparative responsibility basis under comparative negligence principles (Client responsibility to include that of its agents, employees, and other contractors).

[1] Engineering services in Michigan are performed by Geosyntec Consultants of Michigan, Inc., in New York by Beech and Bonaparte Engineering P.C., and in North Carolina, engineering and geology services are provided by Geosyntec Consultants of North Carolina, P.C. Services of such affiliate(s) shall be billed by Geosyntec Consultants, Inc. on behalf of the affiliate.

8. INSURANCE

C/E shall maintain during the term of this Agreement the following minimum insurance coverage:

(i)	**Workers' Compensation** **Employer's Liability**	- Statutory - 1,000,000 per incident or as required by law
(ii)	**Commercial General Liability or Public Liability Insurance**	- 1,000,000 per occurrence or as required by law
(iii)	**Comprehensive Automobile Liability**	- 1,000,000 combined single limit
(iv)	**Professional Liability**	- 1,000,000 per claim

C/E shall provide Client with an insurance certificate, and an insurer endorsement, listing Client (LCSMC and County of Lake) as an Additional Insured on the Commercial General Liability and Automobile Liability, and shall be on a primary, non-contributory basis, for all policies provided by C/E hereunder.

9. RIGHT OF ENTRY

Client grants to C/E, and, if the project site is not owned by Client, warrants that permission has been granted for, a right of entry from time to time by C/E, its employees, agents, and subcontractors, upon the project site for the purpose of providing the Services.

10. HAZARDOUS SUBSTANCES

All nonhazardous samples and by-products from sampling processes in connection with the Services shall be disposed of by C/E in accordance with applicable law; provided, however, that any and all such materials, including wastes, that cannot be introduced back into the environment under existing law without additional treatment, and all hazardous wastes, radioactive wastes, hazardous materials, or hazardous substances ("Hazardous Substances") related to the Services, shall be packaged in accordance with applicable law by C/E and turned over to Client for appropriate shipping and disposal. C/E shall not arrange or otherwise dispose of Hazardous Substances in connection with this Agreement. C/E, at Client's request, may assist Client in identifying appropriate alternatives for off-site treatment, storage or disposal of the Hazardous Substances, but C/E shall not make any independent determination relating to the selection of a treatment, storage, or disposal facility nor subcontract such activities through transporters or others. Client shall sign all necessary manifests for the disposal of Hazardous Substances. If Client insists upon the signing of such manifests by C/E's agents or employees, such signing shall be as Client's agent so that C/E will not be considered to be a generator, transporter, or disposer of such Hazardous Substances, and Client shall indemnify C/E against any claim or loss resulting from such signing and from C/E's non-negligent handling of Hazardous Substances. If unanticipated Hazardous Substances or conditions are encountered, C/E may suspend work for safety reasons until mutually agreeable arrangements are made, which may involve amendments to this Agreement.

11. CONFIDENTIALITY

Both parties acknowledge that C/E's documents and dealings related to this Agreement are subject to the Illinois Open Meetings Act (5 ILCS 120/1 et seq.) and the Illinois Freedom of Information Act (5 ILCS 140/1 et seq.). All documents related to the publication of an agenda in compliance with the Illinois Open Meetings Act shall be submitted by the C/E to the Client by noon one calendar week preceding the date of the meeting.

12. USE OF DOCUMENTS

All work product prepared by C/E pursuant to this Agreement, including, but not limited to, policies, reports, analysis, plans, designs, calculations, work drawings, studies, photographs, models, written correspondence from C/E to subcontractors and recommendations shall be the property of the Client. C/E shall deliver the work product to Client upon completion of C/E's work, distribution of final or draft work products, or termination of the Agreement, whichever comes first. C/E may retain copies of such work product for its records; however, C/E may not use, print, share, disseminate, or publish any work product related to this Agreement without the consent of Client. All work product is subject to the Illinois Freedom of Information Act (5 ILCS 140/1 et seq.).

13. CLIENT RESPONSIBILITY

Client shall: (1) provide C/E, in writing, all information relating to Client's requirements for the project; (2) give C/E prompt written notice of any suspected deficiency in the Services; and (3) with reasonable promptness, provide required approvals and decisions. When the Services include on-site activities, Client shall also (4) correctly identify the location of subsurface structures, such as pipes, tanks, cables, and utilities; and (5) notify C/E of any potential hazardous substances or other health and safety hazards or conditions known to Client existing on or near the project site.

14. DELAYS AND FORCE MAJEURE

In the event that C/E field or technical work is interrupted due to causes outside of its control, C/E shall be equitably compensated (in accordance with C/E's current Rate Schedule) for the additional labor, equipment, and other charges associated with maintaining its work force and equipment available during the interruption, and for such similar charges that are incurred by C/E for demobilization and subsequent remobilization.

Except for the foregoing provision, neither party shall hold the other responsible for damages or delays in performance caused by force majeure, acts of God, or other events beyond the reasonable control of the other party. Delays within the scope of this Section which cumulatively exceed forty-five (45) days shall, at the option of either party, make the applicable Service Order subject to termination for convenience or to renegotiation.

15. TERMINATION

Either party to this Agreement may terminate this Agreement, with or without cause, upon thirty (30) days prior written notice to the other Party. Any Services or Work completed as of that termination date shall be delivered to Client by C/E, and shall be paid for by Client in accordance with Paragraph 2 hereof. Any Services or Work partially completed shall not continue after the date of termination, but shall be invoiced by C/E and paid for by Client to the extent of the partially completed portion of the Service or Work.

16. ASSIGNMENTS

Neither party to this Agreement shall assign its duties and obligations hereunder without the prior written consent of the other party.

17. VALIDITY AND GOVERNING LAW

This Agreement is governed by the laws of the State of Illinois.

18. NO THIRD-PARTY RIGHTS

This Agreement shall not create any rights or benefits to parties other than Client and C/E. No third party shall have the right to rely on C/E's opinions rendered in connection with the Services without C/E's written consent which may be conditioned on the third party's agreement to be bound to acceptable conditions and limitations similar to this Agreement.

19. INTEGRATED WRITING

This Agreement constitutes a final and complete repository of the agreements between Client and C/E. It supersedes all prior or contemporaneous communications, representations, or agreements, whether oral or written, relating to the subject matter of this Agreement. Modifications of this Agreement shall not be binding unless made in writing and signed by an Authorized Representative of each party.

20. NOTICES, SIGNATURES, AND AUTHORIZED REPRESENTATIVES

The following signatories of this Agreement are the Authorized Representatives of Client and C/E for the execution of this Agreement. Each Service Order shall set forth the name and address of the respective Authorized Representatives of the parties for the administration of that Service Order. Any information or notices required or permitted under this Agreement or any Service Order shall be deemed to have been sufficiently given if in writing and delivered either personally or by mail to the undersigned representative or any other Authorized Representative identified in the applicable Service Order. Notice given by mail shall also be transmitted by facsimile at the time of mailing.

CLIENT	**CONSULTANT/ ENGINEER**
Signature	Signature
	Susan K. Hill
Typed or Printed Name	Typed or Printed Name
	Vice President
Title	Title
Date of Signature	Date of Signature

NON-DISCRIMINATION AND AFFIRMATIVE ACTION - Required Disclosure for Projects Performed in US

C/E is an Equal Opportunity (EO) and Affirmative Action Employer and unless exempt, shall abide by the EO clauses set forth at 41 CFR §60-1.4(a), 41 CFR §60-250.5(a), 41 CFR §60-300.5(a), and 41 CFR §60-741.5(a). **These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, creed, religion, color, sex, physical or mental disability, medical condition, genetic information, national origin, age, marital status, domestic partner status, sexual orientation, gender identity, citizenship status, weight, height, arrest record, protected veteran status or any other group status protected by law. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, creed, religion, color, sex, physical or mental disability, medical condition, genetic information, national origin, age, marital status, domestic partner status, sexual orientation, gender identity, citizenship status, weight, height, arrest record, protected veteran status or any other group status protected by law.** We shall also abide by the provisions of, 41 CFR §61-250.10 and 41 CFR §61-300.10 (which relate to veterans' employment reports); and of 29 CFR Part 471, Appendix A to Subpart A (posting of employee notice). All of these clauses are incorporated by reference as terms and conditions of this agreement and are binding to Subcontractors/Vendors. Subcontractors/Vendors may be required to develop their own written affirmative action programs and/or otherwise comply with the regulations of 41 CFR Part 60.

*****

Service or Change Order
Effective Date: 6/16/16

This Service or Change Order ("Order") shall, upon execution of the parties, be incorporated into the Professional Services Agreement between **Des Plaines River Watershed Workgroup** ("Client") and **Geosyntec Consultants, Inc.** ("Consultant/Engineer" or "C/E")dated June 16, 2016.

Project #: TBD ☒ Service Order ☐ Change Order

The form of currency for this Service Order is USD.

Authorized Representatives:

For Client:
Name: Peter Kolb
Address: Des Plaines River Watershed Workgroup
500 W. Winchester Road, Suite 201, Libertyville, IL 60048
Telephone #: 847.377.7125
Email Address: pkolb@lakecountyil.gov

For C/E:
Name: Susan Hill, P.E.
Address: 1420 Kensington Rd., Suite 103, Oak Brook, IL 60523
Telephone #: 630-203-3340
Email Address: shill@Geosyntec.com

Scope of Services and Schedule:

C/E will perform the services in accordance with the scope and schedule set forth in C/E's proposal dated 6/8/2016 ("Proposal") or on separate pages attached to this Service Order and incorporated herein.

Rates and Price:

The total price for this Service Order is:

$108,600 on a time and materials basis which will not be exceeded without Client written consent.

_____ on a lump sum/fixed price basis.

For time and materials services, C/E will invoice Client at the rates set forth in the Agreement. If rates are not included in the Agreement, C/E will invoice Client in accordance with its Proposal and/or current standard rates.

The terms and conditions of the Professional Services Agreement referenced above shall apply to this Service Order. Any modification to this Order must be approved in writing by authorized representatives of the parties.

Acceptance of the terms of this Service Order is acknowledged by the following signatures of the Authorized Representatives.

CLIENT	**CONSULTANT/ ENGINEER**
Signature	Signature
Michael Warner Typed or Printed Name	Susan K. Hill Typed or Printed Name
Executive Director Title	Vice President Title
Date of Signature	Date of Signature

Geosyntec consultants

1420 Kensington Rd., Suite 103
Oak Brook, Illinois 60523
PH 630.203.3340
FAX 630.203.3341
www.geosyntec.com

June 10, 2016

Mr. Peter Kolb, President
Des Plaines River Watershed Workgroup
Lake County Stormwater Management Commission
650 W. Winchester Road
Libertyville, Illinois 60048

Subject: Scope of Work for Technical Support for the Des Plaines River Watershed Workgroup for Fiscal Year 2016 with Alternate End Date of December 1, 2016

Dear Mr. Kolb:

Geosyntec Consultants (Geosyntec) is pleased to provide the Des Plaines River Watershed Workgroup (DRWW) this scope of work to allow for a coordinator to provide technical support to the DRWW from July 1, 2016 through April 30, 2017 with an alternate end date of December 1, 2016 and the development of a database and web browser tool for management of monitoring data. The DRWW and Geosyntec, via Andrea Cline, have an existing relationship and unique qualifications to provide this work effort. We understand that the DRWW is at a crucial point in its development as a water quality improvement workgroup and will work collaboratively and cooperatively with all entities involved in a timely manner to move the group forward in meeting its goals. Below is a brief scope of work and tasks that the contract covers.

SCOPE OF WORK

Geosyntec will provide staff time to serve as the technical coordinator for the DRWW. The coordinator will provide technical expertise as needed, particularly in the continued development and implementation of the monitoring program, coordinating the technical needs of committees and the Executive Board, supporting the continued development of the monitoring program, and other technical tasks, as needed. The technical coordinator will work closely with all participating entities, reporting to the DRWW Executive Board and membership. Geosyntec appreciates the opportunity to continue serving DRWW and is therefore discounting its standard rate for the technical advisor role from $180/hour to $150/hour for this work. We will also develop a relational database and web browser tool to provide the backbone for monitoring data management, access, and analysis. Database development and web browser application will be completed on a time and materials basis according to the rate structure attached, in an amount not to exceed, as detailed below.

Scope of Services

Task 1 - Monitoring Program Development and Support: Geosyntec will continue to provide support in the development and implementation of the monitoring program by providing technically-based input to the Monitoring Committee, Burns & McDonnell, Midwest Biodiversity Institute, Suburban Labs, and other entities as needed. Work items to be completed under this task include assistance in monitoring site finalization; contract adjustment assistance for current contracts; future request for proposals development for monitoring contractors; completion of the map book of monitoring site locations including a map depicting site location specifics including parking, an aerial photograph, and other pertinent site location information; and other work items as directed by the DRWW.

Additionally, a Municipal Separate Storm Sewer System (MS4) National Pollution Discharge Elimination System (NPDES) permit has been released and includes various monitoring requirements and additional chloride conditions. Geosyntec will assist the DRWW in helping members meet the conditions of their permit through the development of a MS4 monitoring plan and report. The monitoring report to provide support for the Publically Owned Treatment Works (POTWs) members to comply with the upstream downstream condition in their NPDES permits is due March 2017. Assistance will be provided in the development of the report.

The deliverable consists of finalizing the monitoring sites (Excel spreadsheet and map book). The map book will be completed within one month of contract execution. Other potential deliverables include contracts, requests for proposals, an MS4 monitoring plan and annual report, and a POTW annual monitoring report. Timelines for potential deliverables will be determined upon the task being assigned.

Task 2 – Illinois EPA Section 319 Grant Related Support: Lake County Stormwater Management Commission (SMC) has received grant funding from Illinois Environmental Protection Agency's (Illinois EPA) 319 program, using the DRWW monitoring data as match. Qualifying for the match requires Illinois EPA approval of a monitoring plan and Quality Assurance Project Plan (QAPP), which has been submitted to the agency for review. Geosyntec will continue to provide support in this effort by addressing review agency comments and making revisions as needed. Labor associated with this effort will be summarized in a separate monthly memorandum and Excel spreadsheet accounting for dates, personnel, hours, and notes for grant reporting purposes. The deliverable is the revised QAPP and the completion data is dependent on receipt of review comments, but will generally be no more than one month after comments are received.

Task 3 – Executive Board, Committees, and Meetings Support: The DRWW work plan is implemented through the work of the Executive Board, Committees, and general membership.

Various meetings are held to discuss and implement the DRWW work plan. Geosyntec will continue to support the DRWW by attending meetings as requested, providing technical support, assisting the administrative support in securing guest speakers for meetings, drafting meeting minutes for those meetings attended, and drafting one page quarterly summaries of DRWW activities intended for distribution to member organizations' staff and elected officials. Deliverables include draft meeting minutes and draft quarterly summaries. Draft meeting minutes will be completed within one week of the meeting and draft quarterly summaries will be available two weeks before a general membership meeting.

Task 4 – Outreach and Membership Recruitment: The DRWW currently represents only a subset of the watershed within the service area. There is potential of additional agency, associate, and individual members to join the DRWW. Geosyntec will help develop a strategy, PowerPoint presentation, and supporting materials to present to potential members. Deliverables consist of a written outreach strategy, a PowerPoint presentation highlighted the work and accomplishments of the DRWW, and supporting materials, as requested. The timeline for completion of the deliverables is two months from contract initiation.

Task 5 – Relational Database Development: Geosyntec will develop a relational database in Microsoft Access that will allow the DRWW to use data collected in a functional, time saving manner. The database development task will include both the development of the structure of the database (tables, fields, relationships), as well as the set of forms and other objects that will serve as the user interface for the database.

To develop the database structure, Geosyntec will review current data formats with the intent of categorizing the data to identify unique datasets and types of data that will result in distinct tables in the database, as well as identifying those datasets with content overlap that could reside in a table or tables that are populated jointly with other data sources. Geosyntec will develop a database schema based in Microsoft Access that is capable of containing the types of data provided and any future datasets that are of the same content and format. The resulting database will provide the framework for which future queries and data management functions are based upon.

The database's user interface (UI) will provide a method for users to interact with the database without a requiring specific knowledge or training on how the inner components of the database work. The UI will contain basic functionality that allows the database to be populated from predefined data transfer formats (such as electronic data deliverable (EDD) files produced by analytical laboratories). A set of forms will guide users through the data entry procedures that will ensure that valid values and overall data integrity are maintained within the database. The UI will also provide basic functionality to extract data from the database using customized "canned" queries and formatting procedures, for example to produce a set of data for a specific data range at a specific river mile.

Geosyntec's final deliverable will consist of a database designed to contain and organize the referenced data sources, as well as tools to facilitate adding data to the database and extracting (querying) data from the database. Geosyntec will not populate the database with data from the data sources as part of this scope of services, except when necessary to test the input/output functionality. Once Geosyntec has all input needed to create the database, the database can be completed within eight weeks.

Task 6 – Database Online Interface: Geosyntec will work with the DRWW to develop a functional web-based tool to be hosted on the DRWW website (www.drww.org) that will allow for an internet-based query of the data published from the DRWW database developed in Task 1 to a 3rd party hosted online database platform. Data queries will be performed through either a retrieve by list interface, or an interactive map that will allow for searching for specific sampling sites presented on a map. The page to support the web-based tool will be created, the page designed, parameter and map-based query interfaces developed, and functionality testing completed.

Geosyntec's final deliverable will consist of a designed page on the DRWW website with both a retrieve by list and map-based interfaces that are able to retrieve data from the third party hosted database (containing data published from the database designed in Task 5), similar to the Geosyntec designed webpage for the DuPage River Salt Creek Workgroup (http://www.drscw.org/Database/retrievedata.html). A small recurring hosting fee will apply to maintain the third party platform. Once Geosyntec has all input needed to create the database online interface, the database online interface can be completed within eight weeks.

ASSUMPTIONS

In preparing this proposal, Geosyntec has attempted to provide the DRWW with a complete package of technical support services anticipated at this time. In doing so, we have made some assumptions including:

- It is assumed that all other tasks not included in the tasks above, including administrative support, will be completed by others. This includes, but is not limited to, agenda development and distribution, meeting scheduling, minutes of meetings not attended, non-technical communication, and website management.

- Compliance with the Illinois Open Meetings Act other than commitments outlined within this scope of services and the following master professional service agreement and work order will be the responsibility of DRWW.

- Except as listed above, all other Illinois EPA Section 319 grant requirements are the responsibility of DRWW.
- Membership billing and other DRWW financial matters is the responsibility of DRWW.
- The Scope of Work, including the database development, will be provided on a time and materials basis.

PROFESSIONAL SERVICES FEE

Geosyntec's proposed professional services fees for the proposed SOW shall be performed on a time and material basis with an estimated budget of **$95,000** as outlined below, for the period of July 1, 2016 through April 30, 2017. Alternatively, a five-month cost of **$59,800** for the time period of July 1, 2016 through December 1, 2016 is provided below. Budget shall not be exceeded without prior written approval. Geosyntec is prepared to proceed with the professional services outlined above upon receipt of a signed Service Order.

Tasks	Cost July 1, 2016-April 30, 2017	Cost July 1-December 1, 2016
1) Monitoring Program Development and Support	$22,000	$9,000
2) Illinois EPA Section 319 Grant Related Support	$8,400	$8,400
3) Executive Board, Committees, and Meetings Support	$20,000	$9,000
4) Outreach and Membership Recruitment	$20,000	$8,800
5) Relational Database Development	$9,300	$9,300
6) Database Online Interface	$15,300	$15,300
Total	**$95,000**	**$59,800**

If you have any comments or questions or if you need additional information, please call Matt Bardol at (630) 203-3368.

Sincerely,

Matt Bardol, P.E., CFM, CPESC, D. WRE
Principal

CC: Mike Warner, Lake County SMC

L1.20160610