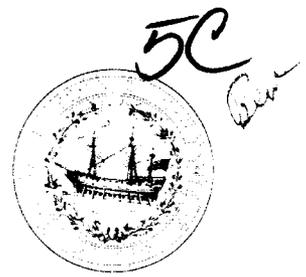




The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner



October 22, 2014

Her Excellency, Governor Margaret Wood Hassan
and The Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the Department of Environmental Services (DES) to amend the contract (PO#7000880) with GEI Consultants (V# 174528), Portland, ME, by extending the completion date from December 31, 2014 to December 31, 2015, upon Governor & Council approval. The original contract was approved by G&C on November 14, 2012 (Item #114), and an amendment was approved on December 20, 2013 (Item #78). Funding is 100% Capital (General) Funds. This is a no-cost time extension of the contract.

EXPLANATION

This Agreement is to provide hydrologic and hydraulic (H&H) studies of the Alton Power Dam and Milton Three Ponds Dam watersheds, inundation mapping of the downstream reach resulting from dam failure, geotechnical investigations, an engineering analysis of overtopping considerations and protection design/construction recommendations.

DES and GEI Consultants have been working together to address alternatives for dam stability at both dams including the need to execute further geotechnical investigations and incorporating the latest rainfall numbers available from the National Oceanic and Atmospheric Administration and other parameters for hydrology studies of the two dams. It is not expected that the final products from the contract will be deliverable by the completion date of the current contract (December 31, 2014). Therefore, we are requesting that the completion date be extended to December 31, 2015. To date, \$212,965.93 has been spent of the total contract amount of \$297,033.00.

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

We respectfully request your approval.



Thomas S. Burack
Commissioner

**AMENDMENT #2
TO
AGREEMENT
BETWEEN THE NEW HAMPSHIRE
DEPARTMENT OF ENVIRONMENTAL SERVICES
AND
GEI CONSULTANTS, INC.**

**PROFESSIONAL SERVICES – ENGINEERING ANALYSES FOR
ALTON POWER DAM AND MILTON THREE PONDS DAM**

WHEREAS the State of New Hampshire Department of Environmental Services (“DES”) has entered into an Agreement with GEI Consultants, Inc., in the amount of \$297,033.00 for professional engineering analyses for Alton Power Dam and Milton Three Ponds Dam, in Alton and Milton, NH, effective November 14, 2012 through December 31, 2013.

WHEREAS the Agreement was approved by the Governor & Executive Council on November 14, 2102 (Item #114).

WHEREAS the Agreement was amended to extend the completion date to December 31, 2014 from December 31, 2013, approved by the Governor & Executive Council on December 20, 2013 (Item #78), hereinafter called “Amendment 1”.

WHEREAS pursuant to the provisions of Paragraph 18 of the Agreement, the agreement may be amended, waived or discharged only by written instrumentation executed by both parties hereto and only after approval of such amendment, waiver or discharge by the Governor & Executive Council of the State of New Hampshire.

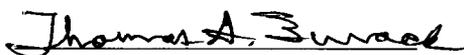
WHEREAS DES wishes to extend the end date of the Agreement to December 31, 2015 from December 31, 2014 to allow for completion of approved work scopes.

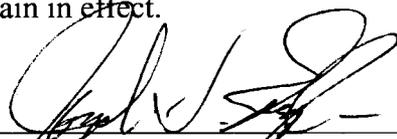
WHEREAS GEI Consultants, Inc., has agreed to extend the current Agreement using the original approved rates.

NOW THEREFORE, amend the original Agreement between DES and GEI Consultants, Inc., as approved by Governor & Executive Council on November 14, 2012, as Item #114 and amended under Amendment 1, as approved by the in the Governor & Executive Council on December 20, 2013 (Item #78) in the following manner:

Change section 1.7 (Completion Date) in the General Provisions of the Agreement to read: December 31, 2015.

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


Thomas S. Burack, Commissioner
Department of Environmental Services


Joseph G. Engels, Vice President
GEI Consultants, Inc.

*As to form, substance + execution,
Alan Nease 10-30-2014*
Sr. Assistant Attorney General
Department of Justice

Rosemary Rikeman
Rosemary Rikeman
Notary, My Commission Expires 5/4/2018

.....

CERTIFICATE OF AUTHORITY

October 1, 2014

The undersigned, R. Lee Wooten, Clerk of GEI Consultants, Inc., a corporation organized and existing to do business under the laws of the Commonwealth of Massachusetts and authorized to do business in the State of New Hampshire, does hereby certify that a quorum of the Board of Directors of the Corporation has authorized Joseph G. Engels, as a Vice President, to execute and deliver agreements on behalf of GEI Consultants, Inc. in accordance with the GEI Consultants, Inc. Management Approval Authority, approved on September 18, 2014.

I do hereby certify that the above is a true and correct statement of the Management Approval Authority authorized by the Board of Directors of the Corporation and that said authorization has not been amended or repealed and is in full force and effect as of this date, and that Joseph G. Engels is a duly elected Vice President of the Corporation

Attest:



R. Lee Wooten, Clerk of the Corporation

(Affix Corporate Seal Here)

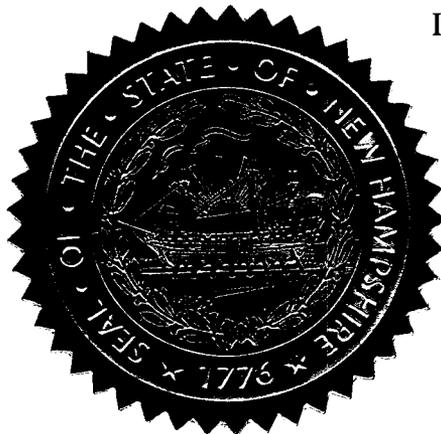




State of New Hampshire
Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that GEI CONSULTANTS, INC. a(n) Massachusetts corporation, is authorized to transact business in New Hampshire and qualified on November 2, 1983. I further certify that all fees and annual reports required by the Secretary of State's office have been received.



In TESTIMONY WHEREOF, I hereto set my hand and cause to be affixed the Seal of the State of New Hampshire, this 7th day of October, A.D. 2014

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)

10/1/2014

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 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 Ames & Gough 859 Willard Street Suite 320 Quincy, MA 02169	CONTACT NAME:		PHONE (A/C, No, Ext): (617) 328-6555		FAX (A/C, No): (617) 328-6888	
	E-MAIL ADDRESS:					
INSURED GEI Consultants, Inc. 5 Milk Street Portland, ME 04101	INSURER(S) AFFORDING COVERAGE					NAIC #
	INSURER A : National Union Fire Insurance Company of Pittsburgh, PA					19445
	INSURER B : Continental Casualty Company (CNA) A(XV)					20443
	INSURER C : AIG Specialty Insurance Company A(XV)					26883
	INSURER D :					
	INSURER E :					
INSURER F :						

COVERAGES CERTIFICATE NUMBER: 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.

INSR 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 GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC OTHER:		7046470	05/01/2014	03/01/2015	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		2248367	05/01/2014	03/01/2015	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0		6011396137	05/01/2014	03/01/2015	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000 \$
A	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 <input checked="" type="checkbox"/> N N/A	026034972	05/01/2014	03/01/2015	<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
C	Prof. Liability		17788026	05/01/2014	03/01/2015	Per Claim 1,000,000
C	& Pollution Liab.		17788026	05/01/2014	03/01/2015	Aggregate 1,000,000

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

Project No. 130800; Alton-Milton Dam Engineering Analysis
30 days notice of cancellation will be provided according to policy terms and conditions.

CERTIFICATE HOLDER

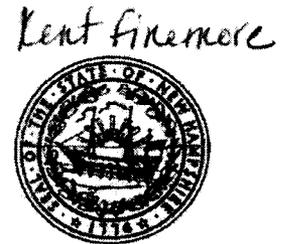
NH Department of Environmental Services Kent R. Finemore, P.E., Assistant Chief Engineer - Dam Bureau P.O. Box 95 29 Hazen Drive Concord, NH 03302-0095	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

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The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner



November 15, 2013

Her Excellency, Governor Margaret Wood Hassan
and The Honorable Council
State House
Concord, New Hampshire 03301

APPROVED G & C
DATE 12/30/2013
ITEM # 78

REQUESTED ACTION

Authorize the Department of Environmental Services (DES) to amend the contract (PO#7000880 and PO #1027619) with GEI Consultants (V# 174528), Portland, ME, by extending the completion date from December 31, 2013 to December 31, 2014, upon Governor & Council approval. The original contract was approved by G&C on November 14, 2012 (Item #114). Funding is 100% Capital (General) Funds. This is a no-cost time extension of the contract.

EXPLANATION

This Agreement is to provide hydrologic and hydraulic (H&H) studies of the Alton Power Dam and Milton Three Ponds Dam watersheds, inundation mapping of the downstream reach resulting from dam failure, geotechnical investigations, an engineering analysis of overtopping considerations and protection design/construction recommendations.

During the process of investigating the stability of the dams for overtopping protection analysis, several questions were raised that required further consultation between DES and GEI Consultants before engineering work can be completed. It is not expected that these tasks can be completed and approved by the completion date of the current contract (December 31, 2013). Therefore, we are requesting that the completion date be extended to December 31, 2014. To date, \$177,195.67 has been spent of the total contract amount of \$297,033.00.

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

We respectfully request your approval.

Thomas S. Burack
Commissioner

AMENDMENT #1
TO
AGREEMENT
BETWEEN THE NEW HAMPSHIRE
DEPARTMENT OF ENVIRONMENTAL SERVICES
AND
GEI CONSULTANTS, INC.

PROFESSIONAL SERVICES – ENGINEERING ANALYSES FOR
ALTON POWER DAM AND MILTON THREE PONDS DAM

WHEREAS the State of New Hampshire Department of Environmental Services (“DES”) has entered into an Agreement with GEI Consultants, Inc., in the amount of \$297,033.00 for professional engineering analyses for Alton Power Dam and Milton Three Ponds Dam, in Alton and Milton, NH, effective November 14, 2012 through December 31, 2013.

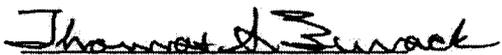
WHEREAS DES wishes to amend the Agreement to extend the end date of the contract from December 31, 2013 to December 31, 2014 to allow for completion of approved work scopes.

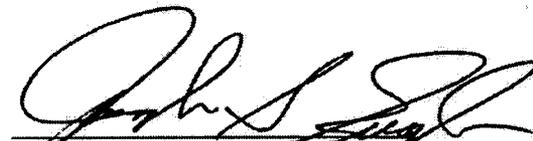
WHEREAS GEI Consultants, Inc., has agreed to extend the current Agreement using the original approved rates.

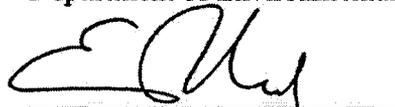
NOW THEREFORE, amend the original Agreement between DES and GEI Consultants, Inc., as approved by Governor and Council on November 14, 2012, as Item #114 in the following manner:

Change section 1.7 (Completion Date) in the General Provisions of the Agreement to read:
December 31, 2014.

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


Thomas S. Burack, Commissioner
Department of Environmental Services


Joseph G. Engels, Vice President
GEI Consultants, Inc.

 11/21/13
Assistant Attorney General
Department of Justice

CERTIFICATE OF AUTHORITY

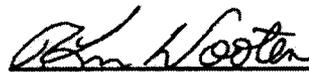
October 2, 2013

The undersigned, R. Lee Wooten, Clerk of GEI Consultants, Inc., a corporation organized and existing to do business under the laws of the Commonwealth of Massachusetts and authorized to do business in the State of New Hampshire, does hereby certify that a quorum of the Board of Directors of the Corporation has authorized Joseph G. Engels, as a Vice President, to execute and deliver agreements on behalf of GEI Consultants, Inc. in accordance with the GEI Consultants, Inc. Management Approval Authority, approved on February 25, 2010.

I do hereby certify that the above is a true and correct statement of the Management Approval Authority authorized by the Board of Directors of the Corporation and that said authorization has not been amended or repealed and is in full force and effect as of this date, and that Joseph G. Engels is a duly elected Vice President of the Corporation.

Attest:

(Affix Corporate Seal Here)

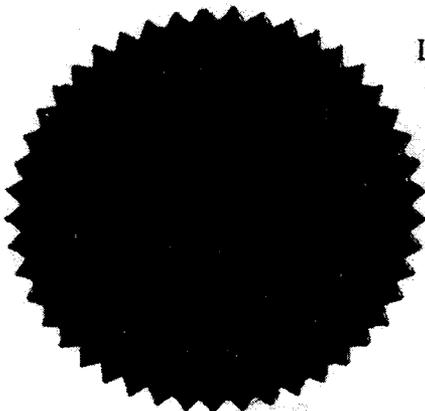


R. Lee Wooten, Clerk of the Corporation

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 GEI CONSULTANTS, INC. a(n) Massachusetts corporation, is authorized to transact business in New Hampshire and qualified on November 2, 1983. I further certify that all fees and annual reports required by the Secretary of State's office have been received.



In TESTIMONY WHEREOF, I hereto
set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 8th day of October, A.D. 2013

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

William M. Gardner
Secretary of State



CERTIFICATE OF LIABILITY INSURANCE

GEICONS-01 KPAWLOWSKI

DATE (MM/DD/YYYY)

5/21/2013

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 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 Ames & Gough 859 Willard Street Suite 320 Quincy, MA 02169	CONTACT NAME:	PHONE (A/C, Ho, Ext): (617) 328-8555	FAX (A/C, Ho): (617) 328-8888
	ADDRESS:		
INSURED GEI Consultants, Inc. 5 Milk Street Portland, ME 04101	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A: National Fire Insurance Company of Hartford A(XV)		20478
	INSURER B: Charter Oak Fire Insurance Company		25815
	INSURER C: Transportation Insurance Company A(XV)		20494
	INSURER D: Valley Forge Insurance Company A(XV)		20508
	INSURER E: Chartis		
INSURER F:			

COVERAGES

CERTIFICATE NUMBER:

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.

INER LTR	TYPE OF INSURANCE	ADDL INSR	SUBR INSR	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY			4034941519	5/1/2013	5/1/2014	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person) \$ 10,000
							PERSONAL & ADV INJURY \$ 1,000,000
							GENERAL AGGREGATE \$ 2,000,000
							PRODUCTS - COMPROP AGG \$ 2,000,000
	GENL AGGREGATE LIMIT APPLIES PER:						
	<input checked="" type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO SECT <input type="checkbox"/> LOC						
B	AUTOMOBILE LIABILITY			810-1D708633	5/1/2013	5/1/2014	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS		<input type="checkbox"/> SCHEDULED AUTOS				BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS		<input checked="" type="checkbox"/> NON-OWNED AUTOS				PROPERTY DAMAGE (Per accident) \$
C	UMBRELLA LIAB			4034941567	5/1/2013	5/1/2014	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> EXCESS LIAB						AGGREGATE \$ 1,000,000
	<input type="checkbox"/> RETENTION \$						
D	WORKERS COMPENSATION AND EMPLOYER'S LIABILITY			4034941410	5/1/2013	5/1/2014	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y/N	N/A				E.L. EACH ACCIDENT \$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ 1,000,000
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000
E	Prof. Liability			17788028	5/1/2013	5/1/2014	Per Claim 1,000,000
E	& Pollution Liab.			17788028	5/1/2013	5/1/2014	Aggregate 1,000,000

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

Project # 617029 : Alton-Milton Dam Engineering Analysts
30 days notice of cancellation will be provided according to policy terms and conditions.

CERTIFICATE HOLDER

CANCELLATION

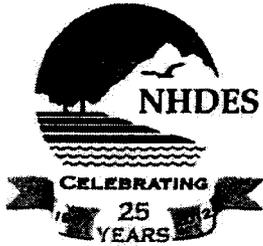
NH Department of Environmental Services
P.O. Box 95
29 Hazen Drive
Concord, NH 03302-0095

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

Marguerite Paul

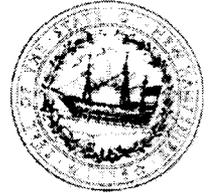
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The State of New Hampshire
Department of Environmental Services

Thomas S. Burack, Commissioner

*Celebrating 25 Years of Protecting
New Hampshire's Environment*



September 12, 2012

His Excellency, Governor John H. Lynch
and The Honorable Council
State House
Concord, New Hampshire 03301

APPROVED G & C
DATE 11/14/2012
ITEM # 114

REQUESTED ACTION

Authorize the Department of Environmental Services (DES) to enter into an agreement with GEI Consultants, Inc., (Vendor #174528), Portland, ME, in an amount not to exceed \$297,033.00 to complete engineering analyses for the Alton Power Dam and the Milton Three Ponds Dam in Alton and Milton, NH, effective upon Governor & Council approval through December 31, 2013. (100% Capital General Funds).

Funds are available in the account as follows:

	<u>FY 2013</u>
03-44-44-442030-0957-034-500161	\$197,033.00
Dept of Environmental Services, 11,253:1-VI-C Dam Repairs and Reconstruction, Capital Projects	
03-44-44-442010-3831-302-500834	\$100,000.00
Dept of Environmental Services, Dam Construction Projects	

EXPLANATION

DES is responsible for the maintenance, repair and reconstruction of all state owned dams per NH RSA 482:55-57. Alton Power Dam and Milton Three Ponds Dam are high hazard dams that have been identified through dam safety inspections to have inadequate discharge capacities to pass design storm flows under New Hampshire dam safety rules. Professional engineering analyses of the hydrologic and hydraulic conditions and overtopping protection alternatives are needed to support design and construction decisions and to help meet dam safety requirements for emergency planning and hazard response.

This request is for authorization to contract with GEI Consultants, Inc., to provide hydrologic and hydraulic (H&H) studies of the Alton Power Dam and Milton Three Ponds Dam watersheds, inundation mapping of the downstream reach resulting from dam failure, geotechnical investigations, an engineering analysis of overtopping considerations and protection design/construction recommendations. The goals of the project include establishment of hydrologic and hydraulic models for the Alton Power Dam and Milton Three Ponds Dam watersheds and downstream reaches that can

His Excellency, John H. Lynch
and The Honorable Council

Page 2 of 2

also be used by Dam Bureau engineers for further evaluations, updating the inundation mapping for the flood caused by failure of the dam to support revisions to the Emergency Action Plan for Alton Power Dam and Milton Three Ponds Dam, and professional engineering analyses of overtopping. Engineering recommendations for overtopping protection design and construction will be based on the results of the stability analysis.

The procurement process for this Agreement, further detailed in Attachment A, was conducted in accordance with NH RSA 21-I:22 by issuing a Request For Qualifications (RFQ) for an engineering analysis of Mendums Pond Dam, internal review and approval of qualifications, and assessment of proposals and interviews from approved firms. DES requested proposals from four of the nine firms that responded to the RFQ. The criteria for rating proposals included firm experience, technical approach, staff experience, scope of services, proposed schedule, and references.

Based on an analysis of proposals received and firm interviews, GEI Consultants, Inc., was selected as the first choice to negotiate an Agreement. DES 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 GEI Consultants, Inc.

The amount of funding encumbered by this Agreement is a not-to-exceed amount of \$297,033.00. The Agreement has been approved by the Office of the Attorney General as to form, execution, and content.

We respectfully request your approval.


Thomas S. Burack
Commissioner

Subject:

Alton Power Dam and Milton Three Ponds Dam Engineering Analyses

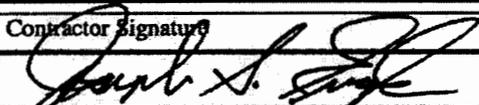
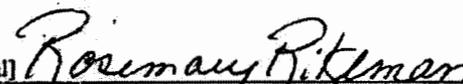
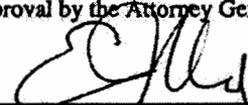
FORM NUMBER P-37 (version 1/09)

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 29 Hazen Drive - PO Box 95, Concord, NH 03302-0095	
1.3 Contractor Name GEI Consultants, Inc.		1.4 Contractor Address 5 Milk Street, Portland, ME 04101	
1.5 Contractor Phone Number (207) 797-8904	1.6 Account Number 03-44-44-442030-0957-034 03-44-44-442030-2721-002	1.7 Completion Date December 31, 2013	1.8 Price Limitation \$297,033.00
1.9 Contracting Officer for State Agency Kent R. Finemore, P.E.		1.10 State Agency Telephone Number (603) 271-0566	
1.11 Contractor Signature 		1.12 Name and Title of Contractor Signatory JOSEPH G. ENGER, VICE PRESIDENT	
1.13 Acknowledgement: State of <u> NH </u> , County of <u> Middlesex </u> On <u> 9/7/2012 </u> , before the undersigned officer, personally appeared the person identified in block 1.12, or satisfactorily proven to be the person whose name 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 Public or Justice of the Peace  [Seal] Rosemary Rikeman			
1.13.2 Name and Title of Notary or Justice of the Peace Rosemary Rikeman, Office Manager			
1.14 State Agency Signature 		1.15 Name and Title of State Agency Signatory THOMAS S. BURACK, COMMISSIONER	
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) By:  On: 10-4-12			
1.18 Approval by the Governor and Executive Council 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, this Agreement, and all obligations of the parties hereunder, shall not become effective until the date the Governor and Executive Council approve this Agreement ("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. 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 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 consent of the N.H. Department of Administrative Services. None of the Services shall be subcontracted by the Contractor without the prior written 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 \$250,000 per claim and \$2,000,000 per occurrence; and

14.1.2 fire and extended coverage insurance 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 fifteen (15) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be

Contractor Initials JK
Date 9/7/12

attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to endeavor to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than ten (10) 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.

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
Scope of Services

GEI Consultants, Inc. shall perform the tasks as described in the attached detailed proposal titled "*Professional Engineering Services for Alton Power Dam, and Milton Three Ponds Dam Engineering Analysis*", submitted by GEI Consultants, Inc., dated August 13, 2012.



Geotechnical
Environmental and
Water Resources
Engineering

August 13, 2012
Proposal 617029

Mr. Kent R. Finemore, P.E.
New Hampshire Department of Environmental Services
Water Division – Dam Bureau
P.O. Box 9529 Hazen Drive
Concord, NH 03302-0095

Dear Mr. Finemore:

**Re: Professional Engineering Services for Alton Power Dam, and
Milton Three Ponds Dam Engineering Analysis**

We understand that the State of New Hampshire's Department of Environmental Services (DES) Dam Bureau's mission and guiding principles are to ensure their dams and dams under DES jurisdiction are constructed, maintained, and operated to enhance public safety and flood protection while balancing financial resources, environmental, social, and ecological water needs. The goal of this project is to determine the most cost-effective alternatives to safely pass the design floods and to develop inundation maps for Alton Power Dam and Milton Three Ponds Dam. Our understanding of the project is based on your Request for Proposal dated February 13, 2012, our preliminary review of the site files, our site visit on February 27, 2012, and subsequent meetings and discussions with DES.

Scope of Services

We have developed a scope of services based on our knowledge of the project, previous investigations and analyses of similar projects, and scope requirements in the RFP. Our goal will be to provide DES with the engineering evaluation services required for the Department to design, permit, bid, contract, construct, and safely maintain and operate the Alton Power Dam and Milton Three Ponds Dam. Our scope of work and deliverables will be completed in accordance the applicable New Hampshire Code with Administrative Rules Env-Wr 100-800.

Alton Power Dam

Task - 1 Kick-off Meeting: Chris Karam, Joe Engels, Sarah Christian and Kit Choi will attend a kick-off meeting in Concord, NH to review the project files, meet with DES engineers, and perform a site visit at Alton Power Dam.

Task - 2 Project Management & Review Meeting: GEI will update DES with monthly status reports and conference calls as needed for the duration of the project. The review meeting will be attended by Kit Choi to discuss overtopping recommendations for design and construction.

Task - 3 Hydrology & Hydraulic Design Storm: GEI will obtain readily available GIS data including: DEM, aerial, 7.5-minute quads, soils, cover types, wetlands, waterbodies, watersheds, rivers and streams. We will also obtain upstream reservoir/dam information (storage curves, spillway/project discharge rating curves, normal maximum pool, gate operations, and bridge data if readily available). Using GIS, we will delineate the watershed and sub-watershed for the dam and upstream dams owned by DES. We will estimate rainfall-runoff parameters: loss rates, curve numbers, percent impervious, and unit hydrograph parameters. We will model the watershed, storm type, and precipitation for the 100-year event in a HEC-HMS model. If necessary, we will create a HEC-RAS model to simulate the upstream hydraulic effects of the bridges and reservoir upstream of the dam for the 100-year and 250% of 100-year flood events. We will consider normal and flood operation of the dams including gates and initial reservoir elevations. We will verify the model results based on readily available flood data from a recent significant storm. We will summarize the inflow, outflow, and stage hydrographs, freeboard, depth and duration of overtopping in a draft report that documents our approach, assumptions, inputs, models, and results. Our final report will address DES comments and include applicable electronic files including the HEC-HMS and RAS models.

Task - 4 Dam Failure Analysis Inundation Mapping: We will obtain GIS data for downstream reaches and downstream reservoir and dam information including storage curves, spillway and project discharge rating curves, normal maximum pool, gate operations, etc. Bridge information that is readily available will also be used for the analysis and mapping. We will create a GIS-based HEC-RAS geometry model including river reach, cross sections, storage areas, downstream dams, applicable bridges, etc. to simulate a dam failure and route the flows downstream for the sunny day and 100-year flood conditions. We will develop realistic worst case scenario breach parameters for the dam and downstream dams as needed. We will summarize HEC-RAS results for each scenario and create inundation polygons in order to prepare the inundation maps for the EAP (to be prepared by DES). We will document our analysis and results to be included as part of the EAP. We will submit the applicable electronic files and models to DES.

Task - 5 HEC-RAS Overtopping Protection Model: We will build a HEC-RAS model of embankment overtopping area, downstream slope, and tailrace to estimate the overtopping depths, duration of overtopping and velocities for a range of flows up to the design flood. We will also use the model to estimate the hydraulic jump locations, and tailwater elevations for flows up to design flood. We will submit the final HEC-RAS model and applicable electronic files to DES.

Task - 6 Overtopping Protection Evaluation: We will evaluate overtopping options based on the following: resistance to erosion, overtopping flow velocity, model test data, industry guidelines, the precedence and performance records of similar applications, relative construction cost, maintenance considerations, dam access requirements, durability, aesthetics, and capability of DES construction crews. We will coordinate with DES to identify the preferred option through a teleconference. We will provide review comments in a technical memorandum and answer questions to document a preferred option. We will coordinate with DES Engineering and Construction to develop a conceptual design. We assume that DES will prepare final design drawings and specifications for construction based on our conceptual design. We will prepare the following "Conceptual Design" drawings AutoCAD drawings printed on 11x17 sheets and stamped by a New Hampshire PE:

- Plan of existing conditions of the dam and abutments, key survey controls of the work.
- A general plan of the overtopping protection scheme.
- Typical cross section and details of the protected areas.
- Detailed plan(s) and section(s), if necessary.

We will also prepare material specifications (e.g. earthwork, concrete, grout, etc.), installation procedures and requirements, key submittal requirements from material suppliers, testing requirements, construction considerations, such as excavation, foundation preparation, backfill, dewatering, construction flood protection, and diversion.

We will summarize the overtopping protection analysis in a report including the evaluation of overtopping options, basis for selection of preferred option, and conceptual design. Our draft report will include technical memorandum and design memorandum and will be submitted to DES for review and comment. The report will include our Engineer's Opinion of Cost Estimate (Note: GEI will provide quantity estimates. DES will estimate construction cost for DES crews, equipment, overheads, etc.) Our final report will incorporate DES comments.

Task - 7 Stability Evaluation: We will develop geometric sections to analyze and conduct a site visit to confirm the geometry of the dam. We will estimate geotechnical and structural parameters such as unit weights and strength properties for each dam. We will analyze three cross-sections at Alton Dam - Spillway Section 1 (near the left abutment), Spillway Section 2 (near the forebay; this section is similar to Spillway Section 1, but with a shallower foundation), and the Forebay Section. We will assume that the existing concrete dam was built over and around the former stone masonry dam and treat the concrete/masonry structure as monolithic. We will gather additional information about the dam including a site visit by the engineers performing the analyses in order to take detailed measurements. We will evaluate these sections for overturning and sliding for the following cases using the static method: Case I Normal Pool (static method), Case II Unusual Loading Combination - Design Flood (static method) and Case III Extreme Loading Combination - (Case I + Earthquake (pseudo-dynamic method)). We will develop a draft report for DES review and comment. The report will include the results of our analysis and include the supporting information to document the calculations.

Milton Three Ponds Dam

Task - 1 Kick-off Meeting: Chris Karam, Joe Engels, Sarah Christian and Kit Choi will attend a kick-off meeting in Concord, NH to review the project files, meet with DES engineers, and perform a site visit at Milton Three Ponds Dam.

Task - 2 Project Management & Review Meeting: GEI will update DES with monthly status reports and conference calls as needed for the duration of the project. The review meeting will be attended by Kit Choi to discuss overtopping recommendations for design and construction.

Task - 3 Hydrology & Hydraulic Design Storm: GEI will obtain readily available GIS data including: DEM, aerial, 7.5-minute quads, soils, cover types, wetlands, waterbodies, watersheds, rivers and streams. We will also obtain upstream reservoir/dam information (storage curves, spillway/project discharge rating curves, normal maximum pool, gate operations, and bridge data if readily available). Using GIS, we will delineate the watershed and sub-watershed for the dam and upstream dams owned by DES. We will estimate rainfall-runoff parameters: loss rates, curve numbers, percent impervious, and unit hydrograph parameters. We will model the watershed, storm type, and precipitation for the 100-year event in a HEC-HMS model. If necessary, we will create a HEC-RAS model to simulate the upstream hydraulic effects of the bridges and reservoir upstream of the dam for the 100-year and 250% of 100-year flood events. We will consider normal and flood operation of the dams including gates and initial reservoir elevations. We will verify the model

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Task - 4 Dam Failure Analysis Inundation Mapping: We will obtain GIS data for downstream reaches and downstream reservoir and dam information including storage curves, spillway and project discharge rating curves, normal maximum pool, gate operations, etc. Bridge information that is readily available will also be used for the analysis and mapping. We will create a GIS-based HEC-RAS geometry model including river reach, cross sections, storage areas, downstream dams, applicable bridges, etc. to simulate a dam failure and route the flows downstream for the sunny day and 100-year flood conditions. We will develop realistic worst case scenario breach parameters for the dam and downstream dams as needed. We will summarize HEC-RAS results for each scenario and create inundation polygons in order to prepare the inundation maps for the EAP (to be prepared by DES). We will document our analysis and results to be included as part of the EAP. We will submit the applicable electronic files and models to DES.

Task - 5 HEC-RAS Overtopping Protection Model: We will build a HEC-RAS model of embankment overtopping area, downstream slope, and tailrace to estimate the overtopping depths, duration of overtopping and velocities for a range of flows up to the design flood. We will also use the model to estimate the hydraulic jump locations, and tailwater elevations for flows up to design flood. We will submit the final HEC-RAS model and applicable electronic files to DES.

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- Plan of existing conditions of the dam and abutments, key survey controls of new work.
- A general plan of the overtopping protection scheme.
- Typical cross section and details of the protected areas.
- Detailed plan(s) and section(s) if necessary.

We will also prepare material specifications (e.g. earthwork, concrete, grout, etc.), installation procedures and requirements, key submittal requirements from material suppliers, testing requirements, construction considerations, such as excavation, foundation preparation, backfill, dewatering, construction flood protection, and diversion.

We will summarize the overtopping protection analysis in a report including the evaluation of overtopping options, basis for selection of preferred option, and conceptual design. Our draft report will include technical memorandum and design memorandum and be submitted to DES for review and comment. The report will include our Engineer's Opinion of Cost Estimate (Note: GEI will

provide quantity estimates. DES will estimate construction cost for DES crews, equipment, overheads, etc.) Our final report will incorporate DES comments.

Task - 7 Stability Evaluation: We will develop geometric sections to analyze and site visit to confirm geometry. We will estimate geotechnical and structural parameters such as unit weights and strength properties for each dam. We will analyze three cross-sections at Milton Three Ponds Dam - Stoplog Section A (at the right abutment), Stoplog Section B (from the low-level outlet to the left abutment), and the Low-Level Outlet Section. Each section will be analyzed at two elevations - at the bedrock foundation, and at the interface between the concrete stoplog structure and the base. We will gather additional information about the dam including a site visit by the engineers performing the analyses in order to take detailed measurements. We will evaluate these sections for overturning and sliding under the following cases using the static method: Case I Normal Pool (static method), Case II Unusual Loading Combination - Design Flood (static method) and Case III Extreme Loading Combination - (Case I + Earthquake (pseudo-dynamic method)). We will develop draft report for DES review and comment. The report will include the results of our analysis and include the supporting information to document the calculations.

Task - 8 Geotechnical Investigations: We have assumed 3 days of drilling and GEI technician on-site for 3 to 4 borings at Milton Three Ponds Dam to confirm bedrock and install several monitoring wells. We have assumed \$2,000/day for the drilling subcontractor. We will summarize our findings in a report documenting subsurface explorations and findings.

Task - 9 Field Survey: We will subcontract a licensed surveyor to perform a field survey at Milton Three Ponds Dam and to develop a topographic site plan in the project area. The horizontal and vertical datum will be in the New Hampshire Grid Coordinate System-NAD 83 and NAVD 88, respectively. We will submit a digital and hard copy of field survey to DES.

Deliverables

GEI proposes to provide the following deliverables for each task:

Task	Deliverable	
	Alton Power Dam	Milton Three Ponds Dam
1 - Kick off Meeting, Review Data, Site Reconnaissance	Design Criteria Memo	Design Criteria Memo
2 - Project Management & One Review Meeting in Concord	Monthly Status Reports with invoices	Monthly Status Reports with invoices
3 - Hydrologic & Hydraulic Design Storm	Report, HEC-RAS/GIS files	Report, HEC-RAS/GIS files
4 - Dam Failure Analysis/Inundation Mapping	Inundation Maps, HEC-RAS/GIS files	Inundation Maps, HEC-RAS/GIS files
5 - Overtopping Protection Hydraulic Model	HEC-RAS files	HEC-RAS files
6 - Overtopping Protection Evaluation	Report	Report
7 - Stability Evaluation	Report	Report
8 - Geotechnical Investigation	- Not applicable -	Report
9 - Field Survey	- Not applicable -	Topographic survey drawing

Basis for Billings

Billings for professional services as outlined herein will be based on a lump sum per task basis. Total budget for the above Scope is \$297,033.00. Change orders and/or additional work at the request of DES will be addressed as amendments to the contract as a lump sum or at individual direct salary multiplied by a factor of 2.96 to account for overhead and fringe benefits, plus an additional 10 percent profit multiplier. Tables 1 and 2 attached provides a breakdown of the man-hours and rates associated with each GEI labor category as budgeted for this project. It also includes a breakdown of direct expenses and subcontractor fees including a 10-percent mark-up. We will assign a unique task number to each dam for GEI's and DES's budgeting and project management purposes and will not exceed the estimated budget for any task or overall project without written authorization from DES.

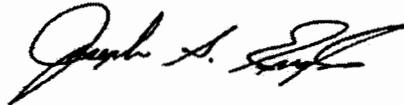
Thank you for allowing us to assist DES with this important project. If you have any questions, please call (207-797-8904) or e-mail me at ckaram@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



Chris R. Karam, P.E.
Project Manager



Joseph G. Engels, P.E., LSP
Vice President

CRK/bdp
Attachments

TABLE B-2 Milton Three Ponds Dam Engineering Analysis

Unit rate is established at individual hourly rate multiplied by a factor of 2.96 to account for overhead and fringe benefits, plus an additional 10% profit multiplier. See page 6 of "Professional Engineering Services for Alton Power Dam, and Milton Three Ponds Dam Engineering Analysis" submitted by GEI Consultants, Inc., dated August 13, 2012.

LABOR	Units	Direct Labor Rate	Burdened Labor Rate	Total Labor Hours	Total Burdened Labor
GEI Labor Categories					
In-House Consultant, Grade 8	hr.	\$79.88	\$260.09	30	\$7,802.68
Lead Design Engineer, Grade 8	hr.	\$72.00	\$234.43	140	\$32,820.48
Senior Project Manager, Grade 8	hr.	\$78.24	\$254.75	24	\$6,113.99
Project Manager, Grade 6	hr.	\$49.24	\$160.33	64	\$10,260.83
Engineer, Grade 6	hr.	\$51.40	\$167.36	16	\$2,677.73
Engineer, Grade 6	hr.	\$49.92	\$162.54	40	\$6,501.58
Lead Hydrologic and Hydraulic Modeler, Grade 5	hr.	\$42.20	\$137.40	188	\$25,831.80
Staff Engineer, Grade 4	hr.	\$32.24	\$104.97	80	\$8,397.88
Engineer, Grade 2	hr.	\$28.00	\$91.17	284	\$25,891.71
Technician, Grade 2	hr.	\$27.44	\$89.34	10	\$893.45
GIS Technician	hr.	\$26.00	\$84.66	48	\$4,063.49
Word Processor	hr.	\$26.00	\$84.66	44	\$3,724.86
Tech, CADD Drafter	hr.	\$30.92	\$100.68	100	\$10,067.55
			Total Labor		\$145,048.03
 REIMBURSABLE EXPENSES					
	Units	Unit Rate	Quantity	Fee	
Mileage	mi.	\$0.555	1620	\$899.10	
Postage	l.s.	\$0.00	0	\$0.00	
GIS/CAD Computer Charge	hr.	\$10.00	102	\$1,020.00	
Reproduction	l.s.	\$100.00	20	\$2,000.00	
Cadd Bond Paper	sq. ft.	\$0.00	0	\$0.00	
 SUBCONTRACTOR EXPENSES					
Drilling subcontractor					
Mob/Demob ATV/tracked rig	l.s.	\$500.00	1	\$500.00	
Drill Rig and Crew	day	\$2,000.00	3	\$6,000.00	
Observation Well	ft.	\$25.00	50	\$1,250.00	
Standpipe	ea.	\$100.00	3	\$300.00	
NX Rock Coring	ft.	\$35.00	30	\$1,050.00	
 Soils Laboratory					
Sieve analyses	ea.	\$70.00	6	\$420.00	
 Survey Subcontractor:					
Field Crew	day	\$6,400.00	1	\$6,400.00	
Office Calculations/Data Reduction	hr.	\$0.00	0	\$0.00	
10% Mark-up on Qualified Expenses		10%		\$1,983.91	
EXPENSES TOTAL					\$19,839.10
EXPENSES TOTAL (with mark-up)					\$21,823.01
PROJECT TOTAL					\$166,871.04

TABLE B-1

Alton Power Dam Engineering Analysis

Unit rate is established at individual hourly rate multiplied by a factor of 2.96 to account for overhead and fringe benefits, plus an additional 10% profit multiplier. See page 6 of "Professional Engineering Services for Alton Power Dam, and Milton Three Ponds Dam Engineering Analysis" submitted by GEI Consultants, Inc., dated August 13, 2012.

LABOR	Units	Direct Labor Rate	Burdened Labor Rate	Total Labor Hours	Total Burdened Labor
GEI Labor Categories					
In-House Consultant, Grade 8	hr.	\$79.88	\$260.09	21	\$5,461.87
Lead Design Engineer, Grade 8	hr.	\$72.00	\$234.43	132	\$30,945.02
Senior Project Manager, Grade 8	hr.	\$78.24	\$254.75	24	\$6,113.99
Project Manager, Grade 6	hr.	\$49.24	\$160.33	54	\$8,657.57
Engineer, Grade 6	hr.	\$51.40	\$167.36	1	\$167.36
Engineer, Grade 8	hr.	\$49.92	\$162.54	32	\$5,201.26
Lead Hydrologic and Hydraulic Modeler, Grade 5	hr.	\$42.20	\$137.40	188	\$25,831.80
Staff Engineer, Grade 4	hr.	\$32.24	\$104.97	80	\$8,397.88
Engineer, Grade 2	hr.	\$28.00	\$91.17	204	\$18,598.27
Technician, Grade 2	hr.	\$27.44	\$89.34	10	\$893.45
GIS Technician	hr.	\$26.00	\$84.66	48	\$4,063.49
Word Processor	hr.	\$26.00	\$84.66	42	\$3,555.55
Tech, CADD Drafter	hr.	\$30.92	\$100.68	90	\$9,060.80
Total Labor					\$126,948.31
REIMBURSABLE EXPENSES	Units	Unit Rate	Quantity	Fee	
Mileage	mi.	\$0.555	1300	\$721.50	
Postage	l.s.	\$0.00	0	\$0.00	
GIS/CAD Computer Charge	hr.	\$10.00	100	\$1,000.00	
Reproduction	l.s.	\$100.00	12	\$1,200.00	
Cadd Bond Paper	sq. ft.	\$0.00	0	\$0.00	
SUBCONTRACTOR EXPENSES	Units				
Drilling subcontractor					
Mob/Demob ATV/tracked rig	l.s.	\$0.00	0	\$0.00	
Drill Rig and Crew	day	\$0.00	0	\$0.00	
Observation Well	ft.	\$0.00	0	\$0.00	
Standpipe	ea.	\$0.00	0	\$0.00	
NX Rock Coring	ft.	\$0.00	0	\$0.00	
Soils Laboratory					
Sieve analyses	ea.	\$0.00	0	\$0.00	
Survey Subcontractor:					
Field Crew	day	\$0.00	0	\$0.00	
Office Calculations/Data Reduction	hr.	\$0.00	0	\$0.00	
10% Mark-up on Qualified Expenses		10%		\$292.15	
EXPENSES TOTAL					\$2,921.50
EXPENSES TOTAL (with mark-up)					\$3,213.65
PROJECT TOTAL					\$130,161.96

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 detailed proposal (attached to Exhibit A) entitled "*Professional Engineering Services for Alton Power Dam, and Milton Three Ponds Dam Engineering Analysis*", submitted by GEI Consultants, Inc., dated August 13, 1012.

The attached proposal includes a table that provides a detailed breakdown of costs for the project. Tables B-1 (Alton Power Dam) and B-2 (Milton Three Ponds Dam) provide cost summaries for the project. The total cost of the contract shall not exceed \$297,033.00.

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.

Exhibit C
Special Provisions

Modified Contract Section 13, Indemnification.

13. INDEMNIFICATION. The Contractor shall 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 liabilities or penalties, including reimbursement of reasonable attorney fees, asserted against the State, its officers and employees, by or on behalf of any person, to the extent on account of, based or resulting from, arising out of the negligent, reckless or wrongful 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.

CERTIFICATE OF AUTHORITY

October 3, 2012

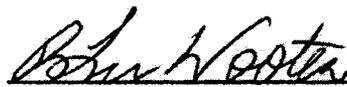
Date

The undersigned, R. Lee Wooten, Clerk of GEI Consultants, Inc., a corporation organized and existing to do business under the laws of the State of Massachusetts does hereby certify that a quorum of the Board of Directors of the Corporation has authorized Joseph G. Engels as Vice President to execute and deliver agreements on behalf of GEI Consultants in accordance with the GEI Consultants, Inc. Management Approval Authority, approved in August 2011.

I do hereby certify that the above is a true and correct statement of the Management Approval Authority authorized by the Board of Directors of the Corporation and that said authorization has not been amended or repealed and is in full force and effect as of this date, and that Joseph G. Engels is a duly elected Vice President of the Corporation.

Attest:

(Affix Corporate Seal Here)

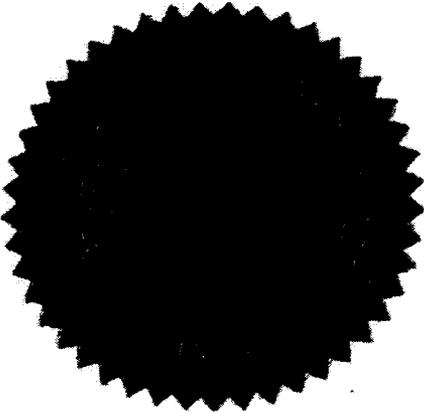


R. Lee Wooten of the Corporation

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 GEI CONSULTANTS, INC. a(n) Massachusetts corporation, is authorized to transact business in New Hampshire and qualified on November 2, 1983. I further certify that all fees and annual reports required by the Secretary of State's office have been received.



In TESTIMONY WHEREOF, I hereto
set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 24th day of July, A.D. 2012

Handwritten signature of William M. Gardner in cursive script.

William M. Gardner
Secretary of State

Attachment A

Procurement Process

The procurement process for this contract was conducted in accordance with RSA 21-I:22. A Request For Qualifications (RFQ) was advertised in the Union Leader and on the DES website. In the RFQ DES committed to requesting proposals from 3 to 5 firms that responded to the RFQ. The following nine firms responded:

AECOM Environment – Manchester, NH
Clough, Harbour and Associates, Inc. – Keene, NH
EA Engineering, Science, & Technology, Inc. – Warwick, RI
GEI Consultants, Inc. – Portland, ME
Gomez & Sullivan Engineers, PC – Weare, NH
GZA GeoEnvironmental, Inc. – Manchester, NH
Provan & Lorber, Inc. – Contoocook, NH
Weston & Sampson – Portsmouth, NH
Wright-Pierce, Portsmouth, NH

An internal DES selection committee reviewed and ranked the responses to the RFQ. The committee consisted of James W. Gallagher, Jr., P.E., the Chief Engineer for the Dam Bureau with more than 38 years of experience with dam design, contracting, construction and safety; Daniel Mattaini, P.E., who has over 20 years of experience as an engineer for hydrologic and dam related projects and has served as a lead design engineer for the Dam Bureau; Timothy Carney P.E., the Chief of the Engineering & Construction Section of the Dam Bureau who has more than 20 years of experience as a geotechnical engineer and has been responsible for the operation and maintenance of some of the state's largest dams; Brian Desfosses, P.E., Dam Safety Engineer for the Dam Bureau, who has over 10 years of experience as a civil engineer; and Kent R. Finemore, P.E., Assistant Chief Engineer of the Dam Bureau, who has over 20 years of experience as an engineer for civil design and construction. The committee established a short-list of firms to receive a Request For Proposal (RFP) based on criteria provided in the RFQ. The short list of firms who received a RFP included:

Weston & Sampson – Portsmouth, NH
GZA GeoEnvironmental, Inc. – Manchester, NH
Gomez & Sullivan Engineers, PC – Weare, NH
GEI Consultants, Inc. – Portland, ME

DES received proposals from each firm and conducted interviews at the DES offices in Concord. The order of interviews was agreed upon by all of the interviewing firms.

Members of the selection committee reviewed the proposals, conducted the interviews, and ranked the firms. Rankings were based on firm experience, technical approach, staff experience, scope of services, proposed schedule, and references. The firm ranked first by the majority of the members of the Selection Committee would be the selected firm with whom DES would negotiate a final scope of work and price.

A scoring summary is provided in Table AT-1 on page AT-2. As shown in the summary, all five members of the Selection Committee chose GEI Consultants, Inc., and they were selected. Following the selection DES commenced negotiations with GEI Consultants, Inc., to establish a scope of work and fee schedule. The negotiated contract price limitation is fair and reasonable for the scope of work.

TABLE AT-1

MENDUMS POND DAM ENGINEERING ANALYSIS PROJECT FINAL PROPOSAL RATINGS

Category	Rating 0-10						Firm Rating	Weighted Rankings
	1	2	3	4	5	6		
Weighting	40%	20%	10%	5%	15%	5%		
Reviewer 1								
Gomez & Sullivan	9.5	10	9.5	0	9.5	9	9.13	2
GZA GeoEnvironmental	9	10	9.5	0	9.5	10	8.98	3
Weston & Sampson	8.5	9	9	0	9.5	10	8.48	4
Reviewer 2								
Gomez & Sullivan	9.5	9.2	9.6	0	9.2	9	9.89	2
GZA GeoEnvironmental	9	9.8	9.8	0	9.2	9.5	9.87	3
Weston & Sampson	8.5	8.8	9	0	9	9.5	8.33	4
Reviewer 3								
Gomez & Sullivan	9	9.5	9.5	0	9	9	8.73	2
GZA GeoEnvironmental	9	9.5	9.5	0	8.5	9.5	8.88	3
Weston & Sampson	8.5	9	9	0	9	9.5	8.38	4
Reviewer 4								
Gomez & Sullivan	9	9	9	0	9.5	9	8.63	2
GZA GeoEnvironmental	7	9	8.5	0	9	10	7.75	3
Weston & Sampson	6	7.5	6.5	0	9	10	6.38	4
Reviewer 5								
Gomez & Sullivan	9.9	9.5	9.2	0	9.3	7.5	9.03	2
GZA GeoEnvironmental	9.5	9.2	9.2	0	9.5	9.5	8.99	3
Weston & Sampson	9.4	9.1	9.3	0	9.4	10	8.88	4