



The State of New Hampshire JUN 10 '20 AM 10:20 DAS  
**Department of Environmental Services**



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**Robert R. Scott, Commissioner**

May 26, 2020

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His Excellency, Governor Christopher T. Sununu  
 and The Honorable Council  
 State House  
 Concord, New Hampshire 03301

**REQUESTED ACTION**

Authorize the Department of Environmental Services (NHDES) to execute a **SOLE SOURCE** Amendment to the Agreement (PO #7002510) with GZA GeoEnvironmental, Inc., (Vendor Code #174515-B001), Norwood, MA, by increasing the contract by \$109,400.00 to \$600,892.15 from \$491,492.15 and extending the completion date of the Agreement to June 30, 2021 from June 30, 2020, upon Governor & Council approval. 100% Capital (General) Funds

Funding is available in the account listed below:

	<u>FY 2020</u>
03-44-44-442030-1552-034-500161	\$109,400.00
Dept of Environmental Services, 17, 228:1-VIII-H Ossipee Lake Dam Reconstruction, Capital Projects	

**EXPLANATION**

This is a **SOLE SOURCE** request because the amount of the requested amendment exceeds 10% of the amount of the original agreement. The original Agreement was procured in a competitive process in accordance with RSA 21-I:22, in which GZA GeoEnvironmental, Inc., (GZA) was the unanimous choice of the Selection Committee. An extension of the agreement is being requested because at the time the original Agreement was executed, it was assumed that the Berry Bay Dam reconstruction project would be completed in one construction season. However, due to time delays required for the procurement of the large spillway gates being installed as part of the project, it will now take two construction seasons to complete the project. The increase in the cost is also being requested because additional services from GZA have been required to address issues not anticipated at the time the original Agreement was executed. Those unanticipated issues include unexpected subsurface conditions resulting in more extensive construction dewatering and foundation preparation, and additional design services to address overtopping protection of the abutments of the dam and improvements to the private road being used to access the project. NHDES has determined that GZA and its subcontractor are best positioned to provide the needed additional engineering oversight and design services, and that an amendment to the existing agreement is the most cost efficient way to provide the needed services.

Under the current Agreement, GZA is providing engineering services for the reconstruction of the Berry Bay Dam at the outlet of Ossipee Lake, and GZA's project engineer was designated as the Construction Engineer for this project under the NH Code of Administrative Rules PART Env-Wr 405 (Dam Construction Inspections) prior to the start of construction. Under these Dam Safety rules, the Construction Engineer must fulfill specific inspection obligations throughout the construction process, including provision of an affidavit of compliance indicating that the construction was completed in accordance with approved plans, specifications, and the intent of the design.

GZA has agreed to extend the current agreement and to provide the additional services necessary to complete the Berry Bay Dam reconstruction project. To date, \$366,047.40 has been spent of the original contract amount of \$491,492.15.

This Amendment has been approved by the Office of the Attorney General as to form, execution, and content.

We respectfully request your approval.

A handwritten signature in black ink, appearing to read "Robert R. Scott", written over a horizontal line.

Robert R. Scott, Commissioner

**AMENDMENT #1  
TO  
AGREEMENT  
BETWEEN THE  
NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES  
AND  
GZA GEOENVIRONMENTAL, INC.**

**PROFESSIONAL SERVICES – ENGINEERING SERVICES FOR THE  
RECONSTRUCTION OF THE BERRY BAY DAM AT OSSIPEE LAKE**

WHEREAS the State of New Hampshire Department of Environmental Services (“NHDES”) has entered into an Agreement with GZA GeoEnvironmental, Inc. (“GZA”) in the amount of \$491,492.15 for needed engineering services for the reconstruction of the Berry Bay Dam at the outlet of Ossipee Lake from August 22, 2018 through June 30, 2020; and

WHEREAS, at the time the original Agreement was executed, it was assumed that the Berry Bay Dam reconstruction project would be completed in one construction season; however, due to delays associated with the appropriation of the funds for the reconstruction contract, as well as lead times required for the procurement of the large spillway gates being installed as part of the project, it will now take two construction seasons to complete the project; and

WHEREAS, additional engineering oversight of the reconstruction project by GZA, beyond that anticipated at the time the original Agreement was executed, because of the need to extend the duration of the reconstruction project over two construction seasons, as well as unexpected subsurface conditions requiring more oversight of construction dewatering and foundation preparation; and

WHEREAS, additional design services have been required by GZA to address issues not anticipated at the time the original Agreement was executed, include improvements to the private road being used to access the project, overtopping protection of the abutments of the dam; and

WHEREAS, NHDES has determined that GZA and its subcontractor are best positioned to provide the needed additional engineering oversight and design services, and that an amendment to the existing Agreement is the most cost efficient way to provide the needed services; and

WHEREAS, NHDES wishes to execute an Amendment 1 to the Agreement to provide an additional \$109,400.00 to allow for additional design services and continued engineering oversight of the dam reconstruction project during a second construction season and to extend the completion date of the Agreement to June 30, 2021 from June 30, 2020, upon Governor & Council approval; and

WHEREAS, GZA has agreed to extend the current Agreement and to provide the additional services necessary to complete the Berry Bay Dam reconstruction project.

NOW THEREFORE, amend the original Agreement between NHDES and GZA as approved by Governor and Council on August 22, 2018 as Item #42 in the following manner:

Change section 1.7 (Completion Date) in the General Provisions of the Agreement to read: June 30, 2021.

Change section 1.8 (Price Limitation) in the General Provisions of the Agreement to read: \$600,892.15.

Revise Exhibit A (Services), Section 1.4 (Revisions to Design Package) to include a description of work to revise drawings and specifications package for additional overtopping protection needs and improvements to Parsons Road for construction vehicle access.

Revise Exhibit A (Services), Section 2.1 (Resident Engineering Services) to reflect the additional Resident Engineering Services needed to provide engineering oversight of the project for a second construction season.

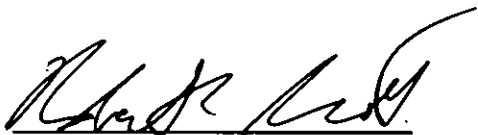
Revise Exhibit A (Services), Section 2.2 (Engineer-of-Record Services) to reflect the additional Engineer-of-Record Services needed to provide engineering oversight of the project for a second construction season.

Revise Exhibit A (Services), Table A-1 to reflect the additional costs for needed additional engineering services and per diem expenses.

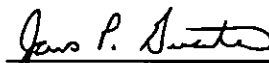
Revise Exhibit B (Contract Price And Method Of Payment), to address the revisions to Exhibit A (Services) for the work necessary additional engineering services and to change the not to exceed cost to \$600,892.15.

Revise Exhibit B (Contract Price And Method Of Payment), Table B-1 to address the revisions to Exhibit A (Services).

All other conditions outlined in the contract shall remain in effect.



Robert R. Scott, Commissioner  
Department of Environmental Services



James P. Guarente, P.E., Associate Principal  
GZA GeoEnvironmental, Inc.

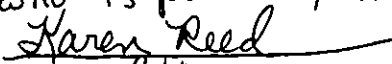


Assistant Attorney General  
Department of Justice

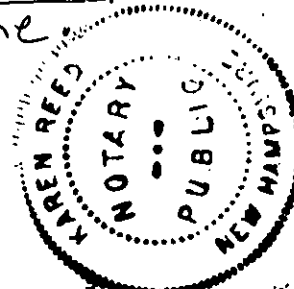
6/4/2020

State of New Hampshire, County of Hillsborough

Signed or attested before me on  
May 12, 2020 By James P. Guarente,  
who is personally known by me.

  
Notary Public

KAREN REED, Notary Public  
State of New Hampshire  
My Commission Expires February 21, 2023



## EXHIBIT A SERVICES

Under this Agreement, the Contractor (GZA GeoEnvironmental, Inc., and its subconsultant, Wright-Pierce, hereinafter collectively referred to as the Consultant, in order to avoid confusion with the responsibilities of the Construction Contractor) is to provide engineering services including preparation of updates to plans, bid administration and review, contractor selection, construction oversight by a Professional Engineer licensed in New Hampshire, management of construction change orders, and inspection, measurement, and invoice review to provide recommendations for payments during the replacement of Ossipee Lake Dam. The work includes Supplemental Design-Related Tasks and Construction Phase Services as specified below:

**1** Supplemental Design-Related Tasks - Project specific Supplemental Design-Related work tasks shall include the following:

**1.1** Project Kick-Off Meeting

Upon notice to proceed, the Consultant will meet with the NHDES staff at a kick-off meeting to discuss various technical and project management issues, including the following:

- Pertinent existing data needs;
- Present overview of proposed engineering methodologies;
- Provide overview of project schedule (i.e. key milestones, timing of deliverables, advertising and construction notice to proceed, etc.);
- Final bid document formats and contents;
- Project liaison, project administration, invoicing procedures, etc.

At this kick-off meeting, the Consultant will gather all pertinent information regarding the project to be made available to the Consultant by NHDES. This information will be reviewed by the Consultant and will include original design drawings, construction photographs, subsurface information, hydrological data, and other pertinent compiled since a design for the dam replacement was completed in 2011.

**1.2** Historic Lake and Discharge Levels

The Consultant will incorporate figures provided by NHDES, into specification Section 01566 – Hydrologic and Hydraulic Data (of the Design Package). This information provides water levels at the outlet of the lake and times series discharges at a stream gaging station immediately downstream of the dam. The Consultant will convert the historic discharge records to equivalent water surface elevations at the existing dam (from 2003 – 2017), based on known rating curve characteristics provided by NHDES to equate monthly averages and peak discharges to water levels at the dam, to be used by the Contractor to identify best approaches to water control and temporary cofferdam design configuration. The Consultant will conduct statistics on this discharge data to develop an updated flow duration curve for Section 01566 of the Design Package. This revised hydrologic and hydraulic information will also have direct relevance to the Construction Contractor as it pertains to their temporary cofferdam approach.

**1.3 Review NHDES Revised Hydrologic & Hydraulic Results**

The Consultant will review NHDES’s March 2018 report, entitled: “Design Calculations and References” seeking concurrence with conclusions related to increased flow rates and water levels at the dam. The level of effort for this review is to be sufficient enough that Consultant will approve the results as adequate for the final design. The following table summarizes the water levels (EL NGVD-1929) in our Design Package (2011) with those more recently developed by NHDES (2017).

Return Period	Gates Open (Down)		Gates not operational (Up)	
	(2011)	(2017)	(2011)	(2017)
50-year	411.5	412.92	414.9	416.07
100-year	412.3	414.7	415.6	417.1

The existing Design Package assumed a 100-year flood level at the dam of El. 416. Based on NHDES’s revised hydrology and water surface profile analysis (HEC-RAS), the new elevations are 416 (50 year) and about 417 (100 year). These resultant flood levels, conservatively assume the gates are in the up (closed) position. The Consultant will, in consultation with NHDES, revise the gate design to the new 100-year storm return period.

**1.4 Revisions to Design Package**

The revision to the design flood level and the seven-year period between completion of the original Design Package in 2011 and construction will require certain updates to the original engineering calculations package, design drawings and technical specifications in the Design Package. The following items will be completed under this task.

- a) Based on the change in design water level, the Consultant will revise the stability calculations in the Design Package for the added one-foot of hydraulic load. Modification of the gate/dam foundation and anchoring system will be adjusted as necessary. The gate control building’s first floor and spillway abutment walls (currently at EL 417) will be raised to EL 418 to provide some freeboard. Similarly, the foundation pad will be raised from El 416 to 417. These modifications will require changes to the design drawings. Adjustments will also be made regarding the propane tank pad so as to accommodate the increased water surface elevation. The gate height and top of gate elevation (EL 407) will not be modified.
- b) Plans and Specifications will need to be updated as required to meet current building code and related specifications. Verification (or adjustment as necessary) that the products originally specified are still applicable as they relate to the architecture materials, hydraulic crest gate, emergency generator and instrumentation devices will also be completed and documented.
- c) The Consultant shall review and revise the design of left abutment overflow wall and grading in light of the updated H&H, to insure adequate countermeasures have been provided against erosion, head cutting, and/or scour. The HEC-RAS model will be used to estimate velocities and boundary shear stresses at the wall and beyond, down gradient to the stream bank (a distance of about 150-feet).

- d) Based on the modifications related to H&H and design discussed above, the Consultant will make corresponding modifications to the related technical specifications. The Consultant will coordinate with NHDES to insure that the most recent version of the upfront sections is inserted into the bid package. As necessary, the bid form and methods of payment sections will be modified.
- e) The selection of the gate manufacturer and subsequent fabrication and final design of related hardware will be the responsibility of the Construction Contractor hired for the construction phase of the project. Thus, similar to the original Design Package, the Consultant's work under this task does not include production of a separate crest gate pre-bid design/specifications package.
- f) Revise drawings and specifications package for additional overtopping protection needs and improvements to Parsons Road for construction vehicle access.

**1.5**     Construction Inspection Plan

The Consultant will prepare a Construction Inspection Plan with general construction sequence information which is necessary to supplement the Dam Safety Permit Application prepared by NHDES. All other required regulatory permit application submissions and approvals will be the responsibility of NHDES.

**1.6**     Engineer's Estimate of Construction

Once the revised design is complete, the Consultant will update the engineer's estimate of the cost of construction for the replacement of the dam. The cost of the gate system and installation will be estimated separately from the concrete dam construction.

**1.7**     Operations/Maintenance Plans & Training

To fulfill the requirement stipulated for a new dam in the NH Code of Administrative Rules, PART Env-Wr 402.06, the Consultant will prepare an Operations and Maintenance (O&M) Manual as supporting documentation in fulfillment of the dam safety permit requirements and for use by the NHDES in monitoring, operating and maintaining the new dam. The O&M Manual will set out procedures for maintaining the dam including the crest gate system, monitoring the structures, and operating the outlet control(s) in normal and emergency conditions. The O&M Manual will provide guidance for operating water control structures in accordance with NHDES normal operating procedures/goals for Ossipee Lake. Once construction and gate start-up/testing are completed, the Consultant will provide an electronic copy of the plan to NHDES and key team members from the Consultant will visit the site once to provide on-site training and orientation to operations staff.

**1.8**     Bidding Assistance Services

The Consultant will reproduce up to 15 sets of the Bidding Documents on CDs or flash drives (plans, specifications, and contract) and provide them to NHDES for distribution to prospective bidders. Plans shall be stamped by a New Hampshire Professional Engineer. The Consultant will compile a list of Construction Contractors who are qualified to execute the work scope outlined in the plans and

specifications for the NHDES' use in soliciting bids. The Consultant will assist the NHDES in the bidding process by (1) attending a pre-bid meeting at the site; (2) considering Requests for Information and issuing Clarifications and Addendums, as needed; (3) tabulating the bids; (4) checking references of the apparent low bidder; (5) issuing an opinion memo regarding the responsiveness of the bidders; and (6) issuing a recommendation regarding the acceptance of the apparent low bidder. It is anticipated that the bidding period will take place in late October/early November 2018 time period.

## **1.9 Project Management and Status Meetings**

This task will encompass the Consultant's efforts during the supplemental design phase, to manage the project and its sub-consultants, coordinate with NHDES staff, and report on project progress to NHDES management. Including:

- **Project Management** - Review of schedule, deliverables, and budget;
- **Project Status Reporting** - Regular monthly progress reports to be included with project invoices to provide documentation on the progress of the work. This Task includes the Consultant's attendance at up to four meetings with NHDES to review plans or discuss project progress including one informational meeting with stakeholders.
- **Budget Management and Reporting** – The Consultant will regularly provide NHDES with updates on the project budget as part of each monthly progress report/invoice, consistent with NHDES reporting/invoicing protocols.
- **Quality Control of Work** – The Consultant will schedule internal QA/QC reviews to be conducted by the Dam Engineering Principal and Struct/Mech Senior Project Manager prior to submission of all deliverables.

## **2. Construction Phase Services – This work includes providing Resident Engineer Services and Engineer-of-Record Services and related services during construction, on behalf of NHDES, during construction of the concrete dam and automated gate systems, as described below:**

### **2.1 Resident Engineering Services - The Consultant will provide a Resident (On-Site) Project Representative during the construction phase of the project. Primarily, one Resident will be used to observe the various construction activities. However, some observation activities require specialized engineering expertise, especially with respect to the crest gate and hydraulic power unit and related actuation equipment. Thus, it is anticipated that there will be some occurrences when multiple Resident Engineers from the Consultant will be simultaneously on-site. Resident engineering will be conducted on a full-time basis during critical elements of the work. Other less critical elements of the work will be conducted on a part-time basis, as mutually agreed upon by Consultant and NHDES and documented in the Construction Inspection Plan submitted under Task 1.5. The cost estimate for this task is based on the following:**

- Total duration of construction is 24 months starting in July 2019;
- Full-Time RE services required for 11 months (43 weeks)
- Part-Time RE services required for 4 months (13 weeks)
- Full-Time for 5 days per week with 10-hour days;
- Part-Time for 2 days per week with 10-hour days.

The Resident Engineer will observe and document the progress of construction, conditions encountered, Construction Contractor effort and personnel, and compliance of the work with the



project plans and specifications. The Resident Engineer(s) will act as NHDES' liaison with the Construction Contractor and will interface with both Consultant and NHDES' project representative. The Resident Engineer will photo document the progress of construction and prepare weekly written reports documenting activities, conditions, and progress.

Neither the professional activities of the Consultant or its subcontractors, nor the presence of the Consultant's employees and/or subcontractors, will be construed by any party to imply that the Consultant has any responsibility for any of the Construction Contractor's methods of work performance, procedures, superintendence, sequencing of operations, or safety in, on or about the project site. The NHDES agrees to make evident in their agreement with the Construction Contractor that neither the presence of the Consultant's field representative nor any observation or testing by the Consultant will excuse the Construction Contractor for defects discovered in the Construction Contractor's work. With respect to site safety, the Consultant will be responsible solely for the on-site activities of its own employees and subcontractors, and this responsibility will not be construed to relieve the Construction Contractor from its obligations to maintain a safe project site. NHDES agrees that the Construction Contractor is solely responsible for project site safety and warrants that: (1) this intent will be made evident in the NHDES' agreement with the Construction Contractor; and (2) NHDES will require that the Consultant will be named as an Additional Insured under their Construction Contractor's general liability insurance policy.

## 2.2 Engineer-of-Record Services

2.2.1 Meeting Attendance – The Consultant will attend all required bi-weekly meetings (once every two weeks) at the site (and elsewhere as required) over two construction seasons on behalf of NHDES, as well as up to eight (8) other meetings as necessary. These meetings will typically consist of the bi-weekly project progress meeting where contractor progress will be discussed along with questions and upcoming schedule. The Consultant will prepare and distribute meeting minutes from each meeting.

2.2.2 Review of Contractor Submittals – The Consultant will provide technical review of the Construction Contractor's shop drawings, test results of materials, review samples and other submissions related to the proposed dam construction as necessary for compliance with the Project Drawings and Specifications, based on two reviews per submittal, on average. The Consultant will process and respond to correspondence from the Construction Contractors. Correspondence received from the Construction Contractor(s) will be reviewed by the Consultant relative to the specifications and the project permits. The Consultant will provide a written response and will make a recommendation to NHDES as to whether to accept, accept with modifications, or reject the submittal. All correspondence will be properly distributed (via electronic means) to the project team, and originals placed in the project file. Included in this task for geo-civil related items (i.e. non-gate related), are 3 hours per week of submittal review over a 34-week period (total of about 102 hours). Also included are an additional 216 hours for crest gate-related submittal reviews consisting of: (a) reinforced concrete of spillway, training walls, and abutments; (b) steel walkway, stop log stanchions, stairs; (c) gate controls, HPU & piping, electric, and instrumentation components; (d) water level bubblers; architectural, structural, HVAC and lighting associate with control house. For review of these gate-related submittals, the budget includes up to 216 hours.

- 2.2.3 Respond to Requests for Clarifications and Changed Conditions – Per the original Contract the Consultant will provide a project manager or technical specialist on a part-time basis (on an average of 4 hours per week over a 12-month period, for a total of 187-hours) to provide liaison with the NHDES, the Construction Contractor, and the Consultant's field personnel and to respond to requests for clarification or information or other questions from any project partner. Action items developed as a result of the questions will be discussed immediately with the NHDES to determine whether the action is necessary, is within the project scope, and whether it carries any associated cost implications. The Consultant will develop technical recommendations in a timely manner to address unanticipated conditions, when encountered. The Consultant will issue a written response to NHDES with the Consultant's opinion as to the appropriate resolution of questions or unexpected conditions.
- 2.2.4 Other Construction Site Visits – During the course of the work, especially associated with the performance of the crest gate, the Consultant will be present on-site for various milestones, including: start-up of control system; dry and wet testing; and emergency generator start-up test.
- 2.2.5 Review of Monthly Pay Requisitions – The Consultant will review Construction Contractor-submitted pay requisitions and compare them against Construction Contractor progress at the site as observed by the Consultant and reported by the on-site Resident. The Consultant will prepare a written memo addressed to NHDES for each pay requisition stating the Consultant's opinion regarding the release of payment. Based on one pay requisition per month, 32 hours have been allocated for this task.
- 2.2.6 Certificate of Substantial Completion and Affidavit of Compliance - At the completion of the project, the Consultant will review the Construction Contractor's "As-built" plans, in cooperation with the Resident Engineer. A "punch-list" will be prepared during a site meeting with the Construction Contractor and Resident containing items for completion prior to project close-out. At the appropriate time, the Consultant will prepare a Certificate of Substantial Completion for the purposes assisting with authorization of final payment to the Construction Contractor. Also, at the end of the construction phase, an Affidavit of Compliance, as per NHDES regulations, will be prepared by the Consultant's Professional Engineers to be submitted as required as part of a completion report. The Consultant will provide input to NHDES regarding their preparation and submittal of other Certificates of Compliance for permitting, as may be required.
- 2.2.7 Subcontractors - The Contractor may use subcontractor(s) where reasonable, appropriate and consistent with industry practice as indicated herein;
- Work shall not be assigned to a subcontractor without prior approval of NHDES.
  - The Contractor shall be fully responsible to the State for acts, errors and omissions of subcontractor(s).
  - Subcontractor(s) shall be bound by the same terms and conditions as those that bind the Contractor to the State, but there shall be no direct contractual relationship between the subcontractor(s) and the State.
  - The State reserves the right to negotiate subcontractor service markup rates and qualifications. The Contractor shall be responsible for delivering all reports and documentation generated by any subcontractor.





**TABLE A-1**  
**MAN-HOURS AND RATES SUMMARIZED BY LABOR CATEGORY**  
 Supplemental Design and Resident Engineering & Engineer-of-Record Services  
 Replacement of Berry Bay Dam at Ossipee Lake

LABOR	Units	Unit Rate	SUPPLEMENT DESIGN-RELATED TASKS															CONSTRUCTION PHASE SERVICES (Task 2.5.10)										Man-hours	Fee																
			TASK 2.5.1		TASK 2.5.2		TASK 2.5.3		TASK 2.5.4		TASK 2.5.5		TASK 2.5.6		TASK 2.5.7		TASK 2.5.8		TASK 2.5.9		TASK 2.5.10.1		TASK 2.5.10.2		TASK 2.5.10.3		TASK 2.5.10.4			TASK 2.5.10.5		TASK 2.5.10.6		TASK 2.5.10.7											
			Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.			Fee	Qty.	Fee	Qty.	Fee											
<b>3.08</b>																																													
			RESIDENT ENG.															ENGINEER-OF-RECORD SERVICES																											
			Project Kick-Off Meeting			Historic Lake & Discharge Levels			Review NHDES's Revised H&H Results			Revisions to Design Drawings & Specifications			Construction Observation Plan			Engineer's Estimate of Construction			Operations / Maintenance Plan & Training			Bidding Assistance Services			Project Management & Status Meetings			Resident Engineering (RE) Services		Meeting Attendance		Review of Contractor Submittals		Respond to RFIs, Clarification & Changed Conditions		Other Construction Site Visits		Review of Monthly Pay Requisitions		Certification of Substantial Completion & Affidavit of Compliance			
<b>GZA Labor Categories</b>																																													
Dam Engineering Principal																																													
Senior Project Engineer																																													
Dam Eng. Senior Project Manager																																													
Project Engineer																																													
Resident Engineer																																													
Dam Engineering CAD Draftsman																																													
Administrative Assistant																																													
<b>Wright-Pierce Labor Categories</b>																																													
Struct/Mech Senior Project Manager																																													
Structural Engineer																																													
Structural Technician/CAD Designer																																													
Project Architect																																													
Resident Engineer																																													
Architectural Technician																																													
HVAC Engineer																																													
Mechanical Engineer																																													
Senior Electrical Engineer																																													
Electrical Technician																																													
Senior Instrumentation Engineer																																													
Instrumentation Technician																																													
Administrative Assistant																																													
Word Processing																																													
<b>LABOR PRICE TOTAL</b>																																													
<b>REIMBURSABLE EXPENSES</b>																																													
Mileage																																													
Postage																																													
CAD Computer Charge																																													
Reproduction																																													
Cad/Bond Paper																																													
RE Per Diem Expenses																																													
<b>SUBCONTRACTOR COSTS</b>																																													
10% Mark-Up on Qualified Expenses																																													
<b>EXPENSES TOTAL</b>																																													
<b>EXPENSES TOTAL (with mark-up)</b>																																													
<b>TOTAL</b>																																													

COST SUMMARY	
Supplemental Design Services	\$125,985.37
Resident Engineering	\$323,236.19
Engineer-of-Record Services	\$151,670.59

Contractor Initials *[Signature]*  
 Date 5-12-10

**EXHIBIT B**  
**CONTRACT PRICE AND METHOD OF PAYMENT**

All services shall be performed to the satisfaction of DES before payment is made. All payments shall be made upon receipt and approval of stated outputs and upon receipt of an associated invoice. The billing is to be done on a monthly basis as a percentage completion of tasks as per the work program detailed in Exhibit A. Table A-1 in Exhibit A provides a detailed breakdown of costs for the project.

A detailed itemization of the cost by task and personnel category is contained in the attached Table B-1 which has also been updated from the original to reflect the increase from Amendment No. 1. Billing will be based on a time and materials basis. Hourly labor rates (i.e. fully loaded) are based on direct labor rates with an effective multiplier (DS + OH + fee) of 3.08. The estimated total of effort for Resident Engineering (RE) services is based on the assumptions presented in Paragraph 2.1 in Exhibit A. Total budget hours for RE services in the original contract is 2,410. Actual RE efforts will be highly dependent upon weather conditions and the efficiency of the Contractor. Actual charges may vary, either upward or downward, depending upon the execution of the work and conditions encountered.

This total cost of the Agreement shall not exceed \$600,892.15. DES agrees to pay the invoices as submitted by the Contractor. Invoices are subject to the approval of the Contract Officer before payment is processed.

B-1

Contractor Initials JPS  
Date 5-12-20

## TABLE B-1

Unit rate is established at individual hourly rate multiplied by a factor of 1.75 to account for overhead and fridge benefits plus and additional 12% profit multiplier.

LABOR	Units	Unit Rate	Man Hours	Fee
<b>GZA Labor Categories</b>				
Dam Engineering Principal	hr.	\$64.94	73	\$14,601.11
Senior Project Engineer	hr.	\$38.46	164	\$19,426.92
Dam Eng. Senior Project Manager	hr.	\$55.86	419	\$72,021.88
Project Engineer	hr.	\$34.00	252	\$26,389.44
Resident Engineer	hr.	\$38.00	1384	\$161,983.36
Dam Engineering CAD Draftsman	hr.	\$25.50	50	\$3,927.00
Administrative Assistant	hr.	\$21.63	58	\$3,863.98
<b>Wright-Pierce Labor Categories</b>				
Struct/Mech Senior Project Manager	hr.	\$58.46	262	\$47,174.88
Structural Engineer	hr.	\$40.22	142	\$17,590.62
Structural Technician/CAD Designer	hr.	\$29.72	94	\$8,604.53
Project Architect	hr.	\$38.63	29	\$3,450.43
Resident Engineer	hr.	\$38.50	1026	\$121,663.08
Architectural Technician	hr.	\$29.10	24	\$2,151.07
HVAC Engineer	hr.	\$39.91	18	\$2,212.61
Mechanical Engineer	hr.	\$48.93	122	\$18,385.94
Senior Electrical Engineer	hr.	\$55.67	66	\$11,316.60
Electrical Technician	hr.	\$28.22	8	\$695.34
Senior Instrumentation Engineer	hr.	\$56.14	99	\$17,118.21
Instrumentation Technician	hr.	\$28.22	8	\$695.34
Administrative Assistant	hr.	\$20.39	44	\$2,763.25
<b>Total Labor</b>				<b>\$556,035.60</b>
<b>REIMBURSABLE EXPENSES</b>				
Mileage	mi.	\$0.55	5,760	\$3,168.00
Postage	l.s.	\$1.00	50	\$50.00
CAD Computer Charge	hr.	\$12.00	5	\$60.00
Reproduction	l.s.	\$1.00	250	\$250.00
Cadd Bond Paper	sq. ft.	\$0.15	1,100	\$165.00
RE Per Diem Expenses	day	\$146.00	254	\$37,085.68
Qualified Expenses				\$40,778.68
10% Mark-Up on Qualified Expenses	10%			<u>\$4,077.87</u>
<b>Total Reimbursible Expenses</b>				<b>\$44,856.55</b>
<b>PROJECT TOTAL</b>				<b>\$600,892.15</b>



GZA GeoEnvironmental, Inc.

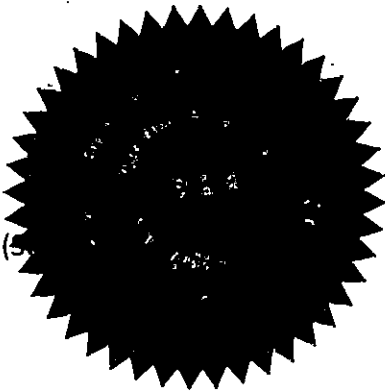
SECRETARY'S CERTIFICATE

I, Bradford W. Roberts, Secretary of GZA GeoEnvironmental, Inc. (the "Company"), hereby certify

that James P. Guarente is an Associate Principal and Vice President of the Company and, pursuant to a vote adopted by the unanimous written consent of the Board of Directors of the Company on April 28, 2020, he is authorized to execute and deliver contracts, bonds, and other documents related to the performance of professional services for the Engineering Services for Panning and Construction of the Berry Bay Dam at Ossipee Lake Project for the New Hampshire Department of Environmental Services in the name and on behalf of the Company, and to affix the Corporate Seal thereto, if and as required.

I further certify that the aforesaid unanimous written consent and the authority vested thereby have not been amended or revoked and are still in full force and effect.

WITNESS my hand and seal of the Corporation this 12<sup>th</sup> day of May 2020.



A handwritten signature in black ink, appearing to read "Bradford W. Roberts". The signature is written in a cursive style and is positioned above the printed name of the signatory.

Bradford W. Roberts, Secretary



# State of New Hampshire

## Department of State

### CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that GZA.GEOENVIRONMENTAL, INC. is a Massachusetts Profit Corporation registered to transact business in New Hampshire on October 28, 1981. I further certify that all fees and documents required by the Secretary of State's office have been received and is in good standing as far as this office is concerned.

Business ID: 9876

Certificate Number: 0004882106



IN TESTIMONY WHEREOF,  
I hereto set my hand and cause to be affixed  
the Seal of the State of New Hampshire,  
this 2nd day of April A.D. 2020.

A handwritten signature in cursive script, appearing to read "William M. Gardner".

William M. Gardner  
Secretary of State





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

3/2/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Risk Strategies Company 160 Federal St. 4th Floor Boston, MA 02110	<b>CONTACT NAME:</b> PHONE (A/C, No, Ext): 617-330-5700      FAX (A/C, No): 617-439-3752 E-MAIL: ADDRESS:	
	<b>INSURER(S) AFFORDING COVERAGE</b> NAIC #	
<b>INSURED</b> GZA GeoEnvironmental, Inc. 249 Vanderbilt Avenue (Corporate) Norwood MA 02062	INSURER A : Great Divide Insurance Company/ Nautilus Ins Group      25224	
	INSURER B : The First Liberty Insurance Corp      33588	
	INSURER C :	
	INSURER D : Lexington Insurance Company      19437	
	INSURER E :	
INSURER F :		

**COVERAGES**

CERTIFICATE NUMBER: 54411300

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INBR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Deductible - \$25,000 <input type="checkbox"/> per occurrence BI/PD GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:		GLP2007957-17	2/28/2020	2/28/2021	EACH OCCURRENCE \$2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$500,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$2,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY <input type="checkbox"/> AUTOS ONLY		AS6-Z11-261208-010	2/28/2020	2/28/2021	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$ \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N N/A	WCG-Z11-261208-040	2/28/2020	2/28/2021	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
D	Professional Liability		CPO 11710520	2/28/2020	2/28/2021	Each Claim/ \$1,000,000 Aggregate \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Job #01.0179168.10, Engineering Services for Planning and Construction of Berry Bay Dam, Review /update original dam design, Effingham/Freedom, NH.

**CERTIFICATE HOLDER****CANCELLATION**

01.0179168.10  NH Department of Environmental Services Attn: James Gallagher 29 Hazen Drive Concord NH 03302-0095	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE  Michael Christian <i>M B Christian</i>
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ACORD 25 (2016/03)

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The State of New Hampshire  
**Department of Environmental Services**

KENT FINEMORE



**Robert R. Scott, Commissioner**

July 26, 2018

His Excellency, Governor Christopher T. Sununu  
and The Honorable Council  
State House  
Concord, NH 03301

APPROVED G & C

DATE 8/20/18

ITEM # 42

**REQUESTED ACTION**

Authorize the Department of Environmental Services (NHDES) to enter into an Agreement with GZA GeoEnvironmental, Inc., Norwood, MA (Vendor Code #174515-B001), in an amount not to exceed \$491,492.15 to provide engineering services for the reconstruction of the dam at Ossipee Lake, effective upon Governor and Council approval through June 30, 2020. 100% Capital (General) Funds.

Funding is available in the account listed below.

FY 2019  
03-44-44-442030-1552-034-500161 \$491,492.15  
Dept of Environmental Services, 17, 228:1-VIII-H Ossipee Lake Dam Reconstruction, Capital Projects

**EXPLANATION**

NHDES is responsible for the maintenance, repair and reconstruction of all state owned dams per NH RSA 482:55-57. The dam at Ossipee Lake (Berry Bay Dam) is over 125 years old, and was acquired by the state 25 years ago. The spillway of this 125-year-old structure has deteriorated and is in need of repair. Dam Safety inspections document that the concrete piers of the spillway have cracked, the concrete of the spillway has deteriorated to the point where reinforcing steel has been exposed, and the shallow foundation of the dam has been undermined causing significant leakage underneath the dam, all of which threatens the integrity of the structure. In addition to its structural deficiencies, the spillway of the dam does not have sufficient discharge capacity to safely pass floods. Failure of the structure would result in some property damage downstream, but also would likely result in the loss of the 3,100-acre Ossipee Lake, one of the state's most important natural resources. A Capital Appropriation was approved for the FY18-19 biennium for the dam replacement project.

NHDES issued a Request For Qualifications on September 28, 2017 for engineering design services, bidding assistance services, project management, resident engineering, and engineer-of-record services by a qualified professional engineering consulting firm for the reconstruction of the dam at Ossipee Lake. The Request For Qualifications was advertised in the Union Leader on October 3, 4 and 5, 2017, and was posted on the NHDES website.

His Excellency, Governor Christopher T. Sununu  
and The Honorable Council

Page 2 of 2


NHDES received proposals from the following interested parties:

- GZA GeoEnvironmental, Inc. – Norwood, MA
- Holden Engineering – Concord, NH
- The H.L. Turner Group – Concord, NH
- Schnabel Engineering – West Chester, PA
- Stephens Engineering – Brentwood, NH

The procurement process for this Agreement, further detailed in Attachment A, was conducted in accordance with NH RSA 21-I:22. NHDES issued a Request For Qualifications, established a short list of five qualified consultant firms, and established an internal selection committee to review and rank the responses. The responses were ranked with respect to general dam experience, plan update preparation, bid administration and review, construction inspection and oversight, experience with design of similar projects, and adequacy and proximity of staffing. The selection committee was unanimous in its selection of GZA GeoEnvironmental as the most qualified for providing the engineering services needed for the replacement of the dam at Ossipee Lake. NHDES has negotiated terms and conditions for the services to be provided, authorization to conduct work, billing rates and conditions, and a not-to-exceed cost for this Agreement with GZA GeoEnvironmental.

The total charges to this contract shall not exceed \$491,492.15. The agreement has been approved by the Office of the Attorney General as to form, execution, and content.

We respectfully request your approval.

  
Robert R. Scott, Commissioner

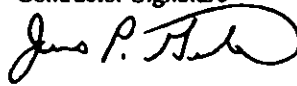
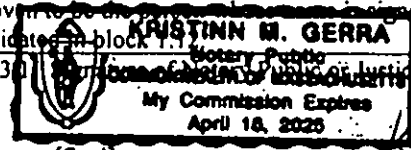
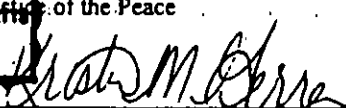
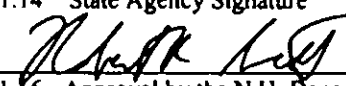

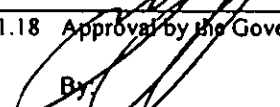
**Notice:** This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

**AGREEMENT**

The State of New Hampshire and the Contractor hereby mutually agree as follows:

**GENERAL PROVISIONS**

**1. IDENTIFICATION.**

1.1 State Agency Name NH Department of Environmental Services		1.2 State Agency Address PO Box 95 - 29 Hazen Drive, Concord, NH 03302-0095	
1.3 Contractor Name GZA GeoEnvironmental, Inc.		1.4 Contractor Address 249 Vanderbilt Avenue, Norwood, MA 02062	
1.5 Contractor Phone Number (781) 278-3818	1.6 Account Number 03-44-44-442030-1552-034	1.7 Completion Date June 30, 2020	1.8 Price Limitation \$491,492.15
1.9 Contracting Officer for State Agency James W. Gallagher, Jr., P.E.		1.10 State Agency Telephone Number (603) 271-1961	
1.11 Contractor Signature 		1.12 Name and Title of Contractor Signatory James P. Guarente, P.E. - Associate Principal	
1.13 Acknowledgement: State of <del>Massachusetts</del> County of <del>NO</del> <b>Folk</b> On <u>July 18, 2018</u> , before the undersigned officer, personally appeared the person identified in block 1.12, or satisfactorily proven to be the person identified in block 1.12, and acknowledged that s/he executed this document in the capacity indicated in block 1.12.			
1.13.1 Notary Public  [Seal] 			
1.13.2 Name and Title of Notary or Justice of the Peace <u>Kristinn M. Gerra, Notary</u>			
1.14 State Agency Signature 		1.15 Name and Title of State Agency Signatory <u>Robert R. Scott Commissioner</u> Date: <u>7-24-18</u>	
1.16 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On: _____			
1.17 Approval by the Attorney General (Form, Substance and Execution) (if applicable) By:  On: <u>7/30/18</u>			
1.18 Approval by the Governor and Executive Council (if applicable) By:  On: _____			

**2. EMPLOYMENT OF CONTRACTOR/SERVICES TO BE PERFORMED.** The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages contractor identified in block 1.3 ("Contractor") to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT A which is incorporated herein by reference ("Services").

**3. EFFECTIVE DATE/COMPLETION OF SERVICES.**

3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement as indicated in block 1.18, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.14 ("Effective Date").

3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed. Contractor must complete all Services by the Completion Date specified in block 1.7.

**4. CONDITIONAL NATURE OF AGREEMENT.**

Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Contractor notice of such termination. The State shall not be required to transfer funds from any other account to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

**5. CONTRACT PRICE/PRICE LIMITATION/ PAYMENT.**

5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT B which is incorporated herein by reference.

5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance hereof, and shall be the only and the complete compensation to the Contractor for the Services. The State shall have no liability to the Contractor other than the contract price.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8.

**6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.**

6.1 In connection with the performance of the Services, the Contractor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal opportunity laws. This may include the requirement to utilize auxiliary aids and services to ensure that persons with communication disabilities, including vision, hearing and speech, can communicate with, receive information from, and convey information to the Contractor. In addition, the Contractor shall comply with all applicable copyright laws.

6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.

6.3 If this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all the provisions of Executive Order No. 11246 ("Equal Employment Opportunity"), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Contractor further agrees to permit the State or United States access to any of the Contractor's books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.

**7. PERSONNEL.**

7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.

7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Contractor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement, administration or performance of this

Contractor Initials JPS  
Date 7-18-18

Agreement. This provision shall survive termination of this Agreement.

7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State's representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer's decision shall be final for the State.

#### 8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Contractor notice of termination;

8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;

8.2.3 set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 treat the Agreement as breached and pursue any of its remedies at law or in equity, or both.

#### 9. DATA/ACCESS/CONFIDENTIALITY/PRESERVATION.

9.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

9.2 All data and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

9.3 Confidentiality of data shall be governed by N.H. RSA chapter 91-A or other existing law. Disclosure of data requires prior written approval of the State.

10. **TERMINATION.** In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall deliver to the Contracting Officer, not later than fifteen (15) days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. The form, subject matter, content, and number of copies of the Termination Report shall be identical to those of any Final Report described in the attached EXHIBIT A.

11. **CONTRACTOR'S RELATION TO THE STATE.** In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. **ASSIGNMENT/DELEGATION/SUBCONTRACTS.** The Contractor shall not assign, or otherwise transfer any interest in this Agreement without the prior written notice and consent of the State. None of the Services shall be subcontracted by the Contractor without the prior written notice and consent of the State.

13. **INDEMNIFICATION.** The Contractor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based or resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Contractor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

#### 14. INSURANCE.

14.1 The Contractor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate; and

14.1.2 special cause of loss coverage form covering all property subject to subparagraph 9.2 herein, in an amount not less than 80% of the whole replacement value of the property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Contractor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than thirty (30) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than thirty (30) days prior written notice of cancellation or modification of the policy.

#### 15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("*Workers' Compensation*").

15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. Contractor shall furnish the Contracting Officer identified in block 1.9, or his or her successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. **WAIVER OF BREACH.** No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event of Default, or any subsequent Event of Default. No express failure to enforce any Event of Default shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other Event of Default on the part of the Contractor.

17. **NOTICE.** Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. **AMENDMENT.** This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire unless no

such approval is required under the circumstances pursuant to State law, rule or policy.

#### 19. CONSTRUCTION OF AGREEMENT AND TERMS.

This Agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

20. **THIRD PARTIES.** The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

21. **HEADINGS.** The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

22. **SPECIAL PROVISIONS.** Additional provisions set forth in the attached EXHIBIT C are incorporated herein by reference.

23. **SEVERABILITY.** In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

24. **ENTIRE AGREEMENT.** This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire Agreement and understanding between the parties, and supersedes all prior Agreements and understandings relating hereto.

**EXHIBIT A  
SERVICES**

Under this Agreement, the Contractor (GZA GeoEnvironmental), Inc., and its subconsultant, Wright-Pierce, hereinafter collectively referred to as the Consultant, in order to avoid confusion with the responsibilities of the Construction Contractor) is to provide engineering services including preparation of updates to plans, bid administration and review, contractor selection, construction oversight by a Professional Engineer licensed in New Hampshire, management of construction change orders, and inspection, measurement, and invoice review to provide recommendations for payments during the replacement of Ossipee Lake Dam. The work includes Supplemental Design-Related Tasks and Construction Phase Services as specified below:

- 1 Supplemental Design-Related Tasks - Project specific Supplemental Design-Related work tasks shall include the following:

1.1 Project Kick-Off Meeting

Upon notice to proceed, the Consultant will meet with the NHDES staff at a kick-off meeting to discuss various technical and project management issues, including the following:

- Pertinent existing data needs;
- Present overview of proposed engineering methodologies;
- Provide overview of project schedule (i.e. key milestones, timing of deliverables, advertising and construction notice to proceed, etc.);
- Final bid document formats and contents;
- Project liaison, project administration, invoicing procedures, etc.

At this kick-off meeting, the Consultant will gather all pertinent information regarding the project to be made available to the Consultant by NHDES. This information will be reviewed by the Consultant and will include original design drawings, construction photographs, subsurface information, hydrological data, and other pertinent compiled since a design for the dam replacement was completed in 2011.

1.2 Historic Lake and Discharge Levels

The Consultant will incorporate figures provided by NHDES, into specification Section 01566 – Hydrologic and Hydraulic Data (of the Design Package). This information provides water levels at the outlet of the lake and times series discharges at a stream gaging station immediately downstream of the dam. The Consultant will convert the historic discharge records to equivalent water surface elevations at the existing dam (from 2003 – 2017), based on known rating curve characteristics provided by NHDES to equate monthly averages and peak discharges to water levels at the dam, to be used by the Contractor to identify best approaches to water control and temporary cofferdam design configuration. The Consultant will conduct statistics on this discharge data to develop an updated flow duration curve for Section 01566 of the Design Package. This revised hydrologic and hydraulic information will also have direct relevance to the Construction Contractor as it pertains to their temporary cofferdam approach.



**1.3 Review NHDES Revised Hydrologic & Hydraulic Results**

The Consultant will review NHDES’s March 2018 report, entitled: “Design Calculations and References” seeking concurrence with conclusions related to increased flow rates and water levels at the dam. The level of effort for this review is to be sufficient enough that Consultant will approve the results as adequate for the final design. The following table summarizes the water levels (EL NGVD-1929) in our Design Package (2011) with those more recently developed by NHDES (2017).

Return Period	Gates Open (Down)		Gates not operational (Up)	
	(2011)	(2017)	(2011)	(2017)
50-year	411.5	412.92	414.9	416.07
100-year	412.3	414.7	415.6	417.1

The existing Design Package assumed a 100-year flood level at the dam of El. 416. Based on NHDES’s revised hydrology and water surface profile analysis (HEC-RAS), the new elevations are 416 (50 year) and about 417 (100 year). These resultant flood levels, conservatively assume the gates are in the up (closed) position. The Consultant will, in consultation with NHDES, revise the gate design to the new 100-year storm return period.

**1.4 Revisions to Design Package**

The revision to the design flood level and the seven-year period between completion of the original Design Package in 2011 and construction will require certain updates to the original engineering calculations package, design drawings and technical specifications in the Design Package. The following items will be completed under this task.

- a) Based on the change in design water level, the Consultant will revise the stability calculations in the Design Package for the added one-foot of hydraulic load. Modification of the gate/dam foundation and anchoring system will be adjusted as necessary. The gate control building’s first floor and spillway abutment walls (currently at EL 417) will be raised to EL 418 to provide some freeboard. Similarly, the foundation pad will be raised from El 416 to 417. These modifications will require changes to the design drawings. Adjustments will also be made regarding the propane tank pad so as to accommodate the increased water surface elevation. The gate height and top of gate elevation (EL 407) will not be modified.
- b) Plans and Specifications will need to be updated as required to meet current building code and related specifications. Verification (or adjustment as necessary) that the products originally specified are still applicable as they relate to the architecture materials, hydraulic crest gate, emergency generator and instrumentation devices will also be completed and documented.
- c) The Consultant shall review and revise the design of left abutment overflow wall and grading in light of the updated H&H, to insure adequate countermeasures have been provided against erosion, head cutting, and/or scour. The HEC-RAS model will be used to estimate velocities and boundary shear stresses at the wall and beyond, down gradient to the stream bank (a distance of about 150-feet).

Agreement for Engineering Services For Planning and Replacement of the Ossipee Lake Dam (Freedom, NH)  
Exhibit A – Services

- d) Based on the modifications related to H&H and design discussed above, the Consultant will make corresponding modifications to the related technical specifications. The Consultant will coordinate with NHDES to insure that the most recent version of the upfront sections is inserted into the bid package. As necessary, the bid form and methods of payment sections will be modified.
- e) The selection of the gate manufacturer and subsequent fabrication and final design of related hardware will be the responsibility of the Construction Contractor hired for the construction phase of the project. Thus, similar to the original Design Package, the Consultant's work under this task does not include production of a separate crest gate pre-bid design/specifications package.

1.5 Construction Inspection Plan

The Consultant will prepare a Construction Inspection Plan with general construction sequence information which is necessary to supplement the Dam Safety Permit Application prepared by NHDES. All other required regulatory permit application submissions and approvals will be the responsibility of NHDES.

1.6 Engineer's Estimate of Construction

Once the revised design is complete, the Consultant will update the engineer's estimate of the cost of construction for the replacement of the dam. The cost of the gate system and installation will be estimated separately from the concrete dam construction.

1.7 Operations/Maintenance Plans & Training

To fulfill the requirement stipulated for a new dam in the NH Code of Administrative Rules, PART Env-Wr 402.06, the Consultant will prepare an Operations and Maintenance (O&M) Manual as supporting documentation in fulfillment of the dam safety permit requirements and for use by the NHDES in monitoring, operating and maintaining the new dam. The O&M Manual will set out procedures for maintaining the dam including the crest gate system, monitoring the structures, and operating the outlet control(s) in normal and emergency conditions. The O&M Manual will provide guidance for operating water control structures in accordance with NHDES normal operating procedures/goals for Ossipee Lake. Once construction and gate start-up/testing are completed, the Consultant will provide an electronic copy of the plan to NHDES and key team members from the Consultant will visit the site once to provide on-site training and orientation to operations staff.

1.8 Bidding Assistance Services

The Consultant will reproduce up to 15 sets of the Bidding Documents on CDs or flash drives (plans, specifications, and contract) and provide them to NHDES for distribution to prospective bidders. Plans shall be stamped by a New Hampshire Professional Engineer. The Consultant will compile a list of Construction Contractors who are qualified to execute the work scope outlined in the plans and specifications for the NHDES' use in soliciting bids. The Consultant will assist the NHDES in the bidding process by (1) attending a pre-bid meeting at the site; (2) considering Requests for Information and Issuing Clarifications and Addendums, as needed; (3) tabulating the bids; (4) checking references of the apparent low bidder; (5) Issuing an opinion memo regarding the responsiveness of the bidders;

Agreement for Engineering Services For Planning and Replacement of the Ossipee Lake Dam (Freedom, NH)  
Exhibit A – Services

and (6) issuing a recommendation regarding the acceptance of the apparent low bidder. It is anticipated that the bidding period will take place in late October/early November 2018 time period.

1.9 Project Management and Status Meetings

This task will encompass the Consultant's efforts during the supplemental design phase, to manage the project and its sub-consultants, coordinate with NHDES staff, and report on project progress to NHDES management. Including:

- Project Management - Review of schedule, deliverables, and budget;
- Project Status Reporting - Regular monthly progress reports to be included with project invoices to provide documentation on the progress of the work. This Task includes the Consultant's attendance at up to four meetings with NHDES to review plans or discuss project progress including one informational meeting with stakeholders.
- Budget Management and Reporting - The Consultant will regularly provide NHDES with updates on the project budget as part of each monthly progress report/invoice, consistent with NHDES reporting/invoicing protocols.
- Quality Control of Work - The Consultant will schedule internal QA/QC reviews to be conducted by the Dam Engineering Principal and Struct/Mech Senior Project Manager prior to submission of all deliverables.

2. Construction Phase Services - This work includes providing Resident Engineer Services and Engineer-of-Record Services and related services during construction, on behalf of NHDES, during construction of the concrete dam and automated gate systems, as described below:

2.1 Resident Engineering Services - The Consultant will provide a Resident (On-Site) Project Representative during the construction phase of the project. Primarily, one Resident will be used to observe the various construction activities. However, some observation activities require specialized engineering expertise, especially with respect to the crest gate and hydraulic power unit and related actuation equipment. Thus, it is anticipated that there will be some occurrences when multiple Resident Engineers from the Consultant will be simultaneously on-site. Resident engineering will be conducted on a full-time basis during critical elements of the work. Other less critical elements of the work will be conducted on a part-time basis, as mutually agreed upon by Consultant and NHDES and documented in the Construction Inspection Plan submitted under Task 1.5. The cost estimate for this task is based on the following:

- Total duration of construction is 12 months;
- Full-time RE services required for 6 months (26 weeks);
- Part-time RE services required for 2 months (8 weeks);
- Full-Time for 5 days per week with 10-hour days;
- Part-Time for 2 days per week with 10-hour days.

The Resident Engineer will observe and document the progress of construction, conditions encountered, Construction Contractor effort and personnel, and compliance of the work with the project plans and specifications. The Resident Engineer(s) will act as NHDES' liaison with the Construction Contractor and will interface with both Consultant and NHDES' project representative. The Resident Engineer will photo document the progress of construction and prepare weekly written reports documenting activities, conditions, and progress.

Neither the professional activities of the Consultant or its subcontractors, nor the presence of the Consultant's employees and/or subcontractors, will be construed by any party to imply that the Consultant has any responsibility for any of the Construction Contractor's methods of work performance, procedures, superintendence, sequencing of operations, or safety in, on or about the project site. The NHDES agrees to make evident in their agreement with the Construction Contractor that neither the presence of the Consultant's field representative nor any observation or testing by the Consultant will excuse the Construction Contractor for defects discovered in the Construction Contractor's work. With respect to site safety, the Consultant will be responsible solely for the on-site activities of its own employees and subcontractors, and this responsibility will not be construed to relieve the Construction Contractor from its obligations to maintain a safe project site. NHDES agrees that the Construction Contractor is solely responsible for project site safety and warrants that: (1) this intent will be made evident in the NHDES' agreement with the Construction Contractor; and (2) NHDES will require that the Consultant will be named as an Additional Insured under their Construction Contractor's general liability insurance policy.

## 2.2 Engineer-of-Record Services

- 2.2.1 Meeting Attendance – The Consultant will attend all required bi-weekly meetings (once every two weeks) at the site (and elsewhere as required) on behalf of NHDES. These meetings will typically consist of the bi-weekly project progress meeting where contractor progress will be discussed along with questions and upcoming schedule. The Consultant will prepare and distribute meeting minutes from each meeting. This task includes attendance at 27 bi-weekly construction status meetings.
- 2.2.2 Review of Contractor Submittals – The Consultant will provide technical review of the Construction Contractor's shop drawings, test results of materials, review samples and other submissions related to the proposed dam construction as necessary for compliance with the Project Drawings and Specifications, based on two reviews per submittal, on average. The Consultant will process and respond to correspondence from the Construction Contractors. Correspondence received from the Construction Contractor(s) will be reviewed by the Consultant relative to the specifications and the project permits. The Consultant will provide a written response and will make a recommendation to NHDES as to whether to accept, accept with modifications, or reject the submittal. All correspondence will be properly distributed (via electronic means) to the project team, and originals placed in the project file. Included in this task for geo-civil related items (i.e. non-gate related), are 3 hours per week of submittal review over a 34-week period (total of about 102 hours). Also included are an additional 216 hours for crest gate-related submittal reviews consisting of: (a) reinforced concrete of spillway, training walls, and abutments; (b) steel walkway, stop log stanchions, stairs; (c) gate controls, HPU & piping, electric, and instrumentation components; (d) water level bubblers; architectural, structural, HVAC and lighting associate with control house. For review of these gate-related submittals, the budget includes up to 216 hours.
- 2.2.3 Respond to Requests for Clarifications and Changed Conditions – The Consultant will provide a project manager or technical specialist on a part-time basis (on an average of 4 hours per week over an 8-month period, for a total of 128-hours) to provide liaison with the NHDES, the Construction Contractor, and the Consultant's field personnel and to respond to requests for clarification or information or other questions from any project partner. Action items developed as a result of the questions will be discussed immediately with the NHDES to

Agreement for Engineering Services For Planning and Replacement of the Ossipee Lake Dam (Freedom, NH)  
Exhibit A – Services

determine whether the action is necessary, is within the project scope, and whether it carries any associated cost implications. The Consultant will develop technical recommendations in a timely manner to address unanticipated conditions, when encountered. The Consultant will issue a written response to NHDES with the Consultant's opinion as to the appropriate resolution of questions or unexpected conditions.

- 2.2.4 Other Construction Site Visits – During the course of the work, especially associated with the performance of the crest gate, the Consultant will be present on-site for various milestones, including: start-up of control system; dry and wet testing; and emergency generator start-up test.
- 2.2.5 Review of Monthly Pay Requisitions – The Consultant will review Construction Contractor-submitted pay requisitions and compare them against Construction Contractor progress at the site as observed by the Consultant and reported by the on-site Resident. The Consultant will prepare a written memo addressed to NHDES for each pay requisition stating the Consultant's opinion regarding the release of payment. Based on one pay requisition per month, 32 hours have been allocated for this task.
- 2.2.6 Certificate of Substantial Completion and Affidavit of Compliance - At the completion of the project, the Consultant will review the Construction Contractor's "As-built" plans, in cooperation with the Resident Engineer. A "punch-list" will be prepared during a site meeting with the Construction Contractor and Resident containing items for completion prior to project close-out. At the appropriate time, the Consultant will prepare a Certificate of Substantial Completion for the purposes assisting with authorization of final payment to the Construction Contractor. Also, at the end of the construction phase, an Affidavit of Compliance, as per NHDES regulations, will be prepared by the Consultant's Professional Engineers to be submitted as required as part of a completion report. The Consultant will provide input to NHDES regarding their preparation and submittal of other Certificates of Compliance for permitting, as may be required.
- 2.2.7 Subcontractors - The Contractor may use subcontractor(s) where reasonable, appropriate and consistent with industry practice as indicated herein;
- Work shall not be assigned to a subcontractor without prior approval of NHDES.
  - The Contractor shall be fully responsible to the State for acts, errors and omissions of subcontractor(s).
  - Subcontractor(s) shall be bound by the same terms and conditions as those that bind the Contractor to the State, but there shall be no direct contractual relationship between the subcontractor(s) and the State.
  - The State reserves the right to negotiate subcontractor service markup rates and qualifications. The Contractor shall be responsible for delivering all reports and documentation generated by any subcontractor.

LABOR	Units	Unit Rate	TASK 2.A.1		TASK 2.A.2		TASK 2.A.10.5		TASK 2.A.10.6		TASK 2.A.10.7		Non-hours	Fee	
			Project Kick-Off Meeting		Historic Lake & Discharge Levels		OF-RECORD SERVICES		Review of Monthly Pay Requirements		Certification of Substantial Completion & Affidavit of Compliance				
			Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee			
<b>OZA Labor Categories</b>															
Dem Engineering Principal	Nr.	\$84.94	0	\$1,068.12	4	\$269.84	\$480.63	0	0	2	\$480.63	2	\$480.63	73	\$14,001.11
Senior Project Engineer	Nr.	\$36.46	0	0	0	0	\$1,368.14	0	0	24	\$2,842.06	12	\$1,421.44	184	\$19,438.92
Dem Eng. Senior Project Manager	Nr.	\$55.88	0	\$1,376.30	2	\$344.10	\$3,896.86	10	\$2,782.78	24	\$4,129.17	16	\$2,782.78	372	\$64,882.15
Project Engineer	Nr.	\$34.80	0	0	32	\$3,281.84	\$2,864.80	0	0	0	0	0	0	132	\$12,823.04
Resident Engineer	Nr.	\$38.80	0	0	0	0	0	0	0	0	0	0	0	734	\$68,967.36
Dem Engineering CAD Draftsman	Nr.	\$25.80	0	0	0	0	0	0	0	0	0	0	0	32	\$2,613.28
Administrative Assistant	Nr.	\$21.82	0	0	0	0	\$398.72	0	0	4	\$294.48	2	\$133.84	58	\$2,863.96
<b>Wright-Pierce Labor Categories</b>															
Struct/Mech Senior Project Manager	Nr.	\$58.46	0	\$1,446.46	0	0	\$3,998.91	0	\$1,446.46	0	0	0	\$1,446.46	202	\$47,174.00
Structural Engineer	Nr.	\$40.22	0	0	0	0	\$991.82	0	\$991.82	0	0	0	0	142	\$17,269.82
Structural Technician/CAD Designer	Nr.	\$28.72	0	0	0	0	0	0	0	0	0	0	0	94	\$6,804.82
Project Architect	Nr.	\$38.82	0	0	0	0	\$981.84	0	\$981.84	0	0	0	0	29	\$3,469.82
Resident Engineer	Nr.	\$38.80	0	0	0	0	0	0	0	0	0	0	0	1028	\$121,063.80
Architectural Technician	Nr.	\$29.10	0	0	0	0	0	0	0	0	0	0	0	24	\$2,181.87
HVAC Engineer	Nr.	\$39.81	0	0	0	0	\$246.86	0	\$246.86	0	0	0	0	18	\$2,212.81
Mechanical Engineer	Nr.	\$46.83	0	0	0	0	\$2,411.87	24	\$3,616.91	0	0	0	0	122	\$16,888.94
Senior Electrical Engineer	Nr.	\$55.87	0	0	0	0	\$1,271.71	0	\$1,271.71	0	0	0	0	66	\$11,216.86
Electrical Technician	Nr.	\$28.22	0	0	0	0	0	0	0	0	0	0	0	6	\$686.34
Senior Instrumentation Engineer	Nr.	\$36.14	0	\$1,263.28	0	0	\$1,263.28	24	\$4,148.67	0	0	0	0	90	\$17,118.21
Instrumentation Technician	Nr.	\$28.22	0	0	0	0	0	0	0	0	0	0	0	1	\$247.67
Administrative Assistant	Nr.	\$20.39	0	0	0	0	\$251.29	0	\$251.29	0	0	0	0	44	\$2,783.23
Word Processing	Nr.	\$30.22	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
<b>LABOR PRICE TOTAL</b>			32	\$1,468.30	32	\$4,148.67	\$18,427.24	20	\$17,461.81	24	\$17,461.81	24	\$18,427.24	1107	\$227,553.77

REIMBURSABLE EXPENSES	Units	Unit Rate	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee	Qty.	Fee
Mileage	Nr.	\$0.53	320	\$176.80	0	0	0	0	1120	\$618.00	0	0	0	0
Printing	Nr.	\$1.00	0	0	0	0	0	0	0	0	0	0	0	
CAD Computer Charge	Nr.	\$12.00	0	0	0	0	0	0	0	0	0	0	0	
Reproduction	Nr.	\$1.00	0	0	0	0	0	0	0	0	0	0	0	
Cost Bond Paper	Nr.	\$0.13	0	0	0	0	0	0	0	0	0	0	0	
PE Per Diem Expense	Nr.	\$148.00	0.3	\$73.00	0	0	0	0	1	\$148.00	0	0	0	
10% Mark-Up on Outlaid Expense		10%		\$24.80	0	0	0	0	\$81.20	0	0	0	\$12.50	
<b>EXPENSES TOTAL</b>				\$271.80	0	0	0	0	\$812.00	0	0	0	\$133.00	
<b>EXPENSES TOTAL (INCLUDE)</b>				\$271.80	0	0	0	0	\$812.00	0	0	0	\$133.00	
<b>TOTAL PRICE OF SUPPLIES (INCLUDE)</b>				\$271.80	0	0	0	0	\$812.00	0	0	0	\$133.00	

COST SUMMARY	
Supplemental Design Services	\$108,982.57
Resident Engineering	\$236,836.66
Engineer-of-Record Services	\$194,676.73

Contractor Initials *SP*  
Date *12-18-18*

**EXHIBIT B**  
**CONTRACT PRICE AND METHOD OF PAYMENT**

All services shall be performed to the satisfaction of DES before payment is made. All payments shall be made upon receipt and approval of stated outputs and upon receipt of an associated invoice. The billing is to be done on a monthly basis as a percentage completion of tasks as per the work program detailed in Exhibit A. Table A-1 in Exhibit A provides a detailed breakdown of costs for the project.

A detailed itemization of the cost by task and personnel category is contained in the attached Table B-1. Billing will be based on a time and materials basis. Hourly labor rates (i.e. fully loaded) are based on direct labor rates with an effective multiplier (DS + OH + fee) of 3.08. The estimated total of effort for Resident Engineering (RE) services is based on the assumptions presented in Paragraph 2.1 in Exhibit A. Total budget hours for RE services is 1,760. Actual RE efforts will be highly dependent upon weather conditions and the efficiency of the Contractor. Actual charges may vary, either upward or downward, depending upon the execution of the work and conditions encountered.

The total cost of the contract shall not to exceed \$491,492.15. DES agrees to pay the invoices as submitted by the Contractor. Invoices are subject to the approval of the Contract Officer before payment is processed.

Contractor Initials JS  
Date 7-18-18

## TABLE B-1

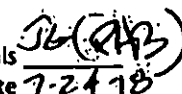
Unit rate is established at individual hourly rate multiplied by a factor of 1.75 to account for overhead and fringe benefits plus and additional 12% profit multiplier.

LABOR	Units	Unit Rate	Man Hours	Fee	
<b>GZA Labor Categories</b>					
Dam Engineering Principal	hr.	\$64.94	\$200.02	73	\$14,601.11
Senior Project Engineer	hr.	\$38.46	\$118.46	164	\$19,426.92
Dam Eng. Senior Project Manager	hr.	\$55.86	\$172.06	372	\$64,002.15
Project Engineer	hr.	\$34.00	\$104.72	132	\$13,823.04
Resident Engineer	hr.	\$38.00	\$117.04	734	\$85,907.36
Dam Engineering CAD Draftsman	hr.	\$25.50	\$78.54	32	\$2,513.28
Administrative Assistant	hr.	\$21.63	\$66.62	58	\$3,863.98
<b>Wright-Pierce Labor Categories</b>					
Struct/Mech Senior Project Manager	hr.	\$58.46	\$180.06	262	\$47,174.88
Structural Engineer	hr.	\$40.22	\$123.88	142	\$17,590.62
Structural Technician/CAD Designer	hr.	\$29.72	\$91.54	94	\$8,604.53
Project Architect	hr.	\$38.63	\$118.98	29	\$3,450.43
Resident Engineer	hr.	\$38.50	\$118.58	1026	\$121,663.08
Architectural Technician	hr.	\$29.10	\$89.63	24	\$2,151.07
HVAC Engineer	hr.	\$39.91	\$122.92	18	\$2,212.61
Mechanical Engineer	hr.	\$48.93	\$150.70	122	\$18,385.94
Senior Electrical Engineer	hr.	\$55.67	\$171.48	68	\$11,316.60
Electrical Technician	hr.	\$28.22	\$88.92	8	\$695.34
Senior Instrumentation Engineer	hr.	\$56.14	\$172.91	99	\$17,118.21
Instrumentation Technician	hr.	\$28.22	\$88.92	8	\$695.34
Administrative Assistant	hr.	\$20.39	\$62.80	44	\$2,763.25
<b>Total Labor</b>				<b>\$457,959.75</b>	
<b>REIMBURSABLE EXPENSES</b>					
Mileage	mi.	\$0.55	5,760	\$3,168.00	
Postage	l.s.	\$1.00	50	\$50.00	
CAD Computer Charge	hr.	\$12.00	5	\$60.00	
Reproduction	l.s.	\$1.00	250	\$250.00	
Cadd Bond Paper	sq. ft.	\$0.15	1,100	\$165.00	
RE Per Diem Expenses	day	\$146.00	184	\$26,791.00	
				<b>\$30,484.00</b>	
10% Mark-Up on Qualified Expenses		10%		<b>\$3,048.40</b>	
<b>Total Reimbursable Expenses</b>				<b>\$33,532.40</b>	
<b>PROJECT TOTAL</b>				<b>\$491,492.15</b>	

B-2

Contractor Initials

Date


  
 [Signature]
   
 7-24-98



**EXHIBIT C  
SPECIAL PROVISIONS**

There are no Special Provisions.

C-1

Contractor Initials SB (9/17)  
Date 7-24-18



**GZA GeoEnvironmental, Inc.**

**SECRETARY'S CERTIFICATE**

I, Susan Domko, Assistant Secretary of GZA GeoEnvironmental, Inc. (the "Company"), hereby certify

that James P. Guarente is an Associate Principal and Vice President of the Company and, pursuant to a vote adopted by the unanimous written consent of the Board of Directors of the Company on May 30, 2018, he is authorized to execute and deliver contracts, bonds, and other documents related to the performance of professional services for the Engineering Services for Planning and Construction of the Berry Bay Dam at Ossipee Lake Project for the New Hampshire Department of Environmental Services in the name and on behalf of the Company, and to affix the Corporate Seal thereto, if and as required.

I further certify that the aforesaid unanimous written consent and the authority vested thereby

have not been amended or revoked and are still in full force and effect.

WITNESS my hand and seal of the Corporation this 18<sup>th</sup> day of July, 2018.



A handwritten signature in black ink, which appears to read "Susan Domko". The signature is written in a cursive, flowing style and is positioned above the printed name of the signatory.

Susan Domko, Assistant Secretary

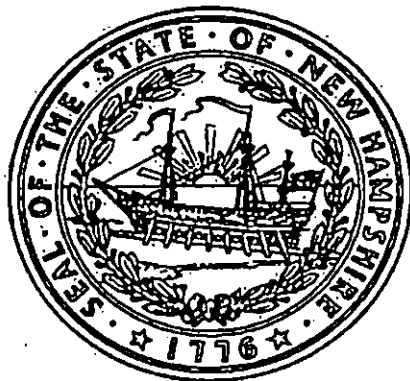
**State of New Hampshire**  
**Department of State**

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that GZA GEOENVIRONMENTAL, INC. is a Massachusetts Profit Corporation registered to transact business in New Hampshire on October 28, 1981. I further certify that all fees and documents required by the Secretary of State's office have been received and is in good standing as far as this office is concerned.

Business ID: 9876

Certificate Number: 0004103535



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed  
the Seal of the State of New Hampshire,  
this 31st day of May A.D. 2018.

A handwritten signature in black ink, appearing to read "Wm Gardner".

William M. Gardner  
Secretary of State



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
6/11/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Risk Strategies Company 160 Federal St. 2nd Floor Boston, MA 02110	CONTACT NAME:	
	PHONE (AC, Ho, Ext): 617-330-5700	FAX (AC, Ho): 617-439-3752
	E-MAIL ADDRESS:	
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A: Great Divide Insurance Company/ Nautilus Ins Group		25224
INSURER B: The First Liberty Insurance Corp		33588
INSURER C:		
INSURER D: Hartford Casualty Insurance		29424
INSURER E: Lexington Insurance Company		19437
INSURER F:		

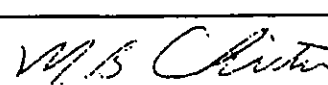
INSURED  
GZA GeoEnvironmental, Inc.  
249 Vanderbilt Avenue (Corporate)  
Norwood MA 02062

COVERAGES      CERTIFICATE NUMBER: 42451248      REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

USER LTR	TYPE OF INSURANCE	ADDITIONAL INSURANCE	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR Deductible - \$25,000 <input type="checkbox"/> PER OCCURRENCE BUPD GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER:		GLP2007957-15	2/28/2018	2/28/2019	EACH OCCURRENCE \$2,000,000 DAMAGE TO RENTED PREMISES (EA occurrence) \$500,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$2,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMPOP AGG \$2,000,000 \$
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/>		AS6-211-261208-018	2/28/2018	2/28/2019	COMBINED SINGLE LIMIT (EA accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$ \$
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	08WBRI5941	2/28/2018	2/28/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER EL EACH ACCIDENT \$1,000,000 EL DISEASE - EA EMPLOYEE \$1,000,000 EL DISEASE - POLICY LIMIT \$1,000,000
E	Professional Liability		031711017	2/28/2018	2/28/2019	Each Claim/ \$1,000,000 Aggregate \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
RE: Job #01.0179168.10, Engineering Services for Planning and Construction of Berry Bay Dam, Review /update original dam design, Effingham/Freedom, NH.

<b>CERTIFICATE HOLDER</b> 01.0179168.10 NH Department of Environmental Services Attn: James Gallagher 29 Hazen Drive Concord NH 03302-0095	<b>CANCELLATION</b> SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE  Michael Christian

**Attachment A**  
**Procurement Process**

The procurement process for this contract was conducted as follows:

NHDES issued a Request For Qualifications (RFQ) on September 28, 2017 for engineering services during construction of a replacement dam at the outlet of Ossipee Lake. Engineering services sought included preparation of updates to plans, bid administration and review, contractor selection, construction oversight by a Professional Engineer licensed in New Hampshire, management of construction change orders, and inspection, measurement, and invoice review to provide recommendations for payments during the replacement of the dam at Ossipee Lake. The RFQ was advertised in the Union Leader (October 3-5, 2017) and was posted on the NHDES website. NHDES received proposals from the following interested parties:

- GZA GeoEnvironmental, Inc. – Norwood, MA
- Holden Engineering – Concord, NH
- The H.L. Turner Group – Concord, NH
- Schnabel Engineering – West Chester, PA
- Stephens Engineering – Brentwood, NH

The procurement process for this Agreement, was conducted in accordance with NH RSA 21-I:22. NHDES issued a RFQ, established a short list of five qualified consultant firms, and established an internal selection committee to review and rank the responses. The committee consisted of James W. Gallagher, Jr., P.E., the Chief Engineer for the Dam Bureau with more than 40 years of experience with dam design, contracting, construction and safety; Grace Levergood, P.E., Senior Design and Construction Engineer for the Dam Bureau who has over 25 years of experience as an engineer for hydrologic and dam related projects; and Kent R. Finemore, P.E., Assistant Chief Engineer of the Dam Bureau, who has over 25 years of experience as an engineer for civil design and construction. The responses were ranked with respect to general dam experience, plan update preparation, bid administration and review, construction inspection and oversight, experience with design of similar projects, and adequacy and proximity of staffing. The selection committee was unanimous in its selection of GZA GeoEnvironmental, Inc., as the most qualified for providing the engineering services needed for the replacement of the dam at Ossipee Lake. The firm ranked first by the majority of the members of the Selection Committee would be the selected firm with whom NHDES would negotiate a final scope of work and price.

A scoring summary is provided in Table AT-1. As shown in the summary, all three members of the Selection Committee chose GZA GeoEnvironmental, Inc., and they were selected. Following the selection, NHDES negotiated terms and conditions for the services to be provided, authorization to conduct work, billing rates and conditions, and a not-to-exceed cost for this Agreement with GZA GeoEnvironmental, Inc. The negotiated contract price limitation is fair and reasonable for the scope of work.

**Table AT-1**

**Ratings for Ossipee Lake Dam Engineering Services and Oversight RFQ Responses**

<b>Category</b>	<b>Reviewer 1</b>	<b>Reviewer 2</b>	<b>Reviewer 3</b>	<b>Final</b>
<b>Firm</b>	<b>Ranking</b>	<b>Ranking</b>	<b>Ranking</b>	<b>Ranking</b>
GZA GeoEnvironmental, Inc.	1	1	1	1
Stephens Associates Consulting Engineers	4	4	4	4
Holden Engineering	5	5	5	5
Schnabel Engineering	2	2	2	2
H.L. Turner Group	3	3	3	3

AT-2