



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**

**Thomas S. Burack, Commissioner**



February 21, 2013

Her Excellency, Governor Margaret Wood Hassan  
And the Executive Council  
State House  
Concord, New Hampshire 03301

**REQUESTED ACTION**

Authorize the Department of Environmental Services to enter into an agreement with Field Geology Services, LLC, Farmington, ME, (VC #207370), to conduct a fluvial erosion hazard assessment in the Souhegan River Watershed for a not to exceed contract value of \$103,537 effective upon Governor and Council approval through September 18, 2014. 100% Other (Interagency Pass-Thru Federal) Funds.

Funding is available in the account as follows:

	<u>FY 13</u>
03-44-44-440010-1841-102-500731	\$103,537
Dept of Environmental Services, Geologic Hazards Evaluation, Contracts for Program Services	

**EXPLANATION**

The purpose of this agreement is the performance of a fluvial erosion hazard assessment to identify areas on rivers within the Souhegan River Watershed that are at greatest risk for erosion and channel adjustments during flood events. This watershed includes river reaches with actively eroding streambanks and undergoing river channel adjustments. This fluvial erosion hazard assessment will be completed during the 2013 summer season so that the data will be available for regional planning commissions to incorporate into hazard mitigation plans for the communities within the watershed.

The primary purpose of this fluvial erosion hazard assessment is to undertake a field-based survey along lengths of the Souhegan River and select tributaries within the watershed to examine river channel condition and characteristics of the banks. Bridges and culverts are also evaluated in terms of their potential to increase local damage to adjacent infrastructure and private property during floods. This information is particularly important, given that culvert washouts often occur during floods throughout the state. The data collected through this assessment will identify areas near the river that are most prone to flood and erosion impacts, providing a beneficial tool for hazard mitigation planning, flood evacuation strategies, and ongoing public safety protection efforts.

The selection of Field Geology Services, LLC was conducted through a prequalification to bid process posted on the DES website and in the Union Leader newspaper, followed by the submission of invitations to bid on this project to those firms that were deemed by a panel of reviewers to satisfy the specified prequalification criteria. Firms were prequalified for this bid based on qualifications in the understanding of river processes and experience conducting river geomorphology assessments elsewhere. This process is summarized in Attachment A. Invitations to bid were issued by the Department to four pre-qualified consulting firms, and two of the four firms submitted bids. These firms, and the bid proposal amounts are as follows:

<b>Firm Name</b>	<b>Bid Proposal Amount</b>
Field Geology Services	\$58,900
Fitzgerald Environmental Associates	\$63,905
Princeton Hydro	No bid submitted
Vanasse Hangen Brustlin, Inc. (VHB)	No bid submitted

The bid schedule specified rates per item on a form that was supplied by the Department that provided sample project amounts. This ensured that all firms were bidding on the same sample project, thus maximizing consistency. Each submitted bid schedule was evaluated by tallying the bid schedule. The firm with the lowest tally, Field Geology Services, LLC, was selected. Final project costs will differ from the sample project based upon the actual quantities of equipment and materials used on site. However, the amount paid per item will be based upon the rates provided by the firm on the bid schedule.

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

We respectfully request your approval.



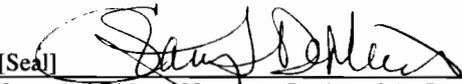
Thomas S. Burack

Subject: Fluvial Erosion Hazard Geomorphology Assessment - Souhegan River Water 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 Department of Environmental Services		1.2 State Agency Address 29 Hazen Drive, P.O. Box 95, Concord, NH 03301	
1.3 Contractor Name Field Geology Services, LLC		1.4 Contractor Address P.O. Box 985, Farmington, ME 04938	
1.5 Contractor Phone Number (207) 491-9541	1.6 Account Number 03-44-44-440010-1841-102	1.7 Completion Date September 18, 2014	1.8 Price Limitation \$103,537.00
1.9 Contracting Officer for State Agency Shane Csiki, Environmentalist IV		1.10 State Agency Telephone Number (603) 271-2876	
1.11 Contractor Signature 		1.12 Name and Title of Contractor Signatory John Field, President	
1.13 Acknowledgement: State of <u>Maine</u> , County of <u>Franklin</u> On <u>1/30/13</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]		STACY L DEMERCHANT Notary Public Maine My Commission Expires February 5, 2019	
1.13.2 Name and Title of Notary or Justice of the Peace <u>Stacy Demerchant - Notary</u>			
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: <u>2-20-13</u>			
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.

Contractor Initials   
Date 1/30/13

**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 \_\_\_\_\_  
Date 1/30/07

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.

Contractor Initials   
Date 1/30/13

## **EXHIBIT A**

### **SERVICE AGREEMENT FOR FLUVIAL EROSION HAZARD GEOMORPHOLOGY ASSESSMENTS FOR SOUHEGAN RIVER WATERSHED**

#### **EXHIBIT A: TECHNICAL SERVICES TO BE PROVIDED**

##### **1. DESCRIPTION OF PROJECT**

The types of services required under this AGREEMENT shall be FLUVIAL GEOMORPHOLOGY ASSESSMENTS, as defined herein, which the DEPARTMENT may require until the completion date of this AGREEMENT.

##### **2. SUPPLEMENTARY DEFINITIONS**

In addition to terms defined elsewhere in this AGREEMENT, the following definitions shall be applicable:

###### **2.1 GEOLOGIST**

An employee or designated representative of the DEPARTMENT, responsible for observation of work performed by the CONTRACTOR and for communication with CONTRACTOR concerning the DEPARTMENT's project objectives and requirements. The term GEOLOGIST includes without limitation geologists, hydrogeologists, geomorphologists and other Earth scientists.

###### **2.2 FLUVIAL GEOMORPHOLOGY ASSESSMENTS**

The term FLUVIAL GEOMORPHOLOGY ASSESSMENTS shall refer to surveys of state rivers that incorporate both Geographic Information Systems and field analysis to identify areas of the stream system that have the potential to create future public safety hazards. These FLUVIAL GEOMORPHOLOGY ASSESSMENTS shall be conducted using PROTOCOLS, as defined in Paragraph 2.4.

###### **2.3 DEPARTMENT**

The term DEPARTMENT shall refer to the New Hampshire Geological Survey, a unit within the Office of the Commissioner, within the New Hampshire Department of Environmental Services. The DEPARTMENT is the primary entity responsible for the management of this AGREEMENT. In the absence of the New Hampshire Geological Survey, the DEPARTMENT shall refer to a division, bureau, or section within the New Hampshire Department of Environmental Services designated to manage this AGREEMENT by the Commissioner or his designee.

###### **2.4 PROTOCOLS**

The term PROTOCOLS shall refer to the New Hampshire implementation of the Vermont Stream Geomorphic Assessment Phase 2 Handbook, Rapid Stream Assessment Field Protocols, as developed by the Vermont Agency of Natural Resources, May 2007 version. These PROTOCOLS, as defined in this paragraph,

shall be the basis for the types of data to be collected, unless otherwise indicated, or unless written correspondence indicating modifications to the PROTOCOLS is provided to the CONTRACTOR by the DEPARTMENT.

### **3. SCOPE OF WORK**

#### **3.1 FLUVIAL GEOMORPHOLOGY ASSESSMENTS**

The work to be performed under the terms of this AGREEMENT shall be FLUVIAL GEOMORPHOLOGY ASSESSMENTS, as defined under Paragraph 2.2 of this AGREEMENT, to be conducted within the Souhegan River Watershed. The Souhegan River Watershed was selected because it has been identified as a river system with repetitive flood losses. Work will be required both in selected rivers within the watershed and along their adjacent banks. Rivers throughout New Hampshire also incorporate many wetlands reaches, and thus, the CONTRACTOR shall be prepared to provide and use flotation equipment in such instances, unless a decision is made otherwise by the DEPARTMENT in consultation with the CONTRACTOR.

#### **3.2 Purpose and Cooperation**

The purpose of these FLUVIAL GEOMORPHOLOGY ASSESSMENTS is to obtain reliable data regarding the present state of river channel physical condition, enabling the delineation of Fluvial Erosion Hazard (FEH) zones, and an overall greater understanding of the existing physical condition of the river. FLUVIAL GEOMORPHOLOGY ASSESSMENTS also incorporate evaluations of the geomorphic condition at stream crossings. The CONTRACTOR shall provide the DEPARTMENT every opportunity to obtain all records related to these FLUVIAL GEOMORPHOLOGY ASSESSMENTS, including the accompaniment of the CONTRACTOR during field surveys, and the quality control of collected data, by and at the discretion of the GEOLOGIST, and determine every detail of the work as it progresses.

#### **3.3 Equipment and materials to be furnished by the DEPARTMENT**

The DEPARTMENT will provide the following items to the CONTRACTOR:

##### **3.3.1 Plans for Field Survey**

The DEPARTMENT will provide the CONTRACTOR with the Phase 1 data for the Souhegan River Watershed, as developed by the DEPARTMENT based on the New Hampshire implementation of the Phase 1 Vermont Stream Geomorphic Assessment Protocols, prior to commencement of the FLUVIAL GEOMORPHOLOGY ASSESSMENTS being conducted. The FLUVIAL GEOMORPHOLOGY ASSESSMENTS that are to be conducted under the terms of this AGREEMENT, are for a project total of 32 miles (Figure 1). The data products provided to the CONTRACTOR by the DEPARTMENT shall be the Phase 1 data reports, as defined by this subparagraph of this AGREEMENT. Phase 1 data reports shall be provided to the CONTRACTOR in electronic formats,

including those derived in GIS for spatial data. Incorporated within these plans for field survey shall be a shapefile that identifies for the CONTRACTOR specific areas in which the DEPARTMENT requires definite valley wall field verifications, as described under Subparagraph 4.1.7. Additional ancillary data that, in the judgment of the CONTRACTOR, may provide additional benefit for the successful completion of the work under this AGREEMENT, may be requested from the DEPARTMENT by the CONTRACTOR. Upon receipt of the Phase 1 data reports by the CONTRACTOR, the CONTRACTOR shall review these products and notify the DEPARTMENT if the CONTRACTOR wishes to suggest any modifications to the Phase 1 data products to ensure that the CONTRACTOR and DEPARTMENT are in agreement on the final Phase 1 data reports to be used in the conductance of these FLUVIAL GEOMORPHOLOGY ASSESSMENTS.

### **3.3.2 Landowner contacts for property access**

The DEPARTMENT, or its designee, will be responsible for communicating with owners of properties that adjoin the river(s) that are to be assessed under this AGREEMENT by mail regarding access to property for purposes of FLUVIAL GEOMORPHOLOGY ASSESSMENT. In situations where property owner(s) deny access to property for the purpose of the completion of the work under this AGREEMENT, then the DEPARTMENT, in consultation with the CONTRACTOR, will modify the PROTOCOLS for those river reaches accordingly. Documentation by the DEPARTMENT relative to communication with landowners concerning property access will be provided to the CONTRACTOR. The CONTRACTOR shall not notify or contact private landowners without obtaining prior written approval from the DEPARTMENT.

### **3.4 Equipment and materials to be furnished by the CONTRACTOR**

This AGREEMENT requires FLUVIAL GEOMORPHOLOGY ASSESSMENTS to be made utilizing specific materials, equipment, and preparatory products. Definitions of the equipment and preparatory products that are required to be provided by the CONTRACTOR, and that differ from or are in addition to the PROTOCOLS, are provided below. Equipment items specified herein under Subparagraphs 3.4.6 shall be provided if it is determined by the DEPARTMENT that a reach or reaches of the river(s) covered under this AGREEMENT require assessment using such equipment. The FLUVIAL GEOMORPHOLOGY ASSESSMENTS shall be conducted within the Souhegan River Watershed for a project total distance of 32 miles. Performance of FLUVIAL GEOMORPHOLOGY ASSESSMENTS other than specified in the project scope covered under this AGREEMENT, shall not be performed by the CONTRACTOR without prior approval of the DEPARTMENT.

#### **3.4.1 Measuring tape**

Measuring tape means a flexible form of ruler that is made of a non-stretchable material, preferably fiberglass or steel, with linear measurement capability of no less than 100 feet, incremented in tenths **and hundredths** of feet, **not** inches.

#### **3.4.2 Rangefinder**

Rangefinder means a device that allows the user to measure the distance to an object of interest using a laser beam with the measurement reported on an electronic readout display, that is capable of measuring accurate distances up to 165 feet away.

#### **3.4.3 Digital camera**

Digital camera means a camera that takes photographs as digital images and stores them on a data card for later download to other electronic media, and that is capable of zooming into features of interest. The digital camera shall also be GPS-enabled and capable of collecting and storing the latitude/longitude point at which a photograph is collected, and for download of such points to an electronic medium.

#### **3.4.4 Measuring rod**

Measuring rod means a survey grade leveling rod that contains a measuring ruler scale that is capable of extending up to 18 feet in height, with scale increments in tenths **and hundredths** of feet, **not** inches.

#### **3.4.5 GPS unit**

GPS unit means a device capable of collecting accurate latitude/longitude information to a horizontal accuracy equal to or less than 2 meters. A separate GPS unit can be used as a supplement to the use of a GPS-enabled digital camera, as specified and required under subparagraph 3.4.3, to improve precision where necessary.

#### **3.4.6 Depth finder**

A depth finder, or fathometer, is a device used to determine the depth of the riverbed at a point through the use of underwater sound propagation, for which soundings taken in rapid succession can allow the creation of a bed profile along a cross-section. In situations in which a depth finder is required, as specified by the DEPARTMENT, the CONTRACTOR shall demonstrate to the DEPARTMENT how the depth information measured with such a device shall be recorded and logged.

#### **3.4.7 Automatic level**

An automatic level means a device, typically mounted to a tripod, used to read elevations from a measuring rod, allowing for precise elevations to be determined during survey.

#### **3.4.8 Bed material sampler**

A bed material sampler is used to collect sediment samples from the bed of a river, lake, or other waterbody. The device provides a mechanism that traps bed material within it after it has been deployed, typically by being lowered to the bed by a line attached to a reel, and retains the sediment sample upon retrieval to the surface where it can be opened and the collected sample analyzed.

#### **3.4.9 Compass**

A compass is a handheld unit that provides a reading of the direction in a frame of reference in relation to the surface of the Earth. Such a unit displays cardinal directions and azimuth direction and may be in either non-digital or digital form.

### **3.5 Equipment and materials condition**

All equipment and materials required to be provided by the CONTRACTOR shall be properly maintained and in sound condition that is suitable for survey assessment. The GEOLOGIST may reject any equipment that does not, in their judgment, meet these conditions, and the CONTRACTOR will replace the rejected equipment without additional compensation.

### **3.6 Personnel**

The CONTRACTOR shall furnish only qualified personnel for all phases of the project covered by this AGREEMENT that have been accepted as qualified by the DEPARTMENT during the prequalification process. If the CONTRACTOR finds it necessary to substitute personnel for those that have been already accepted as qualified, then such personnel may be substituted upon demonstration to the DEPARTMENT that the substitute meets the qualifications stipulated during the original prequalification process.

### **3.7 Notice to Proceed**

The DEPARTMENT will issue a Notice to Proceed, notifying the CONTRACTOR to begin work on the project under this AGREEMENT. The Notice to Proceed will include a maximum dollar cost for the work that will not be exceeded by the CONTRACTOR. The Notice to Proceed will also include dates, set in consultation with the CONTRACTOR, for starting and completing work on the project under this AGREEMENT.

### **3.8 Pre-Job Meeting**

Upon issuance of a Notice to Proceed by the DEPARTMENT to the CONTRACTOR, the CONTRACTOR shall provide representatives to meet with agents from the DEPARTMENT at the DEPARTMENT, unless the CONTRACTOR and DEPARTMENT mutually agree upon an alternative location. The purpose of the Pre-Job Meeting will be for the DEPARTMENT to provide the CONTRACTOR with the plans for field survey, as defined under subparagraph 3.3.1 for the project covered under this AGREEMENT, to provide the CONTRACTOR any additional protocols and procedures to be used in the

conductance of the data collection activities covered under this AGREEMENT, to discuss the proposed scope of work, site and landowner access, and all other issues relating to the performance of the FLUVIAL GEOMORPHOLOGY ASSESSMENTS. During the Pre-Job Meeting, the CONTRACTOR shall also provide to the DEPARTMENT written documentation of its Quality Assurance procedures that the CONTRACTOR will employ upon the collected data prior to its first submission to the DEPARTMENT, as described in Paragraph 5.3.

### **3.9 Public Outreach Presentation**

The CONTRACTOR shall attend a meeting in which the field assessments and plans are described to the public, which includes landowners adjacent to the river. The presentation shall be at a mutually agreed upon time and date arranged by the DEPARTMENT, or its designee. The DEPARTMENT, or its designee, shall coordinate the meeting which shall be attended by the CONTRACTOR and stakeholders designated by the DEPARTMENT. The CONTRACTOR shall give a presentation to the public on river processes and describe the data that will be collected as part of the FLUVIAL GEOMORPHOLOGY ASSESSMENTS.

### **3.10 Professional Conduct**

The CONTRACTOR shall perform the work under this AGREEMENT in a professional and cooperative manner. The GEOLOGIST may disqualify CONTRACTOR's personnel from work if, in his or her judgment, these conditions are not met. The CONTRACTOR shall not be compensated separately for replacement of personnel rejected by the GEOLOGIST or for standby time resulting from the CONTRACTOR's failure to meet these conditions.

### **3.11 Inspection of the Work**

The CONTRACTOR's work shall be done in accordance with this AGREEMENT under the general direction of the DEPARTMENT or its authorized representatives. The DEPARTMENT reserves the right to assign the GEOLOGIST to accompany the CONTRACTOR during assessments which are performed under this AGREEMENT.

## **4. METHODS OF FIELD ASSESSMENT**

### **4.1 Protocols**

The methods used by the CONTRACTOR in the performance of the FLUVIAL GEOMORPHOLOGY ASSESSMENTS shall be PROTOCOLS, as defined in Paragraph 2.4. Sections of the PROTOCOLS that have been modified as part of the New Hampshire implementation are defined in the following subparagraphs, and are applicable to the project defined under this AGREEMENT.

#### **4.1.1 Sketches and Photographs**

The PROTOCOLS stipulate that drawing a sketch of assessed reaches and segments is an essential component of field assessments. For the purposes of this AGREEMENT, the use of sketches is optional, and is at the discretion of

the CONTRACTOR. Any sketches made by the CONTRACTOR in the performance of these FLUVIAL GEOMORPHOLOGY ASSESSMENTS shall be made in accordance with the descriptions provided in the PROTOCOLS, and shall be submitted to the DEPARTMENT upon completion of the project covered under this AGREEMENT. However, the CONTRACTOR shall collect a digital photographic log of the riverine system under assessment which shall be submitted to the DEPARTMENT upon completion of the FLUVIAL GEOMORPHOLOGY ASSESSMENTS, as described in Section 5 of this AGREEMENT. The Standard Photo Log form used to document pictures in the PROTOCOLS is not required under this AGREEMENT, unless the digital camera is at a location where a GPS point is not able to be obtained, in which case the feature shall be documented in writing and the location noted. Photographs shall be collected at each cross-section, and shall include an upstream view, downstream view, right bank view, and left bank view, while ensuring that the cross-section with measuring tape stretched across the channel is incorporated into at least two photographs. Photographs shall be collected at all riverine features identified as components of the Feature Indexing Tool (FIT) within the PROTOCOLS.

#### **4.1.2 Use of GPS units**

The CONTRACTOR shall use a unit capable of obtaining GPS data, as defined under subparagraphs 3.4.3 and 3.4.5 to document feature locations for later import into GIS software as a data layer. These feature locations shall include all those that are components of the FIT and locations of cross-sections as defined in Subparagraph 4.1.5. The GPS data files of the features surveyed shall be converted by the CONTRACTOR to a GIS datum and format decided upon by the DEPARTMENT before the files are submitted to the DEPARTMENT as an acceptable product.

#### **4.1.3 Step 1.5 – Confinement**

If it is impractical to measure the valley width at a location, the CONTRACTOR shall collect GPS point(s) that adequately locate the valley wall. Later, using GIS, the CONTRACTOR shall measure the valley width determined from the field-collected GPS points that delineate each side of the valley wall. This calculated width shall be recorded on the field form for this step.

#### **4.1.4 Recording Step 2 Data**

The data collected for the Step 2 section of the PROTOCOLS shall be commensurate with the 2009 version of the PROTOCOLS. The Step 2 information that is entered on the cross-section worksheet will be entered by the CONTRACTOR into an Excel workbook or its substitute, as determined by the DEPARTMENT, for plotting cross-sections that are measured in the field, and for determination of ratios including those for incision, width/depth, and entrenchment. The CONTRACTOR shall use GPS to index the location of all cross-sections, and shall complete two (2) cross-sections, using

measuring tape, as defined in Subparagraph 3.4.1 and wading rod, as defined in Subparagraph 3.4.4, per reach assessed unless an exception is granted by the GEOLOGIST. If the CONTRACTOR deems it necessary to segment a reach, based upon field evidence described in the PROTOCOLS, then the requirement of two (2) cross-sections shall become applicable to each segment within a reach. A third cross-section in a reach may be assessed if the addition of such cross-section will allow refinement of the ability to type the stream within a reach. The decision to assess a third cross-section shall be made by the DEPARTMENT, in consultation with the CONTRACTOR. In the event that the river reach is too deep for wading, and the reach is not within an impoundment, the CONTRACTOR, in consultation with the DEPARTMENT, shall determine if collection of cross-section data within the bankfull channel shall be performed by boat or canoe. If such collection is determined to be undertaken, the boat or canoe shall be tied to a tagline that is fixed across the channel at the cross-section. Measuring rod readings will then be collected along the cross-section from the boat or canoe affixed to the established tagline. The employment of such procedures in the event of a non-wadeable condition may also necessitate the use of equipment as defined under Subparagraph 3.4.6, if deemed appropriate by the CONTRACTOR, in consultation with the DEPARTMENT.

#### **4.1.5 Step 2.3 – Bankfull Mean Depth**

While the tape is stretched across the channel at the bankfull elevation, the CONTRACTOR shall use the measuring rod to determine a minimum of 10 bankfull depths at evenly spaced intervals across the channel. The spacing interval used to measure depths across the channel shall be determined by dividing the bankfull width by 11. In addition, the CONTRACTOR shall measure the bankfull depth at additional locations on the established cross-section where morphological change occurs that would otherwise not be captured using 10 measurements. Locations on a cross-section in which additional bankfull depth measurements shall be collected include when the character of the bed material changes from one dominant size class to another, based upon experienced field observation, and where a change in bed elevation is not gradual, such as a sharp drop or rise in bed elevation on the cross-section. In cases where a cross-section traverses a major feature, such as a bar, or exposed bed, measurements shall also be taken of the start, middle, and end of such feature. At all locations where a bankfull depth measurement is collected, the distance across the channel from the left bankfull pin and the corresponding bankfull depth shall be recorded by the CONTRACTOR.

#### **4.1.6 Step 2.12 – Bed Substrate Composition**

The CONTRACTOR shall ensure that the total number of bed substrate sampling points, and the resulting percentages of size classes 1 through 6 total 100 percent. In the event that the river reach is too deep for wading, the CONTRACTOR, in consultation with the DEPARTMENT, shall use a bed sampling device, as defined under subparagraph 3.4.8. The sampler will be

operated from a boat or canoe in straight reaches of the channel away from the influence of meander bends and the dominant bed particle size shall be estimated based upon such visual assessment of the collected sample.

#### **4.1.7 Valley Wall Field Verifications**

While the valley walls are delineated in GIS during Phase 1, it is critical that the locations of valley walls be verified in the field during the assessment, as these locations frequently bound the final Fluvial Erosion Hazard zones. The locations of valley walls shall be field verified using GPS at all locations for which cross-sections are collected in each reach. Additionally, the CONTRACTOR shall be in possession of a hardcopy or digital GIS map of the valley walls, as provided by the DEPARTMENT. The CONTRACTOR, while assessing a reach, shall make visual evaluations of the match between the locations of the valley wall in the field compared to the map. The CONTRACTOR may verify the locations of valley walls using one of two methods. The CONTRACTOR may collect GPS points at the location of the valley wall in the field, or the CONTRACTOR shall measure the distance and compass bearing, using a device as defined in Subparagraph 3.4.9, from the streambank where a GPS point is collected to the valley wall and record this measurement in a manner that clearly identifies the association of the measurement with the point collected. In all cases, verifications shall be attempted when the actual valley wall and the Phase 1 mapped valley wall are not reasonably congruent, and such measurements shall be attempted in those areas identified by the DEPARTMENT as specifically requiring verification. The CONTRACTOR shall collect a number of points that is no fewer than a total of five (5) per mile within a specified reach, unless a different number is required for a reach, based on agreement between the CONTRACTOR and the DEPARTMENT. The CONTRACTOR shall provide documentation to the DEPARTMENT indicating that the stipulations in this section pertaining to valley wall field verifications have been completed. These points shall be imported into a GIS and the Phase 1 valley wall shall be adjusted utilizing these points by the DEPARTMENT.

#### **4.1.8 Bridge and culvert assessments**

For each river reach or segment that is assessed, each bridge or culvert that crosses the channel shall be geomorphically assessed using the established New Hampshire Culvert Assessment Protocol. This protocol shall be provided to the CONTRACTOR by the DEPARTMENT during the Pre-Job Meeting, as described in Paragraph 3.8.

#### **4.1.9 Directionality of photographs**

Should the digital camera, as defined under Subparagraph 3.4.3, used by the CONTRACTOR in the performance of tasks under this AGREEMENT possess the capability to record the compass directionality of collected photographs, then the collected compass directionality information recorded with the photographs shall be provided to the DEPARTMENT upon submittal

of all collected photographs to the DEPARTMENT. If the digital camera, as defined under Subparagraph 3.4.3, used by the CONTRACTOR in the performance of tasks under this AGREEMENT does not possess the capability to record the compass directionality of collected photographs, then upon submittal of all collected photographs to the DEPARTMENT, all photographs of cross-section locations, as stipulated in Subparagraph 4.1.1 shall be accompanied by documentation indicating the picture number and the appropriate view for each photograph collected at cross-sections.

#### **4.2 Assessments Plan**

The Assessments Plan has been developed for the FLUVIAL GEOMORPHOLOGY ASSESSMENTS that are to be conducted under this AGREEMENT, for the Souhegan River Watershed as depicted in Figure 1. ESRI-format GIS data for the Souhegan River Watershed are available from the DEPARTMENT and shall be provided to the CONTRACTOR in preparation for field survey. If the DEPARTMENT determines additional survey work needs to be undertaken, the locations of rivers where additional survey work may be conducted shall be determined by the DEPARTMENT in consultation with the CONTRACTOR. When the locations of the additional work are finalized by the DEPARTMENT, in consultation with the CONTRACTOR, the DEPARTMENT shall provide the CONTRACTOR an assessment plan detailing the additional locations of FLUVIAL GEOMORPHOLOGY ASSESSMENTS and a Notice to Proceed for those additional assessments. Such changes will be performed based upon the cost schedule submitted per the bid of the CONTRACTOR that is agreed upon between the CONTRACTOR and the DEPARTMENT.

#### **4.3 Obstructions**

The DEPARTMENT makes no representations as to the character of the ground on which FLUVIAL GEOMORPHOLOGY ASSESSMENTS are to be made, or that any FLUVIAL GEOMORPHOLOGY ASSESSMENTS locations will be free of obstructions that could preclude completion of an assessment for a part of or complete reach. If field conditions indicate the need to address any obstructions that may prevent a complete assessment, the manner in which the new conditions will be addressed shall be approved by the DEPARTMENT.

### **5. WORK SCHEDULES AND PROGRESS REPORTS**

#### **5.1 Assignment Start Date**

The CONTRACTOR shall begin work on the start date specified in the Notice to Proceed, or on a later date that is mutually agreed upon by the CONTRACTOR and the DEPARTMENT. Once given Notice to Proceed, the CONTRACTOR shall work at a pace that ensures that the project will be completed no later than the completion date specified in the Notice to Proceed.

#### **5.2 Assignment Completion Date**

The completion date for all work on this project will be specified in the Notice to Proceed, but shall be no later than September 18, 2014. The DEPARTMENT shall establish the completion date after consultation with the CONTRACTOR. Extension of the completion date beyond that originally specified in the Notice to Proceed shall be at the discretion of the DEPARTMENT, after consultation with the CONTRACTOR.

### **5.3 Submission of Materials and Reports, and Quality Assurance**

After completing the FLUVIAL GEOMORPHOLOGY ASSESSMENTS specified under this contract, the CONTRACTOR shall enter all data collected using the PROTOCOLS into the geomorphic database which is maintained by the DEPARTMENT for this purpose, instructions for which shall be provided to the CONTRACTOR by the DEPARTMENT. At the time of submission of the collected data to the DEPARTMENT, the CONTRACTOR shall also submit GIS files, in a format agreed upon by the CONTRACTOR and the DEPARTMENT, of the revised stream centerlines, valley walls, indexed features, any sketches and digital scans of the completed field forms. The GIS files of the indexed river features shall include, but not be limited to, alluvial fans, river corridor encroachments, grade controls, bank erosion, mass failures, bank revetments, debris jams, water withdrawals, stormwater inputs, beaver dams, flood chutes, headcuts, stream fords, channel alterations, cross-section locations, and locations of large woody debris. The CONTRACTOR shall also submit the log of photographs and photograph directionality information collected during the field assessments, and the Excel workbooks containing the collected cross-section information, as described in Section 4.1.4. The DEPARTMENT shall review all of the submitted data for accuracy, and will provide the CONTRACTOR with a list of comments to be addressed. The CONTRACTOR shall then work with the DEPARTMENT in addressing the items on the DEPARTMENT's list of comments to bring the data into compliance with the DEPARTMENT's review. These deficiencies shall be completed prior to the Public Presentation. Upon final acceptance of the data collected by the CONTRACTOR, the CONTRACTOR shall submit final versions of stream centerlines, valley walls, mapped river features, and photocopies of all field sheets which may be submitted electronically, to the DEPARTMENT which shall become the final version of the data produced under this AGREEMENT. Written narrative-style reach reporting shall not be required under this AGREEMENT.

### **5.4 Public presentation**

The CONTRACTOR shall present the results of all FLUVIAL GEOMORPHOLOGY ASSESSMENTS work to the public upon completion. The CONTRACTOR should be prepared to address the work performed under this AGREEMENT in a narrative style verbally during the public presentation, utilizing photographs and the data collected to provide the public an understanding regarding the condition of the assessed rivers within the Souhegan River Watershed. The presentation shall be at a mutually agreed upon time and date arranged by the DEPARTMENT or its designee. The DEPARTMENT shall

coordinate the meeting which shall be attended by the CONTRACTOR as designated by the DEPARTMENT.

**6. SITE DISTURBANCE**

The CONTRACTOR shall leave all work sites in a neat and workmanlike manner. The CONTRACTOR shall exercise every caution in not damaging property, and shall repair any damage that may occur. Any property damage resulting from the CONTRACTOR's work shall be immediately reported to the DEPARTMENT. On completion of work at a specific location, the CONTRACTOR shall remove all equipment and materials.

## **EXHIBIT B**

### **CONTRACT PRICE, METHOD AND TERMS OF PAYMENT**

The following provisions are ADDED to those listed in the State of New Hampshire Agreement Form P-37.

#### **5.5 Payment schedule and stipulations**

The work performed under this AGREEMENT shall be paid for in accordance with the following schedule and stipulations:

##### **5.5.1 Method of measurement**

The amount of work to be paid for shall be the quantity of work, satisfactorily performed by the CONTRACTOR under the terms of the AGREEMENT, completed and accepted by the DEPARTMENT as conforming to these specifications.

##### **5.5.2 Basis of payment and definition of pay items**

The accepted quantity of work will be paid for at the contract unit prices as defined below.

#### **ITEM NO. 1 Pre-Assessment Coordination**

##### **ITEM NO. 1.1 Pre-Job Meeting**

As stipulated in Paragraph 3.8, prior to mobilization for field work, at least one staff representative is required to attend a pre-job meeting. This item includes all costs of travel to and from the meeting, and personnel costs for attendance.

##### **ITEM NO. 1.2 Review of Phase 1 Data Reports**

Upon submission to the CONTRACTOR by the DEPARTMENT of Phase 1 data reports, the CONTRACTOR shall review the Phase 1 data reports and work with the DEPARTMENT to achieve agreement between the CONTRACTOR and DEPARTMENT on the final Phase 1 data reports to use. This item includes all costs of personnel to review the data, and adjust as appropriate, based upon consultation with the DEPARTMENT.

##### **ITEM NO. 1.3 Stakeholder Meeting**

As stipulated in Paragraph 3.9, CONTRACTOR shall attend a stakeholder meeting before assessments begin. This item includes all costs of travel to and from the stakeholder meeting and personnel costs for attendance.

#### **ITEM NO. 2 Phase 2 Geomorphic Assessments**

### **ITEM NO. 2.1 Field personnel and travel costs**

For the field personnel costs portion of this project, payment will be made to support the personnel necessary to conduct the assessments, and travel to and from the work site, as directed in the Notice to Proceed, on a per river assessment mile basis. This item supports the costs for survey personnel and travel to and from the work site. The CONTRACTOR shall submit monthly invoices to the DEPARTMENT for the personnel costs incurred in the preceding months beginning with the time the Notice to Proceed is issued to the time at which the field work phase of the scope of work covered under this AGREEMENT is completed.

### **ITEM NO. 2.2 Field Data Reduction and Reports Costs**

Upon completion of the field data collection phase of the work covered under this AGREEMENT, materials and reports are required to be compiled and submitted to the DEPARTMENT, as specified under Paragraph 5.3 of Exhibit A. This item will be paid separately from payment for work conducted for field data collection. This item includes all costs for personnel to compile the data and reports, and for corrections to data and reports required by the DEPARTMENT subsequent to initial review of submitted data by the DEPARTMENT.

### **ITEM NO. 3 Post-Assessment Presentations**

#### **ITEM NO. 3.1 Public Presentation**

As stipulated in Paragraph 5.4, CONTRACTOR shall attend a public presentation to present the final data and report to members of the public. This item includes all costs of travel to and from the public meeting and personnel costs for attendance.

**5.6** The total cost of all work, expenses and profit under this AGREEMENT shall not exceed **\$103,537.00**. No payment will be made for work performed in excess of this amount. The budget for this project will be prepared on a task order basis from the schedule of charges and the total amount charged will be based on the per item cost in the bid schedule.

**5.7** The rates tabulated in the Cost Schedule shall include all charges attributed to direct costs, fringe benefits, payroll taxes, overhead, direct expenses and profit and shall be used in billing for all work done under this AGREEMENT.

**5.8** The DEPARTMENT will once each month make a progress payment to the CONTRACTOR on the basis of an estimate of the total amount of work done to the time of the estimate and its value as prepared by the CONTRACTOR and approved by the DEPARTMENT. The CONTRACTOR may choose the option of submitting a single bill, upon completion of the work, in lieu of monthly bills. The CONTRACTOR may also

choose the option of submitting a bill to the DEPARTMENT upon completion of an item number, as specified under subparagraph 5.5.2. Final payments will be based on quantities of work completed and accepted by the DEPARTMENT.

## **EXHIBIT C**

### **SPECIAL PROVISIONS**

The following provisions are ADDED to those listed in the State of New Hampshire Agreement Form P-37.

**12.1** All subcontracts shall be in writing. A copy of any subcontracts issued shall be submitted to the DEPARTMENT.

**14.4** No proposal or bid bond is required.

**25. REVISIONS TO REPORTS, PLANS OR DOCUMENTS.** The CONTRACTOR shall perform such additional work as necessary in order to correct errors in the work specified under this AGREEMENT, caused by errors or omissions by the CONTRACTOR, without undue delays and without additional costs to the DEPARTMENT.

**New Hampshire Geological Survey  
New Hampshire Department of Environmental Services  
Fluvial Geomorphic Assessments  
CONTRACTOR'S BID SCHEDULE**

CONTRACTOR Field Geology Services

(Contractor Name)

ITEM NOS	QUANTITY & PAY UNIT	ITEMS AND UNIT PRICES BID IN WORDS	UNIT PRICES		AMOUNT	
			DOLLARS	CENTS	DOLLARS	CENTS
11	1 Each	Pre-Job Meeting  ____ One thousand _____ DOLLARS PER EACH	\$ 1 000 00	0	\$ 1 000 00	
12	35 Hour	Review of Phase 1 Data Reports  ____ Sixty _____ DOLLARS PER HOUR	60	0	\$ 2 100 00	
13	1 Each	Public Outreach Presentation  ____ One thousand _____ DOLLARS PER EACH	1000	0	\$ 1 000 00	
2.1	32 Mile	Assessments - Field personnel and travel costs  ____ One thousand three hundred fifty _____ DOLLARS PER MILE	1350	0	\$ 43 200 00	
2.2	200 Hour	Field Data Reduction and Reports Costs  ____ Fifty three _____ DOLLARS PER HOUR	53	0	\$ 10 600 00	
31	1 Each	Public Presentation  ____ One thousand _____ DOLLARS PER EACH	1000	0	\$ 1 000 00	
			<b>Grand Total</b>		<b>\$58,900.00</b>	

*(Handwritten signature and notes)*

**CERTIFICATE OF AUTHORITY/VOTE**  
(Limited Liability Company)

I, John Field, hereby certify that:  
(Name of Sole Member/Manager of Limited Liability Company, Contract Signatory – Print Name)

1. I am the Sole Member/Manager of the Company of Field Geology Services.  
(Name of Limited Liability Company)

2. I hereby further certify and acknowledge that the State of New Hampshire will rely on this certification as evidence that I have full authority to bind Field Geology Services  
(Name of Limited Liability Company)

and that no corporate resolution, shareholder vote, or other document or action is necessary to grant me such authority.

[Signature]  
(Contract Signatory - Signature)

1/30/13  
(Date)

STATE OF Maine

COUNTY OF Franklin

On this the 30<sup>th</sup> day of January, 2013, before me Stacy Demerchant,  
(Day) (Month) (Yr) (Name of Notary Public / Justice of the Peace)

the undersigned officer, personally appeared John Field, known to me (or  
(Contract Signatory – Print Name)

satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he/she executed the same for the purposes therein contained. In witness whereof, I hereunto set my hand and official seal.

(NOTARY SEAL)

[Signature]  
(Notary Public / Justice of the Peace -Signature)

Commission Expires: \_\_\_\_\_

STACY L. DEMERCHANT  
Notary Public Maine  
My Commission Expires February 5, 2014

# 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 Field Geology Services, LLC, a(n) Maine limited liability company registered to do business in New Hampshire on February 4, 2010. I further certify that it is in good standing as far as this office is concerned, having filed the annual report(s) and paid the fees required by law.



In TESTIMONY WHEREOF, I hereto set my hand and cause to be affixed the Seal of the State of New Hampshire, this 25<sup>th</sup> day of January, A.D. 2013

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

William M. Gardner  
Secretary of State



**ATTACHMENT A**  
**Procurement of Fluvial Erosion Hazard Geomorphology Assessments Contractors**

On October 17, 2011, an invitation to prequalify to bid was announced and posted publicly. The Department of Environmental Services received eleven prequalification packages. The firms were ranked, based upon qualifications in the understanding of river processes and in experience conducting river geomorphology assessments elsewhere, as posted in the invitation to prequalify. The firms, and their resulting rankings are:

<b>Firm Name</b>	<b>Location</b>	<b>Rank</b>
Vanasse Hangen Brustlin, Inc.	Bedford, NH	1
Field Geology Services, LLC	Farmington, ME	2
Fitzgerald Environmental Associates, LLC	Colchester, VT	3
Inter-Fluve	Cambridge, MA	4
Princeton Hydro	Glastonbury, CT	5
Gomez & Sullivan Engineers, P.C.	Henniker, NH	6
Headwaters Hydrology, PLLC	Littleton, NH	7
Milone & MacBroom	Burlington, VT	8
Gorrill-Palmer Consulting Engineers, Inc.	Gray, ME	9
New England Environmental	Amherst, MA	10
Parish Geomorphic	Fredericton, New Brunswick, Canada	11

The state staff team members interviewed the top six ranked firms, and the interviewees were ranked so to allow the top four ranked firms to be invited to bid on projects, as described in the prequalification to bid announcement originally posted. The list, scoring and ranking of firms interviewed by the state staff team is as follows:

<b>Firm Name</b>	<b>Reviewer Scores</b>					<b>Total Score</b>	<b>Rank</b>
	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>		
Field Geology Services	92.5	96	91	98	85	462.5	1
Fitzgerald Environmental	90	90	88	97.5	88	453.5	2
Princeton Hydro	90.5	95	77	100	90	452.5	3
VHB	90.5	86	88	90	98	452.5	3
Inter-Fluve	93.75	89	85	91	91	449.75	5
Gomez & Sullivan Engineers <sup>1</sup>	84	77	-	86	83	412.5 <sup>1</sup>	6

<sup>1</sup> Reviewer #3 was not present for this interview. Therefore, the score for this firm was proportionally adjusted to allow ranking with the other firms. The scores provided in the table above for Gomez & Sullivan Engineers sum to 330. Based upon the 100 points available to each reviewer, which provided a total of 400 points, the score received (330 points) was divided by 400 to achieve a value of 0.825. To compare this score with the others, a total of 500 points possible with the presence of all five reviewers was multiplied by 0.825 to achieve a final score of 412.5.

These proposals were evaluated by the following five state staff team members:

<b>Staff Member</b>	<b>Agency</b>	<b>Title</b>	<b>Experience</b>
Greg Barker	NHDES	Hydrogeologist	27 Years geology experience
Frederick Chormann	NHDES	State Geologist	26 Year geology experience
Jacque Colburn	NHDES	Lakes & Rivers Coordinator	20 Year experience coordinating and evaluating watershed management contract projects
Shane Csiki	NHDES	Fluvial Geomorphology Specialist	10 years experience river science
Lance Harbour	NHDOS	State Hazard Mitigation Officer	Coordinator of all state hazard mitigation planning activities