

The State of New Hampshire OCT03'18 09.71 DA

Department of Environmental Services

Robert R. Scott, Commissioner

September 18, 2018

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

REQUESTED ACTION

Authorize the Department of Environmental Services ("NHDES") to enter into an Agreement with Schnabel Engineering LLC, West Chester, PA (Vendor Code #296440), in an amount not to exceed \$349,933.22 to provide engineering services for the preparation of a Supplemental Watershed Plan and Environmental Evaluation for the Baker River Site 8 Flood Control Dam in Dorchester ("Baker Site 8 Dam"), effective upon Governor and Council approval through March 31, 2020. 100% Federal Funds.

Funding is available in the account listed below.

FY 2019

03-44-44-442010-5421-102-500731

\$349,933.22

Dept. of Environmental Services, Dam Assessment and Rehabilitation, Contracts for Program Services

EXPLANATION

NHDES is responsible for the maintenance, repair and reconstruction of all state owned dams per NH RSA 482:55-57. The Baker Site 8 Dam was originally constructed by the federal Natural Resources Conservation Service ("NRCS") in 1967. The State of New Hamsphire was the local sponsor for the project and assumed ownership of the dam following construction.

The dam needs to be modified to meet current dam safety standards. Significant funding assistance for modification of the dam (all engineering costs and 65% of the construction costs) will be available from NRCS under the Watershed Rehabilitation Program (PL 106-472) upon the completion and approval of a Supplemental Watershed Plan and Environmental Evaluation ("SWP and EE").

The purpose of this contract is to prepare the SWP and EE for the Baker Site 8 Dam to allow the construction of the needed modifications to proceed. NHDES was awarded a cooperative grant and agreement from NRCS in August 2014 to, in part, contract with a qualified engineering consulting firm to prepare the SWP and EE. That agreement was subsequently amended to include additional funding to fully fund the contract.

The procurement process for this Agreement, further detailed in Attachment A, was conducted in accordance with NH RSA 21-I:22. On October 26, 2017, NHDES issued a RFQ for for a qualified engineering consulting firm to perform the work. The RFQ was advertised in the Union Leader (October 31 –

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

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November 2, 2017) and was posted on the NHDES website. Responses were received from the following five firms:

- Gannett Fleming Harrisburg, PA
- Gomez and Sullivan Engineers Utica, NY
- GZA GeoEnvironmental, Inc. Norwood, MA
- Pare Corporation Foxboro, MA
- Schnabel Engineering West Chester, PA

The selection committee reviewed the responses to the RFQ from the five qualified firms, and chose three firms – Gannett Fleming, GZA GeoEnvironmental, and Schnabel Engineering - to interview for the project. The firms were ranked based on the presentations and responses to questions at the interviews with respect to professional experience in the preparation of SWPs and EEs for NRCS projects; professional experience with the preparation of Public Participation Plans, holding public meetings, ensuring public participation and identifying, obtaining and compilation of desired information; professional experience for completing the primary worksheets associated with NRCS SWPs and Plan EEs; professional experience in the preparation of Dam Assessments for NRCS projects; proposed approach to responding to the requirements of the Statement of Work for this project; and references from previous clients. The selection committee was unanimous in its selection of Schnabel Engineering as the most qualified for providing the engineering services needed for the project. NHDES has negotiated terms and conditions for the services to be provided, billing rates and conditions, and a not-to-exceed cost for this Agreement with Schnabel Engineering.

The total charges to this contract shall not exceed \$349,933.22. 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.			
I.1 State Agency Name		1.2 State Agency Address	· ·
NH Department of Environment	al Services	PO Box 95 - 29 Hazen Drive	. Concord. NH 03302-0095
			,
1.3 Contractor Name		1.4 Contractor Address	
Schnabel Engineering, LLC		1380 Wilmington Pike, Suite	e 100, West Chester, PA, 19382
1.5 Contractor Phone	1.6 Account Number	1.7 Completion Date	1.8 Price Limitation
Number	1.0 Account Number	1.7 Completion Date	1.5 The Emilianon
(610) 696-6066	03-44-44-442010-5421-102-	March 31, 2020	\$349,933.22
(0.0) 0.0 0000	500731		
1.9 Contracting Officer for State	te Agency	1.10 State Agency Telephon	e Number
James W. Gallagher, Jr., P.E.	•	(603) 271-1961	
1.11 Contractor fignature		- 1.12 Name and Title of Cor	
		Michael C. Canino, Executiv	e Vice President
March			
1.12 Asknowledgement: State	of Pennsulvania County of M	T	
1.13 Acknowledgement. State	or pennsulvanis county or O	nester	
On 9/10/2018 , before	e the undersigned officer, persona	ally appeared the person identific	ed in block 1.12, or satisfactorily
	ame is signed in block 1.11, and	acknowledged that s/he executed	this document in the capacity
indicated in block 1.12.			
1.13.1 Signature of Notary Pub	lic or Justice of the Peace	mmonwealth of Pennsylvania - Notary S Melissa Ollendike, Notary Public	SE#1
Sulsa Di D.		Chester County	
summer -	-4	y commission expires January 6, 20	21
[Seal]		Commission number 1302628	<u> </u>
1.13.2 Name and Title of Notar	•		
Melissa Olle	ndike		
1.14 State Agency Signature		1.15 Name and Title of Stat	te Agency Signatory
N/h/		Robe	of RSCOTT, Commissioner
Kolena // c	Date: 9-28.18	NH Dept of	Environmental Services
1.16 Approval by the N.H. Dep	partment of Administration, Divis	sion of Personnel (if applicable)	,
		5:	
By:		Director, On:	
1.17 Approval by the Attorney	General (Form, Substance and E	vecution) (if applicable)	
7.17 Approval by the Asolites	Ocheral (1 ohn, Substance and E.	xecution) (if applicable)	
By:	_	On: 10/1/16	
l so hall	y	On: (0/(/18	
1.18 Approval by the Geverno	r and Executive Council (if appli	icable)	
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

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

12. ASSIGNMENT/DELEGATION/SUBCONTRACTS.

or other emoluments provided by the State to its employees.

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 \$1,000,000per 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.

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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

This Agreement is to provide engineering services for development of a Supplemental Watershed Plan and Environmental Evaluation (Plan-EE) for the Baker River Watershed Site 8 Dam ("Baker Site 8" - NH Dam # D066008) in Dorchester, NH. NHDES entered into a Watershed Rehabilitation Program Grant Agreement with the Natural Resources Conservation Service (NRCS – an agency of the U.S. Department of Agriculture) to, among other things, fund a Supplemental Watershed Plan and Environmental Evaluation for Baker Site 8. Attachment 2 of that Grant Agreement, entitled "Statement of Work For Preparation of a Supplemental Watershed Plan/Environmental Evaluation Baker River Watershed Site 8", details the work plan for that project. The Statement of Work is provided as Appendix 1 to Exhibit A and is incorporated herein by reference.

Based on review of the Statement of Work (Appendix 1 to Exhibit A) by the Contractor and subsequent discussions with NHDES and NRCS, the work included with this Agreement includes tasks described in the Statement of Work in Appendix 1 to Exhibit A, subject to the revisions specified below:

Phase 1 - Present Condition Assessment (Appendix 1 - Page 26)

- 11. Characterize Affected Environment for Each Dam (Appendix 1 Page 29)
- B. Inventory Affected Environment Resource Concerns:

Wetlands: No on-site wetland delineation will be performed.

C. Engineering Concerns:

Surveys: Contractor has reviewed the survey of the dam embankment, spillways, and permanent pool bottom performed for the Assessment Study, Baker River Watershed Site 8 Dam, dated August 2008, developed by NHDES, in cooperation with USDA NRCS; as-built drawings; and LiDAR data; and consider them to be in sufficient detail and format for the Plan-EE Assessment Report. Contractor will provide a summary of the survey performed for the Assessment Report and of its review of the analysis in Appendix D, Investigations and Analysis Report of the Plan-EE. No site or boundary surveys will be performed.

Seismic Conditions: Contractor has reviewed the seismic analysis of the embankment and riser in the Assessment Study, Baker River Watershed Site 8 Dam and considers it to be in sufficient detail and format for the Plan-EE Assessment Report, based on the current TR-60, however additional seismic analyses need to be performed to meet the requirements of NRCS revisions to TR-60. Contractor will provide a summary of the analysis performed for the Assessment Report and review of the analysis in Appendix D, Investigations and Analysis Report of the Plan-EE. In addition, Contractor will perform a seismic analysis of the embankment and riser using available data and proposed in accordance with revisions to TR-60.

Geology: Contractor has reviewed the data and analyses in the *Assessment Study, Baker River Watershed Site 8 Dam* and considers them to be in sufficient detail and format for the Plan-EE Assessment Report.

The Structural and Geotechnical Analysis section of the Assessment Study includes documentation of Subsurface Explorations, Seepage Analysis, Embankment Slope Stability Analysis, Broadly Graded Soils Assessment, and Seismic Analysis of Riser. Contractor has reviewed the Assessment Study and

Contractor Initials WC Date 9/27/18

Agreement for Engineering Services for development of a Supplemental Watershed Plan and Environmental Evaluation for the Baker River Watershed Site 8 Dam in Dorchester, NH. Exhibit A – Services

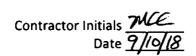
previous NRCS geologic and design reports and believe that the data, analyses, and report are in sufficient detail for the Plan-EE and Contractor agrees with the conclusions of the Assessment Study. Contractor will provide a summary of the analysis performed for the Assessment Report in Appendix D, Investigations and Analysis Report of the Plan-EE. Contractor will also develop a preliminary list of potential failure modes with an emphasis on internal erosion for inclusion in the Plan-EE.

As part of the Preliminary Design of the Preferred Alternative, Contractor will develop a concept for an enhanced dam safety monitoring plan given the potential failure modes developed. The plan will include piezometers to confirm the results of seepage analyses under normal pool conditions and to allow monitoring of the pore water response during floods.

Hydrology and Hydraulics – Data Gathering and Survey: Contractor has reviewed the results of the sediment survey performed for the *Assessment Study, Baker River Watershed Site 8 Dam* and consider it to be in sufficient detail and format for the Plan-EE Assessment Report. Contractor will estimate present-day sediment volume by applying the accumulation rate reported in the aforementioned report.

Contractor has reviewed the SITES, HEC-HMS, and HEC-RAS models developed for the *Dam Breach Analysis and Spillway Evaluation Report, Baker River Dam Site Number 8,* dated September 2016, developed by Gannett Fleming. Contractor concludes that the models contain hydrologic and hydraulic data suitable for use in developing the Plan-EE. The following clarifications apply related to the modeling scope:

- The existing HEC-RAS model already includes downstream bridges. A site visit will be performed
 to conduct a field reconnaissance of the watershed, dam and downstream inundation area; field
 measurements or obtaining available as-built drawings will not be performed.
- Errors were experienced while attempting to run the existing HEC-RAS model that disrupted the
 run. The errors appeared to be related to the lateral weir located just downstream of the dam. It
 is assumed that the modeling errors can be resolved without significant updates, along with
 resolving stability issues.
- The existing HEC-RAS model includes only constant lateral 100-year inflows downstream of the dam. Therefore, the existing HEC-HMS model will be expanded downstream of the dam to a point just downstream of the confluence of the Baker River and the South Branch Baker River (corresponding to "Junction 10" in the existing HEC-RAS model). This will include development of the Runoff Curve Numbers (RCNs) and Times of Concentration (T_Cs) for the portion of the South Branch Baker River Watershed downstream of the dam and the Baker River Watershed.
- The SITES model for the existing dam will be revised by updating the RCNs and T_Cs and incorporating the 2-, 5-, 10-, 50-, 100-, and 500-year rainfall data from Atlas 14 and Probable Maximum Precipitation (PMP) from HMR-51 along with the corresponding updates to the existing HEC-HMS model.
- The HEC-HMS and HEC-RAS models will be dynamically linked to run the various scenarios.
- "With" and "without" structure scenarios will be developed 2-, 5-, 10-, 50-, 100-, and 500-year floods.



Agreement for Engineering Services for development of a Supplemental Watershed Plan and Environmental Evaluation for the Baker River Watershed Site 8 Dam in Dorchester, NH.

Exhibit A – Services

Hydrology and Hydraulics – Hazard Classification Evaluation: Contractor has reviewed the dam break analysis and dam break inundation mapping performed for the *Dam Breach Analysis and Spillway Evaluation Report, Baker River Dam Site Number 8* and considers them suitable for delineation of the breach inundation area and identifying the impact of a dam breach on structures in the inundation area. No additional dam breach analysis or mapping will be performed.

Hydrology and Hydraulic Analysis of Existing Structure and Projected Future Without Project Action: Contractor has reviewed the SITES model developed for the Dam Breach Analysis and Spillway Evaluation Report, Baker River Dam Site Number 8 and considers it to be suitable for modeling all design storms and evaluating the stability and integrity of the auxiliary spillway. Revision of input data will be limited to updating the computation of the runoff curve number if updated soil data are available.

12. Phase 1 Review Meeting (Appendix 1 - Page 35): This meeting will be held by teleconference.

Phase 2 - Formulation and Evaluation of Alternatives (Appendix 1 - Page 35)

- 14. Evaluate Alternatives (Appendix 1 Page 35):
- b. Identify Alternatives to Carry through Assessment Process:

<u>Decommissioning</u> - Contractor will conduct 2-, 5-, 10-, 50-, 100-, and 500-year hydraulic analyses (using the "without dam" HEC-RAS model from Task 11C) and an erosion analysis, identify structures in the floodplain with the dam being removed, and prepare a conceptual floodplain restoration plan.

<u>Dam Rehabilitation</u> - While several structural alternatives will be considered in 14.a. (Evaluation of Engineering Alternatives for Dam Rehabilitation), no more than two structural alternatives will be evaluated in detail.

e. Economic Analysis of Alternatives (NED Account):

It is the Contractor's understanding that the NRCS National Water Management Center does not accept using updated damages from the original work plan or other abbreviated procedures for evaluating urban flood damages; therefore, Contractor will perform a detailed economic analysis, evaluating individual properties affected by the dam.

NHDES will assist Contractor in the compilation of property values if they are not available online.

15. Preliminary Design for the Preferred Alternative (Appendix 1 - Page 38):

Contractor understands that the Preliminary Design is a conceptual design used to represent the preferred alternative. A description of the preferred alternative will be included in the Plan-EE, and supporting data will be included in Appendix D, Investigations and Analyses Report; Appendix E, Other Supporting Information; and in the Administrative Record. If additional design calculations are needed in the Plan-EE beyond those for the alternative analyses and cost estimates, such additional calculations will be included in the above locations.



Agreement for Engineering Services for development of a Supplemental Watershed Plan and Environmental Evaluation for the Baker River Watershed Site 8 Dam in Dorchester, NH. Exhibit A – Services

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 an 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 Contractor shall be responsible for delivering all reports and documentation generated by any subcontractor.

PROJECT SCHEDULE and FEES

The project schedule is outlined in Table A-1. The project budget is summarized in Table A-2.

Agreement for Engineering Services for development of a Supplemental Watershed Plan and Environmental Evaluation for the Baker River Watershed Site 8 Dam in Dorchester, NH.

Exhibit A – Services

Table A-1

Supplemental Watershed Plan/Environmental Evaluation Baker River Watershed Site 8 Detailed Schedule

	sent Condition Assessment	
Task 1	Notice to Proceed (NTP)	Approval by NH Governor and Counci
Task 2	Develop Draft Plan of Work and Project Schedule for Plan-EE	2 Weeks from NTP
Task 3	Attend Kick-Off Meeting and Initial Site Review	6 Weeks from NTP
Task 4	Construct and Maintain Administrative Record	8 Weeks from NTP
Task 5	Finalize Plan of Work and Project Schedule for Plan-EE	7 Weeks from NTP
Task 6	Prepare Public Participation Plan	8 Weeks from NTP
Task 7	Complete Inter-Agency Coordination, Documentation, and Data Compilation	9 Weeks from NTP
Task 8	Hold Scoping Meeting	9 Weeks from NTP
Task 9	Prepare Scoping Report	12 Weeks from NTP
Task 10	Craft Project Purpose and Need Statement	22 Weeks from NTP
Task 11	Characterize Affected Environment	18 Weeks from NTP
Task 12	Hold Phase 1 Review Meeting	19 Weeks from NTP
		<u>.</u> .
	mulation and Evaluation of Alternatives	
Task 13	Prepare Descriptions of Proposed Alternatives	19 Weeks from NTP
Task 13 Task 14	Prepare Descriptions of Proposed Alternatives Evaluate Alternatives	27 Weeks from NTP
Phase 2 - For Task 13 Task 14 Task 15	Prepare Descriptions of Proposed Alternatives	
Task 13 Task 14	Prepare Descriptions of Proposed Alternatives Evaluate Alternatives	27 Weeks from NTP
Task 13 Task 14 Task 15	Prepare Descriptions of Proposed Alternatives Evaluate Alternatives	27 Weeks from NTP
Task 13 Task 14 Task 15	Prepare Descriptions of Proposed Alternatives Evaluate Alternatives Preliminary Design for the Preferred Alternative	27 Weeks from NTP
Task 13 Task 14 Task 15 Phase 3 - Pre	Prepare Descriptions of Proposed Alternatives Evaluate Alternatives Preliminary Design for the Preferred Alternative paration of Plan-Environmental Evaluation	27 Weeks from NTP 32 Weeks from NTP
Task 13 Task 14 Task 15 Phase 3 - Pre	Prepare Descriptions of Proposed Alternatives Evaluate Alternatives Preliminary Design for the Preferred Alternative paration of Plan-Environmental Evaluation Prepare First Draft Plan-EE	27 Weeks from NTP 32 Weeks from NTP 36 Weeks from NTP

Agreement for Engineering Services for development of a Supplemental Watershed Plan and Environmental Evaluation for the Baker River Watershed Site 8 Dam In Dorchester, NH. Exhibit A – Services

Table A-2
HOURS AND RATES SUMMARIZED BY CATEGORY
Baker River Watershed Site 8 Dam - Dorchester, NH

	<u> </u>					3CTINADO	L EM	GMEDUNG CD	C33471	CATION / BILL	ING KATE					!		
DESCRIPTION OF TASK		Senior Consultant		Principal		Senior Associate		Associate		ior Engineer	Project Engineer		Senior Staff		Admin.			
					Jerson Associates		~#####################################		Servi Cigares							TOTAL	TOTAL LABOR SCHNABEL	
		(Hrs)		(Hrs)	(Hi	rs)		(Hrs)		(Hrs)	(Hrs)		(Hrs)		(Hrs)	HOURS	ENGINEER	
	5	270.00	5	255.00	\$	230.00	5	205.00	\$	180.00	\$ 155.00	\$	135.00	\$	62.00		ENGINEER	MG
Phase 1 - Present Condition Assessment																		
Item 1 Notice to Proceed		4														4	5 1	,080.00
Item 2 Develop Draft Plan of Work and Project Schedule		8								+			_		3	15	\$ 3	,126.00
Item 3 Attend Kick-Off Meeting and Initial Site Review		24								24						48	\$ 10	,800.00
Item 4 Construct and Maintain the Administrateive Record		2								2		Т				4	5	900.00
			_				_			_		7				_		

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 personnel category, subcontractor costs, and reimbursable expenses 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 average effective multiplier of 3.23, which includes a profit multiplier of 11.18%.

The total cost of the contract shall not to exceed \$349,933.22. 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.

TABLE B-1

Unit rate is established at individual hourly rate multiplied by an average factor of 3.23 to account for overhead and fringe benefits. This multiplier includes an additional 11.18% profit multiplier.

LABOR	Units	Unit Rate	Man Hours	Fee
Schnabel Engineering Labor Categories	·			
Senior Consultan	hr.	\$270.00	166	\$44,820.00
Principa	hr.	\$255.00	24	\$6,120.00
Senior Associate	hr.	\$230.00	32	\$7,360.00
Associate	hr,	\$205.00	24	\$4,920.00
Senior Engineer	hr.	\$180.00	138	\$24,840.00
Project Engineer	hr.	\$155.00	84	\$13,020.00
Senior Staff	hr.	\$135.00	250	\$33,750.00
Administratio: .	hr,	\$82.00	30	\$2,460.00
TOTAL LABOR COSTS		Total Labor Cost	748	\$137,290.00
REIMBURSABLE EXPENSES	Units	Unit Rate	Number	Fee
, , , , , , , , , , , , , , , , , , ,	days	\$131.00	12	\$1,572.00
Lodging Meals & Incidendtal Expense	days	\$64.00	15	\$960.00
Other (Taxi, Tolls, Rental Car, etc.)	days	\$100.00	9	\$900.00
Printing and Reproductio	hard copy	\$25.00	12	\$300.00
Printing and Reproductio	CD	\$5.00	21	\$105,00
		*****		¥
		Total exp	pensei	\$3,837.00
		10% mar	kup	\$383.70
•		Total RE	with 10% marks	\$4,220.70
	Units	Male Bares	# of Units	•
SUBCONTRACTOR COSTS	orna	Unit Rate (avg)		Fee
Water Resources Planning Speciali:	hr,	\$103.62	547	\$56,678.02
Water Resources Planning Economi:	hr.	\$88.25	288	\$25,417.00
EA Engineering, Science, and Technology, Inc.	hr.	\$107.43	400	\$42,973.00
Aterra Solution	hr,	\$140.02	460	\$64,407.00
		Total Subconsultant	<u>1</u>	\$189,475.02
		10% markup		\$18,947.50
		Total Subconsultan	ts with 10% mark	\$208,422.52
		CONTRACT TOTAL		\$349,933.22

Exhibit CSpecial Provisions

No special provisions.

C-1

CERTIFICATE OF AUTHORITY

June 18, 2018

The undersigned, Michael C. Canino, Secretary of Schnabel Engineering, LLC (a wholly owned subsidiary of Schnabel, Inc., a Virginia Corporation), a limited liability company organized and existing to do business under the laws of the State of New Hampshire does hereby certify that with a quorum of Directors present at Schnabel, Inc.'s Board of Directors quarterly meeting held on July 18 and 19, 2017, the company authorized Michael C. Canino as an Executive Vice President to execute and deliver agreements on behalf of Schnabel Engineering, LLC.

I do hereby certify that the above is a true and correct statement of the approved Authority granted by the Board of Directors of Schnabel Engineering, LLC and that said authorization has not been amended or repealed and is in full force and effect as of this date, and that Michael C. Canino is a duly elected Executive Vice President of the Limited Liability Company and its parent Corporation (Schnabel, Inc.).

Attest:

ffix Corporate Seal Here)

Michael C. Canino

Executive Vice President and 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 SCHNABEL ENGINEERING, LLC is a Virginia Limited Liability Company registered to transact business in New Hampshire on June 09, 2016. 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: 745984

Certificate Number: 0004109142



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed the Seal of the State of New Hampshire, this 15th day of June A.D. 2018.

William M. Gardner Secretary of State



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 6/26/2018

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) CONTACT Erika Cox Scott Insurance (Rich) 1700 Bayberry Court Ste. 200 Richmond VA 23226 PHONE (AC. No. Ext): 804-591-4969
E-MAIL ADDRESS: ecox@scottins.com FAX (A/C, No): INSURER(S) AFFORDING COVERAGE NAIC # INSURER A: Valley Forge Insurance Company (A) 20508 SCHNA-1 20443 INSURED INSURER B : Continental Casualty Company (A) Schnabel Engineering, LLC 1380 Wilmington Pike, #100 NSURER C : American Casualty Company of Reading, 20427 INSURER D : Continental Insurance Company (A) 35289 West Chester, PA 19382 INSURER E : INSURER F : **CERTIFICATE NUMBER: 1207447447** COVERAGES **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

	ERTIFICATE MAY BE ISSUED OR MAY I XCLUSIONS AND CONDITIONS OF SUCH	POLICI	ES.	LIMITS SHOWN MAY HAVE BEI				DALL THE TERMS,
INSR LTR	TYPE OF INSURANCE	ADDL'S	WYD WYD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	s
Α	X COMMERCIAL GENERAL LIABILITY			6018601512	7/1/2018	7/1/2019	EACH OCCURRENCE	\$1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$500,000
	X Contractual						MED EXP (Any one person)	\$15,000
							PERSONAL & ADV INJURY	\$1,000,000
	GENL AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	\$2,000,000
	POLICY X PRO-						PRODUCTS - COMP/OP AGG	\$2,000,000
	OTHER:							\$
Α	AUTOMOBILE LIABILITY			6018601526	7/1/2018	7/1/2019	COMBINED SINGLE LIMIT (Ea accident)	\$1,000,000
]	X ANY AUTO						BODILY INJURY (Per person)	\$
	OWNED SCHEDULED AUTOS						BODILY INJURY (Per accident)	S
	X HIRED X NON-OWNED X AUTOS ONLY						PROPERTY DAMAGE (Per accident)	S
								\$
D	X UMBRELLA LIAB X OCCUR			6018601557	7/1/2018	7/1/2019	EACH OCCURRENCE	\$20,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	\$
	DED X RETENTION \$ 10,000							S
С	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			6018601543	7/1/2018	7/1/2019	X PER X OTH-	WVBroadForm ENDT
	ANY PROPRIETOR/PARTNER/EXECUTIVE	N/A					E.L. EACH ACCIDENT	\$500,000
	(Mandatory in NH)						E.L. DISEASE - EA EMPLOYEE	\$500,000
l	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	\$500,000
A B	Equipment Floater Professional Liability \$200,000 retention			6018601512 AEH591906042	7/1/2018 1/1/2018	7/1/2019 1/1/2019	Rented Equip/deductib Per claim Annual Aggregate	75,000/1,000 1,000,000 1,000,000
		FC 140		484 4441				

Umbrella Policy applies over General Liability, Auto Liability and Employers Liability. General Liability does not exclude xcu coverages. Workers Compensation applies in VA, GA, NC, MD, SC, PA, MD, NJ, NV, TX, NY, TN, KY, WV and DC; and all other states except ND, OH, WA and WY. Workers Compensation Policy includes USL&H coverage. Coverages provided by Owner or Contractor Controlled Programs are excluded from policies referenced herein.

IF REQUIRED BY WRITTEN CONTRACT, the following provisions apply to General Liability, Auto Liability, Workers Compensation and See Attached...

CERTIFICATE HOLDER	CANCELLATION
NH Department of Environmental Services Kent R. Finemore, PE PO Box 95 29 Hazen Drive	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
29 Hazen Drive Concord NH 03302-0095	Stacy W. Hall

Attachment A Procurement Process

The procurement process for this contract was conducted as follows:

NHDES issued a Request For Qualifications (RFQ) on October 26, 2017 for preparation of a Supplemental Watershed Work Plan (SWP) and Environmental Evaluation (Plan-EE) for the rehabilitation of the Baker River Watershed Site 8 Dam (NH Dam # D066008 - NID NH00178) in Dorchester, NH, by a qualified engineering consulting firm. The RFQ was advertised in the Union Leader (October 31 – November 2, 2017) and was posted on the NHDES website. NHDES received proposals from the following interested parties:

- Gannett Fleming Harrisburg, PA
- Gomez and Sullivan Engineers Utica, NY
- GZA GeoEnvironmental, Inc. Norwood, MA
- Pare Corporation Foxboro, MA
- Schnabel Engineering West Chester, PA

The procurement process for this Agreement, was conducted in accordance with NH RSA 21-1:22. 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; Daniel Mattaini, P.E., Administrator of the Operations and Maintenance Section in 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 selection committee reviewed the responses to the RFQ from the five qualified firms, and chose three firms – Gannett Fleming, GZA GeoEnvironmental, and Schnabel Engineering to interview for the project. The firms were ranked based on the presentations and responses to questions at the interviews with respect to professional experience in the preparation Supplemental Watershed Work Plans and Environmental Evaluations for NRCS projects, professional experience with the preparation of Public Participation Plans, holding public meetings, ensuring public participation, and identifying, obtaining and compilation of desired information, professional experience for completing the primary worksheets associated with NRCS SWPs and Plan EEs, professional experience in the preparation of Dam Assessments for NRCS projects, proposed approach to responding to the requirements of the Statement of Work for this project, and references from previous clients. 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. The selection committee was unanimous in its selection of Schnabel Engineering as the most qualified for providing the engineering services needed for the project.

A scoring summary is provided in Table AT-1. As shown in the summary, all three members of the Selection Committee chose Schnabel Engineering 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 Schnabel Engineering. The negotiated contract price limitation is fair and reasonable for the scope of work.

Table AT-1

Reviewer 1

		GZA	Gannett	Schnabel
Criteria	Weighting	GeoEnvironmental	Fleming	Engineering
Professional Experience Preparing NRCS Dam Assessments	10%	9.00	10.00	10.00
Professional Experience Preparing NRCS SWPs and EEs (and EAs)	30%	9.00	9.50	10.00
Professional Experience Completing Evaluation Worksheets	30%	9.00	10.00	10.00
Proposed Approach Responding to Work Plan Requirements	30%	9.00	10.00	1,0.00
	Total =>	9.00	9.85	10.00
		3	2	1

Reviewer 2

			Firm 💣			
		GZA	Gannett	Schnabel		
Criteria	aveignting	GeoEnvironmental	Fleming	Engineering		
Professional Experience Preparing NRCS Dam Assessments	10%	9.00	10.00	10.00		
Professional Experience Preparing NRCS SWPs and EEs (and EAs)	30%	9.50	10.00	10.00		
Professional Experience Completing Evaluation Worksheets	30%	9.50	10.00	10.00		
Proposed Approach Responding to Work Plan Requirements	30%	8.50	9.50	10.00		
	Total =>	9.15	9.85	10.00		
		2	2	- 4		

Reviewer 3

			Firm	•
		GZA	Gannett	Schnabel
Criteria	Weighting	GeoEnvironmental	Fleming	Engineering
Professional Experience Preparing NRCS Dam Assessments	10%	9.00	10.00	10.00
Professional Experience Preparing NRCS SWPs and EEs (and EAs)	30%	9.50	10.00	10.00
Professional Experience Completing Evaluation Worksheets	30%	9.50	10.00	10.00
Proposed Approach Responding to Work Plan Requirements	30%	9.00	9.50	10.00
	Total =>	9.30	9.85	10.00
		2	2	1