

AMENDMENT NO. 2

CONTRACT NO. 30000651

FOR

Cryptosporidium Data Review and Analysis

Pursuant to Ordinance No. \_\_\_\_\_

This Contract was made and entered by and between Clancy Environmental Consultants, Inc., hereinafter called Contractor, and the City of Portland, a municipal corporation of the State of Oregon, by and through its duly authorized representatives, hereinafter called City.

- 1. The Portland Water Bureau (PWB) submitted a proposed sampling plan to the United States Environmental Protection Agency (EPA) which was returned to them with recommendations for additional analyses and data that would convince EPA that the Bull Run Source meets the conditions specified in LT2 for granting the variance.

Additional compensation is required for the completion of the Cryptosporidium Data Review and Analysis. Progress has been made at interpreting these requirements from EPA however, additional complications have emerged that resulted from additional sampling and from efforts to expand the sample volumes. These complications have led to delays in the start of monitoring and have also resulted in the need for additional analytical method evaluation and statistical consulting. Since the execution of the contract, the EPA has become more specific in terms of the statistically valid data required and how the City should demonstrate the efficacy of the proposed sampling method. In order to satisfy these new EPA requirements for the final variance sampling plan to be submitted for EPA approval, the additional tasks as identified in Attachment 1 of this amendment shall be required to be completed in addition to the original tasks stated in the Contract.

- 2. Additional compensation is necessary and shall not exceed \$136,000. The additional compensation shall bring the total maximum compensation payable to the Contractor not to exceed \$223,500.

All other terms and conditions shall remain unchanged and in full force and effect.

CONTRACTOR SIGNATURE:

This contract amendment may be signed in two (2) or more counterparts, each of which shall be deemed an original, and which, when taken together, shall constitute one and the same contract amendment.

The parties agree the City and Contractor may conduct this transaction by electronic means, including the use of electronic signatures.

Clancy Environmental Consultants, Inc.

By: J Clancy Date: 20 Oct 2009

Name: Jennifer D. Clancy

Title: President

Address: PO Box 314, Saint Albans, VT 05478

Telephone: 802-527-2460

Contract No. 30000651 Amendment/Change Order No. 2

Contract Title: Cryptosporidium Data Review and Analysis

CITY OF PORTLAND SIGNATURES:

By: \_\_\_\_\_  
Purchasing Agent

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Elected Official

Date: \_\_\_\_\_

Approved:

By: \_\_\_\_\_  
Office of City Auditor

Date: \_\_\_\_\_

Approved as to Form:

By: APPROVED AS TO FORM  
Office of City Attorney

Date: 10/23/09

*Amela Mengesha*  
CITY ATTORNEY

**ATTACHMENT 1**  
**AMENDMENT NO. 2**  
**CONTRACT NO. 30000651**

**Cryptosporidium Data Review and Analysis**

The Contractor shall complete the following additional tasks in addition to the tasks described in the original scope of work:

**Task 1**

**Statistical Analysis and Design**

The Contractor shall review comments and analysis done by the Environmental Protection Agency (EPA) and other Portland Water Bureau (PWB) Contractors. The Contractor shall develop questions and options to be presented to appropriate groups. Where necessary the Contractor shall review analyses done by EPA to evaluate the approaches taken and shall identify and explain limitations with the analyses or other ways that the data and results can be interpreted. The Contractor shall develop options that are based on statistically rigorous approaches for sampling, data analysis and data interpretation. The Contractor shall produce reports that summarize options, approaches and results of analyses.

The Contractor shall support the design of the variance monitoring program and shall work with EPA to detail the requirements and the analyses that are performed on the data.

The Contractor shall also support design of any monitoring required to define the Quantitative Microbial Risk Assessment models and shall help in the data management and analyses of these data.

**Task 2**

**Microbiological Consulting**

The Contractor's Senior Microbiological staff shall assist with method assessment so that PWB is able to present a method to EPA that shall meet EPA's approval for use in the LT2 variance study and be acceptable to the scientific community. This work may include but is not limited to seeding and recovery studies, data review, analysis of PWB samples, etc.

For analysis of PWB samples, the Contractor shall provide an individual laboratory results sheet for each sample analyzed. For any groups of samples analyzed at the same time, the Contractor shall also provide a written report summarizing the analysis and results of the group of samples, as appropriate.

**Task 3**

**Plan communication with United States Environmental Protection Agency (USEPA)**

The Contractor shall present results from Task 1 and 2 to PWB to discuss possible communications with USEPA. The purpose of these communications shall be to present proposed additional work including data analyses, modeling, monitoring and further method validation that might be used to continue pursuit of the LT2 variance and get feedback from USEPA prior to proceeding with these efforts.

**Task 4**

**Interactions with EPA to Inform Next Steps in Pursuit of the Variance**

Based on the results of Tasks 3 and 4, the Contractor shall participate in discussions with EPA as directed by PWB and shall document the positions and recommendations of the USEPA. All discussions with the EPA shall be coordinated with PWB. Based on the feedback the Contractor shall assist PWB to finalize plans for the next phase of pursuit of the variance. This may include a single or multiple components including:

- Additional data gathering;
- Further statistical analyses;
- Method validation for larger sample volumes; and
- Quantitative Microbial Risk Assessment modeling.

The Contractor shall interact with PWB, Analytical Services, Inc. (ASI), EPA and other team members to assist in the development of plans for the next stage of these efforts. The Contractor shall prepare technical memoranda as required as appropriate.

In addition to the above tasks PWB requires the following objectives to be addressed by the Contractor:

1. **Statistical Consulting:** The Contractor shall continue the work required to validate a method that will be acceptable to the EPA and support the design of the necessary sampling plans for both the raw water in-take and the possible hot spot sampling locations in the Bull Run Watershed.
2. **Microbiological Method and Analysis:** The Contractor shall provide consulting as needed to finalize appropriate sample processing and analysis.

**Supporting Work Documentation**

On a monthly basis, the Contractor shall provide detailed documentation of work completed attached to invoices. For each Contractor staff member, details of costs shall be summarized by week, including the tasks, number of hours worked, and a brief description of work, as applicable. Any laboratory analyses shall be documented by date, task, number of analyses, and purpose of analyses. The following template shall be used for the supporting work documentation.

<b>Details of Costs</b>			
Employee Name _____		From: _____	
Reporting Period _____		To: _____	
<b>Labor</b>			
Week Starting	Task	Hours	Description
<b>Laboratory Analyses</b>			
Date	Task	Number of Analyses	Purpose of Analyses

**Budget**

Total additional compensation under this agreement shall not exceed **\$136,000**. The Contractor shall be reimbursed per the terms and conditions of the original contract.

**Staffing and Budget Estimate for Additional Compensation**

Staff	Rate	Hours	Total
Jeffrey Rosen	\$200	275	\$55,000
Jennifer Clancy	\$200	100	\$20,000
Tim Bartrand	\$160	90	\$14,400
Jose Sobrinho	\$145	130	\$18,850
Randy McCuin	\$145	40	\$5,800
Tom Hargy	\$145	40	\$5,800
Trisha Johnson	\$145	20	\$2,900
Shân Reynolds	\$125	20	\$2,500
<b>Total</b>			<b>\$125,250</b>

**Sample Analysis and Related Charges**

Item	Cost per Unit
Method 1623 Analysis*	\$525
Matrix Spike*	\$625
Extra IMS	\$125
EasySeed	\$75
Lab supplies	Cost +5%
Shipping	At cost

\*Includes cost of filter

**Budget Breakdown:**

Budget for work to be performed by contractor.....\$125,250  
 Contingency.....\$ 10,750

**TOTAL: \$ 136,000**