AGREEMENT FOR ENGINEERING SERVICES PER SOI#16233

This AGREEMENT is entered into by and between Lake County (County) and Baxter & Woodman, Inc. 8678 Ridgefield Road, Crystal Lake, IL 60012 (hereafter "Engineer").

RECITALS

WHEREAS, Lake County is seeking an Engineer to provide Engineering services for

PW#2016.079 NW Lake Facility Planning Area Regional System Review as described in Attachment A; and

WHEREAS, the Engineer is a professional provider of Engineering services; and

NOW, THEREFORE, Lake County and the Engineer AGREE AS FOLLOWS:

SECTION 1. AGREEMENT DOCUMENTS

This AGREEMENT constitutes the entire agreement between the County and the Engineer.

SECTION 2. SCOPE OF SERVICES

The Engineer shall provide engineering services described in Attachement A

SECTION 3. DURATION

The works shall be completed within ______days after execution of this Agreement.

SECTION 4. INDEMNIFICATION

The Engineer agrees to indemnify, save harmless and defend the County, their agents, servants, and employees, and each of them against and hold it and them harmless from any and all lawsuits, claims, demands, liabilities, losses and expenses, including court costs and attorney's fees, for or on account of any injury to any person, or any death at any time resulting from such injury, or any damage to property, which may arise or which may be alleged to have arisen out of Engineer's negligent acts in connection with the services covered by this Agreement. The foregoing indemnity shall apply except if such injury, death or damage is caused directly by the willful and wanton conduct of the County, their agents, servants, or employees or any other person indemnified hereunder.

SECTION 5. INSURANCE

The Engineer must obtain, for the Contract term and any extension of it, insurance issued by a company or companies qualified to do business in the State of Illinois and provide the County with evidence of insurance. Insurance in the following types and amounts is necessary:

- Worker's Compensation Insurance covering all liability of the Engineer arising under the Worker's Compensation Act and Worker's Occupational Disease Act at statutory limits.
- **Professional Liability** to include, but not be limited to, coverage for Errors and Omissions to respond to claims for loss there from.
 - o General Aggregate Limit \$3,000,000
 - o Each Occurrence Limit \$1,000,000
- Automobile Liability:
 - o Bodily Injury, Property Damage (Each Occurrence Limit) \$1,000,000

Engineer agrees that with respect to the above required Automobile Liability insurance, Lake County shall:

- Be named as additional insured by endorsement to the extent of the negligence of the Engineer;
- Be provided with thirty (30) days notice, in writing, of cancellation of material change;
- Be provided with Certificates of Insurance evidencing the above required insurance, prior to commencement of this Contract and thereafter with certificates evidencing renewals or replacements of said policies of insurance at least fifteen (15) days prior to the expiration of cancellation of any such policies. Forward Notices and Certificates of Insurance to: Lake County Central Services, 18 N. County St, Waukegan, IL 60085-4350.

SECTION 6. AGREEMENT PRICE

Lake County will pay to the Engineer the amount not to exceed \$ 130,450 ...

SECTION 7. INVOICES & PAYMENT

Invoices may be submitted for work performed on a monthly basis based upon the percent of work completed in the amount not-to-exceed in Section 6. Submit invoice(s) detailing the services provided. Payments shall be made in accordance with the Local Government Prompt Payment Act.

Engineer will address Invoices to:

Lake County Department of Public Works 650 Winchester Road Libertyville, IL 60048-1391 Attn: David Humbert

County will make Payments to:

Baxter & Woodman, Inc. 8678 Ridgefield Road, Crystal Lake, IL 60012

SECTION 8. STATEMENT OF OWNERSHIP

The drawings, specifications and other documents prepared by the Engineer for this Project are the property of the County, and Engineer may not use the drawings and specifications for any purpose not relating to the Project without the County's consent, except for the Engineer's services related to this Project. All such documents shall be the property of the County who may use them without Engineer's permission for any current or future Lake County project; provided, however, any use except for the specific purpose intended by this Agreement will be at the County's sole risk and without liability or legal exposure to the Engineer.

The Engineer shall retain its copyright and ownership rights in its design, drawing details, specifications, data bases, computer software, and other proprietary property. Intellectual property developed, utilized, or modified in the performance of the services shall remain the property of the Engineer.

SECTION 9. TERMINATION

The County reserves the right to terminate this Agreement, or any part of this Agreement, upon thirty(30) days written notice. In case of such termination, the Engineer shall be entitled to receive payment from the County for work completed to date in accordance with terms and conditions of this Agreement. In the event that this Agreement is terminated due to Engineer's default, the County shall be entitled to contract for consulting services elsewhere and charge the Engineer with any or all losses incurred, including attorney's fees and expenses.

SECTION 10. JURISDICTION, VENUE, CHOICE OF LAW

This Agreement shall be governed by and construed according to the laws of the State of Illinois. Jurisdiction and venue shall be exclusively found in the 19th Judicial Circuit Court, State of Illinois.

SECTION 11. INDEPENDENT CONTRACTOR

The Engineer is an independent contractor and no employee or agent of the Engineer shall be deemed for any reason to be an employee or agent of the County.

SECTION 12. WARRANTS

The Engineer represents and warrants to the County that none of the work included in this contract will in any way infringe upon the property rights of others. The Engineer shall defend all suits or claims for Engineer's infringement of any patent, copyright or trademark rights and shall hold the County harmless from loss on account thereof.

SECTION 13. ASSIGNMENT

Neither the Engineer nor the County shall assign any duties of performance under this Agreement without the express prior written consent of the other.

SECTION 14. MODIFICATION

This Agreement may be amended or supplemented only by an instrument in writing executed by the party against whom enforcement is sought.

SECTION 15. DISPUTE RESOLUTION

All issues, claims, or disputes arising out of this Agreement shall be resolved in accordance with the Appeals and Remedies Provisions in Article 9 of the Lake County Purchasing Ordinance.

SECTION 16. NO IMPLIED WAIVERS

The failure of either party at any time to require performance by the other party of any provision of this Agreement shall not affect in any way the full right to require such performance at any time thereafter. Nor shall the waiver by either party of a breach of any provision of this Agreement be taken or held to be a waiver of the provision itself.

SECTION 17. SEVERABILITY

If any part of this Agreement shall be held to be invalid for any reason, the remainder of this Agreement shall be valid to the fullest extent permitted by law.

SECTION 18. CHANGE IN STATUS

The Engineer shall notify the County promptly of any change in its status resulting from any of the following: (a) vendor is acquired by another party; (b) vendor becomes insolvent; (c) vendor, voluntary or by operation law, becomes subject to the provisions of any chapter of the Bankruptcy Act; (d) vendor ceases to conduct its operations in normal course of business. The County shall have the option to terminate this Agreement with the Engineer immediately on written notice based on any such change in status.

SECTION 19. DELIVERABLES

Laka County

The Engineer shall provide deliverables as identified in Attachment A.

IN WITNESS HEREOF, the undersigned have caused this Agreement to be executed in their respective names on the dates hereinafter enumerated.

Bayter & Woodman Inc .

Lake County.	Baxter & Woodman, me
Ruth Anne Hall	Derek J. Wold, P.E., BCEE
	Executive Vice President
Purchasing Agent	Executive vice President
Lake County Purchasing Division	
Date:	Date: January 12, 2017

STATEMENT OF INTEREST TO

LAKE COUNTY

SOI No. 16233

Northwest Lake Facility Planning Area (FPA) Regional System Review













Submitted by:

Baxter & Woodman, Inc.

Consulting Engineers 8678 Ridgefield Rd. Crystal Lake, IL 60012 815-459-1260 marketing@baxterwoodman.com

October 14, 2016

ATTACHMENT A



8678 Ridgefield Road, Crystal Lake, Illinois 60012 • 815.459.1260 • baxterwoodman.com

October 14, 2016

Ms. Yvette Albarran Purchasing Officer Lake County Purchasing Division 18 N. County Street, 9th Floor Waukegan, Illinois 60085

Subject: Lake County - SOI No. 16233

Northwest Lake Facility Planning Area (FPA) Regional System Review

Dear Ms. Albarran:

Lake County is spearheading a Northwest Lake Facility Planning Area (FPA) Regional System Review on behalf of the Northwest Lake County FPA Wholesale Technical Advisory Committee (NWTAC). A comprehensive review of the system's infrastructure has not been completed in more than 20 years, and the 10-member NWTAC would like to confirm the major elements of the system are operating effectively and efficiently.

Baxter & Woodman has been providing quality wastewater engineering services for more than 70 years, and we are ideally suited to perform this Regional System Review. We have a diverse and demonstrated background in reviewing wastewater systems, understanding the associated capital costs, and identifying alternatives to improve efficiency. NWTAC members will benefit from our local full service team who will deliver a successful Regional System Review based on:

- **Communication** Building consensus across multiple agencies will be critical for the success of the project. Many of our clients serve multiple communities and we are experienced with handling and assessing multiple priorities to achieve the best outcome. NWTAC members will have access to the latest progress updates and information through regular project status reports and online collaboration tools.
- **Experience** Your study requires expertise in wastewater treatment, collection systems, excess flow, capital planning, and operations. Baxter & Woodman offers a full service team with the diverse experience needed to efficiently evaluate and analyze the sewer system, water reclamation facility, and excess flow facility. We have completed full system audits on water/wastewater systems and energy studies at over 25 facilities.
- **Transparency** The Regional System Review must produce conclusions that are easily understood and rely on nationally accepted standards. We will base our reviews on Environmental Protection Agency regulations and guidance from American Water Works Association, National Association of Clean Water Agencies, and Water Environment Federation manuals and data from similar sized facilities in the area.
- **Impartiality** The Lake County Department of Public Works and the Village of Fox Lake are two of the largest stakeholders in the NWTAC. Baxter & Woodman and our technology subsidiary, BWCSI, have limited work histories with both entities. We will bring a balanced, impartial perspective based on sound engineering principles and proven expertise.



Our in-house staff is prepared to provide practical, cost effective services for the tasks outlined in the Request for Statement of Interest document. Please feel free to contact me at 815-444-3335 or email <code>dwold@baxterwoodman.com</code> if you require any additional information after review of our submittal. We look forward to meeting with you to discuss how we can put our wastewater system expertise to work for NWTAC.

Sincerely,

BAXTER & WOODMAN, INC. CONSULTING ENGINEERS

- Wolal

Derek J. Wold,

Executive Vice President

DJW:se

SCOPE OF SERVICES

I. Regional Sewer System Review

- A. Meet with LCPW and each member agency and identify each member agency's needs and assets.
 - 1. To ensure no time is lost trying to find acceptable dates, Baxter & Woodman will make tentative arrangements for these meetings prior to execution of the engineering agreement.
 - 2. After the engineering agreement makes it through the Lake County PWT Committee, but before it goes to the Lake County Board for final approval, Baxter & Woodman will confirm the dates & times for these meetings.
 - 3. Lake County's Request for Interest included a schedule. That schedule shows the Lake County Board approving the engineering agreement on February 14, 2017 and the purchase order being issued to the consultant on February 21, 2017. If that happens, Baxter & Woodman will attend the February 15, 2017 NWTAC Meeting to introduce itself, explain what it intends to do, and re-confirm the dates and times of these initial meetings.
 - 4. At these initial meetings, Baxter & Woodman and the member agencies will:
 - a. Confirm the current and future dry and wet weather flows.
 - b. Confirm the sanitary sewer overflows.
 - c. Discuss previous, relevant studies and making them available to Baxter & Woodman.
 - d. Discuss the "data request" that Baxter & Woodman will send to each member.
- B. Review relevant studies including, but not limited to, the Previous Studies listed above, and other sanitary sewer system master plans, facility plans, and flow studies that LCPW makes available.
 - 1. Summarize the previously established current and future dry and wet weather flows from each member agency.
 - 2. Summarize the previously determined frequency, location, and magnitude of reported sanitary sewer overflows.
 - 3. Summarize the previously projected 5-year and 20-year needs for rehabilitation or capital improvements for the Northwest Regional Water Reclamation Facility.
- C. Based on each member community's comprehensive/land use plan, water use records and flow monitoring data, develop wastewater flow projections.



- D. Develop a master data request for completion by each member agency.
- E. Host a work session during a bi-monthly NWTAC meeting to review the data request and answer questions. Tentatively, this work session will be at the April 19, 2017 NWTAC meeting.
- F. Evaluate the existing interceptor sewer system's condition, capacity and deficiencies and develop recommendations on where changes could be implemented to improve efficiency and effective operations, including a range of costs to implement the improvements.
- G. Determine the amount of Infiltration/Inflow reduction required to avoid sanitary sewer overflows.
- H. Analyze the capacity of the existing interceptor sewer system for existing and future peak flow conditions.
- I. Determine regional interceptor system improvements necessary to support projected growth.
- J. Prepare a 2016 Five Year Assessment Report for the Northwest Regional Sewer System.

II. Wastewater Treatment and Excess Flow Facilities Review

- A. Meet with the Village of Fox Lake, LCPW, and members of NWTAC and review relevant facility plans, operations and maintenance practices and inter-operational coordination to assess the effective and efficient operations of the Regional System.
- B. Develop a data request for completion by the Village and LCPW.
- C. Host a work session with the Village of Fox Lake, LCPW, and members of NWTAC to review the data request and answer questions. Tentatively, this work session will be at the April 19, 2017 NWTAC meeting.
- D. Review the planning and construction documents for the recently completed Excess Flow Facility, and perform a walk-through of the facility.
- E. Review the existing Northwest Water Reclamation Facility 2015 Five Year Facility Assessment; review the 2016 Phosphorus Removal Feasibility Study, and perform a walk-through of the facility.
- F. Analyze the regional treatment and excess flow system capacity for existing and future peak flow conditions.



G. Evaluate the regional treatment and excess flow systems to determine areas of deficiency and where changes could be implemented to improve efficiency and effective operations, including a range of costs to implement those recommendations. Determine if there are more cost effective solutions than what has been previously planned.

- H. If it is needed, estimate the cost to add excess flow treatment and/or storage and determine if it is advisable to construct it.
- I. Determine the potential improvements and anticipated range of costs to comply with anticipated future regulations.

III. Project Management

- A. Designate and assign a project manager who will act as the primary contact and will be responsible for the consultant's work (including sub consultant work if applicable).
- B. To keep the project on schedule, attend two NWTAC Technical Committee meetings as follows (dates are dependent on Lake County issuing a purchase order to Baxter & Woodman on or before February 21, 2017):

April 19, 2017

Host a work session during the NWTAC meeting, and present a Progress Report, which will include the following information:

- 1. Status of work completed to date.
- 2. Work anticipated to be completed in the next reporting period.
- 3. Problems/Obstacles identified during the reporting period.
- 4. Outstanding issues (items would remain on this list until resolved).

<u>Iune 21, 2017</u>

Present the Full Draft Report to NWTAC.

IV. Deliverables

- A. Prepare a Northwest Regional System Review Report that incorporates all deliverables including the integration of the "Northwest Water Reclamation Facility 2015 Five Year Assessment" and the "2016 Five Year Assessment Report" for the Northwest Regional Sewer System into a "Northwest Regional System Review Report".
- B. Summarize the current and future dry and wet weather flows from existing flow monitoring reports.



C. Define the capacity of the County's existing interceptor sewer system at each key juncture and tributary flows.

- D. Provide a recommendation with respect to the necessity for additional excess flow treatment and/or storage and a range of costs associated for the improvements.
- E. Recommend areas where operations can be improved and where more cost effective solutions are viable.
- F. Define the level of Inflow/Infiltration reduction required to avoid sanitary sewer overflows.
- G. Summarize the 5-year and 20-year needs for rehabilitation or capital improvements for NWRWRF as identified in the previously completed reports.
- H. Summarize the potential impacts of future regulatory issues and anticipated range of costs of compliance.
- I. Prepare an analysis of the capacity of the regional systems for existing and future peak flow conditions.
- J. Determine system requirements to accommodate future flows based on design criteria developed through review of water use records, flow monitoring data, and wastewater flow projections.

V. Final Reports & Presentations

- A. Prepare a written report describing the work performed, findings and recommendations.
 - 1. Submit twelve (12) hardcopies of the full draft report and one digital PDF of the report for the NWTAC to review.
 - 2. Present the draft report to the NWTAC. After presenting the report to the NWTAC, discuss (at the same meeting) comments, modifications, and revisions.
 - 3. Incorporate the comments from the NWTAC into the full draft report.
- B. Prepare an executive summary no greater than ten (10) pages, which clearly states the outcomes of the Northwest Regional System Review and makes recommendations for effective and efficient operations of the Northwest Regional System.
 - 1. Submit twenty four (24) hardcopies of the executive summary and one digital PDF of the report.
 - 2. Present the report to the NWPAC. After presenting the report to the NWPAC, discuss (at the same meeting) comments, modifications, and revisions.



3. Incorporate the comments from the NWPAC into the final written report and executive summary

C. Upon completion of the presentations and incorporation of the comments, modifications, and revisions, collate the final written report and executive summary into one bound document and deliver twenty (20) hardcopies and 1 digital PDF of the report to the NWTAC

VI. Cost Effectiveness & Efficiency Review (optional services)

- A. Review user rates, connection fees, budgets, and expenditures of the member agencies and regional systems.
- B. Assemble and benchmark costs and rates for transport and treatment relative to other similar sized systems.
 - 1. Lake County's Request for Statement of Interest included this task in the base services. We have moved it into Optional Services because it is closely associated with the review of user rates, connection fees, budgets, and expenditures.
- C. Meet with the Village of Fox Lake, Lake County and members of NWTAC and review budgets, and expenditures to assess the effective and efficient operations of the regional systems.
- D. Deliver a summary of the operational, maintenance and replacement costs associated with each facility (NWRWRF and Excess Flow Treatment Facility).
- E. Deliver a comparison of O, M &R costs for similarly sized facilities, with similar NPDES permit requirements, influent characteristics and biological processes, throughout the nation based on published WEF or NACWA data.



PROJECT MANHOURS & FEES

BASE SERVICES

TASK		ESTIMATED	TASK
NO.	PROJECT TASK	HOURS	FEE
I. A. 1.	Make tentative arrangements for initial meetings with each NWTAC member	2	\$370.00
I. A. 2.	Confirm arrangements for initial meetings with each NWTAC member	1	\$190.00
I. A. 3.	Attend the 2/15/17 NWTAC Mtg to introduce ourselves & explain project	4	\$810.00
I. A.	Meet with each of the 10 member agencies to ID their assets	48	\$6,590.00
I.B.	Review previous studies	56	\$6,200.00
I. C.	Flow projections	24	\$1,940.00
I. D.	Develop a master data request for completion by each NWTAC member	11	\$1,210.00
I. E.	Work session at 4/19/17 NWTAC mtg to review data request & answer questions	8	\$1,460.00
I. F.	Evaluate existing collection/transmission systems	34	\$3,560.00
I. G.	Determine I/I reduction to avoid SSOs	20	\$1,900.00
I. H.	Analyze capacity of existing system for existing & future flows	26	\$2,990.00
l. l.	Determine needed regional interceptor improvements	90	\$7,600.00
l. J.	Prepare 2016 5-year Assessment Report for NW Reg Sewer System	28	\$2,930.00
II. A.	Meet with Fox Lake & LCPW to review Fac Plans, O&M, etc.	72	\$8,710.00
II. B.	Develop a data request for completion by LCPW & Fox Lake	2	\$160.00
II. C.	Work session 4/19/17 w/Fox Lake, LCPW, & NWTAC to review data request & answer questions	Included in I. E.	
II. D.	Excess Flow Facility: review planning/construction documents & walk-through	20	\$3,040.00
II. E.	WRF: review 5-year Assessment and P Feasibility Study, & walk-through	20	\$2,970.00
II. F.	Analyze capacity of existing system for existing & future flows	70	\$8,840.00
II. G.	Determine areas of deficiency & possible changes, & cost-effective solutions	98	\$11,700.00
II. H.	Estimate cost of additional excess flow treatment/storage	27	\$3,330.00
II. I.	Determine cost impact of future regulations	25	\$3,090.00
III. A.	Project Management	40	\$7,420.00
III. B.	Attend 2 NWTAC Tech Committee Meetings to give Progress Reports	Included in I.E., V.A.2.	
IV.	Deliverables	Included in other tasks	
V. A.	Prepare written report	58	\$7,000.00
V. A. 1.	12 hard copies of full draft report	Expenses only - no hours	
V. A. 2.	Present the Draft Report to NWTAC on 6/21/17, & discuss comments	8	\$1,470.00
V. A. 3.	Incorporate comments	17	\$2,200.00
V. B.	Prepare executive summary report (10 pages)	Included in V.A.	
V. B. 1.	24 hard copies of executive summary	Expenses only - no hours	
V. B. 2.	Present the 2nd Draft Report to NWPAC, & discuss comments	16	\$2,450.00
V. B. 3.	Incorporate comments into executive summary	12	\$1,450.00
V. C.	Final Report - 20 hard copies	9	\$780.00
	TOTAL ESTIMATED HOURS/FEE FOR BASE SERVICES	846	\$102,360



OPTIONAL SERVICES

TASK NO.	PROJECT TASK	ESTIMATED HOURS	TASK FEE
VI. A.	Review user rates, connection fees, budgets, & expenditures	58	\$8,530.00
VI. B.	Assemble/benchmark cost/rates for similar transport/treatment systems	32	\$4,200.00
VI. C.	At NWTAC Mtg, review budgets/expenditures for efficient/effective operation	14	\$2,000.00
VI. D.	Deliver summary of OMR of WRF & Excess Flow Facility	60	\$8,550.00
VI. E.	Deliver comparison of OMR across nation	39	\$4,810.00
	TOTAL ESTIMATED HOURS/FEE FOR OPTIONAL SERVICES	203	\$28,090

Project Schedule
Page 11

PROJECT SCHEDULE

Efficient delivery of services will result in a project that is completed within your desired timeframe. Below is our proposed schedule. We have included additional tasks - shown in blue - to those presented in the schedule in the Request for Statements of Interest. These additional tasks break down the effort to produce the report in more detail.

PROJECT TASK	COMPLETION DATE
LCPW finalizes consultant agreement	01/16/17
B&W makes tentative arrangements for initial meetings with NWTAC members	01/20/17
Lake County PWT Committee Mtg.	02/08/17
B&W confirms initial meetings with NWTAC members	02/10/17
Lake County Board Meeting	02/14/17
B&W attends NWTAC Meeting	02/15/17
Purchase Order issued to B&W	02/21/17
B&W meets with LCPW	02/24/17
B&W meets with Village of Fox Lake	03/03/17
B&W meets with Hainesville, Round Lake Beach, Round Lake Park, Round Lake, Round Lake Sanitary District, Harbor Ridge Utilities, Lakes Region Sanitary District	03/03/17
B&W receives previous studies	03/10/17
B&W reviews previous studies	03/24/17
B&W develops flow projections	03/31/17
B&W develops a master data request & sends it to NWTAC members	03/10/17
B&W evaluates existing interceptor system condition, capacity, & deficiencies, and recommends improvements	03/17/17
B&W determines the amount of I/I reduction req'd to avoid SSOs	03/17/17
B&W reviews planning & construction documents for Excess Flow Facilty & does walk-through	03/24/17
B&W reviews 2015 Facility Plan & 2016 P Study, & does walk-through of the WRF	03/24/17
B&W analyzes interceptor system, Excess Flow Facility, & WRF for existing & future Q peak	03/31/17
B&W determines preliminary interceptor system improvements required for projected growth	04/07/17
B&W evaluates WRF & Excess Flow Facility for deficiencies and determines preliminary changes to improve efficiency & effective operation	04/14/17
B&W hosts a work session during a NWTAC meeting	04/19/17
B&W finalizes interceptor system improvements required for projected growth	05/03/17
B&W finalizes WRF & Excess Flow Facility changes to improve efficiency & effective operation	05/10/17
B&W prepares 2016 Five-Year Assessment Report for interceptor system	05/17/17
If needed, B&W estimates cost to add Excess Flow treatment/storage & determines if construction is advisable	05/24/17
B&W determines potential improvements/cost to meet anticipated regulations	05/31/17
Completion – Full Draft Report (4 months after Purchase Order issued)	06/16/17
Presentation of Report to NWTAC	06/21/17
Completion – Summary Report	07/05/17
Presentation of Report to NWPAC	07/12/17
Submit Final Report	07/31/17



C. PROJECT MANAGEMENT TEAM

With Baxter & Woodman, the County will receive a **full service team** of wastewater, process, operations, and user rate specialists who collaborate regularly on similar projects. **This in-house expertise allows us to expedite your schedule, keep costs down, and respond quickly to requests.** We do not anticipate the need for subconsultant services.

