

**HIGHLINE WATER DISTRICT
King County, Washington**

RESOLUTION 16-3-2D

RESOLUTION AUTHORIZING CONSULTANT AGREEMENT #16-50-08 WITH CONFLUENCE ENGINEERING GROUP LLC FOR BLENDING STUDY RELATING TO PROJECT 14-2 560 ZONE LAKEHAVEN UTILITY DISTRICT SOUTH SUPPLY

WHEREAS, Lakehaven Utility District), a regional partner in the new Tacoma Treatment Plant, began receiving filtered water from the source in 2015; and

WHEREAS, Lakehaven approached the District to discuss selling an average of 2.0 MGD to Highline; and

WHEREAS, the benefit of purchasing water from LUD is to have a redundant source of supply at a lower cost than Seattle Public Utilities (SPU), to help boost the hydraulic grade line in the southern portion of HWD, and to give additional operational flexibility to the District; and

WHEREAS, the District gave a 5-year notice to SPU in August 2011 of its intention to purchase water from LUD in 2016, as required by the Partial Services Contract between the agencies; and

WHEREAS, the District selected Confluence Engineering Group LLC (Confluence) from the MRSC Consultant Roster to provide a scope of work; and

WHEREAS, the Confluence scope of work includes the following tasks: (1) Project Management; (2) Conduct Blending Analysis; and (3) Evaluate Optimal Water Quality Parameters; and

WHEREAS, the District's Engineer and General Manager have reviewed the 2/25/16 Scope of Work submitted by Confluence Engineering Group LLC and recommend approval of this resolution.

NOW, THEREFORE, BE IT RESOLVED:

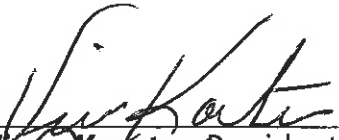
1. The General Manager or designee is authorized to enter into Contract #16-50-08 with Confluence Engineering Group LLC (Attachment 1, incorporated herein by this reference), for a not-to-exceed amount of \$32,510.00.
2. The General Manager and/or the District's Legal Counsel are authorized to make minor changes to the agreement if required.

**HIGHLINE WATER DISTRICT
King County, Washington**

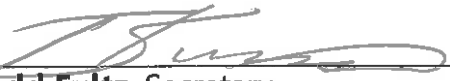
RESOLUTION 16-3-2D

ADOPTED BY THE BOARD OF COMMISSIONERS of Highline Water District, King County, Washington, at an open public meeting held this **2nd** day of **March 2016**.

BOARD OF COMMISSIONERS



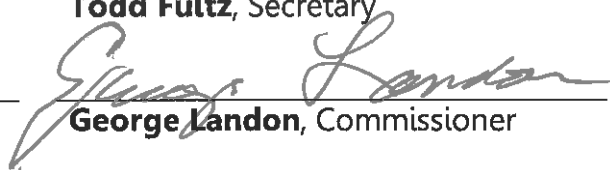
Vince Koester, President



Todd Fultz, Secretary



Daniel Johnson, Commissioner



George Landon, Commissioner



Kathleen Quong-Vermeire, Commissioner

**HIGHLINE WATER DISTRICT
AGREEMENT FOR CONSULTING SERVICES**

THIS AGREEMENT is entered into between **HIGHLINE WATER DISTRICT**, King County, Washington, a municipal corporation and special purpose district organized and existing under the laws of the State of Washington (hereafter referred to as "the District"), and **CONFLUENCE ENGINEERING GROUP LLC**, (hereafter referred to as "the Consultant") in consideration of the mutual benefits, terms and conditions hereinafter specified.

1. Scope of Consulting Services. Consultant shall provide consulting services to the District under the terms of this Agreement for the following Project: **Blending Study with Lakehaven Utility District** ("Project"). The scope of services is more fully described on **Exhibit A** attached hereto and incorporated herein by this reference.
2. Compensation and Payment. District shall pay Consultant for the time and materials devoted to the Project as consideration for the performance of the services set forth on **Exhibit A**, not to exceed the amount of Thirty Two Thousand Five Hundred Ten and 00/100 Dollars (\$32,510.00). Such compensation shall be payable in the following manner:
 - 2.1 Consultant shall submit a detailed monthly billing for all services provided describing in reasonable and understandable detail the services rendered, fees charged and expenses incurred by Consultant during the previous month in accordance with a schedule of rates and charges set forth on **Exhibit A**, including fees and expenses for additional services authorized by District as provided herein. District shall pay the invoice within thirty (30) days of receipt, except as to any disputed amounts.
 - 2.2 Upon District's failure to pay within thirty (30) days of receipt the undisputed amount set forth in any monthly billing submitted to District by Consultant, such unpaid balance will bear interest at the rate of 1% per month until the amount of such unpaid balance, plus interest thereon shall be paid in full.
 - 2.3 Consultant shall maintain accounts and records of fees billed and expenses incurred as described in this Section 2 in accordance with generally accepted accounting principles, and agrees to make such accounts, records and supporting documentation available to the District and its authorized representatives for inspection at mutually convenient times, both during the Project work and for three (3) years following the final payment for services rendered or termination of the Consultant's services under this Agreement.
3. Schedule of Work. Consultant shall commence the performance of its services under this Agreement upon receipt of notice to proceed from the District to do so and shall provide the services in accordance with the schedule on **Exhibit A**, subject to delays for causes beyond the reasonable control of Consultant or as otherwise agreed to by District.

4. Subcontractors. Consultant shall not subcontract or assign any portion of the work covered by this Agreement without the prior written approval of the District, such consent to be given in District's sole discretion. Subject to the provisions of the preceding sentence, this Agreement shall be binding upon and inure to the benefit of the respective successors and assigns of the parties hereto.
5. Independent Contractor. Consultant is an independent contractor and not an employee of the District. Consultant shall be responsible in full for payment of its employees, including insurance and deductions, and for payment to any subcontractors. No personnel employed by Consultant shall acquire any rights or status regarding the District. All of the services required hereunder shall be performed by Consultant or under its direction, and all personnel engaged therein shall be fully qualified under applicable state, federal and local laws to undertake the work performed by them.
6. Changes in Scope of Services. The District may require changes or modifications in the scope of services to be performed under this Agreement. Any such changes or modifications shall be in writing and signed by the parties to this Agreement. The compensation for the changes or modifications, whether a decrease or increase, shall be on the same terms and conditions as set forth in Paragraph 2 above or in a manner otherwise mutually agreed to by the parties.
7. Insurance. Consultant shall maintain throughout the performance of this Agreement the following types and amounts of insurance.
 - 7.1 Comprehensive vehicle liability insurance covering personal injury and property damage claims arising from the use of motor vehicles with combined single limits of One Million Dollars (\$1,000,000).
 - 7.2 Commercial General Liability Insurance written on an occurrence basis with limits no less than One Million Dollars (\$1,000,000) combined single limit per occurrence and Two Million Dollars (\$2,000,000) aggregate for personal injury, bodily injury and property damage. Coverage shall include, but not be limited to: blanket contractual; products/completed operations; broad form property damage; explosion, collapse and underground (XCU) if applicable; and employer's liability; and
 - 7.3 Professional liability insurance (Errors and Omissions insurance) with limits no less than Two Million Dollars (\$2,000,000).

The insurance policies shall: (1) state that coverage shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability; (2) be primary to any insurance maintained by the District, except as respects losses attributable to the sole negligence of the District; and (3) shall state that the District will be given 45 days prior written notice of any cancellation, suspension, non-renewal or material change in coverage.

The District shall be named as an additional insured on the Commercial General Liability Insurance policy with regard to work and services performed by or on behalf of the Consultant and a copy of the endorsement naming the District as an additional insured shall be attached to the Certificate of Insurance.

Before commencing work and services, Consultant shall provide to the District a Certificate of Insurance and required endorsements evidencing the insurance described above. The District reserves the right to request and receive a certified copy of all required insurance policies.

The above insurance limits do not constitute a limit on Consultant's liability to the District. Any payment of deductible or self-insurance retention shall be the sole responsibility of Consultant.

Consultant shall be solely responsible for the safety of its employees and subcontractors at the Project work site, and shall comply with all applicable federal, state and local statutes, regulations and ordinances regarding safety.

8. Indemnification. Consultant shall defend, indemnify and hold harmless the District, its elected and appointed officers, employees and agents and volunteers from and against all claims, injuries, damages, liabilities, losses of suits, including attorneys' fees and costs, arising out of or relating to Consultant's errors and omissions under this Agreement, except for injuries or damages caused by the sole negligence of the District. For the purposes of this indemnification, Consultant specifically and expressly waives any immunity granted under the Washington Industrial Insurance Act, Title 51 RCW. This waiver has been mutually negotiated and agreed to by the parties. If a court of competent jurisdiction determines that this contract is subject to RCW 4.24.115, Consultant's obligation to defend, indemnify and hold harmless the District, its officers, employees, agents and volunteers shall be limited to the extent of Consultant's negligence. The provisions of this Section shall survive the expiration of termination of this Agreement.
9. Ownership of Documents. Consultant agrees to return to District upon termination of this Agreement all documents, logs, drawings, photographs and other written or graphic material, however produced, received from District and used by Consultant in performance of its services hereunder. All documents, logs, drawings, specifications, designs, mylars, surveys, survey data, reports and other work product (collectively referred to as "Work Product") produced by Consultant in connection with the services rendered under this Agreement shall be owned by District upon payment to Consultant. District shall own all copyrights to such Work Product and Consultant agrees to assign all ownership rights to such Work Product to the District upon payment to Consultant. Reuse of any such Work Product by the District for other than a specific project or modification in use by the District of any of the Work Product without the Consultant's prior written approval shall be at the District's sole risk.
10. Standard of Care. Consultant warrants that its services shall be performed with the level of care, skill and competence of the consulting profession in accordance with the standard for professional services at the time the services are rendered.
11. Right of Entry. District shall provide for the right of entry of Consultant and its subcontractors and all necessary equipment in order to complete the services under this Agreement.

12. Compliance with Codes and Standards. Consultant's Professional Services shall be consistent with the standard of care and shall incorporate those publicly known federal, state and local laws, regulations, codes and standards that are applicable at the time Consultant renders its services.
13. Discovery of Hazardous Materials. The Parties recognize that unanticipated hazardous materials or suspected hazardous materials may be discovered on District's property or on property included as part of the site of work but not owned by District. The discovery of unanticipated hazardous materials may delay the Consultant's provision of the services required herein. In that event, the parties may extend the Contract Completion Date by mutual agreement.
14. Termination. This Agreement may be terminated by either Party upon five (5) days written notice for any reason. In the event of termination, Consultant shall be entitled to compensation for all services performed and costs incurred through and including the date of termination, except as to any disputed amounts.
15. General Provisions.
 - 15.1 Notices. Any notice or demand desired or required to be given under this Agreement shall be in writing and deemed given when personally delivered, sent by facsimile machine, or deposited in the United States Mail (or with an express courier), postage prepaid, sent certified or registered mail, and addressed to the parties as set forth below or to such other address as either Party shall have previously designated by such a notice:

<u>To the District:</u>	<u>To the Consultant:</u>
Highline Water District 23828 30th Ave. S. Kent, WA 98032	Confluence Engineering Group LLC 517 NE 92nd St Seattle, WA 98115
Attn: Matt Everett, General Manager	Attn: Melinda Friedman, PE, President
 - 15.2 Entire Agreement. This Agreement and its exhibit attachments contain the entire understanding between the District and Consultant relating to the consulting services which are the subject of this Agreement. This Agreement merges all prior discussions, negotiations, letters of understanding or other promises whether oral or in writing. Subsequent modification or amendment of this Agreement shall be in writing and signed by the parties to this Agreement.
 - 15.3 Waiver. Waiver of any breach or default hereunder shall not constitute a continuing waiver or a waiver of any subsequent breach either of the same or of another provision of this Agreement.
 - 15.4 No Third Party Rights. This Agreement is made only for the benefit of the District and Consultant and successors in interest and no third party or person shall have any rights hereunder whether by agency, as a third party beneficiary, or otherwise.

- 15.5 Jurisdiction/Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Washington. Any suit to enforce or relating to this Agreement shall be brought in King County Superior Court, King County, Washington.
- 15.6 Severability. If any term, covenant or condition of this Agreement is held by a court of competent jurisdiction to be invalid, the remainder of this Agreement shall remain in effect.
- 15.7 Effective Date. The effective date of this Agreement shall be the date that this Agreement has been signed by authorized representatives of both Parties hereto ("Effective Date").

CONFLUENCE ENGINEERING GROUP LLC
("Consultant")

By _____
Typed Name Melinda Friedman, PC
Its President
Dated _____

HIGHLINE WATER DISTRICT
("District")

By _____
Typed Name Matt Everett
Its General Manager
Dated _____



**EXHIBIT A
HIGHLINE WATER DISTRICT
BLENDING STUDY
SCOPE OF WORK**

BACKGROUND

Highline Water District (the District) is considering purchasing water from Lakehaven Utility District (Lakehaven). This new supply would be connected to the south end of the District's distribution system, and would consist of 100% filtered Tacoma water, wheeled through Lakehaven's distribution system. Currently, all of the District's sources are in the north, and water flows from north to south. The District would like to assess potential water quality and hydraulic impacts of bringing on a new supply from the south. Confluence will perform a blending study to evaluate potential water quality and operational impacts that might result from the introduction of treated Tacoma Water at the southern end of the District's distribution system. The District will retain Carollo Engineering to conduct any hydraulic modeling that may be needed to understand operational impacts and needed operational modifications.

Additionally, the District has been asked by DOH to demonstrate compliance with Optimal Water Quality Parameter (OWQP) provisions of the Lead and Copper Rule. Confluence will review finished water corrosion-related characteristics, verify OWQP goals, and summarize compliance status.

The Confluence scope of work is presented below.

TASK 1 - PROJECT MANAGEMENT

Objectives

Confluence will organize and manage the project to fulfill the project objectives described in this Scope of Work.

Confluence Activities

1. Manage budget and schedule.
2. Prepare monthly progress reports and invoices.

District Responsibilities

1. Review invoices and submit payment per the terms provided with the invoice.

Deliverables

1. Monthly progress reports and invoices.

TASK 2 – CONDUCT BLENDING ANALYSIS

Objective

To develop an understanding of existing conditions and current and planned operations and to identify conditions that may impact regulatory compliance and aesthetic water quality parameters due to blending with Tacoma surface water.

Confluence Activities

1. Prepare data request that identifies key water quality parameters, pipe materials, and operating scenarios within the proposed blended region of the District’s distribution system.
2. Review information provided by the District and identify data gaps.
3. Prepare a monitoring plan to fill key data gaps and discuss with the District. Monitoring plan to identify parameters, methods, frequencies, and locations.
4. Prepare for and assist with one day of on-site support collecting needed data from monitoring locations identified by the District, including a sample from Lakehaven at the approximate location of the proposed intertie. Additional follow-up monitoring (if any) to be conducted by the District.
5. Work with Lakehaven and Tacoma Water to obtain filtered finished water and distribution system quality parameters to be used in blending analysis.
6. Conduct conference call with District to select up to 3 blending scenarios and boundary conditions. Two boundary conditions will be evaluated for each blending scenario, for a total of 6 blending conditions.
7. Any hydraulic modeling required to assess hydraulic feasibility of blending the supplies has been or will be conducted by others. Work with hydraulic modelers to provide input on scenarios to perform and review results.
8. Conduct Desk-Top Blending Evaluation using AWWA models (RTW4 and RTWBlend), and in-house spreadsheet models. Verify ranges of key parameters such as pH, alkalinity, DIC, iron, manganese, and hardness as a function of blending scenario and boundary condition.
9. Based on predicted blended water quality, evaluate and recommend modifications to distribution system operational protocol (chemical disinfection, fluoridation, flushing programs, and corrosion control).
10. Identify potential water age issues associated with changed hydraulic operations and evaluate and recommend modifications to system operational protocols to these issues.
11. Prepare bullet list of key findings and recommendations.
12. Participate in a 1.5 hour meeting with the District to review key findings and recommendations.
13. Prepare draft and final Technical Memoranda.

District Responsibilities

1. Provide requested data and information.
2. Facilitate communications with Tacoma Water.
3. Participate in conference call.
4. Review deliverables provided by Confluence.
5. Attend project meeting.
6. Will facilitate communication with hydraulic modelers (Carollo).
7. Aside from one day of joint monitoring, District will conduct any required additional water quality monitoring and will pay all external laboratory fees.

Deliverables

1. Monitoring plan to fill data gaps.
2. Bullet-point summary of key findings and recommendations.
3. Draft and Final Technical Memoranda.

TASK 3 – EVALUATE OPTIMAL WATER QUALITY PARAMETERS

Objectives

To review the District’s current compliance with LCR OWQP goals. Where possible, this effort will be conducted in conjunction with Task 2. For example, this task will not require a separate data request.

Confluence Activities

1. Summarize SPU’s OWQP.
2. Assess corrosion-related characteristics associated with the District’s well sources.
3. Assess corrosion-related conditions within Highline’s distribution system, including data collected for compliance with the Lead and Copper Rule.
4. Conduct sampling, if needed. This effort would be conducted in conjunction with sampling conducted as part of Task 2.
5. Review data.
6. Recommend updated OWQP goals and summarize requirements for complying with goals.
7. Prepare draft and final Technical Memoranda.

District Responsibilities

1. Provide requested data and information.
2. Facilitate communications with SPU, if needed.
3. Review deliverables provided by Confluence.

Deliverables

1. Monitoring plan to fill data gaps, if needed. Will be conducted at same time as executing Task 2 monitoring plan.
2. Findings will be included in the Draft and Final Technical Memoranda developed for Task 2.

FEE ESTIMATE

The estimated fee for the work described in this Scope of Work is provided in the table below. Fee estimate assumes all work will be completed in 2016.

Highline Water District - Blending and OWQP Study								
Fee Estimate								
Task	Friedman	Hanson	Hallett	Total	Labor	Direct	Total	
	Project Principal/ Manager	Project Engineer	Admin and Data Analysis	Hours	Total	Costs	Budget	
	\$200	\$143	\$113		(\$)	(\$)	(\$)	
1.0 Project Management	6	4	4	14	\$2,224		\$2,224	
2.0 Conduct Blending Analysis	28	82	20	130	\$19,586	350	\$19,936	
2.1 Prepare Data Request	1	4		5	\$772			
2.2 Review Information and Identify Data Gaps	2	8		10	\$1,544			
2.3 Prepare Monitoring Plan to Fill Data Gaps		4	2	6	\$798			
2.4 Prepare for and Assist with One Day of Monitoring ¹		2	16	18	\$2,094	\$300		
2.5 Review Tacoma Water Data	2	4		6	\$972			
2.6 Conference Call to Select Blending Scenarios	1	2		3	\$486			
2.7 Work with Hydraulic Modelers ²	2	4		6	\$972			
2.8 Conduct Desk-Top Blending Analysis	4	12	2	18	\$2,742			
2.9 Identify Needed Modifications to Treatment	2	8		10	\$1,544			
2.10 Identify Potential Water Age Issues/Operational Modifications ¹	2	4		6	\$972			
2.11 Prepare Bullet List of Key Findings and Recommendations	4	8		12	\$1,944			
2.12 Meet with District to Discuss Results	4	6		10	\$1,658	\$50		
2.13 Prepare Draft and Final Technical Memoranda	4	16		20	\$3,088			
3.0 Evaluate OWQP	16	50	0	66	\$10,350	0	\$10,350	
3.1 Summarize SPU OWQP	2	6			\$1,258			
3.2 Assess Source Corrosion Traits	2	6			\$1,258			
3.3 Assess DS Corrosion Conditions ⁴	2	8			\$1,544			
3.4 Review Data	2	8			\$1,544			
3.5 Recommend Updated OWQP Goals	2	8			\$1,544			
3.6 Discuss with District and DOH	2	2			\$686			
3.7 Prepare Draft and Final Technical Memoranda	4	12			\$2,518			
Totals	50	136	24	210	\$32,160			
Costs	\$10,000	\$19,448	\$2,712		\$32,160	\$350	\$32,510	

Notes: ¹ Direct costs include travel and use of Confluence field equipment and reagents. District to pay external laboratory fees.

² District to contract separately with hydraulic modeling firm.

³ Hydraulic modeling to be conducted by others.

⁴ Sampling will be included with Task 2.4.

Agenda Item No.: 5.4
Agenda Date: 03/02/16
Reviewed By: BJ

Subject: Resolution authorizing consultant agreement #16-50-08 with Confluence Engineering Group LLC for Blending Study relating to Project 14-2 560 Zone Lakehaven Utility District South Supply

CATEGORY	
<i>Executive</i>	<input type="checkbox"/>
<i>Administrative</i>	<input type="checkbox"/>
<i>Engineering/Operations</i>	<input checked="" type="checkbox"/>

FINANCIAL						
<i>Expenditures?</i>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Budgeted?</i>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>		
				<i>Amount:</i> \$ <u>32,510.00</u>		

Attachments:

1. Resolution 16-3-2D
2. Attachment 1 – Consultant Agreement #16-50-08

Comments:

The District selected Confluence Engineering Group LLC from the MRSC Consultant Roster to provide a scope of work.

The District's Engineer and General Manager have reviewed the 2/25/16 Scope of Work submitted by Confluence Engineering Group LLC and recommend approval of this resolution.

Staff recommends approval of this resolution.