AMENDMENT NO. 2

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AGREEMENT BETWEEN

TOWN OF WINDHAM, MAINE

AND

WRIGHT-PIERCE

FOR

WASTEWATER DISPOSAL FEASIBILITY STUDY

AMENDMENT NO. 2 TO AGREEMENT BETWEEN TOWN OF WINDHAM, MAINE AND WRIGHT-PIERCE FOR WASTEWATER DISPOSAL FEASIBILITY STUDY

This Amendment made the ______ day of ______, 20__, by and between TOWN OF WINDHAM, MAINE, (hereinafter called CLIENT), and WRIGHT-PIERCE (hereinafter called ENGINEER).

WHEREAS, an Agreement was entered on September 13, 2017 between the CLIENT and ENGINEER, which Agreement is entitled Agreement Between Town of Windham, Maine and Wright-Pierce for Wastewater Disposal Feasibility Study, hereinafter referred to as AGREEMENT, and

WHEREAS, said AGREEMENT contained provisions for study and report phase engineering services for a fee not to exceed \$10,000.00 (initial allowance) for Scope Item 1 (Project Development), and,

WHEREAS, AMENDMENT No. 1 to said AGREEMENT was executed on January 25, 2018) and contained provisions for study and report phase engineering services for a fee not to exceed \$18,100.00 for completion of Task 2 Phase IA, and

WHEREAS, Scope Items Task 1 and Task 2 Phase IA are completed, and

WHEREAS, the CLIENT desires to have the ENGINEER continue with Scope Item Task 2 Phase II (Hydrogeological Evaluation) and complete this work as additional engineering services to this AGREEMENT.

WHEREAS, the CLIENT shall coordinate site access for Hydrogeological Consultant under Scope Item Task 2.

NOW, THEREFORE, in consideration of said AGREEMENT and other good and valuable considerations, it is hereby agreed and acknowledged by and between CLIENT and ENGINEER to amend the AGREEMENT as follows:

- 1. The AGREEMENT shall be amended to include this Amendment, a copy of which shall be attached thereto and made a part thereof.
- 2. **SECTION 1 SCOPE OF SERVICES** shall be amended as follows:

I. Study and Report Phase: Add the following to Section A: Scope Item Task 2 Phase II is authorized per Amendment No. 2 and the specific scope of services of this authorization

is more fully described in Exhibit B, which is attached. The schedule of completion for the work is as shown in Exhibit B.

3. **SECTION 2 – COMPENSATION** shall be amended as follows:

I. Payments to the ENGINEER: INSERT the following after the second paragraph, "Fees for Scope Items as described in Exhibit B are summarized in the Table below and based on ENGINEER's Standard Billing Rates, plus Reimbursable Expenses at cost and charges for Consultants' services times a factor of 1.05.

Scope Item	Fee
Task 2, Phase II – Hydrogeological Feasibility Evaluation (continued)	\$116,400

4. **EXHIBIT B – SCOPE OF SERVICES** shall be amended as follows:

DELETE entire EXHIBIT B and replace with attached EXHIBIT B (Rev. September 13, 2018).

IN WITNESS WHEREOF, the parties hereto have made and executed this AMENDMENT to said AGREEMENT as of the day and year first above written.

CLIENT

WRIGHT-PIERCE

By: <u>Anthony T. Plante</u>

Title: <u>Town Manager</u>

Date: _____

By: Paul Birkel

Title: <u>Executive Vice President</u>

Date:

EXHIBIT B SCOPE OF SERVICES

Wastewater Disposal Feasibility Study Town of Windham, Maine Prepared by Wright-Pierce Rev. January 22, 2018 (Amendment 1) – Previously Completed Rev. September 13, 2018 (Amendment 2)

**Previously completed work is italicized for clarity. **

BACKGROUND

The CLIENT has identified a particular site ("Martin Lippman Site") which may be suitable for a public wastewater treatment and effluent disposal facility. ENGINEER will assist the CLIENT to evaluate the feasibility of the site for this purpose.

Task 1**PROJECT DEVELOPMENT – Previously Completed**

Task 1.A. Project Development – It is presently not possible to accurately estimate the required engineering scope of services and associated fee to complete the necessary evaluation of this site. ENGINEER will provide a range of project development services including, but not limited to, the following:

- *Prepare for and attend kickoff meeting with CLIENT (Completed)*
- *Review available information and data pertinent to the site (Completed)*
- Assist the CLIENT to determine the current state of historic monitoring wells located on or near to the site (Completed)
- Develop request for proposal (RFP) package for hydrogeological services firm (Completed)
- Administer hydrogeological RFP process (Completed)
- *Review hydrogeological proposal and select firm (Completed)*
- Negotiate hydrogeological firm scope and fee (Completed)
- Submit proposed hydrogeological scope of study to DEP and meet with DEP to review and revise scope as necessary To be completed in a later phase
- Develop proposed scope and fee and Amendment to Engineering Agreement for hydrogeological and engineering services to complete Phase 1A of the Hydrogeological Evaluation (Completed)

Task 2 HYDROGEOLOGICAL EVALUATION

ENGINEER and selected Hydrogeological CONSULTANT shall perform the following services:

Phase IA – Initial Hydrogeological Feasibility Evaluation – Previously Completed (Amendment 1)

- Hydrogeological Consultant shall perform the scope of services as detailed in the January 22, 2018 "Proposal for Phase 1A Hydrogeological Services" (Attachment B-1)
- 2. ENGINEER shall perform the following services:
 - a. Coordinate and administer Hydrogeological CONSULTANT services^{*}
 - b. Assist CONSULTANT to obtain available pertinent data on the site
 - c. Review CONSULTANT's technical memoranda

*Note that CLIENT shall coordinate site access with Hydrogeological Consultant.

The following scope of work is to be added as Amendment 2 of the Agreement:

Background and Approach

The CLIENT desires to obtain a groundwater discharge permit (GWDP) from the MEDEP for the disposal of treated effluent on the Martin Lippman Site as described in this Amendment and the previously completed wastewater management planning documents. These additional Tasks are a continuation of the 'go-no go' planning approach to developing public wastewater collection, treatment and disposal facilities in the North Windham planning area. The next step identified is the completion of Phase II, Hydrogeological Feasibility Evaluation (HFE) of the Lippman site. The HFE shall provide the basis for a future MEDEP Groundwater Discharge Permit (GWDP) application.

Phase II – Hydrogeological Feasibility Evaluation (continued)

- 1. Meeting #1: ENGINEER will meet with CLIENT to review the proposed scope of work. At this meeting, the CLIENT will determine the desired planning horizon and associated design flow that will establish the basis for the HFE. ENGINEER and CONSULTANT shall revise the scope of work to reflect the outcome of this meeting and resubmit the scope of work and fee proposal for CLIENT approval.
- 2. The CLIENT will submit this Scope of Work to the Portland Water District (District) for review and comment. ENGINEER shall revise the Scope of Work to the reflect the comments and per the direction of the CLIENT.
- 3. ENGINEER will coordinate with CONSULTANT to develop scope and fee for completion of the HFE, including:
 - a. Revise scope and fee to account for previously completed work above (Phase IA).
 - b. Revised schedule for completion of remaining HFE work.
 - c. Revised fee to reflect changes in hourly rates and expenses.

- 4. CONSULTANT shall perform the scope of services as detailed in the revised "Proposal for Phase II Hydrogeological Services" dated September 11, 2018 (Attachment B-1).
- 5. Meeting #2: ENGINEER and CONSULTANT shall attend one meeting in Augusta with CLIENT and DEP staff to review proposed HFE scope.
- 6. ENGINEER will coordinate and administer Hydrogeological CONSULTANT services*.

*Note that CLIENT shall coordinate site access with Hydrogeological CONSULTANT.

- 7. Assist CONSULTANT to obtain available pertinent site data.
- 8. Review CONSULTANT's technical report and provide comments to CONSULTANT.
- 9. Provide a draft HFE report to Town for review and comment.
- 10. Meeting #3: ENGINEER and CONSULTANT shall attend a meeting in Windham with the CLIENT to present the results of the HFE.
- 11. Provide final HFE report.
- 12. Survey: Additional survey services to be provided by Wright-Pierce to determine locations and elevations of explorations, wells, and staff gauges installed by CONSULTANT.
- 13. MEDEP previously indicated that as part of a future Groundwater Discharge Permit (GWDP) application process, the permittee must evaluate impacts to surface waters from the proposed groundwater discharge (DEP Meeting, March 30, 2018). The nutrients, nitrogen, and phosphorus are of greatest water quality concern and are the focus of the evaluation. The CONSULTANT will model dilution of the discharge with groundwater and estimate the resulting concentrations of nitrogen and phosphorus in the effluent-impacted groundwater at the property boundaries and adjacent water bodes, including Chaffin Pond and Outlet Brook. The ENGINEER will evaluate the nitrogen and phosphorus groundwater concentrations in relation to the State of Maine numeric water quality criteria and/or guidelines that the DEP uses to establish surface water discharge requirements. The results of this evaluation will be summarized in a technical memorandum that will be submitted with the GWDP. Based on this evaluation and in consultation with MEDEP, the ENGINEER will recommend pre-treatment levels required for nitrogen and phosphorus removal necessary to obtain the GWDP. CONSULTANT will estimate phosphorus attenuation in the soil based on textbook soil adsorption values and the ENGINEER will comment on the impact to the treatment facility design, operation, and maintenance costs. Consideration will be given to the potential benefit of performing additional geochemical analysis of the site soils to field verify phosphorus attenuation in the soils.
- 14. All deliverables will be in electronic PDF file.

Schedule

The scope of work for Task 2 will be completed according to the schedule in the following table:

TASK 2 SCHEDULE		
Meeting #1: Review Amendment 2 with Town	August 30 th	
Revise Amendment 2 and submit to Town and Portland Water District	September 2018	
Council Approval	September 2018	
Execute Amendment 2	September 2018	
Wright-Pierce execute task order for hydrogeological CONSULTANT's services	October 2018	
Meeting #2: Meeting w/ DEP in Augusta	October 2018	
Hydrogeological field investigation	October to November 2018	
Hydrogeological groundwater modeling	December 2018	
Draft hydrogeological evaluation report	January 2019	
Meeting #3: Present results of evaluation	January 2019	
Final hydrogeological feasibility evaluation report	February 2019	

Attachment B-1

Hydrogeological Feasibility Evaluation, CONSULTANT'S Scope



HALEY & ALDRICH, INC. 75 Washington Avenue Suite 1A Portland, ME 04101 207.482.4600

11 September 2018 File No. 131219-001

Mr. Kyle Coolidge, P.E. Wright-Pierce 75 Washington Avenue, Suite 202 Portland, Maine 04101

Subject: Proposal for Phase II Hydrogeologic Services Wastewater Planning Assistance Project Windham, Maine

Dear Mr. Coolidge:

Haley & Aldrich, Inc. (Haley & Aldrich) is pleased to submit this proposal for consulting hydrogeological services in connection with the subject project. Wright-Pierce is assisting the Town of Windham with the planning for subsurface disposal of wastewater in the Town-owned Donnabeth Lippman Park. The overall goal of the project is to assess the feasibility to discharge wastewater at the Park property to the subsurface from a disposal system, and to provide the relevant information needed for approval of the disposal system by the Maine Department of Environmental Protection (DEP).

Haley & Aldrich was retained by Wright-Pierce in early 2018 to conduct a Phase IA Hydrogeologic Evaluation of the proposed approximately 3.5-acre disposal area above El. 308 ft. (based on a 2012 topographic plan of the Park provided by Wright-Pierce). The results of the Phase IA Hydrogeologic Evaluation were summarized in an 8 March 2018 memorandum. Based on the various analyses and research completed as part of the Phase IA Hydrogeologic Evaluation, Haley & Aldrich concluded that subsurface wastewater disposal was feasible both for a private 3,000 gallon per day (GPD) system and potentially for a 100,000 GPD system that would serve the Town. However, further assessment of the potential for breakout along slopes was needed for the 100,000 GPD system. In addition, the results of a preliminary mounding impact analysis indicated that a site-specific hydrogeological study would be required to permit the 100,000 GPD system.

We understand that the Town has requested this proposal for a Phase II Hydrogeologic Evaluation to assess the potential breakout and complete the site-specific hydrogeologic study. This proposal includes the scope and fee to prepare a groundwater model to analyze mounding and to assess the fate and transport of contaminants related to the future municipal on-site engineered disposal system. In our 5 September 2018 telephone call, you indicated that the design flow may be as high as 115,000 GPD to account for the predicted month maximum flow based on Windham water use records; therefore, we propose to model the effects of this higher design flow. This evaluation will include subsurface investigations, and soil and groundwater testing to further define deeper subsurface conditions for model input. This proposal supersedes prior proposals.

Project Understanding

The Donnabeth Lippman Park comprises about 125 acres east of Route 302 in Windham. Approximately 14 acres of the Park were donated as conservation land to the Town by an adjacent land owner. This parcel forms the westerly portion of the Park and is adjacent to developed properties along the Route 302 corridor.

The Park property, which includes Chaffin Pond, was once the location of public water-supply wells that served the community until a risk of petroleum contamination was identified in the 1990s. The Town has installed its own well that could be used as a public supply in the future although there are no current plans to do so. Several subsurface investigations associated with the high-yield sand and gravel aquifer and suspected contamination have been performed in and around the Park area. Borings conducted for these investigations have generally encountered coarse to medium sand and gravel to depths exceeding 100 ft. below ground surface in some borings. Further details are included in the 8 March 2018 Haley & Aldrich Phase IA memorandum.

Based on the water level in Chaffin Pond and ground surface elevations near the proposed disposal system, the water table is expected to be approximately 20 to 25 ft. below the bottom of the disposal bed. As part of the Phase IA evaluation, soil conditions at the proposed disposal system were classified by a Maine Licensed Site Evaluator (LSE) as either Soil Profile 5 or 6 according to the Maine Subsurface Wastewater Disposal Rules. These soils were classified as Condition B, which, by definition, do not have limiting factors such as impermeable soils, seasonal high water table, or bedrock within 4 ft. of the ground surface.

According to Table 4D of the Maine Subsurface Wastewater Disposal Rules, Soil Profiles 5 and 6 require "Medium" sized disposal fields. For a standard stone-filled disposal field, the minimum hydraulic loading rate (Sizing Factor) for Profiles 5 and 6 soils is 2.6 sq. ft. per GPD, which is the highest hydraulic loading rate allowed under the Maine Subsurface Wastewater Disposal Rules. However, according to Wright-Pierce, the future municipal wastewater disposal system will be permitted for a site-specific groundwater discharge by DEP and will not be bound to the categorical Maine Subsurface Wastewater Disposal Rules. Permeameter test results from the Phase IA evaluation indicated that the hydraulic conductivity of unsaturated soils within 3 to 5 ft. of the ground surface in the proposed disposal area range from $4X10^{-2}$ to $7X10^{-2}$ cm/sec, with a mean of $5X10^{-2}$ cm/sec. This range is indicative of well-drained soils that are well-suited to infiltration.

We understand that Wright-Pierce will likely emphasize the high level of treatment in arguing for a higher allowable loading rate, provided the hydrogeologic evaluation indicates the site can accept higher rates without excessive mounding or related issues such as daylighting of wastewater above ground surface, or slope instability.

The original request for proposal (RFP) indicated that the hydrogeologic evaluation must model the fate and transport of wastewater effluent, specifically nitrogen and phosphorus from the municipal subsurface wastewater disposal system, for final design and permitting purposes. The RFP stated that the effluent quality can be assumed to be as follows:



> BOD < 30 mg/L Total Nitrogen (TKN, nitrate and nitrite) < 8 mg/L

TSS < 30 mg/L Total Phosphorus < 3 mg/L

The fate and transport of wastewater effluent will be modeled as part of this Phase II evaluation. Haley & Aldrich will use literature values to estimate soil attenuation capacities for phosphorus. Nitrogen migration will be estimated with a mass-balance approach.

Project Approach

The Phase II Hydrogeologic Evaluation will obtain site-specific hydrogeological and geochemical parameters using additional explorations, water level measurements, and laboratory testing, to confirm or adjust the loading rates recommended in Phase IA. Phase II will also include the construction of a site-specific numerical groundwater flow model to assess mounding, groundwater flow directions and transport of nitrogen and phosphorus for the future municipal 115,000 GPD disposal system. Details are presented below.

Scope of Services

Haley & Aldrich proposes to complete the following tasks for the Phase II Hydrogeologic Evaluation:

- 1. Prepare for and attend one meeting at DEP offices in Augusta to discuss the scope of services presented below before initiating field work.
- 2. Plan, arrange for and implement a subsurface exploration program that will provide the information needed for the model. Prepare a site-specific health and safety plan (HASP) for drilling, sampling, and testing. Arrange for the drilling contractor to contact Dig-Safe before drilling. Provide full-time technical monitoring of the program so that the number of explorations, depths, and locations can be adjusted as needed in accordance with field conditions encountered during the program.

The proposed Phase II field exploration program will include the following:

- a. Two (2) borings drilled to a depth of up to 80 ft. These borings will be drilled to assess if the expected sand and gravel deposit includes low-permeability strata (restrictive layers) that could limit loading rates at depth and increase or displace groundwater mounding. To assess the stratigraphy in detail, Haley & Aldrich proposes to perform continuous split-spoon soil sampling in both borings. Drilling will terminate at depths of less than 80 ft. if the drilling equipment encounters refusal.
- b. Two (2) borings drilled to a depth of up to 35 ft. These borings will be drilled to about 10 ft. below the water table. Drilling will terminate above the water table only if the drilling equipment encounters refusal.
- c. One monitoring well installed in each boring to a depth of 10 ft. below the water table for hydraulic testing and sampling purposes.



- d. We have assumed that the borings can be completed in 6 working days.
- 3. If potential restrictive layers are identified in the split-spoon soil samples, cased-borehole falling-head tests will be completed to assess the hydraulic conductivity of those strata. For budgeting purposes, we have assumed that four (4) cased-borehole tests will be completed. We have assumed that these borings and tests can be completed in two (2) working days.
- 4. Submit four (4) soil samples from selected borings for grain-size distribution analysis.
- 5. Develop installed wells by pumping and surging. Perform *in-situ* hydraulic conductivity testing (i.e. falling/rising head slug tests) in each well.
- 6. Place two (2) staff gauges in Chaffin Pond and two (2) staff gauges in Outlet Brook.
- 7. On three (3) separate dates, measure groundwater levels in the wells, and surface water levels at the staff gauges.
- 8. Collect one groundwater sample from each of the four (4) wells and submit the samples to a laboratory for analysis of total nitrogen, nitrate, total phosphorus, BOD, total suspended solids (TSS), sulfate, sodium, and chloride.
- 9. Construct a numerical groundwater model using MODFLOW to support modeling of the month maximum disposal rate of 115,000 GPD.
- 10. Calibrate the groundwater model to measured groundwater levels obtained during the subsurface investigation using recharge rates derived from published information and Haley & Aldrich experience.
- 11. Perform steady-state model simulations to estimate the site's capacity for wastewater disposal up to 115,000 GPD using the data developed for both Phase IA and for Phase II. Determine the maximum capacity of the proposed disposal site if the capacity is less than 115,000 GPD. If needed, we will work with Wright-Pierce to evaluate if other assumed locations, sizes, or configurations of the disposal system may allow the maximum 115,000 GPD to be achieved.
- 12. Based on the Task 9 modeling results, perform mass balance and phosphorus-loading calculations to assess the fate of wastewater effluent discharged to the disposal system. This task will predict the nitrogen and phosphorus concentrations in groundwater at the property boundaries and adjacent water bodies, including Chaffin Pond and Outlet Brook.
- 13. Summarize the results of the field explorations and testing, hydrogeologic evaluation and modeling effort in a draft report presenting the data, results, and conclusions. We anticipate that this report will include a site base plan with exploration locations, subsurface profiles, a groundwater elevation contour plan, and tables and appendices summarizing water-level, field-testing, and water quality data. The report will include conclusions regarding the Site's capacity



for disposing up to 115,000 GPD of wastewater, considering both mounding and contaminant fate and transport. Haley & Aldrich understands that this report is intended to provide sufficient hydrogeologic data and analysis to support the DEP groundwater discharge permit application, which will be prepared by others.

- 14. Prepare for and attend one meeting in Windham to discuss the draft report and Phase II hydrogeologic evaluation conclusions.
- 15. Prepare the final report on the Phase II hydrogeologic evaluation after consideration of review comments on the draft report by Wright-Pierce and the Town and meeting discussions. This report will include information specifically requested by DEP for the groundwater discharge permit.

The scope of services does not include the disposal system design, or the preparation of contract drawings or specifications. Also excluded from the scope of our services is an assessment of oil or hazardous materials at the site, the presence of mold or other biological pollutants at the site, the characterization of excavated soil or groundwater that will be generated by the planned construction activity, or assessment of the impact that contamination or pollutants could have on the proposed construction. If requested, these services can be provided under the terms of a different agreement acceptable to both parties.

This proposal assumes that the Town of Windham will arrange access to Town property and the private property on the west side of the proposed disposal area for drilling and well installations and subsequent sampling and testing. This proposal also assumes that the water needed for drilling and pilot testing (if performed; see option below) can be obtained from Chaffin Pond or Outlet Brook.

The prior Phase IA evaluation and the scope of this Phase II evaluation assume that groundwater flows eastward, toward Chaffin Pond, which would be the closest receptor to wastewater constituents migrating with the groundwater, or south to Outlet Brook. If data from the proposed wells indicate groundwater flows toward the west, paralleling surface drainage in Outlet Brook for example, additional explorations, sampling, or modeling may be required to assess potential effects on downgradient resources in these directions.

Optional Pilot Loading Test

A pilot loading test may be warranted to better calibrate the flow model and to further assess modelingbased estimates of hydraulic loading if disposal of 115,000 GPD results in excessive mounding or breakout between the site and the water bodies. As requested during our 5 September 2018 telephone call, we will defer this task until after the modeling has been completed and the results have been discussed with Wright-Pierce and the Town.

The scope of the pilot loading test will be based on the modeling results, and Wright-Pierce's input on the system configuration.



The pilot-loading test will comprise the following:

- 1. Complete field work:
 - a. Plan, arrange for and implement a test-trench excavation to construct a pilot loading test system. Revise the HASP for trenching and testing. Arrange for an excavation contractor to contact Dig-Safe before drilling. Provide full-time technical monitoring of the program so that the trench excavation and loading test can be adjusted as needed in accordance with field conditions encountered during the program. The test trench will be installed adjacent to one of the four monitoring wells to allow for groundwater levels to be monitored during the test.
 - b. Arrange for the contractor to excavate the trench to the preliminary design sub-grade elevation, install a perforated pipe along a 20-ft. length of the trench with an elbow and standpipe to introduce the water, and place granular backfill over and around the pipe and stand-pipe to simulate a leaching-trench.
 - c. Pump water from Chaffin Pond, a hydrant, or a temporary source (water tank provided by the Contractor) to discharge water to the test trench for up to 24 hours (depending on accessibility and available flows from the water source).
 - d. Install a pressure transducer to monitor groundwater levels in the adjacent monitoring well during the test and for a recovery period that equals the duration of the test itself.
- 2. Reassess the modeling-based estimates of hydraulic loading, based on the results of the pilot loading test.

Project Schedule

Haley & Aldrich is prepared to begin work immediately upon the receipt of written authorization to proceed. We understand that authorization could be received as soon as late September. We estimate that the Phase II Hydrogeological Evaluation can be completed by mid-January 2019. We are prepared to work with Wright-Pierce and the Town to develop a mutually acceptable schedule as part of the authorization.

Estimated Fee

The estimated fee for Haley & Aldrich Phase II Hydrogeological Evaluation services is approximately \$89,000 which includes allowances of \$23,900 for a drilling contractor, and \$2,300 for grain-size analysis and chemical testing. Anticipated labor hours by Task, estimated subcontractor costs, and expenses are enclosed.

Note that the cost of four (4) cased-borehole falling-head tests described in Task 3 above is included in the estimated fee. This task may not be needed if restrictive layers are not encountered, or fewer than four cased-borehole falling-head tests may be needed if restrictive layers are not encountered in the four exploratory borings described in Task 2. But we have included the estimated cost of Task 3 for



budgetary purposes since the decision to undertake Task 3 must be made in the field to avoid remobilization costs and to keep the project on schedule.

The estimated fee for the optional pilot loading test is approximately \$6,000 which includes an allowance of \$1,000 for an excavation contractor. This cost is not included in the estimated fee.

As requested, Haley & Aldrich services will be provided on a time and materials basis.

It is understood that Wright-Pierce will provide survey services to determine the as-drilled locations and elevations of explorations, wells and staff gauges. The estimated fee does not include the cost of these survey services.

Terms and Conditions

As discussed with you previously, services will be provided in accordance with the current Master Services Subconsultant Agreement between Wright-Pierce and Haley & Aldrich, Inc., signed on 10 November 2010.

We appreciate the opportunity to submit this proposal and look forward to our continued association with you on this project. Please contact the undersigned if you wish to discuss this proposal or any aspect of the project.

Sincerely yours, HALEY & ALDRICH, INC.

Stephen J. Kelley, C.G., P.G., C.S.S. Associate | Senior Project Manager

John R. Kastrinos Senior Associate | Hydrogeology

Enclosures: Labor Hours and Expenses by Task

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