

Exhibit A

CITY OF PORTLAND
 AGREEMENT FOR PROFESSIONAL, TECHNICAL, OR EXPERT SERVICES

CONTRACT NUMBER 30004436

TITLE OF WORK PROJECT
 Laboratory Services for Cryptosporidium and Giardia Analysis in Water

This contract is between the City of Portland ("City," or "Bureau") and Analytical Services, Inc. (ASD), hereafter called Consultant. The City's Project Manager for this contract is Sarah Silkie.

Effective Date and Duration

This contract shall become effective on May 1, 2015. This contract shall expire, unless otherwise terminated or extended, on April 30, 2020.

Consideration

- (a) City agrees to pay Consultant a sum not to exceed \$1,200,000 for accomplishment of the work.
 (b) Interim payments shall be made to Consultant according to the schedule identified in the STATEMENT OF THE WORK AND PAYMENT SCHEDULE.

CONSULTANT DATA AND CERTIFICATION

Name (print full legal name): Analytical Services, Inc.

Address: 130 Allen Brook Lane, Williston VT 05495

Employer Identification Number (EIN): 030337234

[INDEPENDENT CONTRACTORS: DO NOT PROVIDE SOCIAL SECURITY NUMBER (SSN) – LEAVE BLANK IF NO EIN]

City of Portland Business Tax Registration Number: 707288

- Citizenship: Nonresident alien Yes No
- Business Designation (check one): Individual Sole Proprietorship Partnership Corporation
- Limited Liability Co (LLC) Estate/Trust Public Service Corp. Government/Nonprofit

Payment information will be reported to the IRS under the name and taxpayer I.D. number provided above. Information must be provided prior to contract approval.

TERMS AND CONDITIONS

1. Standard of Care

Consultant shall perform all services under this contract using that care, skill, and diligence that would ordinarily be used by similar professionals in this community in similar circumstances.

2. Effect of Expiration

Passage of the contract expiration date shall not extinguish, prejudice, or limit either party's right to enforce this Contract with respect to any default or defect in performance that has not been corrected.

3. Order of Precedence

This contract consists of these Terms and Conditions, the Statement of Work and Payment Schedule, and any exhibits that are attached. Any apparent or alleged conflict between these items will be resolved by using the following order of precedence:

- a) these Terms and Conditions; b) Statement of Work and Payment Schedule; and c) any exhibits attached to the contract.

4. Early Termination of Contract

- (a) The City may terminate this Contract for convenience at any time for any reason deemed appropriate in its sole discretion. Termination is effective immediately upon notice of termination given by the City.
- (b) Either party may terminate this Contract in the event of a material breach by the other party that is not cured. Before termination is permitted, the party seeking termination shall give the other party written notice of the breach, its intent to terminate, and fifteen (15) calendar days to cure the breach. If the breach is not cured within 15 days, the party seeking termination may terminate immediately by giving written notice that the Contract is terminated.

5. Remedies and Payment on Early Termination

- (a) If the City terminates pursuant to 4(a) above, the City shall pay the Consultant for work performed in accordance with the Contract prior to the termination date. No other costs or loss of anticipated profits shall be paid.
- (b) If the City terminates pursuant to 4(b) above, the City is entitled all remedies available at law or equity. In addition, Consultant shall pay the City all damages, costs, and sums incurred by the City as a result of the breach.
- (c) If the Consultant justifiably terminates the contract pursuant to subsection 4(b), the Consultant's only remedy is payment for work prior to the termination. No other costs or loss of anticipated profits shall be paid.
- (d) If the City's termination under Section 4(b) was wrongful, the termination shall be automatically converted to one for convenience and the Consultant shall be paid as if the Contract was terminated under Section 4(a).
- (e) In the event of early termination the Consultant's work product before the date of termination becomes property of the City.

6. Assignment

Consultant shall not subcontract, assign, or transfer any of the work scheduled under this agreement, without the prior written consent of the City. Notwithstanding City approval of a subconsultant, the Consultant shall remain obligated for full performance hereunder, and the City shall incur no obligation other than its obligations to the Consultant hereunder. The Consultant agrees that if subconsultants are employed in the performance of this Agreement, the Consultant and its subconsultants are subject to the requirements and sanctions of ORS Chapter 656, Workers' Compensation.

7. Compliance with Applicable Law

Consultant shall comply with all applicable federal, state, and local laws and regulations. Consultant agrees it currently is in compliance with all tax laws. Consultant shall comply with Title VI of the Civil Rights Act of 1964 and its corresponding regulations as further described at: <http://www.portlandoregon.gov/bibs/article/446806>. In connection with its activities under this Contract, the Contractor shall comply with all applicable Grant Terms and conditions. This includes all terms and conditions contained in this contract and, for a contract involving a grant, the Grant Terms and Conditions as further described at: <http://www.portlandoregon.gov/bibs/article/455735>.

8. Indemnification for Property Damage and Personal Injury

Consultant shall indemnify, defend, and hold harmless the City, its officers, agents, and employees, from all claims, losses, damages, and costs (including reasonable attorney fees) for personal injury and property damage arising out of the intentional or negligent acts or omissions of the Consultant, its Subconsultants, suppliers, employees or agents in the performance of its services. Nothing in this paragraph requires the Consultant or its insurer to indemnify the City for claims of personal injury or property damage caused by the City, its officers, agents, and employees. This duty shall survive the expiration or termination of this contract.

9. Insurance

Consultant shall obtain and maintain in full force at Consultant expense, throughout the duration of the Contract and any warranty or extension periods, the required insurance identified below. The City reserves the right to require additional insurance coverage as required by statutory or legal changes to the maximum liability that may be imposed on Oregon cities during the term of the Contract.

- (a) Workers' compensation insurance as required by ORS Chapter 656 and as it may be amended. Unless exempt under ORS Chapter 656, the Consultant and all subconsultants shall maintain coverage for all subject workers.

Required and attached // Proof of exemption (i.e., completion of Workers' Compensation Insurance Statement)

- (b) General commercial liability (CGL) insurance covering bodily injury, personal injury, property damage, including coverage for independent contractor's protection (required if any work will be subcontracted), premises/operations, contractual liability, products and completed operations, in per occurrence limit of not less than \$1,000,000, and aggregate limit of not less than \$2,000,000.

Required and attached // Waived by Bureau Director or designee // Reduce by Bureau Director or designee

- (c) Automobile liability insurance with coverage of not less than \$1,000,000 each accident, and an umbrella or excess liability coverage of \$2,000,000. The insurance shall include coverage for any auto or all owned, scheduled, hired and non-owned auto. This coverage may be combined with the commercial general liability insurance policy.

Required and attached // Waived by Bureau Director or designee // Reduce by Bureau Director or designee

- (d) Professional Liability and/or Errors & Omissions insurance to cover damages caused by negligent acts, errors or omissions related to the professional services, and performance of duties and responsibilities of the Consultant under this contract in an amount with a combined single limit of not less than \$1,000,000 per occurrence and aggregate of \$3,000,000 for all claims per occurrence. In lieu of an occurrence based policy, Consultant may have claims-made policy in an amount not less than \$1,000,000 per claim and \$3,000,000 annual aggregate, if the Consultant obtains an extended reporting period or tail coverage for not less than three (3) years following the termination or expiration of the Contract.

Required and attached // Waived by Bureau Director or designee // Reduced by Bureau Director or designee

Continuous Coverage; Notice of Cancellation: The Consultant agrees to maintain continuous, uninterrupted coverage for the duration of the Contract. There shall be no termination, cancellation, material change, potential exhaustion of aggregate limits or non renewal of coverage without thirty (30) days written notice from Consultant to the City. If the insurance is canceled or terminated prior to completion of the Contract, Consultant shall immediately notify the City and provide a new policy with the same terms. Any failure to comply with this clause shall constitute a material breach of Contract and shall be grounds for immediate termination of this Contract.

Additional Insured: The liability insurance coverages, except Professional Liability, Errors and Omissions, or Workers' Compensation, shall be without prejudice to coverage otherwise existing, and shall name the City of Portland and its bureaus/divisions, officers, agents and employees as Additional Insureds, with respect to the Consultant's activities to be performed, or products or services to be provided. Coverage shall be primary and non-contributory with any other insurance and self-insurance. Notwithstanding the naming of additional insureds, the insurance shall protect each additional insured in the same manner as though a separate policy had been issued to each, but nothing herein shall operate to increase the insurer's liability as set forth elsewhere in the policy beyond the amount or amounts for which the insurer would have been liable if only one person or interest had been named as insured.

Certificate(s) of Insurance: Consultant shall provide proof of insurance through acceptable certificate(s) of insurance, including additional insured endorsement form(s) and all other relevant endorsements, to the City prior to the award of the Contract if required by the procurement documents (e.g., request for proposal), or at execution of Contract and prior to any commencement of work or delivery of goods or services under the Contract. The Certificate(s) will specify all of the parties who are endorsed on the policy as Additional Insureds (or Loss Payees). Insurance coverages required under this Contract shall be obtained from insurance companies acceptable to the City of Portland. The Consultant shall pay for all deductibles and premium. The City reserves the right to require, at any time, complete, certified copies of required insurance policies, including endorsements evidencing the coverage the required.

Subconsultant(s): Consultant shall provide evidence that any subconsultant, if any, performing work or providing goods or service under the Contract has the same types and amounts of coverages as required herein or that the subconsultant is included under Consultant's policy.

10. Ownership of Work Product

All work product produced by the Consultant under this contract is the exclusive property of the City. "Work Product" includes, but is not limited to: research, reports, computer programs, manuals, drawings, recordings, photographs, artwork and any data or information in any form. The Consultant and the City intend that such Work Product shall be deemed "work made for hire" of which the City shall be deemed the author. If for any reason a Work Product is deemed not to be a "work made for hire," the Consultant hereby irrevocably assigns and transfers to the City all right, title and interest in such work product, whether arising from copyright, patent, trademark, trade secret, or any other state or federal intellectual property law or doctrines. Consultant shall obtain such interests and execute all documents necessary to fully vest such rights in the City. Consultant waives all rights relating to work product, including any rights arising under 17 USC 106A, or any other rights of authorship, identification or approval, restriction or limitation on use or subsequent modifications. If the Consultant is an architect, the Work Product is the property of the Consultant-Architect, and by execution of this contract, the Consultant-Architect grants the City an exclusive and irrevocable license to use that Work Product.

Notwithstanding the above, all pre-existing trademarks, services marks, patents, copyrights, trade secrets, and other proprietary rights of Consultant are and will remain the exclusive property of Consultant.

11. EEO Certification

In the event Consultant provides in excess of \$2,500.00 for services to the City in any fiscal year, Consultant shall obtain EEO certification from the City.

12. Equal Benefits

Consultant must comply with the City's Equal Benefits program as prescribed by Chapter 3.100 of the Code of the City of Portland. The required documentation must be filed with Procurement Services, City of Portland, prior to contract execution.

13. Successors in Interest

The provisions of this contract shall be binding upon and shall inure to the benefit of the parties hereto, and their respective successors and approved assigns.

14. Severability

The parties agree that if any term or provision of this contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular term or provision held to be invalid.

15. Waiver

The failure of the City to enforce any provision of this contract shall not constitute a waiver by the City of that or any other provision.

16. Errors

The Consultant shall promptly perform such additional services as may be necessary to correct errors in the services required by this contract without undue delays and without additional cost.

17. Governing Law/Venue

The provisions of this contract shall be interpreted, construed and enforced in accordance with, and governed by, the laws of the State of Oregon without reference to its conflict of laws provisions that might otherwise require the application of the law of any other jurisdiction. Any action or suits involving any question arising under this contract must be brought in the appropriate court in Multnomah County Oregon.

18. Amendments

All changes to this contract, including changes to the scope of work and contract amount, must be made by written amendment and approved by the Chief Procurement Officer to be valid. Any amendment that increases the original contract amount by more than 25% must be approved by the City Council to be valid.

19. Business Tax Registration

The Consultant shall obtain a City of Portland business tax registration number as required by PCC 7.02 prior to beginning work under this Contract.

20. Prohibited Conduct

The Consultant shall not hire any City employee who evaluated the proposals or authorized the award of this Contract for two years after the date the contract was authorized without the express written permission of the City and provided the hiring is permitted by state law.

21. Payment to Vendors and Subconsultants

The Consultant shall timely pay all subconsultants and suppliers providing services or goods for this Contract.

22. Access to Records

The Consultant shall maintain all records relating to this Contract for three (3) years after final payment. The City may examine, audit and copy the Consultant's books, documents, papers, and records relating to this contract at any time during this period upon reasonable notice. Copies of these records shall be made available upon request. Payment for the reasonable cost of requested copies shall be made by the City.

23. Audits

- (a) The City may conduct financial and performance audits of the billings and services specified in this agreement at any time in the course of the agreement and during the three (3) year period established by paragraph 22. Audits will be conducted in accordance with generally accepted auditing standards as promulgated in Government Auditing Standards by the Comptroller General of the United States Government Accountability Office.
- (b) If an audit discloses that payments to the Consultant exceed the amount to which the Consultant was entitled, the Consultant shall repay the amount of the excess to the City.

24. Electronic Signatures

The City and Consultant may conduct this transaction, including any contract amendments, by electronic means, including the use of electronic signatures.

25. Merger Clause

This Contract encompasses the entire agreement of the parties, and supersedes all previous understandings and agreements between the parties, whether verbal or written.

26. Dispute Resolution/Work Regardless of Disputes

The parties shall participate in mediation to resolve disputes before conducting litigation. The mediation shall occur at a reasonable time after the conclusion of the Contract with a mediator jointly selected by the parties. Notwithstanding any dispute under this Contract, the Consultant shall continue to perform its work pending resolution of a dispute, and the City shall make payments as required by the Contract for undisputed portions of the work. In the event of litigation no attorney fees are recoverable. No different dispute resolution paragraph(s) in this contract or any attachment hereto shall supersede or take precedence over this provision.

27. Progress Reports: Applicable / Not Applicable

If applicable, the Consultant shall provide monthly progress reports to the Project Manager as described in the Statement of the Work and Payment Schedule.

28. Consultant's Personnel: Applicable / Not Applicable

If applicable, the Consultant shall assign the personnel listed in the Statement of the Work and Payment Schedule for the work required by the Contract and shall not change personnel without the prior written consent of the City, which shall not be unreasonably withheld.

29. Subconsultants

The Consultant shall use the subconsultants identified in its proposals. The Consultant shall not change subconsultant assignments without the prior written consent of the Chief Procurement Officer. The City will enforce all social equity contracting and Minority, Women and Emerging Small Business (M/W/ESB) subcontracting commitments submitted by the Consultant in its proposals. Failure to use the identified M/W/ESB subconsultants without prior written consent is a material breach of contract. For contracts valued \$50,000 or more, the Consultant shall submit a Monthly Subconsultant Payment and Utilization Report (MUR), made part of this contract by reference, reporting ALL subconsultants employed in the performance of this agreement. An electronic copy of the MUR may be obtained at: <http://www.portlandoregon.gov/bips/45475>.

30. Third Party Beneficiaries

There are no third party beneficiaries to this contract. Enforcement of this contract is reserved to the parties.

31. Conflict of Interest

Contractor hereby certifies that, if applicable, its contract proposal is made in good faith without fraud, collusion or connection of any kind with any other proposer of the same request for proposals or other City procurement solicitation(s), that the Contractor as a proposer has competed solely on its own behalf without connection or obligation to, any undisclosed person or firm. Contractor certifies that it is not a City official/employee or a business with which a City official/employee is associated, and that to the best of its knowledge, Contractor, its employee(s), its officer(s) or its director(s) is not a City official/employee or a relative of any City official/employee who: i) has responsibility in making decisions or ability to influence decision-making on the contract or project to which this contract pertains; ii) has or will participate in evaluation or management of the contract; or iii) has or will have financial benefits in the contract. Contractor understands that should it elect to employ any former City official/employee during the term of the contract then that the former City official/Contractor employee must comply with applicable government ethics and conflicts of interest provisions in ORS Chapter 244, including but not limited to ORS 244.040(5) and ORS 244.047, and the City's Charter, Codes and administrative rules, including lobbying prohibitions under Portland City Code Section 2.12.080.

STATEMENT OF THE WORK AND PAYMENT SCHEDULE

Background

On March 14, 2012, the Oregon Health Authority (OHA) issued its Final Order granting Portland Water Bureau's (PWB) request for a treatment variance under 42 USC § 300g-4(a)(1)(B). As of April 1, 2012, OHA requires PWB to conduct *Cryptosporidium* Observation Monitoring at its Bull Run source water intake at least two (2) days per week for a total volume of at least 100 liters (L) per week. If *Cryptosporidium* is detected during Observation Monitoring, PWB must begin one (1) year of Demonstration Monitoring at a rate of at least four days per week for a total volume of at least 250 L per week such that a total of at least 13,334 L are analyzed within the year. After one (1) year, if the concentration of *Cryptosporidium* is less than 0.075 oocysts per 1,000 L, PWB may resume Observation Monitoring.

For both Observation Monitoring and Demonstration Monitoring, PWB must also collect daily samples when turbidity at the intake is greater than 2.0 Nephelometric Turbidity Units (NTU) but less than 5.5 NTU. When raw water turbidity is greater than or equal to 5.5 NTU, PWB would not be required to sample for *Cryptosporidium* because the PWB cannot serve Bull Run source water to customers when turbidity is greater than 5.49 NTU.

In addition to intake monitoring, PWB is also required to conduct *Cryptosporidium* monitoring at the four major tributary streams in the Bull Run watershed. Tributary stream monitoring is scheduled once every four weeks and in response to storm events.

To ensure that the *Cryptosporidium* monitoring requirements of the Final Order are met regardless of extenuating circumstances, PWB divided the required monitoring into two divisions of work as follows:

- (1) Intake Compliance Monitoring
- (2) Tributary Stream Monitoring

The Consultant shall be primarily responsible for Division of Work 1: Intake Compliance Monitoring, and a second consultant shall be primarily responsible for Division of Work 2: Tributary Stream Monitoring. However, in the event that the other consultant is unable to provide analysis of *Cryptosporidium* and *Giardia* for Division of Work 2, this consultant shall perform the services listed under Task 2-Backup Tributary Samples Analysis.

General Requirements

The Consultant must be accredited through a State laboratory certification program for monitoring to comply with the Long Term 2 Enhanced Surface Water Treatment Rule. The Consultant must be approved to perform EPA Method 1623 and 1623.1. Furthermore, the Consultant shall have and maintain secondary accreditation through the Oregon Environmental Laboratory Accreditation Program. The Consultant shall submit results of ongoing Performance Tests (PTs) performed in accordance with the accrediting body to PWB.

SCOPE OF WORK

The Consultant shall perform the following services and shall work closely with the PWB Project Manager (PM) to provide the following services. The Consultant shall provide these services within the time frames needed to meet reporting obligations or project schedules.

Project Management

The Consultant's PM shall be responsible for ensuring that all work is performed according to the Contract and notifying the PWB PM if any Contract provisions cannot be met.

The Consultant shall work with the PWB PM to establish and document work flow processes, including but not limited to sample shipment, sample receipt, analyses, and reporting of all results to PWB. The Consultant shall be responsible for ensuring that the agreed upon work flow processes are followed by the Consultant's staff.

The Consultant shall provide sample field sheets and chain of custody forms to the PWB PM. Electronic copies shall be delivered to the PWB PM in an editable file such as Microsoft (MS) Word or Excel upon written request from the PWB PM.

Work Performed by the PWB

The PWB PM (or their designee) shall be responsible for the following tasks:

- Coordinating with the Consultant to develop work flow processes;
- Providing sampling schedules and notifying the Consultant of changes to the schedules;
- Notification of sample shipment listing the sample(s) that have been shipped, sample information, requested analyses, and turnaround times;
- Notification of special requests such as unscheduled samples, rush turn-around times, or weekend/holiday work;
- Reviewing laboratory results and other deliverables prepared by the Consultant; and,
- Providing the Consultant data or other information relevant to the project, as needed.

In 2014, ASI became part of the IEH Laboratories & Consulting Group network of laboratories. ASI retains its legal identity as a separate Vermont corporation. Also in 2014, IEH Laboratories & Consulting Group purchased the assets of BioVir Laboratories, Inc. in Benicia, CA. and IEH now does business at that location under the trade name BioVir. All of the laboratories in the IEH network are under common ownership and direction.

It is understood by the City and the Consultant that all PWB samples shall be analyzed at ASI. However, this contract provides PWB with added security of redundant laboratory facilities and personnel due to the IEH – ASI – BioVir relationship; if necessary, PWB samples can be analyzed at BioVir in Benicia, CA. This will only be done with prior approval by the PWB PM and the ASI PM, to respond to a disruption of shipping services from PWB to ASI due to events including, but not limited to a storm event, natural disaster, or a temporary incapacitation at ASI facility/equipment/staff illness/etc. issue or other unforeseen event. If this contingency is necessary, it shall be handled as an internal subcontract issue by ASI; the charges to PWB shall remain unchanged from those listed herein.

Task 1 –Intake Compliance Sample Analysis

The Consultant shall analyze intake field and matrix spike water samples for *Cryptosporidium* and *Giardia*. The PWB PM may request that intake samples be analyzed by EPA Method 1623, EPA Method 1623.1, Precoat modification, or another method required by EPA at the time. The requested method shall be specified for each sample that is submitted for analysis.

The standard sampling frequency during Observation Monitoring will be either two (2) 50-L or ten (10) 10-L field samples per week (a week is Sunday to Saturday) and at least one (1) matrix spike sample per 20 field samples. If *Cryptosporidium* is detected in any intake sample, Demonstration Monitoring shall begin the week following the day after the positive sample is reported to PWB. The standard sampling frequency shall increase to five (5) 50-L or 25 10-L field samples per week and at least one (1) matrix spike sample per 20 field samples during Demonstration Monitoring.

The PWB PM shall provide the Consultant with a compliance sample collection schedule indicating the calendar day and turn-around time for each field and matrix spike sample. PWB shall consider Consultant's regular operation and holiday schedule; however, meeting intake compliance requirements shall take priority. If PWB is required to begin Demonstration monitoring, a revised sample collection schedule for the intake shall be submitted to the Consultant.

The maximum turn-around-time for intake compliance samples shall be five (5) business days. The last two (2) samples of the month shall have a default turn-around time of one (1) business day. The requested turn-around time shall be specified for each sample that is submitted for analysis. Samples with 1 day turn-around time shall be subject to a surcharge fee as listed in the compensation section of the Contract.

If intake samples must be rescheduled due to an unforeseen circumstance such as emergency situation, PWB or Consultant error, loss in shipment, arriving out of hold time, arriving outside the acceptable temperature range, or other unforeseen reasons replacement samples shall be collected by PWB and shipped to the Consultant for analysis within the same sampling week.

Unscheduled intake compliance samples consisting of either one (1) 50-L sample or five (5) 10-L samples shall be collected daily when intake turbidity is greater than 2.0 NTU but less than 5.5 NTU. Unscheduled event sampling may result in sample collection on or prior to a weekend or holiday. The PWB PM shall notify the Consultant via email when an unscheduled sample is collected. The Consultant shall be responsible for providing staff coverage to ensure that unscheduled intake compliance samples are analyzed within holding time, even when this involves weekend or holiday work. The Consultant shall maintain the ability to receive and process samples 365 days per year for the duration of this contract.

Samples that must be analyzed during a weekend or holiday in order to meet holding time requirements shall be subject to the surcharge fee as listed in the Compensation section of the Contract.

Task 2 – Backup Tributary Sample Analysis

The Water Bureau has entered into a separate contract with another vendor to perform Tributary Sample Analysis. In the event that the primary Consultant for Tributary Sample Analysis is unable to accept samples on either a short-term or long-term basis, the Consultant shall be notified by the PWB PM and shall act as a back-up laboratory for Tributary sample analysis as follows:

If requested by the PWB PM, the Consultant shall analyze water samples collected from PWB's four (4) tributary sites for *Cryptosporidium* and *Giardia*. The PWB PM may request that samples be analyzed by EPA Method 1623, EPA Method 1623.1, or another method required by EPA at the time. The requested method shall be specified for each sample that is submitted for analysis.

PWB anticipates collecting scheduled samples from the four (4) tributaries once every four (4) weeks. PWB also anticipates collecting six (6) to eight (8) storm event samples from each of the four (4) tributaries for each Water Year (a Water Year is defined as October 1 through September 30). A matrix spike for each site shall be scheduled twice annually.

In the event that PWB requests the Consultant to provide services for Tributary sample analysis, the PWB PM shall provide the Consultant with a tributary sample collection schedule indicating the calendar day and turn-around time for each field and matrix spike sample. The default turn-around-time for tributary samples shall be 5 business days.

If scheduled tributary samples must be rescheduled due to an unforeseen circumstance such as emergency situation, PWB or Consultant error, loss in shipment, arriving out of hold time, arriving outside the acceptable temperature range, or other unforeseen reasons, replacement samples shall be collected by PWB and shipped to the Consultant the following week.

The PWB PM shall notify the Consultant via email when storm event samples are collected. The Consultant shall be responsible for providing staff coverage to ensure that storm event samples are analyzed, even when this involves weekend or holiday work. Samples analyzed during a weekend or holiday shall be subject to a surcharge fee as listed in the compensation section of the Contract.

Additional samples may also be collected at the tributaries or storage reservoirs fed by the tributaries following a *Cryptosporidium* positive sample or other water quality incident. PWB shall notify the Consultant after deciding to collect additional samples. The Consultant shall be responsible for providing staff coverage to ensure that surveillance samples are analyzed, even when this involves weekend or holiday work. Samples analyzed during a weekend or holiday shall be subject to a surcharge fee as listed in the compensation section of the Contract. PWB may request one (1) day turn-around time for surveillance samples depending on the circumstances. Samples with one (1) day turnaround time shall be subject to a surcharge fee as listed in the compensation section of the Contract.

Task 3 – Experimental Matrix Spike Sample Analysis

The Consultant shall analyze experimental matrix spike samples to track *Cryptosporidium* oocyst recovery in the source water and to test the performance of alternative methods or modifications (e.g., EPA Method 1623.1). Experimental matrix spike samples are collected at a frequency of once per month throughout most of the year; the frequency may increase from approximately June through November to track seasonally low recoveries.

The PWB PM shall provide the Consultant with an experimental matrix spike sample collection schedule indicating the calendar day and turn-around time for each field and matrix spike sample. The default turn-around time for experimental matrix spike samples shall be 5 business days.

Task 4 – Follow-up work for Cryptosporidium-Positive Samples

The Consultant shall notify the PWB PM immediately via telephone of any sample in which *Cryptosporidium* oocysts are detected. Contact with the PWB PM must be direct and not via phone message or email. The Consultant shall not submit results for samples reported as positive for *Cryptosporidium* prior to making successful contact with the PWB PM.

The Consultant shall provide color digital photographs of any *Cryptosporidium*-positive slide. The Consultant shall record the location of the oocyst(s) on the slide and prepare Fluorescein Isothiocyanate (FITC), 4'-6-Diamidino-2-phenylindole (DAPI), and Differential Interface Contrast (DIC) color digital photographs. The photographs must include a scale. The Consultant shall maintain a digital library of all samples reported as positive for *Cryptosporidium*.

For all *Cryptosporidium* positive slides, the Consultant shall attempt genotyping using the single-round multiplex Polymerase Chain Reaction (PCR) tool targeting the 18S ribosomal RNA (18S) and heat shock protein 70 (hsp70) as described in WaterRF Project 4099 (<http://www.waerri.org/PublicReportLibrary/4099.pdf>). PCR products for the 18S and hsp70 genes shall be sequenced and Basic Local Alignment Search Tool (BLAST) and phylogenetic analysis performed. The Consultant shall prepare results of genotyping analyses, including work performed by any sub-consultants, in a written memorandum, including all supporting documentation as attachments.

Genotyping and sequencing may also be subcontracted to Dr. George Di Giovanni at the University of Texas School of Public Health.

Task 5 – Consulting Services

During the course of this project, PWB may require additional technical services from the Consultant or sub-Consultants. Additional technical services may include, but are not limited to, method modifications and optimization, interpretation of sample results, expert opinion, or other technical assistance relevant to communicating the significance of sample results.

These types of services shall be authorized via work orders issued by PWB's Contract Administration Branch (CAB). A sample Work Order form is attached as Exhibit A to this contract. Work Orders shall be issued as project needs are identified. The Work Order shall establish the scope of work, schedule, deliverables, and compensation for each project. Work Orders require each party's approval in writing to proceed. PWB's approving authority is the Operations Group Director.

Work cannot commence until the Work Order is signed by both parties and PWB CAB issues a Work Order Notice to Proceed. The Notice to Proceed shall be e-mailed to the Consultant along with a PDF of the signed Work Order. Any changes to a signed Work Order must be done as an amendment to the Work order.

Additional Contract Provisions

- A. **Accreditation**-The Consultant shall be responsible for maintaining the required accreditations for the duration of Contract and must immediately notify the PWB PM of any changes to their accreditation status. Failure to maintain the required accreditations shall be considered a breach of the contract and grounds for termination of the Contract.
- B. **Laboratory Capability and Capacity**-The Consultant shall be required to maintain the necessary capability and capacity to analyze up to 50 field and matrix spike samples per week and to receive and analyze samples within holding times 365 days per year for the duration of the Contract.
- C. **Quality Assurance/Quality Control**-The Consultant shall be responsible for meeting all required quality assurance and quality control requirements in accordance with the analytical method(s) used. This shall include all requirements of the State accrediting programs.
- D. **Precoat Modification**-The Consultant shall perform Proficiency Testing for the Precoat modification at the frequency required by the primary State accrediting program.
- E. **Minimum Number of Analysts and Analyst Experience**- The Consultant shall retain a minimum of two (2) laboratory analysts, each having a minimum of four (4) years of microscopy experience analyzing *Cryptosporidium* in water samples. At least one (1) of the analysts shall be a Principal Analyst based on the criteria specified in EPA Supplement 2 to the Fifth Edition of the Manual for the Certification of Laboratories Analyzing Drinking Water.
- F. **Sample Volume**-The Consultant shall be approved, and remain approved throughout the life of the contract, to analyze by EPA Method 1623 and 1623.1 both 10-liter (L) samples and 50-L samples filtered through an Envirochek HV capsule.
- G. **Filtered and Bulk Field Samples**-The Consultant shall accept both field filtered samples and bulk samples.
- H. **Standard Operating Procedures**-The Consultant shall provide electronic copies of standard operating procedures (SOP) for all *Cryptosporidium* methods employed for PWB samples. The SOPs shall include reagents to be employed for all analyses. Any modifications or changes to the SOPs that are provided to PWB shall be communicated to and approved by the PWB PM.
- I. **Filter Clogging**-In cases where the filter clogs prior to field-filtration of the target sample volume, PWB shall collect and ship the remaining volume in bulk containers to the Consultant. The Consultant shall filter and analyze the remaining required volume. For all filtration by the Consultant, unless otherwise stated, the Consultant shall use as many filters as is necessary to process and analyze the entire target sample volume.

- J. Packed Pellet Volume-If a sample yields a packed pellet volume in excess of 0.5 mL, the Consultant shall analyze the entire concentrated sample, regardless of pellet size, by processing the required number of subsamples.
- K. Review of Slides Reported as Positive for *Cryptosporidium*-All microscopic slides reported as positive for *Cryptosporidium* must be reviewed by the Consultant's Principal Analyst.
- L. Archiving of Microscopic Slides Reported as Positive for *Cryptosporidium*-The Consultant shall archive microscopic slides reported as being positive for *Cryptosporidium* for the duration of the Contract. The slides shall be the sole property of PWB. Slides must be well maintained and available so that PWB may request them at any time for the duration of the Contract, and for 3 years following contract termination.
- M. No Formalin-Due to the interference of formalin with PCR amplification, the Consultant shall not use a mounting medium and/or fixing buffer that contains formalin or any other products known to interfere with PCR amplification for PWB samples.
- N. Sample Shipping Containers-The Consultant shall provide all necessary shipping containers and materials for shipping samples. Shipping containers and materials shall include Thermosafe or equivalent coolers (dimensions: outside box 15.5" x 11.5" x 9.5"; inside Styrofoam cooler, 12" x 8" x 6"), insulated filter pouches with temperature control bottles, refreezable ice packs, package filler, and any other materials necessary for properly shipping samples. Shipping containers and materials shall be returned within five (5) business days of being received by the Consultant. A business day is defined as Monday through Friday. PWB may elect to use its own shipping materials that also must be returned within five (5) business days of being received by the Consultant. The Consultant shall ship packing containers via ground service, unless the PWB PM (or designee) requests a different service. The Consultant shall provide for timely delivery of sample containers and shipping containers to:
- Portland Water Bureau
Attn: Erik Englebert
1900 N. Interstate Avenue
Portland, OR 97227
- O. Sampling Supplies-The Consultant shall provide consumable sampling supplies (e.g. Envirochek HV filters and Cubitainers) at a per unit cost as shown in the cost matrix below.
- P. Sample Receipt and Acceptance-The Consultant shall notify the PWB PM by 12:00 p.m. Pacific time the same day of scheduled arrival of all samples to confirm that the samples have been received as scheduled. The Consultant shall notify the PWB PM of the condition of the samples upon arrival, including samples received in unacceptable condition due to hold time violations, compromised sample containers, temperature violations, or any other condition rendering the sample unacceptable for analysis.
- Q. Notification of Unacceptable Samples-The Consultant shall notify the PWB PM within the same day of any sample rendered unacceptable for analysis while in the possession of the laboratory. If a sample is rendered unacceptable for analysis while in the possession of the laboratory due to Consultant error, the Consultant shall bear all costs associated with replacement of the sample and shall present written corrective actions taken within 15 calendar days of the violation.
- R. Failure to Complete on Time-The Consultant shall be required to notify PWB PM immediately by e-mail and telephone if any analysis/analyses cannot be reported within the required turn-around time. Data reports submitted more than 3 business days past the required turn-around time or the chronic late submission of reports for any number of days past the required turn-around times shall be considered grounds for termination of the Contract.

DELIVERABLES

All deliverables and resulting work products from this contract shall become the property of the City of Portland. As such, the Consultant and their subconsultants grant the City the right to copy and distribute (in any and all media and formats) project deliverables for regulatory, project certification/recognition, program development, public education, and/or for any purposes at the sole discretion of the City of Portland.

The Consultant shall provide the PWB PM with reports and electronic data of sample results. All reports shall be complete, accurate, formatted as required, and submitted by e-mail directly to the PWB PM by the requested turn-around time.

The Consultant shall be required to provide the following reports:

- 1) Individual Sample Result Reports - The Consultant shall submit results for each field sample and matrix spike sample analyzed. For each sample, the Consultant shall submit a report packet by email as one PDF document directly to the PWB PM and their designees containing the following elements:

- A. One-page laboratory report;
 - B. Scanned copy of the field sheet;
 - C. Scanned copy of the laboratory bench sheet;
 - D. Scanned copy of the laboratory slide examination form(s); and,
 - E. Scanned copy of the chain of custody form.
- 2) Electronic Data Transfers – The Consultant shall provide sample result data in the form of an electronic data transfer (EDT) that can be uploaded directly into PWB’s laboratory information management system (Labworks LIMS). The EDT shall be an MS Excel spreadsheet; PWB shall provide the required format and column headers. The EDT shall be transferred to PWB bi-monthly: once on or before the 20th of the month, and once on or before the 5th of the following month.
 - 3) Monthly Intake Samples Compliance Report – PWB is required to submit intake compliance results to the OHA on a monthly basis. Results for the previous month must be submitted to OHA by the 10th of each month. The Consultant shall prepare an intake compliance report and submit it to the PWB PM no later than the 5th day of the month to allow time for PWB PM review. PWB PM shall provide the Consultant with a report template.
 - 4) Quarterly Reporting of Ongoing Precision and Recovery Results – The Consultant shall generate a quarterly Ongoing Precision and Recovery report for reagent water and raw surface water which shall be submitted to the PWB PM by the 15th of the month. If requested by the PWB PM, the Consultant shall increase the frequency of Ongoing Precision and Recovery reports to monthly. The report shall be in the form of control charts in an Excel spreadsheet. PWB shall provide a report template to the Consultant.

Task 4 (Follow-up Work on samples Reported as Positive for *Cryptosporidium*).

The Consultant shall prepare results of *Cryptosporidium* positive samples and genotyping attempts in a technical memorandum which shall include slide photographs, BLAST and phylogenetic results, and all other relevant supporting documentation. The Consultant shall have 30 days from the date the positive result is reported to PWB to complete all follow-up work and submit the written memorandum, unless an extension is authorized by the PWB PM.

Task 5 (Consulting Services)

Deliverables for consulting services shall be identified as project needs arise and established via the Work Order process.

CONSULTANT PERSONNEL

The Consultant shall assign the following personnel to do the work in the capacities designated:

NAME	ROLE ON PROJECT
Paul Warden	Project Manager
Carolyn Fogg	Technical Director & Principal Analyst
Jeff Budzik	Quality Assurance Officer & Genotyping
Shan Reynolds	Principal Analyst
Danielle Gregoire	Analyst
Rick Danielson, PhD	Expert Microbiologist
Ramon Aboytes, PhD	Expert Microbiologist

SUBCONSULTANTS

The Consultant shall assign the following subconsultants to perform work in the capacities designated:

NAME	ROLE ON PROJECT	SUBCONTRACT AMOUNT
George Di Giovanni University of Texas School of Public Health	Genotyping, Expert Microbiologist	\$25,000
Jennifer Clancy	Expert Microbiologist	\$15,000
BioVir	Back-up sample analysis	\$5,000

The City will enforce all social equity contracting and Minority, Women and Emerging Small Business (M/W/ESB) subcontracting commitments submitted by the Consultant in its Proposal. For contracts valued \$50,000 or more, the Consultant shall submit a Monthly Subconsultant Payment and Utilization Report (MUR), made part of this contract by reference, reporting ALL subconsultants employed in the performance of this agreement. An electronic copy of the MUR may be obtained at: <http://www.westland.com/5584472>.

COMPENSATION

The maximum that the Consultant can be paid on this contract is \$1,200,000 (hereafter the “not to exceed” amount.). The “not to exceed” amount includes all payments to be made pursuant to this contract, including reimbursable expenses, if any. Nothing in this contract requires the City to pay for work that does not meet the Standard of Care or other requirements of the Contract. The actual amount to be paid to the Consultant may be less than the “not to exceed” amount.

The Consultant is entitled to receive progress payments for its work pursuant to the Contract as provided in more detail below. The City will pay the Consultant based on these invoices for acceptable work performed and approved until the "not to exceed" amount is reached. Thereafter, the Consultant must complete work based on the Contract without additional compensation unless there is a change to the scope of work.

Any estimate of the hours necessary to perform the work is not binding on the City. The Consultant remains responsible if the estimate proves to be incorrect. Exceeding the number of estimated hours of work does not impose any liability on the City for additional payment.

If work is completed before the "not to exceed" amount is reached, the Consultant's compensation shall be based on the Consultant's bills previously submitted for acceptable work performed and approved.

PAYMENT TERMS: Net 30 Days

Hourly Rates

The billing rates shall not exceed those set forth below:

Key Personnel shall be billed at the following rates:

Name	Hourly Rate
Rick Danielson, PhD	175.00
Ramon Aboytes, PhD	175.00
Paul Warden	130.00
Carolyn Fogg	115.00
Jeff Budzik	90.00

Work completed by other staff shall be billed according to their classification at the following rates:

Classification	Hourly Rate
Senior Staff	130.00
Analyst	90.00
Technician	75.00
Clerical	50.00

Sample Analysis Rates

The Contractor shall be reimbursed in accordance with the rates below. The unit costs listed below shall remain constant for the term of the Contract. No annual inflation adjustments shall be allowed. No other additional costs shall be considered. Sample analysis costs include all internal laboratory QA/QC such as ongoing precision and recovery (OPR) samples and reporting of results.

Sample Analysis	Tasks 1, 3 and 4 – Intake Sample Analysis Cost	Task 2-Backup Tributary Sample Analysis Cost
Field Sample, EPA Method 1623	\$290.00	\$300.00
Field Sample, EPA Method 1623 – Precoat Modification	\$290.00	\$300.00
Field Sample, EPA Method 1623.1	\$290.00	\$300.00
Matrix Spike Sample, EPA Method 1623	\$340.00	\$350.00
Matrix Spike Sample, EPA Method 1623 – Precoat Modification	\$340.00	\$350.00
Matrix Spike Sample, EPA Method 1623.1	\$340.00	\$350.00
Subsamples	\$95.00	\$95.00
<i>Cryptosporidium</i> / <i>Giardia</i> rush sample surcharge, 1 business day	\$100.00	\$100.00
Weekend/holiday sample surcharge*	\$150.00	\$150.00
Genotyping (PCR and melt analysis):	\$250.00	\$250.00
DNA sequencing	\$250.00	\$250.00

*The weekend/holiday sample surcharge applies to samples analyzed on a Saturday, Sunday or Federal Holiday when Consultant would otherwise be closed for business.

Supplies	Cost
Filters, Envirochek HV (each)	\$80.00
Cubitainers, 10-L (box of 30)	\$150.00
Additional analytical testing supplies*	Cost plus 10% mark-up

*Additional testing supplies shall not be purchased without first obtaining written authorization from the PWB PM.

Shipping	Cost
Shipment of packing container to PWB (cost per shipment)	\$15.00

Travel

It is the policy of the City that all travel shall be allowed only when the travel is essential to the normal discharge of the Contractor's responsibilities under the Contract. All travel must be for official City business only. All travel and lodging shall be conducted in the most efficient and cost-effective manner resulting in the best value to the City.

The travel must comply with all the requirements set forth in this section. Personal expenses shall not be authorized at any time. Travel expenses shall be reimbursed for airfare and rental vehicles only if Contractor is acting within the course and scope of his/her duties under this Contract. Alcohol is not an authorized purchase under this Contract. Receipts are required for all travel expenses. All Contractor representatives shall fly "coach class," unless Consultant personally pays the difference. All Consultant representatives shall be limited to economy or compact size rental vehicles, unless Consultant personally pays the difference.

Any Out-of-Town Travel, (transportation, lodging and per diem), for Consultant and/or experts as specified in the contract or requested by PWB to a location outside a 100 mile radius of Consultant's project office shall be reimbursed. The approved mileage rate follows the current United States General Services Administration (GSA) federal rate. Meal per diem is based on the GSA per diem rates. Per Diem Rates for Oregon may be found at the GSA website link. That website address is: <http://www.gsa.gov/perdiem>.

All travel must be pre-authorized by the City's Project Manager in writing prior to conducting that travel.

Standard Reimbursable Costs

The following costs shall be reimbursed without mark-up.

Photocopying/Reproduction Costs. Reproduction of required drawings, reports, specifications, bidding documents, in excess of the number required as part of the contract excluding the cost of reproduction for Consultants own use.

Subconsultant Costs

Compensation for subconsultants shall be limited to the same restrictions imposed on the Consultant. The maximum markup on subconsultant services shall not exceed 5%.

Subconsultants shall be billed at the following rates:

Name	Hourly Rate
George Di Giovanni, PhD	\$184
Jennifer Clancy, PhD	\$231

Progress Payments

On or before the 15th of each month, the Consultant shall submit to the City's PM an invoice for work performed by the Consultant during the preceding month. The invoice shall contain the City's Contract Number and set out all items for payment including, but not limited to: the name of the individual, labor category, direct labor rate, hours worked during the period, and tasks performed. The Consultant shall also attach photocopies of claimed reimbursable expenses, if applicable. The Consultant shall stamp and approve all subconsultant invoices and note on the subconsultant invoice what they are approving as "billable" under the contract. The billing from the prime should clearly roll up labor and reimbursable costs for the prime and subconsultants – matching the subconsultant invoices. Prior to initial billing, the Consultant shall develop a billing format for approval by the City.

The City shall pay all amounts to which no dispute exists within 30 days of receipt of the invoice. Payment of any bill, however, does not preclude the City from later determining that an error in payment was made and from withholding the disputed sum from the next progress payment until the dispute is resolved.

The Consultant shall make full payment to its subconsultants within 10 business days following receipt of any payment made by the City to Consultant.

ACH Payments

It is the City's policy to pay its Consultant invoices via electronic funds transfers through the automated clearing house (ACH) network. To initiate payment of invoices, Consultants shall execute the City's standard ACH Vendor Payment Authorization Agreement which is available on the City's website at: <http://www.portlandoregon.gov/bfs/article/409834>.

Upon verification of the data provided, the Payment Authorization Agreement will authorize the City to deposit payment for services rendered directly into Consultant accounts with financial institutions. All payments shall be in United States currency.

WORKERS' COMPENSATION INSURANCE STATEMENT

IF YOUR FIRM HAS CURRENT WORKERS' COMPENSATION INSURANCE, CONTRACTOR MUST SIGN HERE:

I, undersigned, am authorized to act on behalf of entity designated below, and I hereby certify that this entity has current Workers' Compensation Insurance.

Contractor Signature: [Signature] Date: 2/25/15 Entity: Analytical Services Inc.

IF YOUR FIRM DOES NOT HAVE CURRENT WORKERS' COMPENSATION INSURANCE, CONTRACTOR MUST COMPLETE THE FOLLOWING INDEPENDENT CONTRACTOR CERTIFICATION STATEMENT:

As an independent contractor, I certify that I meet the following standards:

- 1. The individual or business entity providing labor or services is registered under ORS Chapter 701, if the individual or business entity provides labor or services for which such registration is required;
2. Federal and state income tax returns in the name of the business or a business Schedule C or form Schedule F as part of the personal income tax return were filed for the previous year if the individual or business entity performed labor or services as an independent contractor in the previous year; and
3. The individual or business entity represents to the public that the labor or services are to be provided by an independently established business.

- A. The labor or services are primarily carried out at a location that is separate from the residence of an individual who performs the labor or services, or are primarily carried out in a specific portion of the residence, which portion is set aside as the location of the business;
B. Commercial advertising or business cards as is customary in operating similar businesses are purchased for the business, or the individual or business entity has a trade association membership;
C. Telephone listing and service are used for the business that is separate from the personal residence listing and service used by an individual who performs the labor or services;
D. Labor or services are performed only pursuant to written contracts;
E. Labor or services are performed for two or more different persons within a period of one year; or
F. The individual or business entity assumes financial responsibility for defective workmanship or for service not provided as evidenced by the ownership of performance bonds, warranties, errors and omission insurance or liability insurance relating to the labor or services to be provided.

Contractor Signature

Date

FOR CITY USE ONLY

PROJECT MANAGER-COMPLETE ONLY IF CONTRACTOR DOES NOT HAVE WORKER'S COMPENSATION INSURANCE ORS 670.600 Independent contractor standards. As used in various provisions of ORS Chapters 316, 656, 657, and 701, an individual or business entity that performs labor or services for remuneration shall be considered to perform the labor or services as an "independent contractor" if the standards of this section are met. The contracted work meets the following standards:

- 1. The individual or business entity providing the labor or services is free from direction and control over the means and manner of providing the labor or services, subject only to the right of the person for whom the labor or services are provided to specify the desired results;
2. The individual or business entity providing labor or services is responsible for obtaining all assumed business registrations or professional occupation licenses required by state law or local government ordinances for the individual or business entity to conduct the business;
3. The individual or business entity providing labor or services furnishes the tools or equipment necessary for performance of the contracted labor or services;
4. The individual or business entity providing labor or services has the authority to hire and fire employees to perform the labor or services;
5. Payment for the labor or services is made upon completion of the performance of specific portions of the project or is made on the basis of an annual or periodic retainer.

City Project Manager Signature

Date

CONSULTANT SIGNATURE:

This contract 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 Agreement.

The parties agree the City and Consultant may conduct this transaction, including any contract amendments, by electronic means, including the use of electronic signatures.

I, the undersigned, agree to perform work outlined in this contract in accordance to the STANDARD CONTRACT PROVISIONS, the terms and conditions, made part of this contract by reference, and the STATEMENT OF THE WORK made part of this contract by reference; hereby certify under penalty of perjury that I/my business am not/is not in violation of any Oregon tax laws; hereby certify that my business is certified as an Equal Employment Opportunity Affirmative Action Employer and is in compliance with the Equal Benefits Program as prescribed by Chapter 3.100 of Code of the City of Portland; and hereby certify I am an independent contractor as defined in ORS 670.600.

Analytical Services, Inc.

BY:  Date: 2/25/15

Name: Dalia Alri

Title: Vice President

CONTRACT NUMBER: 30004436

CONTRACT TITLE: Laboratory Services for Cryptosporidium and Giardia Analysis in Water

CITY OF PORTLAND SIGNATURES:

By: N/A
Bureau Director

Date: _____

By: _____
Chief Procurement Officer

Date: _____

By: N/A
Elected Official

Date: _____


Approved:

By: N/A
Office of City Auditor

Date: _____

APPROVED AS TO FORM

Approved as to Form:

By: 
Office of City Attorney

Date: 3/4/15

CITY ATTORNEY

AGREEMENT FOR PROFESSIONAL, TECHNICAL OR EXPERT SERVICES
WORK ORDER # (insert work order number)
Contract 30004436

The Contract between the City of Portland Water Bureau (PWB) and (insert Consultant name) provides for assistance of the undersigned firm on (insert project type) projects.

This Work Order shall require the Consultant to perform (insert type of work) as directed in the Contract. The specific scope of tasks to be performed by Consultant, including schedule and budget, are outlined below.

Scope of Work: The Consultant shall (insert detailed scope of work).

Deliverables: The Consultant shall provide the PWB Project Manager with (insert detailed deliverables).

Schedule: The work described in this work order shall be completed no later than MM/DD/YYYY, absent any unanticipated issues.

Budget: The maximum compensation relating to these services shall not exceed \$XXX and as referenced in Exhibit XX Budget Detail, attached to this Task Order. Unless authorized by a written Amendment to the Task Order no additions or changes shall be made to this Task Order. The hourly rates shall be as indicated in the Contract. The Water Bureau's Administrator shall approve all task orders and task order amendments when amending the task order to increase compensation is greater than 25% of the original task order amount.

The hourly rates for this work order shall be as directed in the Contract.

All provisions of the Contract shall remain in full force and effect.

In witness hereof, the parties have duly executed this Work Order as of the date written below.

Consultant:

By: _____ Date:

City of Portland:

By: _____ Date:

CITY OF PORTLAND
AGREEMENT FOR PROFESSIONAL, TECHNICAL, OR EXPERT SERVICES

CONTRACT NUMBER 30004452

TITLE OF WORK PROJECT
Laboratory Services for Cryptosporidium and Giardia Analysis in Water

This contract is between the City of Portland ("City," or "Bureau") and Scientific Methods, Inc. (SMI), hereafter called Consultant. The City's Project Manager for this contract is Erik Englebert.

Effective Date and Duration

This contract shall become effective on May 1, 2015. This contract shall expire, unless otherwise terminated or extended, on April 30, 2020.

Consideration

- (a) City agrees to pay Consultant a sum not to exceed \$300,000 for accomplishment of the work.
(b) Interim payments shall be made to Consultant according to the schedule identified in the STATEMENT OF THE WORK AND PAYMENT SCHEDULE.

CONSULTANT DATA AND CERTIFICATION

Name (print full legal name): SCIENTIFIC METHODS INC
Address: 12441 BECKLEY ST. GRANGER IN. 46530
Employer Identification Number (EIN): 62-1479201
[INDEPENDENT CONTRACTORS: DO NOT PROVIDE SOCIAL SECURITY NUMBER (SSN) - LEAVE BLANK IF NO EIN]
City of Portland Business Tax Registration Number: 735237
Citizenship: Nonresident alien [] Yes [x] No
Business Designation (check one): [] Individual [] Sole Proprietorship [] Partnership [x] Corporation
[] Limited Liability Co (LLC) [] Estate/Trust [] Public Service Corp. [] Government/Nonprofit

Payment information will be reported to the IRS under the name and taxpayer I.D. number provided above. Information must be provided prior to contract approval.

TERMS AND CONDITIONS

1. Standard of Care

Consultant shall perform all services under this contract using that care, skill, and diligence that would ordinarily be used by similar professionals in this community in similar circumstances.

2. Effect of Expiration

Passage of the contract expiration date shall not extinguish, prejudice, or limit either party's right to enforce this Contract with respect to any default or defect in performance that has not been corrected.

3. Order of Precedence

This contract consists of these Terms and Conditions, the Statement of Work and Payment Schedule, and any exhibits that are attached. Any apparent or alleged conflict between these items will be resolved by using the following order of precedence: a) these Terms and Conditions; b) Statement of Work and Payment Schedule; and c) any exhibits attached to the contract.

4. Early Termination of Contract

- (a) The City may terminate this Contract for convenience at any time for any reason deemed appropriate in its sole discretion. Termination is effective immediately upon notice of termination given by the City.
(b) Either party may terminate this Contract in the event of a material breach by the other party that is not cured. Before termination is permitted, the party seeking termination shall give the other party written notice of the breach, its intent to terminate, and fifteen (15) calendar days to cure the breach. If the breach is not cured within 15 days, the party seeking termination may terminate immediately by giving written notice that the Contract is terminated.

5. Remedies and Payment on Early Termination

- (a) If the City terminates pursuant to 4(a) above, the City shall pay the Consultant for work performed in accordance with the Contract prior to the termination date. No other costs or loss of anticipated profits shall be paid.
- (b) If the City terminates pursuant to 4(b) above, the City is entitled all remedies available at law or equity. In addition, Consultant shall pay the City all damages, costs, and sums incurred by the City as a result of the breach.
- (c) If the Consultant justifiably terminates the contract pursuant to subsection 4(b), the Consultant's only remedy is payment for work prior to the termination. No other costs or loss of anticipated profits shall be paid.
- (d) If the City's termination under Section 4(b) was wrongful, the termination shall be automatically converted to one for convenience and the Consultant shall be paid as if the Contract was terminated under Section 4(a).
- (e) In the event of early termination the Consultant's work product before the date of termination becomes property of the City.

6. Assignment

Consultant shall not subcontract, assign, or transfer any of the work scheduled under this agreement, without the prior written consent of the City. Notwithstanding City approval of a subconsultant, the Consultant shall remain obligated for full performance hereunder, and the City shall incur no obligation other than its obligations to the Consultant hereunder. The Consultant agrees that if subconsultants are employed in the performance of this Agreement, the Consultant and its subconsultants are subject to the requirements and sanctions of ORS Chapter 656, Workers' Compensation.

7. Compliance with Applicable Law

Consultant shall comply with all applicable federal, state, and local laws and regulations. Consultant agrees it currently is in compliance with all tax laws. Consultant shall comply with Title VI of the Civil Rights Act of 1964 and its corresponding regulations as further described at: <http://www.portlandoregon.gov/bibs/article/446806>. In connection with its activities under this Contract, the Contractor shall comply with all applicable Grant Terms and conditions. This includes all terms and conditions contained in this contract and, for a contract involving a grant, the Grant Terms and Conditions as further described at: <http://www.portlandoregon.gov/bibs/article/455735>.

8. Indemnification for Property Damage and Personal Injury

Consultant shall indemnify, defend, and hold harmless the City, its officers, agents, and employees, from all claims, losses, damages, and costs (including reasonable attorney fees) for personal injury and property damage arising out of the intentional or negligent acts or omissions of the Consultant, its Subconsultants, suppliers, employees or agents in the performance of its services. Nothing in this paragraph requires the Consultant or its insurer to indemnify the City for claims of personal injury or property damage caused by the negligence of the City. This duty shall survive the expiration or termination of this contract.

9. Insurance

Consultant shall obtain and maintain in full force at Consultant expense, throughout the duration of the Contract and any warranty or extension periods, the required insurance identified below. The City reserves the right to require additional insurance coverage as required by statutory or legal changes to the maximum liability that may be imposed on Oregon cities during the term of the Contract.

- (a) Workers' compensation insurance as required by ORS Chapter 656 and as it may be amended. Unless exempt under ORS Chapter 656, the Consultant and all subconsultants shall maintain coverage for all subject workers.

Required and attached // Proof of exemption (i.e., completion of Workers' Compensation Insurance Statement)

- (b) General commercial liability (CGL) insurance covering bodily injury, personal injury, property damage, including coverage for independent contractor's protection (required if any work will be subcontracted), premises/operations, contractual liability, products and completed operations, in per occurrence limit of not less than \$1,000,000, and aggregate limit of not less than \$2,000,000.

Required and attached // Waived by Bureau Director or designee // Reduce by Bureau Director or designee

- (c) Automobile liability insurance with coverage of not less than \$1,000,000 each accident, and an umbrella or excess liability coverage of \$2,000,000. The insurance shall include coverage for any auto or all owned, scheduled, hired and non-owned auto. This coverage may be combined with the commercial general liability insurance policy.

Required and attached // Waived by Bureau Director or designee // Reduce by Bureau Director or designee

- (d) Professional Liability and/or Errors & Omissions insurance to cover damages caused by negligent acts, errors or omissions related to the professional services, and performance of duties and responsibilities of the Consultant under this contract in an amount with a combined single limit of not less than \$1,000,000 per occurrence and aggregate of \$3,000,000 for all claims per occurrence. In lieu of an occurrence based policy, Consultant may have claims-made policy in an amount not less than \$1,000,000 per claim and \$3,000,000 annual aggregate, if the Consultant obtains an extended reporting period or tail coverage for not less than three (3) years following the termination or expiration of the Contract.

Required and attached // Waived by Bureau Director or designee // Reduced by Bureau Director or designee

Continuous Coverage; Notice of Cancellation: The Consultant agrees to maintain continuous, uninterrupted coverage for the duration of the Contract. There shall be no termination, cancellation, material change, potential exhaustion of aggregate limits or non renewal of coverage without thirty (30) days written notice from Consultant to the City. If the insurance is canceled or terminated prior to completion of the Contract, Consultant shall immediately notify the City and provide a new policy with the same terms. Any failure to comply with this clause shall constitute a material breach of Contract and shall be grounds for immediate termination of this Contract.

Additional Insured: The liability insurance coverages, except Professional Liability, Errors and Omissions, or Workers' Compensation, shall be without prejudice to coverage otherwise existing, and shall name the City of Portland and its bureaus/divisions, officers, agents and employees as Additional Insureds, with respect to the Consultant's activities to be performed, or products or services to be provided. Coverage shall be primary and non-contributory with any other insurance and self-insurance. Notwithstanding the naming of additional insureds, the insurance shall protect each additional insured in the same manner as though a separate policy had been issued to each, but nothing herein shall operate to increase the insurer's liability as set forth elsewhere in the policy beyond the amount or amounts for which the insurer would have been liable if only one person or interest had been named as insured.

Certificate(s) of Insurance: Consultant shall provide proof of insurance through acceptable certificate(s) of insurance, including additional insured endorsement form(s) and all other relevant endorsements, to the City prior to the award of the Contract if required by the procurement documents (e.g., request for proposal), or at execution of Contract and prior to any commencement of work or delivery of goods or services under the Contract. The Certificate(s) will specify all of the parties who are endorsed on the policy as Additional Insureds (or Loss Payees). Insurance coverages required under this Contract shall be obtained from insurance companies acceptable to the City of Portland. The Consultant shall pay for all deductibles and premium. The City reserves the right to require, at any time, complete, certified copies of required insurance policies, including endorsements evidencing the coverage the required.

Subconsultant(s): Consultant shall provide evidence that any subconsultant, if any, performing work or providing goods or service under the Contract has the same types and amounts of coverages as required herein or that the subconsultant is included under Consultant's policy.

10. Ownership of Work Product

All work product produced by the Consultant under this contract is the exclusive property of the City. "Work Product" includes, but is not limited to: research, reports, computer programs, manuals, drawings, recordings, photographs, artwork and any data or information in any form. The Consultant and the City intend that such Work Product shall be deemed "work made for hire" of which the City shall be deemed the author. If for any reason a Work Product is deemed not to be a "work made for hire," the Consultant hereby irrevocably assigns and transfers to the City all right, title and interest in such work product, whether arising from copyright, patent, trademark, trade secret, or any other state or federal intellectual property law or doctrines. Consultant shall obtain such interests and execute all documents necessary to fully vest such rights in the City. Consultant waives all rights relating to work product, including any rights arising under 17 USC 106A, or any other rights of authorship, identification or approval, restriction or limitation on use or subsequent modifications. If the Consultant is an architect, the Work Product is the property of the Consultant-Architect, and by execution of this contract, the Consultant-Architect grants the City an exclusive and irrevocable license to use that Work Product.

Notwithstanding the above, all pre-existing trademarks, services marks, patents, copyrights, trade secrets, and other proprietary rights of Consultant are and will remain the exclusive property of Consultant.

11. EEO Certification

In the event Consultant provides in excess of \$2,500.00 for services to the City in any fiscal year, Consultant shall obtain EEO certification from the City.

12. Equal Benefits

Consultant must comply with the City's Equal Benefits program as prescribed by Chapter 3.100 of the Code of the City of Portland. The required documentation must be filed with Procurement Services, City of Portland, prior to contract execution.

13. Successors in Interest

The provisions of this contract shall be binding upon and shall inure to the benefit of the parties hereto, and their respective successors and approved assigns.

14. Severability

The parties agree that if any term or provision of this contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular term or provision held to be invalid.

15. Waiver

The failure of the City to enforce any provision of this contract shall not constitute a waiver by the City of that or any other provision.

16. Errors

The Consultant shall promptly perform such additional services as may be necessary to correct errors in the services required by this contract without undue delays and without additional cost.

17. Governing Law/Venue

The provisions of this contract shall be interpreted, construed and enforced in accordance with, and governed by, the laws of the State of Oregon without reference to its conflict of laws provisions that might otherwise require the application of the law of any other jurisdiction. Any action or suits involving any question arising under this contract must be brought in the appropriate court in Multnomah County Oregon.

18. Amendments

All changes to this contract, including changes to the scope of work and contract amount, must be made by written amendment and approved by the Chief Procurement Officer to be valid. Any amendment that increases the original contract amount by more than 25% must be approved by the City Council to be valid.

19. Business Tax Registration

The Consultant shall obtain a City of Portland business tax registration number as required by PCC 7.02 prior to beginning work under this Contract.

20. Prohibited Conduct

The Consultant shall not hire any City employee who evaluated the proposals or authorized the award of this Contract for two years after the date the contract was authorized without the express written permission of the City and provided the hiring is permitted by state law.

21. Payment to Vendors and Subconsultants

The Consultant shall timely pay all subconsultants and suppliers providing services or goods for this Contract.

22. Access to Records

The Consultant shall maintain all records relating to this Contract for three (3) years after final payment. The City may examine, audit and copy the Consultant's books, documents, papers, and records relating to this contract at any time during this period upon reasonable notice. Copies of these records shall be made available upon request. Payment for the reasonable cost of requested copies shall be made by the City.

23. Audits

- (a) The City may conduct financial and performance audits of the billings and services specified in this agreement at any time in the course of the agreement and during the three (3) year period established by paragraph 22. Audits will be conducted in accordance with generally accepted auditing standards as promulgated in Government Auditing Standards by the Comptroller General of the United States Government Accountability Office.
- (b) If an audit discloses that payments to the Consultant exceed the amount to which the Consultant was entitled, the Consultant shall repay the amount of the excess to the City.

24. Electronic Signatures

The City and Consultant may conduct this transaction, including any contract amendments, by electronic means, including the use of electronic signatures.

25. Merger Clause

This Contract encompasses the entire agreement of the parties, and supersedes all previous understandings and agreements between the parties, whether verbal or written.

26. Dispute Resolution/Work Regardless of Disputes

The parties shall participate in mediation to resolve disputes before conducting litigation. The mediation shall occur at a reasonable time after the conclusion of the Contract with a mediator jointly selected by the parties. Notwithstanding any dispute under this Contract, the Consultant shall continue to perform its work pending resolution of a dispute, and the City shall make payments as required by the Contract for undisputed portions of the work. In the event of litigation no attorney fees are recoverable. No different dispute resolution paragraph(s) in this contract or any attachment hereto shall supersede or take precedence over this provision.

27. Progress Reports: / Applicable / Not Applicable

If applicable, the Consultant shall provide monthly progress reports to the Project Manager as described in the Statement of the Work and Payment Schedule.

28. Consultant's Personnel: / Applicable / Not Applicable

If applicable, the Consultant shall assign the personnel listed in the Statement of the Work and Payment Schedule for the work required by the Contract and shall not change personnel without the prior written consent of the City, which shall not be unreasonably withheld.

29. Subconsultants

The Consultant shall use the subconsultants identified in its proposals. The Consultant shall not change subconsultant assignments without the prior written consent of the Chief Procurement Officer. The City will enforce all social equity contracting and Minority, Women and Emerging Small Business (M/W/ESB) subcontracting commitments submitted by the Consultant in its proposals. Failure to use the identified M/W/ESB subconsultants without prior written consent is a material breach of contract. For contracts valued \$50,000 or more, the Consultant shall submit a Monthly Subconsultant Payment and Utilization Report (MUR), made part of this contract by reference, reporting ALL subconsultants employed in the performance of this agreement. An electronic copy of the MUR may be obtained at: <http://www.portlandoregon.gov/bibs/45475>.

30. Third Party Beneficiaries

There are no third party beneficiaries to this contract. Enforcement of this contract is reserved to the parties.

31. Conflict of Interest

Contractor hereby certifies that, if applicable, its contract proposal is made in good faith without fraud, collusion or connection of any kind with any other proposer of the same request for proposals or other City procurement solicitation(s), that the Contractor as a proposer has competed solely on its own behalf without connection or obligation to, any undisclosed person or firm. Contractor certifies that it is not a City official/employee or a business with which a City official/employee is associated, and that to the best of its knowledge, Contractor, its employee(s), its officer(s) or its director(s) is not a City official/employee or a relative of any City official/employee who: i) has responsibility in making decisions or ability to influence decision-making on the contract or project to which this contract pertains; ii) has or will participate in evaluation or management of the contract; or iii) has or will have financial benefits in the contract. Contractor understands that should it elect to employ any former City official/employee during the term of the contract then that the former City official/Contractor employee must comply with applicable government ethics and conflicts of interest provisions in ORS Chapter 244, including but not limited to ORS 244.040(5) and ORS 244.047, and the City's Charter, Codes and administrative rules, including lobbying prohibitions under Portland City Code Section 2.12.080.

**STATEMENT OF THE WORK
AND PAYMENT SCHEDULE**

BACKGROUND

On March 14, 2012, the Oregon Health Authority (OHA) issued its Final Order granting Portland Water Bureau's (PWB) request for a treatment variance under 42 USC § 300g-4(a)(1)(B). As of April 1, 2012, OHA requires PWB to conduct *Cryptosporidium* Observation Monitoring at its Bull Run source water intake at least two (2) days per week for a total volume of at least 100 liters (L) per week. If *Cryptosporidium* is detected during Observation Monitoring, PWB must begin one (1) year of Demonstration Monitoring at a rate of at least four (4) days per week for a total volume of at least 250 L per week such that a total of at least 13,334 L are analyzed within the calendar year. After one (1) year, if the concentration of *Cryptosporidium* is less than 0.075 oocysts per 1,000 L, PWB may resume Observation Monitoring.

For both Observation Monitoring and Demonstration Monitoring, PWB must also collect daily samples when turbidity at the intake is greater than 2.0 Nephelometric Turbidity Units (NTU) but less than 5.5 NTU. When raw water turbidity is greater than or equal to 5.5 NTU, PWB would not be required to sample for *Cryptosporidium* because the PWB cannot serve Bull Run source water to customers when turbidity is greater than 5.49 NTU.

In addition to intake monitoring, PWB is also required to conduct *Cryptosporidium* monitoring at the four (4) major tributary streams in the Bull Run watershed. Tributary stream monitoring is scheduled once every four (4) weeks and in response to storm events.

To ensure that the *Cryptosporidium* monitoring requirements of the Final Order are met regardless of extenuating circumstances, PWB has divided the required monitoring into two (2) Divisions of Work that have been awarded to two (2) different Consultants. Division of Work 1: Intake Compliance Monitoring has been assigned to a separate Consultant under a separate contract and Division of Work 2: Tributary Stream Monitoring has been assigned to this Consultant. Division of Work 2 responsibilities include serving as a back-up for the Consultant that is assigned to Division of Work 1. The back-up tasks the Consultant shall complete are listed below.

- Task 1: Tributary Stream Sample Analysis
- Task 2: Backup Intake Compliance Sample Analysis
- Task 3: Experimental Matrix Spike Sample Analysis
- Task 3: Follow-up work for *Cryptosporidium*-positive samples
- Task 4: Consulting Services.

General Requirements

The Consultant shall be accredited through a State laboratory certification program for monitoring to comply with the Long Term 2 Enhanced Surface Water Treatment Rule (LT2). The Consultant shall be approved to perform Environmental Protection Agency (EPA) Method 1623 and 1623.1. Furthermore, the Consultant shall have and maintain at minimum secondary accreditation through the Oregon Environmental Laboratory Accreditation Program. The Consultant shall submit results of ongoing Performance Tests (PTs) performed in accordance with the accrediting body to PWB.

SCOPE OF WORK

The Consultant shall perform the following services and shall work closely with the PWB Project Manager (PM) to provide the following services required by the PWB within the time frames needed to meet reporting obligations or project schedules.

Project Management

The Consultant's PM shall be the main point of contact and shall be responsible for ensuring that all work is performed according to the Contract and notifying the PWB PM if any Contract provisions cannot be met.

The Consultant shall work with the PWB PM to establish and document work flow processes, including but not limited to sample shipment, sample receipt, analyses, and reporting of all results to PWB. The Consultant shall be responsible for ensuring that the agreed upon work flow processes are followed by the Consultant's staff.

The Consultant PM shall provide sample field sheets and chain of custody forms to the PWB PM. Electronic copies shall be delivered to the PWB PM in an editable file such as Microsoft (MS) Word or Excel or as directed by the PWB PM.

Work Performed by the City

The PWB PM or designated PWB staff shall be responsible for the following tasks:

- Coordinating with the Consultant to develop work flow processes;
- Providing sampling schedules and notifying the Consultant of changes to the schedules;
- Notification of sample shipment listing the sample(s) that have been shipped, sample information, requested analyses, and turnaround times;
- Notification of special requests such as unscheduled samples, rush turn-around times, or weekend/holiday work;
- Reviewing laboratory results and other deliverables prepared by the Consultant; and,
- Providing the Consultant data or other information relevant to the project, as needed.

Task 1 –Tributary Stream Sample Analysis

The Consultant shall analyze water samples collected from PWB's four (4) tributary sites for *Cryptosporidium* and *Giardia*. The PWB PM may request that samples be analyzed by EPA Method 1623, EPA Method 1623.1, or another method required by EPA at the time. The requested method shall be specified for each sample that is submitted for analysis.

PWB anticipates collecting scheduled samples from each of the four (4) tributaries once every four (4) weeks. PWB also anticipates collecting six (6) to eight (8) storm event samples from each of the four (4) tributaries for each Water Year (a Water Year is defined as October 1 through September 30). A matrix spike for each site shall be scheduled three times annually.

The PWB PM shall provide the Consultant with a tributary sample collection schedule indicating the calendar day and turn-around time for each field and matrix spike sample. The default turn-around time for tributary samples shall be five (5) business days. A business day is defined as Monday through Friday.

If scheduled tributary samples must be rescheduled due to an unforeseen circumstance such as an emergency situation, PWB or Consultant error, loss in shipment, arriving out of hold time, arriving outside the acceptable temperature range, or other unforeseen reasons; replacement samples may be collected by PWB and shipped to the Consultant the following week.

The PWB PM shall notify the Consultant via email when storm event samples are collected. The Consultant shall be responsible for providing staff coverage to ensure that storm event samples are analyzed, even when this involves weekend or holiday work. Samples analyzed during a weekend or holiday shall be subject to a surcharge fee as listed in the compensation section of the Contract.

Additional samples may also be collected at the tributaries or storage reservoirs fed by the tributaries following a *Cryptosporidium* positive sample or other water quality incident. PWB shall notify the Consultant after deciding to collect additional samples. The Consultant shall be responsible for providing staff coverage to ensure that additional samples are analyzed, even when this involves weekend or holiday work. Samples analyzed during a weekend or holiday shall be subject to a surcharge fee as listed in the compensation section of the Contract. PWB may request one (1) day turn-around time for additional samples depending on the circumstances. Samples with one (1) day turn-around time shall be subject to a surcharge fee as listed in the compensation section of the Contract.

Task 2 – Backup Intake Compliance Sample Analysis

In the event that the primary Consultant for Intake Compliance Sample Analysis is unable to accept samples on either a short-term or long-term basis, the Consultant shall analyze intake field and matrix spike water samples for *Cryptosporidium* and *Giardia*. The PWB PM may request that intake samples be analyzed by EPA Method 1623, EPA Method 1623.1, Precoat modification, or another method required by EPA at the time. The requested method shall be specified for each sample that is submitted for analysis.

The standard sampling frequency during Observation Monitoring shall be either two (2) 50 L or ten (10) 10 L field samples per week (a week is Sunday to Saturday) and at least one (1) matrix spike sample per 20 field samples. If *Cryptosporidium* is detected in any intake sample, Demonstration Monitoring shall begin the week following the day after the positive sample is reported to PWB. The standard sampling frequency shall increase to five (5) 50-L or 25 10-L field samples per week and at least one (1) matrix spike sample per 20 field samples during Demonstration Monitoring.

In the event that PWB requests the Consultant to provide services for Intake Compliance Sample Analysis, the PWB PM shall provide the Consultant with a compliance sample collection schedule indicating the calendar day and turn-around time for each field and matrix spike sample. PWB shall consider Consultant's regular operation and holiday schedule; however, meeting intake compliance requirements shall take priority. If PWB is required to begin Demonstration monitoring, a revised sample collection schedule for the intake shall be submitted to the Consultant.

The maximum turn-around time for intake compliance samples shall be five (5) business days. The last two (2) samples of the month shall have a default turn-around time of one (1) business day. The requested turn-around time shall be specified for each sample that is submitted for analysis. Samples with one (1) day turn-around time shall be subject to a surcharge fee as listed in the compensation section of the Contract.

If intake samples must be rescheduled due to an unforeseen circumstance including, but not limited to emergency situations, PWB or Consultant error, loss in shipment, arriving out of hold time, arriving outside the acceptable temperature range, or other unforeseen reasons, replacement samples shall be collected by PWB and shipped to the Consultant for analysis within the same sampling week.

Unscheduled intake compliance samples consisting of either one (1) 50 L sample or five (5) 10 L samples shall be collected daily when intake turbidity is greater than 2.0 NTU but less than 5.5 NTU. Unscheduled event sampling may result in sample collection on or prior to a weekend or holiday. The PWB PM shall notify the Consultant via email when an unscheduled sample is collected. The Consultant shall be responsible for providing staff coverage to ensure that unscheduled intake compliance samples are analyzed within holding time, even when this involves weekend or holiday work. The Consultant must maintain the ability to receive and process samples 365 days per year for the duration of this contract.

Samples that must be analyzed during a weekend or holiday in order to meet holding time requirements shall be subject to a surcharge fee as listed in the compensation section of the Contract.

Task 3 – Experimental Matrix Spike Sample Analysis

In the event that the primary Consultant for Intake Compliance Sample Analysis is unable to accept samples on either a short-term or long-term basis the Consultant shall analyze experimental matrix spike samples to track *Cryptosporidium* oocyst recovery in the source water and to test the performance of alternative methods or modifications such as EPA Method 1623.1. Experimental matrix spike samples are collected at a frequency of once per month throughout most of the calendar year; the frequency may increase from approximately June through November to track seasonally low recoveries.

In the event that PWB requests the Consultant to provide services for Intake Compliance Sample Analysis the PWB PM shall provide the Consultant with an experimental matrix spike sample collection schedule indicating the calendar day and turn-around time for each field and matrix spike sample. The default turn-around time for experimental matrix spike samples shall be five (5) business days.

Task 4 – Follow-up work for *Cryptosporidium*-positive samples

The Consultant shall notify the PWB PM immediately via telephone of any sample in which *Cryptosporidium* oocysts are detected. Contact with the PWB PM must be direct and not via phone message or email. The Consultant shall not submit results for samples reported as positive for *Cryptosporidium* prior to making successful contact with the PWB PM.

The Consultant shall provide color digital photomicrographs of any *Cryptosporidium*-positive slide. The Consultant shall record the location of the oocyst(s) on the slide and prepare Fluorescein Isothiocyanate (FITC), 4'-6-Diamidino-2-phenylindole (DAPI), and Differential Interface Contrast (DIC) color digital photographs. The photomicrographs must include a scale. The Consultant shall maintain a digital library of all samples reported as positive for *Cryptosporidium*.

For all *Cryptosporidium* positive slides, the Consultant shall attempt genotyping using the single-round multiplex Polymerase Chain Reaction (PCR) tool targeting the 18S ribosomal RNA (18S) and heat shock protein 70 (hsp70) as described in WaterRF Project 4099 (<http://www.waterrf.org/PublicReportLibrary/4099.pdf>). PCR products for the 18S and hsp70 genes shall be sequenced and Basic Local Alignment Search Tool (BLAST) and phylogenetic analysis performed. The Consultant shall prepare

results of genotyping analyses, including work performed by any sub-consultants, in a written memorandum, including all supporting documentation as attachments.

Task 5 – Consulting Services

During the course of this project, PWB may require additional technical services from the Consultant. Additional technical services may include, but are not limited to, method modifications and optimization, interpretation of sample results, expert opinion, or other technical assistance relevant to communicating the significance of sample results.

These types of services shall be authorized via Work Orders issued by PWB's Contract Administration Branch (CAB). A sample Work Order form is attached as Exhibit A to this contract. Work Orders shall be issued as project needs are identified. The Work Order shall establish the scope of work, schedule, deliverables, and compensation for each project. Work Orders require each party's approving authorities' approval in writing to proceed. PWB's approving authority is the Operations Group Director.

Work cannot commence until PWB CAB issues a Work Order Notice to Proceed. The Notice to Proceed shall be e-mailed to the Consultant along with a PDF of the signed Work Order. Any changes to a signed Work Order must be done as an amendment to the Work Order.

Additional Contract Provisions

- A. Accreditation-The Consultant shall be responsible for maintaining the required accreditations for the duration of Contract and must immediately notify the PWB PM of any changes to their accreditation status. Failure to maintain the required accreditations shall be considered a breach of the contract and grounds for termination of the Contract.
- B. Laboratory Capability and Capacity-The Consultant shall be required to maintain the necessary capability and capacity to analyze up to 50 field and matrix spike samples per week and to receive and analyze samples within holding times 365 days per year for the duration of the Contract.
- C. Quality Assurance/Quality Control-The Consultant shall be responsible for meeting all required quality assurance and quality control requirements in accordance with the analytical method(s) used. This shall include all requirements of the State accrediting programs.
- D. Precoat Modification-The Consultant shall perform Proficiency Testing for the Precoat modification at the frequency required by the primary State accrediting program.
- E. Minimum Number of Analysts and Analyst Experience-The Consultant shall retain a minimum of two laboratory analysts, each having a minimum of four (4) years of microscopy experience analyzing *Cryptosporidium* in water samples. At least one (1) of the analysts shall be a Principal Analyst based on the criteria specified in EPA Supplement 2 to the Fifth Edition of the Manual for the Certification of Laboratories Analyzing Drinking Water.
- F. Sample Volume-The Consultant shall be approved, and remain approved throughout the life of the contract, to analyze by EPA Method 1623 and 1623.1 both 10 L samples and 50 L samples filtered through an Envirochek HV capsule.
- G. Filtered and Bulk Field Samples-The Consultant shall accept both field filtered samples and bulk samples.
- H. Standard Operating Procedures-The Consultant shall provide electronic copies of standard operating procedures (SOP) for all *Cryptosporidium* methods employed for PWB samples to the PWB PM. The SOPs shall include reagents to be employed for all analyses. Any modifications or changes to the SOPs that are provided to PWB shall be communicated to and approved by the PWB PM in writing.
- I. Filter Clogging-In cases where the filter clogs prior to field-filtration of the target sample volume, PWB shall collect and ship the remaining volume in bulk containers to the Consultant. The Consultant shall filter and analyze the remaining required volume. For all filtration by the Consultant, unless otherwise stated, the Consultant may use as many filters as is necessary to process and analyze the entire target sample volume.
- J. Packed Pellet Volume-If a sample yields a packed pellet volume in excess of 0.5 mL, the Consultant shall analyze the entire concentrated sample, regardless of pellet size, by processing the required number of subsamples.
- K. Review of Slides Reported as Positive for *Cryptosporidium*-All microscopic slides reported as positive for *Cryptosporidium* must be reviewed by the Consultant's Principal Analyst.
- L. Archiving of Microscopic Slides Reported as Positive for *Cryptosporidium*-The Consultant shall archive microscopic slides reported as being positive for *Cryptosporidium* for the duration of the Contract. The slides shall be the sole property of PWB. Slides must be well maintained and available so that PWB may request them at any time for the duration of the Contract, and for three (3) years following contract termination.

- M. No Formalin-Due to the interference of formalin with PCR amplification, the Consultant shall not use a mounting medium and/or fixing buffer that contains formalin or any other products known to interfere with PCR amplification for PWB samples.
- N. Sample Shipping Containers-The Consultant shall provide all necessary shipping containers and materials for shipping samples. Shipping containers and materials shall include Thermosafe or equivalent coolers (dimensions: outside box 15.5" x 11.5" x 9.5"; inside Styrofoam cooler, 12" x 8" x 6"), insulated filter pouches with temperature control bottles, refreezable ice packs, package filler, and any other materials necessary for properly shipping samples. Shipping containers and materials shall be returned within five (5) business days of being received by the Consultant. PWB may elect to use its own shipping materials that also must be returned within five (5) business days of being received by the Consultant. The Consultant shall ship packing containers via ground service, unless the PWB PM or designated PWB staff requests a different service. The Consultant shall provide for timely delivery of sample containers and shipping containers to:
- Portland Water Bureau
Attn: Erik Englebert
1900 N. Interstate Avenue
Portland, OR 97227
- O. Sampling Supplies-The Consultant shall provide consumable sampling supplies including but not limited to Envirochek HV filters and Cubitainers at a per-unit cost as shown in the cost matrix in the Compensation section below.
- P. Sample Receipt and Acceptance-The Consultant shall notify the PWB PM by 12:00 p.m. Pacific time the same day of scheduled arrival of all samples to confirm that the samples have been received as scheduled. The Consultant shall notify the PWB PM of the condition of the samples upon arrival, including samples received in unacceptable condition due to hold time violations, compromised sample containers, temperature violations, or any other condition rendering the sample unacceptable for analysis.
- Q. Notification of Unacceptable Samples-The Consultant shall notify the PWB PM within the same day of any sample rendered unacceptable for analysis while in the possession of the laboratory. If a sample is rendered unacceptable for analysis while in the possession of the laboratory due to Consultant error, the Consultant shall bear all costs associated with replacement of the sample and shall present written corrective actions taken within 15 calendar days of the violation.
- R. Failure to Complete on Time-The Consultant shall be required to notify PWB PM immediately by e-mail and telephone if any analysis/analyses cannot be reported within the required turn-around time. Data reports submitted more than three (3) business days past the required turn-around time or the chronic late submission of reports for any number of days past the required turn-around times shall be considered grounds for termination of the Contract.

DELIVERABLES

All deliverables and resulting work products from this contract shall become the property of the City of Portland. As such, the Consultant and their subconsultants grant the City the right to copy and distribute (in any and all media and formats) project deliverables for regulatory, project certification/recognition, program development, public education, and/or for any purposes at the sole discretion of the City of Portland.

The Consultant shall provide the PWB PM with reports and electronic data of sample results. All reports shall be complete, accurate, formatted as required, and submitted by e-mail directly to the PWB PM by the requested turn-around time.

The Consultant shall be required to provide the following reports:

- 1) Individual Sample Result Reports – The Consultant shall submit results for each field sample and matrix spike sample analyzed. For each sample, the Consultant shall submit a report packet by email as one PDF document directly to the PWB PM and their designees containing the following elements:
 - a. One (1) page laboratory report;
 - b. Scanned copy of the field sheet;
 - c. Scanned copy of the laboratory bench sheet;
 - d. Scanned copy of the laboratory slide examination form(s); and,
 - e. Scanned copy of the chain of custody form.
- 2) Electronic Data Transfers – The Consultant shall provide sample result data in the form of an electronic data transfer (EDT) that can be uploaded directly into PWB's laboratory information management system (Labworks LIMS). The EDT shall be an MS Excel spreadsheet; PWB shall provide the Consultant with the required format and column headers.
 - a. For Task 1 – Tributary Stream Sample Analysis, the EDT shall be transferred monthly on or before the 5th of the month following sample collection.
 - b. In the event that PWB requests the Consultant to provide services for Task 2 – Intake Compliance Sample Analysis, the EDT shall be transferred to PWB bi-monthly: once on or before the 20th of the month, and once on or before the 5th of the month following sample collection.

- 3) Monthly Intake Samples Compliance Report (Task 2 only) – PWB is required to submit intake compliance results to the OHA on a monthly basis. Results for the previous month must be submitted to OHA by the 10th of each month. In the event that PWB requests the Consultant to provide services for Task 2 – Intake Compliance Sample Analysis the Consultant shall prepare an intake compliance report and submit it to the PWB PM no later than the 5th day of the month to allow time for the PWB PM to review. The PWB PM shall provide the Consultant with a report template.
- 4) Quarterly Reporting of Ongoing Precision and Recovery Results – The Consultant shall generate a quarterly Ongoing Precision and Recovery report for reagent water and raw surface water which shall be submitted to the PWB PM by the 15th of the month. If requested by the PWB PM, the Consultant shall increase the frequency of Ongoing Precision and Recovery reports to monthly. The report shall be in the form of control charts in an Excel spreadsheet. The PWB PM shall provide a report template and quarterly due dates to the Consultant.

Follow-up Work on samples Reported as Positive for *Cryptosporidium* for Task 4

The Consultant shall prepare results of *Cryptosporidium* positive samples and genotyping attempts in a technical memorandum which shall include slide photographs, BLAST and phylogenetic results, and all other relevant supporting documentation. The Consultant shall have 30 days from the date the positive result is reported to PWB to complete all follow-up work and submit the written memorandum, unless an extension is authorized by the PWB PM.

Consulting Services for Task 5

Deliverables for consulting services shall be identified as project needs arise and established via the Work Order process.

CONSULTANT PERSONNEL

The Consultant shall assign the following personnel to do the work in the capacities designated:

NAME	ROLE ON PROJECT
Matt Hayes	Project Manager
Choi-Iok Rebecca Wong, PhD	Director of Operations, Principal Analyst, Genotyping
Fu-Chih Hsu, PhD	President & Principal Analyst
Alicia Jones	Analyst
Christopher Gunasekara, PhD	Genotyping/Sequencing

SUBCONSULTANTS

The Consultant shall assign the following subconsultants to perform work in the capacities designated:

NAME	ROLE ON PROJECT	SUBCONTRACT AMOUNT
None	N/A	\$0

The City will enforce all social equity contracting and Minority, Women and Emerging Small Business (M/W/ESB) subcontracting commitments submitted by the Consultant in its Proposal. For contracts valued \$50,000 or more, the Consultant shall submit a Monthly Subconsultant Payment and Utilization Report (MUR), made part of this contract by reference, reporting ALL subconsultants employed in the performance of this agreement. An electronic copy of the MUR may be obtained at: <http://www.portlandoregon.gov/bibs/45475>.

COMPENSATION

The maximum that the Consultant can be paid on this contract is **\$300,000** (hereafter the “not to exceed” amount). The “not to exceed” amount includes all payments to be made pursuant to this contract, including reimbursable expenses, if any. Nothing in this contract requires the City to pay for work that does not meet the Standard of Care or other requirements of the Contract. The actual amount to be paid to the Consultant may be less than the “not to exceed” amount.

The Consultant is entitled to receive progress payments for its work pursuant to the Contract as provided in more detail below. The City will pay the Consultant based on these invoices for acceptable work performed and approved until the “not to exceed” amount is reached. Thereafter, the Consultant must complete work based on the Contract without additional compensation unless there is a change to the scope of work.

Any estimate of the hours necessary to perform the work is not binding on the City. The Consultant remains responsible if the estimate proves to be incorrect. Exceeding the number of estimated hours of work does not impose any liability on the City for additional payment.

If work is completed before the “not to exceed” amount is reached, the Consultant’s compensation will be based on the Consultant’s bills previously submitted for acceptable work performed and approved.

PAYMENT TERMS: Net 30 Days**Hourly Rates**

The billing rates shall not exceed those set forth below:

Key Personnel shall be billed at the following rates:

Name	Hourly Rate
Fu-Chih Hsu, PhD	\$41.67
Choi-Iok Rebecca Wong, PhD	\$36.46
Christopher Gunasekara, PhD	\$18
Alicia Jones	\$12.70
Matt Hayes	\$19.23

Work completed by other staff shall be billed according to their classification at the following rates:

Classification	Hourly Rate
Technician	\$10
Clerical	\$15

Sample Analysis Rates

The Contractor shall be reimbursed in accordance with the rates below. The unit costs listed below shall remain constant for the term of the contract. No annual inflation adjustments shall be allowed. No other additional costs shall be considered. Sample analysis costs include all internal laboratory QA/QC such as ongoing precision and recovery (OPR) samples and reporting of results.

Sample Analysis	Cost
Field Sample, EPA Method 1623	\$260.00
Field Sample, EPA Method 1623 – Precoat Modification	\$270.00
Field Sample, EPA Method 1623.1	\$260.00
Matrix Spike Sample, EPA Method 1623	\$295.00
Matrix Spike Sample, EPA Method 1623 – Precoat Modification	\$305.00
Matrix Spike Sample, EPA Method 1623.1	\$295.00
Subsamples	\$85.00
<i>Cryptosporidium</i> / <i>Giardia</i> rush sample surcharge, 1 business day	\$125.00
Weekend/holiday sample surcharge*	\$100.00
Genotyping (PCR and melt analysis):	\$350.00
DNA sequencing	\$300.00

*The weekend/holiday sample surcharge applies to samples analyzed on a Saturday, Sunday or Federal Holiday when Consultant would otherwise be closed for business.

Supplies	Cost
Filters, Envirochek HV (each)	\$85.00
Cubitainers, 10-L (box of 30)	\$144.00
Additional analytical testing supplies*	Cost plus 20% mark-up

*Additional testing supplies shall not be purchased without first obtaining written authorization from the PWB PM.

Shipping	Cost
Shipment of packing container to PWB (cost per shipment)	\$30.00

Travel

It is the policy of the City that all travel shall be allowed only when the travel is essential to the normal discharge of the Consultant's responsibilities under the Contract. All travel must be for official City business only. All travel and lodging shall be conducted in the most efficient and cost-effective manner resulting in the best value to the City.

The travel must comply with all the requirements set forth in this section. Personal expenses shall not be authorized at any time. Travel expenses shall be reimbursed for airfare and rental vehicles only if Consultant is acting within the course and scope of his/her duties under this Contract. Alcohol is not an authorized purchase under this Contract. Receipts are required for all travel expenses. All Consultant representatives shall fly "coach class," unless Consultant personally pays the difference. All Consultant representatives shall be limited to economy or compact size rental vehicles, unless Contractor personally pays the difference.

Any Out-of-Town Travel, (transportation, lodging and per diem), for Consultant and/or experts as specified in the contract or requested by PWB to a location outside a 100 mile radius of Consultant's project office shall be reimbursed. The approved mileage rate follows the current United States General Services Administration (GSA) federal rate. Meal per diem is based on the GSA per diem rates. Per Diem Rates for Oregon may be found at the GSA website link. That website address is: <http://www.gsa.gov/perdiem>.

All travel must be pre-authorized by the City's Project Manager in writing prior to conducting that travel.

Standard Reimbursable Costs

The following costs shall be reimbursed without mark-up.

Photocopying/Reproduction Costs. Reproduction of required drawings, reports, specifications, bidding documents, in excess of the number required as part of the contract excluding the cost of reproduction for Contractors own use.

Progress Payments

On or before the 15th of each month, the Consultant shall submit to the City's Project Manager an invoice for work performed by the Consultant during the preceding month. The invoice shall contain the City's Contract Number and set out all items for payment including, but not limited to: the name of the individual, labor category, direct labor rate, hours worked during the period, and tasks performed. The Consultant shall also attach photocopies of claimed reimbursable expenses, if applicable. The Consultant shall stamp and approve all subconsultant invoices and note on the subconsultant invoice what they are approving as "billable" under the contract. The billing from the prime should clearly roll up labor and reimbursable costs for the prime and subconsultants – matching the subconsultant invoices. Prior to initial billing, the Consultant shall develop a billing format for approval by the City.

The City shall pay all amounts to which no dispute exists within 30 days of receipt of the invoice. Payment of any bill, however, does not preclude the City from later determining that an error in payment was made and from withholding the disputed sum from the next progress payment until the dispute is resolved.

The Consultant shall make full payment to its subconsultants within 10 business days following receipt of any payment made by the City to Consultant.

ACH Payments

It is the City's policy to pay its Consultant invoices via electronic funds transfers through the automated clearing house (ACH) network. To initiate payment of invoices, Consultants shall execute the City's standard ACH Vendor Payment Authorization Agreement which is available on the City's website at: <http://www.portlandoregon.gov/bfs/article/409834>.

Upon verification of the data provided, the Payment Authorization Agreement will authorize the City to deposit payment for services rendered directly into Consultant accounts with financial institutions. All payments shall be in United States currency.

WORKERS' COMPENSATION INSURANCE STATEMENT

CO: IF YOUR FIRM HAS CURRENT WORKERS' COMPENSATION INSURANCE, CONTRACTOR MUST SIGN HERE:

I, undersigned, am authorized to act on behalf of entity designated below, and I hereby certify that this entity has current Workers' Compensation Insurance

Contractor Signature: [Signature] Date: 3/9/15 Entity: SCIENTIFIC METHODS, INC.

IF YOUR FIRM DOES NOT HAVE CURRENT WORKERS' COMPENSATION INSURANCE, CONTRACTOR MUST COMPLETE THE FOLLOWING INDEPENDENT CONTRACTOR CERTIFICATION STATEMENT:

As an independent contractor, I certify that I meet the following standards:

- 1. The individual or business entity providing labor or services is registered under ORS Chapter 701, if the individual or business entity provides labor or services for which such registration is required;
2. Federal and state income tax returns in the name of the business or a business Schedule C or form Schedule F as part of the personal income tax return were filed for the previous year if the individual or business entity performed labor or services as an independent contractor in the previous year; and
3. The individual or business entity represents to the public that the labor or services are to be provided by an independently established business.

- A. The labor or services are primarily carried out at a location that is separate from the residence of an individual who performs the labor or services, or are primarily carried out in a specific portion of the residence, which portion is set aside as the location of the business;
B. Commercial advertising or business cards as is customary in operating similar businesses are purchased for the business, or the individual or business entity has a trade association membership;
C. Telephone listing and service are used for the business that is separate from the personal residence listing and service used by an individual who performs the labor or services;
D. Labor or services are performed only pursuant to written contracts;
E. Labor or services are performed for two or more different persons within a period of one year; or
F. The individual or business entity assumes financial responsibility for defective workmanship or for service not provided as evidenced by the ownership of performance bonds, warranties, errors and omission insurance or liability insurance relating to the labor or services to be provided.

Contractor Signature

Date

FOR CITY USE ONLY

PROJECT MANAGER-COMplete ONLY IF CONTRACTOR DOES NOT HAVE WORKER'S COMPENSATION INSURANCE
ORS 670.600 Independent contractor standards. As used in various provisions of ORS Chapters 316, 656, 657, and 701, an individual or business entity that performs labor or services for remuneration shall be considered to perform the labor or services as an "independent contractor" if the standards of this section are met. The contracted work meets the following standards:

- 1. The individual or business entity providing the labor or services is free from direction and control over the means and manner of providing the labor or services, subject only to the right of the person for whom the labor or services are provided to specify the desired results;
2. The individual or business entity providing labor or services is responsible for obtaining all assumed business registrations or professional occupation licenses required by state law or local government ordinances for the individual or business entity to conduct the business;
3. The individual or business entity providing labor or services furnishes the tools or equipment necessary for performance of the contracted labor or services;
4. The individual or business entity providing labor or services has the authority to hire and fire employees to perform the labor or services;
5. Payment for the labor or services is made upon completion of the performance of specific portions of the project or is made on the basis of an annual or periodic retainer.

City Project Manager Signature

Date

CONSULTANT SIGNATURE:

This contract 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 Agreement.

The parties agree the City and Consultant may conduct this transaction, including any contract amendments, by electronic means, including the use of electronic signatures.

I, the undersigned, agree to perform work outlined in this contract in accordance to the STANDARD CONTRACT PROVISIONS, the terms and conditions, made part of this contract by reference, and the STATEMENT OF THE WORK made part of this contract by reference; hereby certify under penalty of perjury that I/my business am not/is not in violation of any Oregon tax laws; hereby certify that my business is certified as an Equal Employment Opportunity Affirmative Action Employer and is in compliance with the Equal Benefits Program as prescribed by Chapter 3.100 of Code of the City of Portland; and hereby certify I am an independent contractor as defined in ORS 670.600.

Scientific Methods, Inc.

BY:  Date: 3/9/15

Name: FU-CHIH HSU

Title: PRESIDENT

CONTRACT NUMBER: 30004452

CONTRACT TITLE: Laboratory Services for Cryptosporidium and Giardia Analysis in Water

CITY OF PORTLAND SIGNATURES:

By: N/A Date: _____
Bureau Director

By: _____ Date: _____
Chief Procurement Officer


By: N/A Date: _____
Elected Official

Approved:

By: N/A Date: _____
Office of City Auditor

APPROVED AS TO FORM

Approved as to Form:

By: 
Office of City Attorney
CITY ATTORNEY

Date: 3/18/15

Contract 30004452
Exhibit A
Work Order

AGREEMENT FOR PROFESSIONAL, TECHNICAL OR EXPERT SERVICES
WORK ORDER # (insert work order number)
Contract 30004452

The Contract between the City of Portland Water Bureau (PWB) and (insert Consultant name) provides for assistance of the undersigned firm on (insert project type) projects.

This Work Order shall require the Consultant to perform (insert type of work) as directed in the Contract. The specific scope of tasks to be performed by Consultant, including schedule and budget, are outlined below.

Scope of Work: The Consultant shall (insert detailed scope of work).

Deliverables: The Consultant shall provide the PWB Project Manager with (insert detailed deliverables).

Schedule: The work described in this work order shall be completed no later than MM/DD/YYYY, absent any unanticipated issues.

Budget: The maximum compensation relating to these services shall not exceed \$XXX and as referenced in Exhibit XX Budget Detail, attached to this Task Order. Unless authorized by a written Amendment to the Task Order no additions or changes shall be made to this Task Order. The hourly rates shall be as indicated in the Contract. The Water Bureau's Administrator shall approve all task orders and task order amendments when amending the task order to increase compensation is greater than 25% of the original task order amount.

The hourly rates for this work order shall be as directed in the Contract.

All provisions of the Contract shall remain in full force and effect.

In witness hereof, the parties have duly executed this Work Order as of the date written below.

Consultant:

By: _____ Date:

City of Portland:

By: _____ Date: