



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



**Clark B. Freise, Assistant Commissioner**

February 9, 2017

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

**REQUESTED ACTIONS**

(1) Authorize the New Hampshire Department of Environmental Services (NHDES) to **RETROACTIVELY** amend the **SOLE SOURCE** agreement (PO# 7001039) with Inter-Fluve, Inc., VC# 221334, to complete the *Geomorphology-Based Restoration Design and Permitting for the Suncook River and Floodplain* project by (a) extending the completion date to December 31, 2017 from December 31, 2016, (b) increasing the contract award amount by \$42,931 from \$909,802 to \$952,733, and (c) changing the Scope of Services and Contract Price and Method of Payment to include an additional sub-task and payment effective upon G&C approval though December 31, 2017. The original agreement was approved by G&C on June 22, 2011, Item #96. Amendments were approved by G&C on January 16, 2013, Item #43; July 24, 2013, Item #53; and February 28, 2014, Item #43. 100% Capital (General) funds.

(2) Further authorize NHDES to establish a contingency amount of \$38,388 to cover unforeseen conditions and work that may occur during final design and construction of the Suncook River stabilization project thereby further increasing the contact amount from \$952,733 to \$991,121, effective upon G&C approval through December 31, 2017. 100% Capital (General) Funds.

Funding is available in the account as follows:

	<u>FY 2017</u>
03-44-44-440030-0960-034-500162	\$81,319
Dept Environmental Services, Suncook River Infrastructure Protection Project, Capital Projects	

**EXPLANATION**

This agreement expired on December 31, 2016. NHDES is requesting approval of this **RETROACTIVE, SOLE SOURCE** amendment to the agreement in order to provide Inter-Fluve, Inc. with additional time and funding to complete the project. The amendment request is necessary because of complications encountered during the right-of-way easement procurement process, and the need for additional geotechnical investigations to revise bid packages before they are issued by NHDES. This amendment will allow the required time to secure easement and for Inter-Fluve, Inc. to perform supplementary tasks in support of the final design and construction phase. This amendment is **sole source** because it is imperative that Inter-Fluve, Inc. continue to complete the final design, bid document development, bid process facilitation, contractor selection, and construction oversight. A nationally recognized leader in the field of river restoration, Inter-Fluve, Inc., was selected to oversee all aspects of design and construction for this project. Given the unique and highly complex nature of this project, it would be logistically and financially infeasible for any other organization to complete this work at this stage of the project. The request is **retroactive** primarily because the extensive time needed to secure the right-of-way easements as mandated by federal highway funding requirements was unexpected and unknown to NHDES project managers. Copies of the original Contract and Amendments are included in Attachment A.

The 2006 avulsion on the Suncook River is widely regarded as the most significant river change in New Hampshire recorded history. Efforts to get final designs and construction underway for this large scale, highly complex river stabilization and infrastructure protection project have been underway since 2007. Each additional month that passes increases the risk of bridge failure as additional stress is placed upon the U.S. Route 4 Bridge over the Suncook River. Given the recent developments with unforeseen tasks requiring completion in order for the project to advance to construction, and the continually changing nature of the unstable river system, there is a chance of additional unexpected costs. It is essential that contingency funds be encumbered to address change orders to the scope of services between NHDES and Inter-Fluve, Inc. Establishment of the requested contingency allowance is intended to help prevent further construction delays.

A portion of the funding for construction of this project has been provided by the New Hampshire Department of Transportation (DOT). The DOT commitment of \$900,000 in federal highway assistance program funds required additional permit and easement acquisition tasks that NHDES project managers were not anticipating. NHDES envisioned that final designs would be in hand by late summer 2016 allowing the construction bid process to occur in autumn of 2016. The winning bid would have informed the development of the final Amendment between NHDES and Inter-Fluve, Inc. which was intended to be completed prior to the end of 2016. However, the federal highway funding criteria necessitated a National Environmental Policy Act (NEPA) compliance task, and acquisition of additional permanent and temporary easements from land owners within the construction area. Construction bids for the project could not be issued until all easement documentation had been secured, and one land owner's easement is still outstanding at this time. Therefore, additional time and budget is necessary to complete the easements and additional surveys, issue bid packages, select a construction contractor, and complete construction in 2017.

The amendment has been approved by the Office of the Attorney General as to form, execution, and content. We respectfully request your approval.



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Clark B. Freise, Assistant Commissioner

**Agreement for Services with Inter-Fluve, Inc.**  
Amendment No. 4

This Agreement (hereinafter called "Amendment No. 4") dated this 23<sup>rd</sup> day of January, 2017, is by and between the State of New Hampshire, acting by and through its Department of Environmental Services (hereinafter referred to as the "State") and Inter-Fluve, Inc., acting by and through its Principal, Lon Mikkelson (hereinafter referred to as the "Contractor").

WHEREAS, pursuant to an Agreement (hereinafter called the "Agreement") approved by the Governor and Council on June 22, 2011, its first Amendment (hereinafter called "Amendment 1") approved by the Governor and Council on January 16, 2013, its second Amendment (hereinafter called "Amendment 2") approved by the Governor and Council on July 24, 2013, its third Amendment (hereinafter called "Amendment 3") approved by the Governor and Council on February 28, 2014, the Contractor agreed to perform certain services upon the terms and conditions specified in the Agreement and subsequent Amendments, and in consideration of payment by the State of certain sums as specified therein; and

WHEREAS, The Contractor and the State have agreed to amend the Agreement and its Amendments in certain respects;

NOW THEREFORE, in consideration of the foregoing, and the covenants and conditions contained in the Agreement and subsequent Amendments, and set forth herein, the parties hereto do hereby agree as follows:

1. Amendment and Modification of Agreement: The Agreement and subsequent Amendments are hereby amended as follows:
  - (A) The Completion Date as set forth in sub-paragraph 1 (A) of Amendment 3 shall be changed from December 31, 2016 to December 31, 2017.
  - (B) The Grant Limitation as set forth in sub-paragraph 1 (B) of Amendment 3 shall be changed from \$909,802 to \$991,121.
  - (C) Authorize DES to establish a contingency amount of \$38,388 to cover unforeseen conditions and work that may occur during final design and construction of the Suncook River stabilization project, effective upon Governor and Council approval through December 31, 2017. 100% Capital Funds.
  - (D) The Scope of Services as set forth in Exhibit A, and amended in the subsequent Amendments, shall be further amended to include an additional Sub-task (1.8) under existing Task 37 as follows:

Task 37. Construction Management for the Suncook River (*cost: \$312,466.00*)

- 1.8. *Geotechnical Investigations* – AECOM, a subcontractor to Inter-Fluve, will complete geotechnical borings and associated studies to inform the contractors about the material along the alignment of the sheet pile. The geotechnical borings will occur along the alignment of the proposed sheeting adjacent to the Suncook River in Epsom, NH. The

Contractor Initials LF  
Date 1-26-17

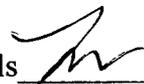
proposed sheeting alignment will be adjusted slightly based on recent input from Inter-Fluve. Exact boring locations will be identified in the field. One boring is proposed on the west side of the river, at the furthest extent of the sheeting from the river. Three additional borings are proposed on the east side of the river along the approximate sheeting alignment. The borings on the east side will be spread along the sheeting alignment such that one is conducted at either end of the alignments and one is conducted in the middle portions of the alignment. AECOM will procure a subcontractor to conduct the four borings. AECOM will also conduct oversight of the drilling subcontractor in the field, and will prepare boring logs documenting observations. The scope of work includes the following:

- Complete four borings, each of which will be 50 feet deep and drilled using a 3-inch inside diameter casing.
- Borings will be completed using an All-Terrain Vehicle (ATV) drill rig.
- Soil sampling will be conducted at 5-foot intervals using standard 2-inch diameter split spoon samplers.
- Bedrock and boulders, if encountered, will be cored; rock coring will be done at 5-foot intervals using an N sized barrel.
- Laboratory analysis of up to three rock samples, and AECOM review of results.
- Completed boreholes will be backfilled with granular drill cuttings, clean sand, bentonite chips, tremied grout, or a combination thereof.
- Four boring logs will be prepared.
- A brief, technical memorandum will be prepared that identifies the final proposed depth of the sheeting based on the boring results.

#### *Assumptions*

- It is assumed that the State regulatory approvals already issued for the Suncook River stabilization project are sufficient authorization and that no additional local, state, or federal permits are required to implement the boring program.
- The contractor will be responsible for all surveys, measurements, or elevation checks as necessary to ensure accuracy with the design plans
- Contractor submittals will be reviewed and accepted prior to start of construction
- One pile driving rig will be utilized for this project.
- Pile driving logs with blow-counts per foot measurements recorded are NOT required.
- Pile cap construction will occur as the piles are driven.
- For purposes of this scope and budget, we assume 60 days of construction observation, with 30 days of observation of sheeting installation by AECOM. The number of days of construction observation can be adjusted via addendum if necessary.

Contractor Initials



Date 1-26-17

- This scope and budget includes time to adjust the sheeting alignment on design Sheet 11 per direction from Inter-Fluve and to respond to questions that arise during bid document preparation.

*Deliverables*

- Daily construction logs and daily reports on sheet pile driving
- Response to necessary amendments (email and PDF)
- As-built drawings (PDF)
- Review comments on three submittals and three re-submittals of Section 02160 Paragraphs. 1.04 A. 1, 2, and 3.

(E) The Contract Price and Method of payment as set forth in Exhibit B shall be amended as follows, and will include payment for the additional tasks payable upon completion, review, and approval of deliverables and/or scope and budget change orders by the State as specified:

<b>Task</b>	<b>Description</b>	<b>Status</b>	<b>Original Payment</b>	<b>Revised Payment</b>
<b>37</b>	Construction Management for the Suncook River	New Sub-task 1.8 to add \$42,931	\$269,535	\$312,466
<b>Contingency</b>	Unforeseen expenses linked to existing Tasks required for construction of the Suncook River stabilization project. Change Orders prepared by Inter-Fluve, Inc., submitted to DES for approval prior to payment being issued.	Encumber contingency funds in the amount of \$38,388	\$0.00	\$38,388

2. **Effective Date of Amendment:** This Amendment shall take effect upon the date of approval of this Amendment by the Governor and Executive Council of the State of New Hampshire.
3. **Continuance of Agreement:** Except as specifically amended and modified by the terms and conditions of this Amendment, the Agreement, and the obligations of the parties thereunder, shall remain in full force and effect in accordance with the terms and conditions set forth therein.

Contractor Initials                       
Date 1-26-17

IN WITNESS WHEREOF, the parties have hereunto set their hands as of the day and year first above written.

Inter-Fluve, Inc.

By [Signature]  
Principal, Lon Mikkelson

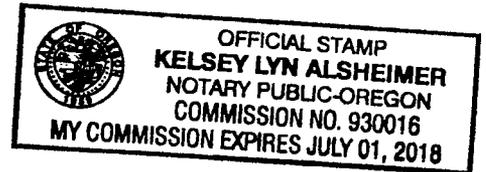
STATE OF OREGON  
COUNTY OF HOOD RIVER

On this the 26 day of January, 2017, before the undersigned officer, personally appeared Lon Mikkelson, Principal who acknowledged himself to be the person who executed the foregoing instrument for the purpose therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

[Signature]

My Commission Expires:



THE STATE OF NEW HAMPSHIRE  
Department of Environmental Services

By [Signature]  
~~Thomas S. Buraack, Commissioner~~  
Clark B. Freise, Assistant Commissioner

Approved by Attorney General this 17<sup>th</sup> day of February, 2017

OFFICE OF ATTORNEY GENERAL

By [Signature]

Contractor Initials [Signature]  
Date 1-26-17



Applied River and Wetland Restoration  
Founded 1983

January 26, 2017

To: Whom it may concern

Re: Corporate Resolution

I, David Reeves, hereby certify that I am the duly elected Secretary/Treasurer of Inter-Fluve, Inc. I hereby certify the following is a true copy of a vote taken at a meeting of the Board of Directors, duly called and held on July 8, 2015 that Lon Mikkelsen and Jonathon Kusa; Principals of Inter-Fluve, Inc. are authorized to execute contracts and bonds in the name and behalf of Inter-Fluve, Inc. and such execution of any contract or obligation in Inter-Fluve, Inc.'s name on its behalf by such Principals under seal of the company, shall be valid and binding upon this company.

I hereby certify that said vote has not been amended or repealed, and remains in full force and effect as of January 26, 2017, and that Lon Mikkelsen and Jonathon Kusa remain the duly elected Principals of this corporation.

Dated: January 26, 2017

Attest: David Reeves

David Reeves  
Secretary/Treasurer  
Inter-Fluve, Inc.

# 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 INTER-FLUVE, INC. is a Montana Profit Corporation registered to transact business in New Hampshire on May 09, 2011. I further certify that all fees and documents required by the Secretary of State's office have been received and is in good standing as far as this office is concerned.

Business ID: 649236



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed  
the Seal of the State of New Hampshire,  
this 3rd day of February A.D. 2017.

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

William M. Gardner  
Secretary of State



**Attachment A**

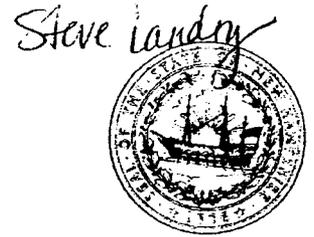
**Prior Amendment**



The State of New Hampshire  
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

February 6, 2014



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

APPROVED G&C  
DATE 2/28/2014  
ITEM # 43

**REQUESTED ACTION**

Authorize the Department of Environmental Services (DES) to retroactively amend a sole-source agreement (PO# 7001039) with Inter-Fluve, Inc., VC# 221334, to complete the *Geomorphology-Based Restoration Design and Permitting for the Suncook River and Floodplain* project by extending the completion date to December 31, 2016 from December 31, 2013, changing the Scope of Services and Contract Price and Method of Payment to include additional tasks and payments, and increasing the contract award amount by \$490,951 from \$418,851 to \$909,802, effective upon Governor and Council approval though December 31, 2016. The original agreement was approved by G&C on June 22, 2011, Item #96. Amendments were approved by G&C on January 16, 2013, Item #43, and July 24, 2013, Item #53. 100% Capital (General) funds.

Funding is available in the account as follows.

	<u>FY 2014</u>
03-44-44-440030-0960-034-500162	\$490,951
Dept Environmental Services, Suncook River Infrastructure Protection Project, Capital Projects	

**EXPLANATION**

This agreement expired on December 31, 2013. DES is requesting approval of this retroactive sole-source amendment to the agreement in order to provide Inter-Fluve, Inc. with the additional time and funding to complete further survey, analysis and construction supervision services. The amendment request is necessary because permitting for this highly complex project was delayed during review and negotiation processes. Additionally, funding for construction has become available from the New Hampshire Department of Transportation and a grant from the National Fish and Wildlife Foundation. This amendment will allow Inter-Fluve, Inc. to perform supplementary tasks in support of the construction phase. Inter-Fluve, Inc. was selected through a competitive process to provide these services, but this amendment is requested as a sole-source amendment because the new contract amount exceeds 10% of the original contract. Inter-Fluve, Inc. developed the designs, permits, and construction plans for what is widely known as one of the most challenging river stabilization and infrastructure protection projects in New Hampshire and across the country. Moreover, Inter-Fluve, Inc. is the only contractor able to provide these services given the unique data collection, modeling, and alternatives analyses that they have undertaken, and the high level of trust that they have engendered among the project area abutters in Epsom, NH. The request is retroactive primarily due to the application schedules and requirements of the funding grant programs, federal agency approvals, and time needed to obtain landowner consent as described below. Copies of the original Contract and Amendments are included in Attachment A.

FEMA  
LOMRC  
DES

The 2006 avulsion on the Suncook River is widely regarded as the most significant river change in New Hampshire recorded history. A nationally recognized leader in the field of river restoration, Inter-Fluve, Inc., was selected to develop river stabilization designs, permits, and to oversee all aspects of construction to ensure that

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infrastructure essential to maintaining economic stability and preventing loss of life is protected for the long-term. Anyone who has toured the Suncook River and Leighton Brook project areas can attest to the incredible scale of work proposed due to the substantial risk to infrastructure that exists on the Suncook River as a result of the 2006 avulsion. Maintaining the existing project team and timeline for construction is essential if the Route 4 Bridge is to be protected. Though much progress has been made, unforeseen delays occurred in completing the project. Although the project team expected to receive approval for the necessary Letter of Map Revision (LOMR) from the Federal Emergency Management Agency (FEMA) by the end of 2013, the revision and re-submittal process has extended into 2014, and will likely take another month or two. There was also an unanticipated delay in obtaining written landowner consent for construction access, stockpiling of materials, and installation of the river stabilization practices. Since landowner consent was critical to the project implementation, all final designs, cost estimates, and permits were delayed until property owner consent was obtained.

DES was notified in late November of 2013 about a potential construction funding source from the National Fish and Wildlife Foundation - Hurricane Sandy Coastal Resiliency Competitive Grants Program (NFWF). The deadline for grant applications was January 31, 2014. During the time between late November of 2013 and the January 31, 2014 grant deadline, the New Hampshire Department of Transportation (DOT) committed \$900,000 in federal highway assistance program funding toward the project, Inter-Fluve, Inc. provided final construction costs and technical information for the NFWF application, and the land owner consent forms were secured. The NFWF grant request is for \$1.7 million and, if awarded, will result in a complete construction budget for the Suncook River and Leighton Brook stabilization projects.

The existing contract with Inter-Fluve, Inc. includes the final engineering and permitting portions of the overall project, but in order to avoid any further project delays, it is imperative that Inter-Fluve, Inc. continue to complete the final design, final permitting, bid document development and bid process facilitation, oversight of construction contractor selection, and construction oversight. Given the unique designs developed by Inter-Fluve, Inc. for this project, their staff geomorphologists and engineers remain the logical leaders to carry out construction oversight. Through over a year of collaborative effort, project area landowners have come to trust personnel from Inter-Fluve, Inc. to uphold their agreements relative to how construction access will be laid out on their properties, where materials will be stockpiled, and how the final designs will protect their farm fields, private homes, businesses, as well as town and state infrastructure.

The effort to complete final designs and commence construction on the Suncook River and Leighton Brook has been underway since 2007. The next large flood event in this unstable river valley could be the one that undermines the vital transportation corridors (Route 4 and Black Hall Road) and increases the chance of loss of life and properties surrounding each structure. Approval of this contract amendment request is essential to position the project partners to act quickly if the NFWF grant is approved and to provide the infrastructure protection needed as a result of the 2006 Suncook River avulsion and the ongoing damage left in its wake.

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

**Agreement for Services with Inter-Fluve, Inc.  
Amendment No. 3**

This Agreement (hereinafter called "Amendment No. 3") dated this 30<sup>th</sup> day of January, 2014, is by and between the State of New Hampshire, acting by and through its Department of Environmental Services (hereinafter referred to as the "State") and Inter-Fluve, Inc., acting by and through its Principal, Lon Mikkelson (hereinafter referred to as the "Contractor").

WHEREAS, pursuant to an Agreement (hereinafter called the "Agreement") approved by the Governor and Council on June 22, 2011, its first Amendment (hereinafter called "Amendment 1") approved by the Governor and Council on January 16, 2013, and its second Amendment (herein after called "Amendment 2" approved by the Governor and Council on July 24, 2013, the Contractor agreed to perform certain services upon the terms and conditions specified in the Agreement and subsequent Amendments, and in consideration of payment by the State of certain sums as specified therein; and

WHEREAS, The Contractor and the State have agreed to amend the Agreement and its Amendments in certain respects;

NOW THEREFORE, in consideration of the foregoing, and the covenants and conditions contained in the Agreement and subsequent Amendments, and set forth herein, the parties hereto do hereby agree as follows:

1. Amendment and Modification of Agreement: The Agreement and subsequent Amendments are hereby amended as follows:
  - (A) The Completion Date as set forth in sub-paragraph 1 (A) of Amendment 2 shall be changed from December 31, 2013 to December 31, 2016.
  - (B) The Grant Limitation as set forth in sub-paragraph 1 (B) of Amendment 2 shall be changed from \$418,851 to \$909,802.
  - (C) The Account Number as specified in Paragraph 1.6 of the Agreement shall be changed from 03-44-44-440010-8663-102 to 03-44-44-440030-0960-034-500162.
  - (D) The Scope of Services as set forth in Exhibit A, and amended in the subsequent Amendments, shall be further amended to include additional Tasks as follows:

Task 28. Resurvey of Avulsion Site and Updated Hydrology and Hydraulics (*cost: \$11,310*) - the channel bank on river left of the Avulsion Site has continued to erode since the initial topographic survey was completed by Inter-Fluve. These changed conditions may influence the hydraulic conditions, design considerations, and volume estimates for the designs at this location.

- 28.1. *Resurvey at Avulsion Site* – Inter-Fluve will complete a topographic survey of the eroding left bank of the Suncook River in the vicinity of the avulsion site. This survey will include the top and toes of the channel bank and other changed conditions in the channel in the area of the designs.

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28.2. *Update hydraulics and recalculate cut/fill volumes* – Inter-Fluve will incorporate the new survey data, as well as any available LiDAR data, into the CAD surfaces and HEC-RAS hydraulic models. The existing and proposed HEC-RAS models will be updated. The volume of earth to be removed during construction as well as the volume of rock to be imported will be updated based on the updated designs.

Assumptions:

- Increases in hydraulic capacity at the Avulsion Site do not substantially change backwater conditions at the Second Riffle Site or result in hydraulic jump at the Second Riffle Site.

Deliverables:

- Updated topographic data will be incorporated into the updated designs in Task 29
- Updated hydraulics information and cut/fill volumes will be incorporated into the updated designs (Task 29) and project manual (Task 32)

Task 29. Update Designs and Permitting (*cost: \$7,733*) - because of the changed conditions at the Avulsion Site, the designs will need to be updated and the permitting agencies may need to be notified depending on the extent of the changed conditions and changed designs.

29.1. *Update designs* – If necessitated by the changed conditions, Inter-Fluve will update the designs for the Avulsion Site based on the surveying and updated hydraulic modeling. If it is determined that no design changes are necessary, this task can be eliminated.

29.2. *Permitting* - If the designs are altered, Inter-Fluve will notify the regulatory agencies of the changed conditions and changed designs.

Assumptions:

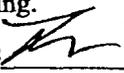
- Hydraulic model updates do not change underlying design conditions such as: model output that relocates or creates new hydraulic jumps, or design changes associated with changes in the Base Flood Elevation.
- Updated designs only apply to the Avulsion Site.
- Submittal of new permits will not be necessary; updated designs will be conveyed digitally to regulatory agencies

Deliverables:

- Updated final designs for the avulsion site; corresponding updated cost estimate
- Phone calls and emails to regulatory agencies to discuss any changes to the designs

Task 30. Sediment Sampling (*cost: \$2,974*) - a buried oil tank was discovered adjacent to Leighton Brook within the limits of disturbance. This tank will need to be moved during construction and placed elsewhere on the landowner's property. The soils around this oil tank will need to be assessed for contaminants prior to construction.

30.1. *Sediment sampling* – Inter-Fluve will collect 5 soil samples under, and adjacent to, the oil tank. These five samples will be composited into one sample for analysis. This sample will be analyzed for the following contaminants: VOCs, PAHs, and TPH. This task does not include additional sampling, monitoring, other analyses during construction, or reporting.

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Assumptions:

- No additional sampling or analyses are necessary than what is described above

Deliverables:

- Results of analyses will be summarized in a brief technical memo and submitted to NHDES

Task 31. Technical Specifications for Leighton Brook (*cost: \$8,666*)

- 31.1. *Technical Specifications for Leighton Brook* – Inter-Fluve will complete the technical specifications for Leighton Brook that will accompany the designs and other documents in the project manual for construction bidding. The technical specifications for the Suncook River are being completed under the existing contract. The specifications for Leighton Brook will be based on the Suncook River specifications, but adjusted to match the Leighton Brook designs.

Deliverables:

- Technical specifications will be submitted along with other documents in the Project Manual (Task 32) to NHDES for review prior to bidding

Task 32. Project Manual for Leighton Brook and Suncook River (*cost: \$18,039*)

- 32.1. *Project Manual* – Inter-Fluve will complete the project manual for both Leighton Brook and the Suncook River. The project manual will include all documents required for the projects to go out for bid and construction.

Assumptions:

- One revision to the project manual may be required based on comments received.
- *Comments* received will not require interpretation or legal review.

Deliverables:

- Project Manual will be submitted to NHDES for review (digital format)

Task 33. NEPA (*cost: \$22,464*) - Because NHDES is applying for a grant that would provide federal funding for the Suncook project, filing for NEPA will be required if the funding is received. Inter-Fluve will complete the required NEPA documents and submit the permit to the appropriate regulatory authorities. NEPA filing will only be required for the Suncook portion of the project, and not Leighton Brook.

- 33.1. *Determination of Action Area* – Inter-Fluve will coordinate with DES in determining the project action area. The action area is all areas that may be affected directly or indirectly by the project. The action area will encompass the geographic extent of environmental changes resulting from the Suncook River Mitigation project.
- 33.2. *Background Research and Alternatives Establishment* – Inter-Fluve will compile existing data and information on socio-economic, environmental, and cultural resources and issues. This information will be used to describe and characterize the action area, including physical and biological attributes.
- 33.3. *Evaluation of Environmental Effects* – Inter-Fluve will evaluate potential effects on socio-economic, natural, and cultural issues posed by alternatives under consideration. The evaluation will discuss whether or not anticipated effects are potentially significant issues to be

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considered will include the following:

Socio-Economic	Natural	Cultural
<ul style="list-style-type: none"> <li>• Safety</li> <li>• Transportation Patterns</li> <li>• Air Quality</li> <li>• Noise</li> <li>• Hazardous Materials</li> <li>• Neighborhoods</li> <li>• Business Impacts</li> <li>• Land Use</li> <li>• Construction Impacts</li> <li>• Farmland</li> </ul>	<ul style="list-style-type: none"> <li>• Water Quality</li> <li>• Wetlands</li> <li>• Surface Waters</li> <li>• Groundwater</li> <li>• Floodplains/Floodways</li> <li>• Wildlife/Fisheries</li> <li>• Endangered Species</li> <li>• Natural Communities</li> <li>• Shoreland Protection</li> <li>• Invasive Plants</li> </ul>	<ul style="list-style-type: none"> <li>• Historical</li> <li>• Archaeological</li> <li>• Aesthetic</li> </ul>

33.4. *Coordination* - Inter-Fluve will help schedule and facilitate project review meetings with agency personnel to review and comment on specific project plan details and proposed mitigation measures.

33.5. *Technical Memorandum* – A technical memorandum will be prepared describing the project and project setting, alternatives considered, an evaluation of effects and their potential significance, and a summary of potential environmental commitments to reasonably mitigate temporary, long-term, and cumulative effects. Appendices will include a completed Categorical Exclusion Programmatic Determination Checklist, project exhibits, relevant agency correspondence, documentation of meetings and public outreach measures, and brief, categorical summaries of public comments.

*Assumptions*

- The project meets Categorical Exclusion definition contained in 40 CFR 1508.4.
- No more than one round of review and comment by the Client will be necessary.
- No more than two (2) meetings with regulatory agencies will be necessary.
- No additional environmental studies (including wetland delineation) or analysis will be necessary to support regulatory permits. Data, information, and plans developed by Inter-Fluve will be used in support of such permits.
- Timing of response to regulatory review comments and attendance at coordination meetings will be based upon the review requirements and timing of response from regulatory agencies.

*Deliverables*

- One Draft and one Final Categorical Exclusion/*De Minimis* 4(f) Determination memorandum, with supporting documentation.
- Minutes for up to two meetings with regulatory personnel.

Task 34. Bid Process and Contractor Selection for Leighton Brook (cost: \$11,058) - because construction for Leighton Brook and the Suncook River will be occurring at different times, they will need to go out to

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bid separately. Therefore, the bid process and contractor selection will need to be completed for Leighton Brook as well as the Suncook River projects.

- 34.1. *Bid Advertisement* – Inter-Fluve will provide the project manual to NHDES to post on their website for advertisement, will create a secure file share page on Inter-Fluve's website for contractors to download the project manual, and will advertise the bid in one newspaper deemed appropriate by NHDES. Contractors will be able to download digital copies of bid materials and can print hard copies for their own use as desired.
- 34.2. *Pre-bid site visit* - Inter-Fluve will organize and attend a pre-bid site visit for interested contractors. This will be a required site visit that will include an indoor meeting to address the designs and any questions followed by a visit to Leighton Brook to address further questions. We assume that NHDES staff will assist in obtaining the use of a meeting room in the Town of Epsom.
- 34.3. *Respond to Requests for Information (RFIs) and Addenda* - Inter-Fluve will gather questions from the contractors through the bid process and will provide one written response to questions. If addenda to the plans or technical specifications are necessary, these will be completed and provided to the contractors.
- 34.4. *Contractor Selection* - While NHDES and other project partners will be making the final decision regarding contractor selection, Inter-Fluve will review contractor submittals and provide recommendations to NHDES. This will include a written recommendation as well as one conference call as desired.

#### *Assumptions*

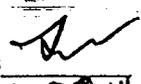
- Inter-Fluve will not provide hard copies of plans or project manual to contractors
- NHDES staff will assist in obtaining the use of a meeting room in the Town of Epsom

#### *Deliverables*

- File share page for interested contractors to download the project manual
- Attend pre-bid meeting
- One written response to questions from contractors (PDF)
- Written recommendation for the contractor selection process

Task 35. Bid Process and Contractor Selection for the Suncook River (*cost: \$11,058*) - because construction for Leighton Brook and the Suncook River will be occurring at different times, they will need to go out to bid separately. Therefore, the bid process and contractor selection will need to be completed for Leighton Brook as well as the Suncook River projects.

- 35.1. *Bid Advertisement* – Inter-Fluve will provide the project manual to NHDES to post on their website for advertisement, will create a secure file share page on Inter-Fluve's website for contractors to download the project manual, and will advertise the bid in one newspaper deemed appropriate by NHDES. Contractors will be able to download digital copies of bid materials and can print hard copies for their own use as desired.
- 35.2. *Pre-bid site visit* - Inter-Fluve will organize and attend a pre-bid site visit for interested contractors. This will be a required site visit that will include an indoor meeting to address the designs and any questions followed by a visit to the Suncook River to address further questions. We assume that NHDES staff will assist in obtaining the use of a meeting room in the Town of Epsom.

Contractor Initials 

Date F 30-14

- 35.3. *Respond to Requests for Information (RFIs) and Addenda* - Inter-Fluve will gather questions from the contractors through the bid process and will provide one written response to questions. If addenda to the plans or technical specifications are necessary, these will be completed and provided to the contractors.
- 35.4. *Contractor Selection* - While NHDES and other project partners will be making the final decision regarding contractor selection, Inter-Fluve will review contractor submittals and provide recommendations to NHDES. This will include a written recommendation as well as one conference call as desired.

*Assumptions*

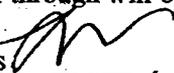
- Inter-Fluve will not provide hard copies of plans or project manual to contractors
- NHDES staff will assist in obtaining the use of a meeting room in the Town of Epsom

*Deliverables*

- File share page for interested contractors to download the project manual
- Attend pre-bid meeting
- One written response to questions from contractors (PDF)
- Written recommendation for the contractor selection process

Task 36. Construction Management for Leighton Brook (cost: \$91,131)

- 36.1. *Pre-Construction Meeting* - Inter-Fluve will organize and attend a pre-construction meeting with the selected contractor and interested Project Partners. This will be an opportunity to introduce the contractor to the Partners, identify contact information for the contractor, identify contractor staffing, and discuss any questions and concerns. Following an indoor meeting, we will visit the Leighton Brook site and discuss any remaining details. We assume that NHDES staff will assist in obtaining the use of a meeting room in the Town of Epsom.
- 36.2. *Amendments* - Inter-Fluve will complete amendments to the designs and specifications that are deemed necessary throughout construction. These will be approved by NHDES prior to delivery to the contractor.
- 36.3. *Construction Management* - Inter-Fluve will review all contractor submittals throughout the construction period. Submittals will include construction plans and sequencing prior to commencement of construction, contractor invoices, contractor change orders, and materials submittals. Inter-Fluve will review these documents and submit to NHDES for final review prior to sending to the contractor.
- 36.4. *Construction Observation* - Inter-Fluve will provide construction observation throughout the Leighton Brook construction process. This will include direct communication on a daily basis with the contractor, verifying grades, checking compliance with the designs and specifications, communicating with NHDES as needed, and completing daily construction logs that summarize the work completed each day. For the purposes of this scope and budget, we have assumed 30 days of construction observation. If additional time is necessary, an amendment can be completed.
- 36.5. *Construction Walk-Throughs* - Inter-Fluve will organize and lead two construction walk-throughs to identify final punch-list items to be completed by the contractor. The first walk-through will be at approximately the 90% complete level and the second walk-through will be after the contractor believes that all work has been completed.

Contractor Initials 

Date 1-30-14

- 36.6. *As-Built Survey* - Inter-Fluve will complete a survey of the project after construction has been completed. This survey is often required by permitting or funding agencies. The survey data will be incorporated in CAD and the as-constructed ground surface will be projected on top of the design plans. An as-built design set will be submitted to NHDES with the as-built contour lines identified and the cross sections updated with the as-built elevations.

*Assumptions*

- The contractor will be responsible for all surveys, measurements, or elevation checks as necessary to ensure accuracy with the design plans
- We assume 30 days of construction - this can be adjusted as necessary via addendum

*Deliverables*

- Daily construction logs
- Response to necessary amendments (email and PDF)
- As-built drawings (PDF)

Task 37. Construction Management for the Suncook River (*cost: \$269,535*)

- 37.1. *Pre-Construction Meeting* – Inter-Fluve will organize and attend a pre-construction meeting with the selected contractor and interested Project Partners. This will be an opportunity to introduce the contractor to the Partners, identify contact information for the contractor, identify contractor staffing, and discuss any questions and concerns. Following an indoor meeting, we will visit the Suncook River site and discuss any remaining details. We assume that NHDES staff will assist in obtaining the use of a meeting room in the Town of Epsom.
- 37.2. *Amendments* - Inter-Fluve will complete amendments to the designs and specifications that are deemed necessary throughout construction. These will be approved by NHDES prior to delivery to the contractor.
- 37.3. *Construction Management* - Inter-Fluve will review contractor submittals throughout the construction period. Submittals will include construction plans and sequencing prior to commencement of construction, contractor invoices, contractor change orders, and materials submittals. Inter-Fluve will review these documents and submit to NHDES for final review.
- 37.4. *Construction Observation* - Inter-Fluve will provide construction observation throughout the Suncook River construction process. This will include direct communication on a daily basis with the contractor, verifying grades, checking compliance with the designs and specifications, communicating with NHDES as needed, and completing daily construction logs that summarize the work completed each day. For the purposes of this scope and budget, we have assumed 60 days of construction observation. If additional time is necessary, an amendment can be completed.
- 37.4.1. This subtask also includes engineers from AECOM providing construction observation of the sheet pile installation. This scope of work and cost are based on the assumption that the pile driving duration will be 30 days, with a total of 455 sheet piles installed at a rate of 15 piles per day. In addition, inspection work will begin one week prior to the start of sheet pile installation and end one week after completion of sheet pile installation, to include inspection of trenching and pile cap completion, for a total inspection period of eight weeks. AECOM's reviews will include review and response to two RFIs, ~~three~~ initial submittals as required by Specification 02160, and three re-submittals of information required by Specification 02160.

Contractor Initials 

Date 1-28-14

- 37.5. *Construction Walk-Throughs* - Inter-Fluve will organize and lead two construction walk-throughs to identify final punch-list items to be completed by the contractor. The first walk-through will be at approximately the 90% complete level and the second walk-through will be after the contractor believes that all work has been completed.
- 37.6. *As-Built Survey* - Inter-Fluve will complete a survey of the project after construction has been completed. This survey is often required by permitting or funding agencies. The survey data will be incorporated in CAD and the as-constructed ground surface will be projected on top of the design plans. An as-built design set will be submitted to NHDES with the as-built contour lines identified and the cross sections updated with the as-built elevations.
- 37.7. *Mussel Relocation* - Biodrawversity, a subcontractor to Inter-Fluve, will complete the relocation of listed mussels from within the Suncook River project site to appropriate locations upstream of construction. Mussels will be tagged with numeric tags and then placed in one of two relocation sites. All relocated mussels will be checked for survival, growth, and movement one month and one year following relocation. A written report will describe results of the relocation and summarize the monitoring efforts. In addition to the tasks associated with rare mussels, Biodrawversity will help develop a Wood Turtle (*Glyptemys insculpta*) monitoring and relocation plan for approval by NHFG, help with the first round of pre-construction sweeps in the river and nearby uplands, and will train on-site construction monitors and construction personnel on protocols to find, record information on, and relocate Wood Turtles during daily pre-construction sweeps.

#### *Assumptions*

- The contractor will be responsible for all surveys, measurements, or elevation checks as necessary to ensure accuracy with the design plans
- Contractor submittals will be reviewed and accepted prior to start of construction
- One pile driving rig will be utilized for this project.
- Pile driving logs with blowcounts per foot measurements recorded are NOT required.
- Pile cap construction will occur as the piles are driven.
- For purposes of this scope and budget, we assume 60 days of construction observation, with 30 days of observation of sheeting installation by AECOM. The number of days of construction observation can be adjusted via addendum if necessary.

#### *Deliverables*

- Daily construction logs and daily reports on sheet pile driving
- Response to necessary amendments (email and PDF)
- As-built drawings (PDF)
- Review comments on three submittals and three re-submittals of Section 02160 Paragraphs. 1.04 A. 1,2, and 3.

Task 38. Letter of Map Revision (*cost: \$36,983*) - AECOM, a subcontractor to Inter-Fluve, will complete the necessary documentation and analyses to submit the Letter of Map Revision as required by FEMA.

38.1. *Perform Flood Study* - The following subtasks will be completed by AECOM:

- 38.1.1. Develop topographic data based on updated LiDAR data
- 38.1.2. Develop as-built conditions multi-profile model and floodway model

Contractor Initials 

Date 1-30-14

- 38.1.3. Floodplain mapping (work map and annotated FIRM) including profile
- 38.1.4. Prepare hydrologic and hydraulic write-up and project summary
- 38.1.5. Notification to impacted property owners
- 38.1.6. Public notification for floodway revision
- 38.1.7. Little Suncook River model and mapping, including profile
- 38.2. Prepare/Submit FEMA LOMR:
  - 38.2.1. Complete the payment information form
  - 38.2.2. Complete MT-2 Form 1: Overview and concurrence form
  - 38.2.3. Complete MT-2 Form 2: Riverine hydrology and hydraulics form
  - 38.2.4. Complete MT-2 Form 3: Riverine structures form
- 38.3. Coordinate LOMR application - AECOM will provide general coordination with FEMA and the project partners throughout the submittal and request for information periods

*Assumptions*

- 2010 Effective FIRMs and FIS will be updated for Suncook River based on USGS study at the time of LOMR application
- FEMA will accept the Suncook CLOMR hydrology
- FEMA will not require a DE model as it waived that requirement at the CLOMR stage
- FEMA will not require a CE model as it waived that requirement at the CLOMR stage
- FEMA will accept the Suncook CLOMR existing conditions model
- USGS/DES will provide bare earth LiDAR that will not require any clean-up/fixing and will be free from gaps
- AECOM will retain the channel (only as defined by bank stations in the model) geometry of proposed conditions model and will use DEM developed from USGS LiDAR data to develop geometry of overbank areas
- An update to the hydrology and hydraulics write up used for the CLOMR will be acceptable to FEMA
- AECOM will prepare property owner notifications and work with FEMA to see if a public notice can be issued in lieu of property owner notifications if it is determined that a large number of property owners will be impacted.
- AECOM will prepare the public notification for floodway revisions
- FEMA will not ask for a duplicate effective model and an existing conditions (at the time of LOMR submittal) model will be acceptable to FEMA. Little Suncook River will not be impacted by the current project.
- MT-2 Form 2: Riverine Hydrology and Hydraulics Form submitted for CLOMR will be acceptable to FEMA. AECOM will only review and do minor update if needed
- Riverine structures form submitted for CLOMR will be acceptable to FEMA. AECOM will only review and do minor update if needed
- Community concurrence will be obtained by others
- Effort needed for responding to additional data letter request will be estimated only after receiving and evaluating an additional data letter from FEMA. Additional scope and budget can be added via addendum if necessary
- Assume a \$5300 application fee

*Deliverables*

Contractor Initials 

Date 1-20-14

- MT-2 Forms 1-3 will be submitted to FEMA

(E) The Contract Price and Method of payment as set forth in Exhibit B shall be amended as follows, and will include payment for the additional tasks payable upon completion and review of deliverables by DES as specified:

Task(s)	Description	Status	Budget	Paid to date
1 - 20	Tasks 1 through 20 as described in the original Agreement. For detail please refer to Attachment A	Completed	\$336,000	\$336,000
21	Conditional Letter of Map Revision - Phase I	Completed	\$7,660	\$7,660
22	Conditional Letter of Map Revision - Phase II	In progress	\$34,169	\$0
23	Submit Conditional Letter of Map Revision	In progress	\$10,960	\$0
24	Archaeological - coordination, research, fieldwork	Completed	\$11,088	\$11,088
25	Archaeological services - fieldwork and lab processing and analysis	56% Completion	\$8,974	\$3,911
26	Archaeological report	In progress	\$5,670	\$0
27	Field work and development of mussel mgmt. plan	Completed	\$4,330	\$4,330
28	Resurvey of Avulsion Site and Updated Hydrology and Hydraulics	New Task	\$11,310	\$0
29	Update Designs and Permitting	New Task	\$7,733	\$0
30	Sediment Sampling	New Task	\$2,974	\$0
31	Technical Specifications for Leighton Brook	New Task	\$8,666	\$0
32	Project Manual for Leighton Brook and Suncook River	New Task	\$18,039	\$0
33	Complete the required NEPA documents	New Task	\$22,464	\$0
34	Bid Process and Contractor Selection for Leighton Brook	New Task	\$11,058	\$0
35	Bid Process and Contractor Selection for the Suncook River	New Task	\$11,058	\$0
36	Construction Management for Leighton Brook	New Task	\$91,131	\$0
37	Construction Management for the Suncook River	New Task	\$269,535	\$0
38	Letter of Map Revision	New Task	\$36,983	\$0
<b>Totals</b>			<b>\$909,802</b>	<b>\$362,989</b>

2. Effective Date of Amendment: This Amendment shall take effect upon the date of approval of this Amendment by the Governor and Executive Council of the State of New Hampshire.
3. Continuance of Agreement: Except as specifically amended and modified by the terms and conditions of this Amendment, the Agreement, and the obligations of the parties thereunder, shall remain in full force and effect in accordance with the terms and conditions set forth therein.

Contractor Initials   
 Date 1-30-14

IN WITNESS WHEREOF, the parties have hereunto set their hands as of the day and year first above written.

Inter-Fluve, Inc.

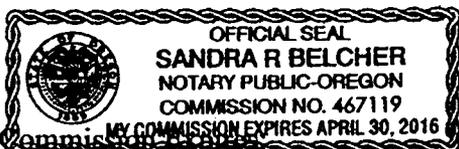
By

  
Principal, Lon Mikkelson

STATE OF OREGON  
COUNTY OF HOOD RIVER

On this the 30<sup>th</sup> day of January, 2014, before the undersigned officer, personally appeared Lon Mikkelson, Principal who acknowledged himself to be the person who executed the foregoing instrument for the purpose therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.



My



THE STATE OF NEW HAMPSHIRE  
Department of Environmental Services

By

  
Thomas S. Burack, Commissioner

Approved by Attorney General this 11<sup>th</sup> day of February, 2014

OFFICE OF ATTORNEY GENERAL

By

  
Contractor Initials LM  
Date 1-30-14



Applied River and Wetland Restoration  
Founded 1983

January 30, 2014

To: Whom it may concern

Re: Corporate Resolution

I, David Reeves, hereby certify that I am the duly elected Secretary/Treasurer of Inter-Fluve, Inc. I hereby certify the following is a true copy of a vote taken at a meeting of the Board of Directors, duly called and held on December 2001 that Lon Mikkelsen and Greg Koonce; Principals of Inter-Fluve, inc. are authorized to execute contracts and bonds in the name and behalf of Inter-Fluve, Inc. and such execution of any contract or obligation in Inter-Fluve, Inc.'s name on its behalf by such Principals under seal of the company, shall be valid and binding upon this company.

I hereby certify that said vote has not been amended or repealed, and remains in full force and effect as of January 30, 2014, and that Lon Mikkelsen and Greg Koonce remain the duly elected Principals of this corporation.

Dated: January 30, 2014

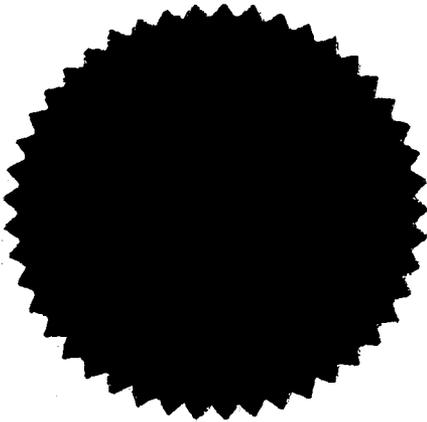
Attest:   
David Reeves



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 Inter-Fluve, Inc. a(n) Montana corporation, is authorized to transact business in New Hampshire and qualified on May 9, 2011. 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 23<sup>rd</sup> day of January, A.D. 2014

William M. Gardner  
Secretary of State



# CERTIFICATE OF LIABILITY INSURANCE

INFLU-1 OP ID: DT

DATE (MM/DD/YYYY)  
01/30/2014

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).

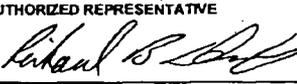
<b>PRODUCER</b> First West, Inc. PO Box 1800 1905 Stadium Dr Bozeman, MT 59715 Richard B. Deming, CIC	Phone: 406-587-5111 Fax: 406-587-9162	<b>CONTACT NAME:</b> _____ <b>PHONE (A/C, No, Ext):</b> _____ <b>FAX (A/C, No):</b> _____ <b>E-MAIL ADDRESS:</b> _____													
	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A : Cincinnati Insurance Company</td> <td>10677</td> </tr> <tr> <td>INSURER B : American States Insurance Co.</td> <td>19704</td> </tr> <tr> <td>INSURER C : Evanston Insurance Company</td> <td>35378</td> </tr> <tr> <td>INSURER D :</td> <td></td> </tr> <tr> <td>INSURER E :</td> <td></td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </tbody> </table>		INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A : Cincinnati Insurance Company	10677	INSURER B : American States Insurance Co.	19704	INSURER C : Evanston Insurance Company	35378	INSURER D :		INSURER E :		INSURER F :
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INSURER D :															
INSURER E :															
INSURER F :															
<b>INSURED</b> Inter-Fluve, Inc. PO Box 1892 Bozeman, MT 59771-1892															

**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 INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR	X	CAP5136879	12/31/2012	12/31/2015	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMPROP AGG \$ 2,000,000
	GENL AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC					
A	<input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS	<input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	CAA5136879	12/31/2013	12/31/2014	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB <input checked="" type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0					
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/>	01WC39443220	12/31/2013	12/31/2014	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000
	C Professional Liab 13CPLCWE00042 12/14/2013 12/14/2014 Aggregate 2,000,000 Retention 50,000					

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)  
 RE: Geomorphology-Based Design and Permitting for the Suncook River and Floodplain  
 Certificate holder is additional insured for General Liability per conditions and limitations of policy form GA472MT 5-10 available upon request.

<b>CERTIFICATE HOLDER</b>  NHDES-1  New Hampshire Department of Environmental Services Steve Landry PO Box 95 Concorde, NH 03302-0095	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
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The State of New Hampshire  
DEPARTMENT OF ENVIRONMENTAL SERVICES



Thomas S. Burack, Commissioner

July 8, 2013

APPROVED G & C

DATE 7/24/13

ITEM # 53

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 an agreement (PO# 1016297) with Inter-Fluve, Inc., VC# 221334, to complete the *Geomorphology-Based Restoration Design and Permitting for the Suncook River and Floodplain* project by extending the completion date to December 31, 2013 from September 30, 2013, changing the Scope of Services to amend Tasks 24 and 25, including additional Tasks 26 and 27, and increasing the contract award amount by \$10,000 from \$408,851 to \$418,851, effective upon Governor and Council approval though December 31, 2013. The original agreement was approved by G&C on June 22, 2011, Item #96. An amendment was approved by G&C on January 16, 2013, Item #43. 100% Capital (General) funds.

Funding is available in the account as follows.

	<u>FY 2014</u>
03-44-44-440030-0960-034-500162	\$ 10,000
Dept Environmental Services, Suncook River Infrastructure Protection Project, Capital Projects	

EXPLANATION

This agreement is due to expire on September 30, 2013. DES is requesting approval of this second amendment to the agreement in order to revise the Scope of Services to change two tasks, add two new tasks, and to provide Inter-Fluve Inc. with increased time and funding to complete additional surveys, permitting preparations, and project management services not anticipated by the project team when the original scope of services was developed. Copies of the original Contract and Amendment 1 are included in Attachment A.

DES entered into a \$450,000 Memorandum of Agreement (MOA) with the Division of Homeland Security and Emergency Management to address ongoing threats to infrastructure attributed to river instability issues on the Suncook River in Epsom, NH. Under the MOA, DES entered into two contracts. This contract with Inter-Fluve, Inc. involves the engineering and permitting portions of the overall project. A separate contract was managed by the NH Geological Survey to provide for the collection and analyses of geophysical data.

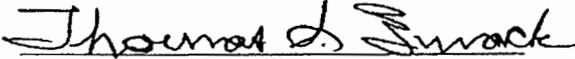
The proposed amendment is necessary for several reasons. Upon receipt of the 90 percent designs from Inter-Fluve, Inc. for river stabilization and infrastructure protection measures on the Suncook River (Route 4 Bridge) and Leighton Brook (Black Hall Road Bridge), the project team realized that the areas

Page 2

of disturbance exceeded what was anticipated. In response, DES invited the New Hampshire State Archaeologist from the New Hampshire Division of Historical Resources (NHDHR) to conduct a pedestrian survey of the proposed Area of Potential Effect (APE). The purpose of the survey was to identify archaeologically sensitive locations and to provide recommendations for subsurface testing in advance of any project-related ground-disturbing activities as a means to fulfill cultural resource compliance obligations under Section 106 of the National Historical Preservation Act. In consideration of the testing recommendations provided by NHDHR, an estimated one hundred shovel test pits will be necessary to adequately test the Suncook River project limits.

In addition to the Section 106 compliance testing, the project team has also been directed by natural resource agencies in New Hampshire to perform a detailed survey to determine the existence or extent of endangered, freshwater mussels in Suncook River within the proposed construction areas. Results from both the Section 106 compliance investigations and freshwater mussel surveys are required before permits can be finalized. Inter-Fluve, Inc. engineers have concluded that some of the additional services and fees will be incorporated into existing tasks, while other survey work and associated fees will require the development of new tasks and additional funding.

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

**Agreement for Services with Inter-Fluve, Inc.**  
Amendment No. 2

This Agreement (hereinafter called "Amendment No. 2") dated this 11<sup>th</sup> day of June, 2013, is by and between the State of New Hampshire, acting by and through its Department of Environmental Services (hereinafter referred to as the "State") and Inter-Fluve, Inc., acting by and through its Principal, Lon Mikkelson (hereinafter referred to as the "Contractor").

WHEREAS, pursuant to an Agreement (hereinafter called the "Agreement") approved by the Governor and Council on June 22, 2011, its first Amendment (hereinafter called "Amendment 1") approved by the Governor and Council on January 16, 2013, the Contractor agreed to perform certain services upon the terms and conditions specified in the Agreement and Amendment 1, and in consideration of payment by the State of certain sums as specified therein; and

WHEREAS, The Contractor and the State have agreed to amend the Agreement and its Amendments in certain respects;

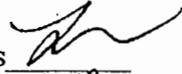
NOW THEREFORE, in consideration of the foregoing, and the covenants and conditions contained in the Agreement and Amendment 1, and set forth herein, the parties hereto do hereby agree as follows:

1. Amendment and Modification of Agreement: The Agreement and Amendment 1 are hereby amended as follows:
  - (A) The Completion Date as set forth in sub-paragraph 1 (A) of Amendment 1 shall be changed from September 30, 2013 to December 31, 2013.
  - (B) The Grant Limitation as set forth in sub-paragraph 1 (B) of Amendment 1 shall be changed from \$408,851 to \$418,851.
  - (C) The Scope of Services as set forth in Exhibit A shall be amended as follows:

Task 24. Bid Process Support (*cost: \$11,088*) is no longer necessary because construction funds will not be obtained before this contract expires. Therefore, archaeological services performed by the Public Archaeology Laboratory (PAL) will be partially completed under Task 24 instead. The work completed under this task will replace the Construction Management Services and there will be no increase or decrease to the cost of this task.

PAL, subcontracting to Inter-Fluve, will complete the following services under Task 24.

- 24.1. *Coordination* – PAL will coordinate with Inter-Fluve, Inc. and any other individuals or agencies (as directed) concerning administrative and logistical issues specific to the archaeological survey. These issues may include, but are not limited to, coordination of site access and work schedule, and information regarding proposed development plans. PAL also will submit an archaeological work plan to NHDHR as abstracted from this scope of services. The purpose of the work plan will be to solicit comments on the adequacy of the proposed archaeological survey in advance of field

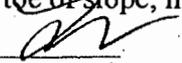
Contractor Initials 

Date 6-18-13

investigations, and to pro-actively address any comments or concerns that the SHPO may have.

- 24.2. *Research* – PAL will conduct a program of background research to develop pre- and post-contact cultural, historical, and environmental contexts for the proposed APE. The research program will include a review of state site files and cultural resource management reports housed at NHDHR to identify known sites within a 5-kilometer radius of the APE; a review of secondary town, state, and regional histories with a particular emphasis on the Town of Epsom; the examination of historic maps and photographs; and a review of principal sources concerning the ecology, geology, soils, and pre-contact culture history of the Suncook River and the Merrimack River drainage basin. These contexts will be used to develop predictive statements regarding the archaeological potential of the proposed APE, and to provide a meaningful framework within which to interpret and manage any identified cultural resources.
- 24.3. *Fieldwork* – Based on a review of project plans provided Inter-Fluve, Inc., and in consideration of Dr. Boisvert's testing recommendations, PAL estimates that approximately 100 50-x-50-centimeter (cm) shovel test pits will be necessary to adequately test the Suncook River Flood Mitigation Project APE with the testing broken down by project impact area as follows:
- River left embankment running from Dover Road/Route 4 to the confluence of Little Suncook River (~1000 feet [ft]/300 meters [m]) – a total of five (5) judgmentally-placed transects comprising five (5) shovel test pits (STP) spaced at 8-meter (m) intervals (25 STPs)
  - River right embankment running from Dover Road/Route 4 to the confluence of Little Suncook River (~1000 feet [ft]/300 meters [m]) – a total of four (4) judgmentally-placed transects comprising five (5) shovel test pits (STP) spaced at 8-meter (m) intervals (20 STPs)
  - Confluence of the Suncook and Little Suncook rivers – a minimum of 4 STPs judgmentally placed on the elevated landforms located on river right and river left
  - River left staging area – a total of five (5) judgmentally-placed transects comprising five (5) shovel test pits (STP) spaced at 8-meter (m) intervals (25 STPs)
  - River right staging area – a total of two (2) judgmentally-placed transects comprising five (5) shovel test pits (STP) spaced at 8-meter (m) intervals (10 STPs)
  - River left avulsion site treatment staging area – a total of two (2) judgmentally-placed transects comprising 10 shovel test pits (STP) spaced at 8-meter (m) intervals (20 STPs)

During his field visit, Dr. Boisvert identified a soil anomaly along river right at the head of the second riffle adjacent to a downed pine tree with a broken trunk near the toe of slope; he

Contractor Initials 

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believes the soil anomaly may be a fire pit scar. PAL will attempt to relocate the anomaly to document its size, shape, condition, and possible function. Two previously recorded sites (27-MR-0112 and 27-MR-0114) also have been identified south and west of the Project. As per Dr. Boisvert’s request, PAL will conduct a field visit of those sites to document their current conditions as well as any signs of on-going erosion or other forms of disturbance. *Due to the previous budget of Task 24, the part of the labor as well as all of the direct expenses for this subtask will be included in Task 25.*

Task 25. Construction Management Services (*cost: \$8,974*) is no longer necessary because construction funds will not be obtained before this contract expires. Therefore, archaeological services performed by PAL will be partially completed under Task 25 instead. The work completed under this task will replace the Construction Management Services and there will be no increase or decrease to the cost of this task.

PAL, subcontracting to Inter-Fluve, will complete the following services under Task 25.

25.1. *Fieldwork* – The remainder of the fieldwork labor and all direct expenses will be completed in this subtask as described above.

25.2. *Lab Processing and Analysis* - All cultural materials recovered from the project area during the field investigations will be returned to PAL’s facility for laboratory processing and analyses. All curation and conservation measures will be in accordance with the Secretary of Interior standards 36 CFR79 and in accordance with state curation guidelines. The laboratory processing and analyses activities will include:

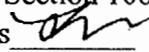
- cleaning, identification, and cataloging of any recovered cultural materials,
- preliminary analysis of spatial distributions of cultural materials, and
- map and graphics production

(E) The Contract Price and Method of payment as set forth in Exhibit B shall be amended to include payment for the additional tasks payable upon completion and review of deliverables by DES as follows:

Task	Description	New funding
26	Field work, laboratory processing, analyses, and final reporting on archaeological resources to fulfill Section 106 requirements	\$5,670
27	Field work and development of mussel management plan for <i>Alasmidonta varicosa</i> within proposed construction areas	\$4,330
Total		\$10,000

**Task 26. Archaeology Report**

The Public Archaeology Laboratory (PAL), subcontracting to Inter-Fluve, will complete the necessary field work, laboratory processing, and analyses required to satisfy the archaeological and cultural resource investigations throughout the project area to comply with Section 106 and

Contractor Initials 

Date 6-18-07

to develop a framework for any mitigation of resource impacts as a result of the proposed construction activities along the Suncook River.

- 26.1. *Work Products* – Following the completion of fieldwork and all laboratory processing and analyses, PAL will prepare a report detailing the survey results. The report will follow the guidelines established by the National Park Service in the *Recovery of Scientific, Prehistoric, Historic, and Archeological Data* (36 CFR Part 66, Appendix A) and New Hampshire state guidelines. Draft copies of the report will be provided to Inter-Fluve, Inc. for review. Following client review approval, the report will be submitted to NHDHR for review and comment. Archaeological site forms will be updated and submitted to the NHDHR as necessary.

Task 27. Mussel Survey for *Alasmidonta varicosa*

Based upon the population of *Alasmidonta varicosa* discovered and relocated in the Suncook River immediately following the 2006 avulsion, natural resource agencies in New Hampshire have required that a pre-construction mussel survey and management plan (if needed) be developed for the construction areas on the river. Biodrawversity, subcontracting to Inter-Fluve, will complete the following services.

- 27.1. *Fieldwork* – Biodrawversity will complete a 1-day survey (two people) in each of the two areas of the river where instream work is proposed, plus a 25 meter upstream buffer and 50-meter downstream buffer. The survey will be completed using snorkel gear, plus SCUBA if there are any areas more than 4 feet deep. Biodrawversity will record the total number, density ( $\#/m^2$ ), shell length, shell condition, location (GPS), and micro habitat of any *Alasmidonta varicosa* found, plus composition and relative abundance of other species. Surveyors will find a suitable relocation site upstream from the project areas, including a survey to verify that *A. Varicosa* already occur there. This information is important for developing the mussel management plan.
- 27.2 *Report, Management Plan* - Biodrawversity will prepare a written report with maps and tables, which will also include (as an appendix) a draft mussel management plan (essentially, a relocation and monitoring plan) for client review and agency review.
2. Effective Date of Amendment: This Amendment shall take effect upon the date of approval of this Amendment by the Governor and Executive Council of the State of New Hampshire.
3. Continuance of Agreement: Except as specifically amended and modified by the terms and conditions of this Amendment, the Agreement, and the obligations of the parties thereunder, shall remain in full force and effect in accordance with the terms and conditions set forth therein.

Contractor Initials



Date 6-18-13

IN WITNESS WHEREOF, the parties have hereunto set their hands as of the day and year first above written.

Inter-Fluve, Inc.

By   
Principal, Lon Mikkelson

STATE OF OREGON  
COUNTY OF HOOD RIVER

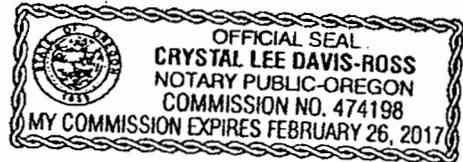
On this the 18 day of June, 2013, before the undersigned officer, personally appeared Lon Mikkelson, Principal who acknowledged himself to be the person who executed the foregoing instrument for the purpose therein contained.

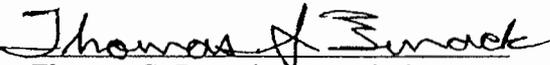
IN WITNESS WHEREOF, I hereunto set my hand and official seal.

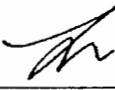


My Commission Expires:

THE STATE OF NEW HAMPSHIRE  
Department of Environmental Services



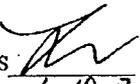
By   
Thomas S. Burack, Commissioner

Contractor Initials   
Date 6-18-13

Approved by Attorney General this 8<sup>th</sup> day of July, 2013

OFFICE OF ATTORNEY GENERAL

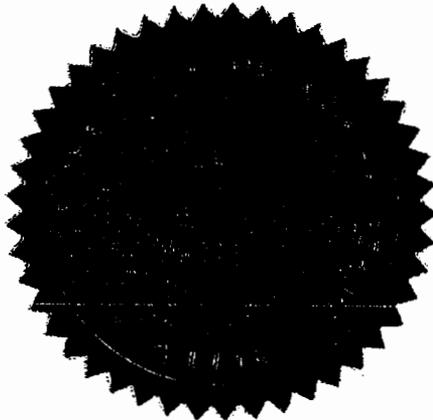
By   
Evan Mulheise, AAG

Contractor Initials   
Date 6-18-13

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 Inter-Fluve, Inc. a(n) Montana corporation, is authorized to transact business in New Hampshire and qualified on May 9, 2011. 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 20<sup>th</sup> day of June, A.D. 2013

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

William M. Gardner  
Secretary of State



Applied River and Wetland Restoration  
Founded 1983

June 18, 2013

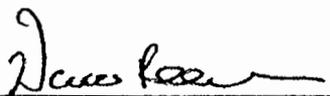
To: Whom it may concern

Re: Corporate Resolution

I, David Reeves, hereby certify that I am the duly elected Secretary/Treasurer of Inter-Fluve, Inc. I hereby certify the following is a true copy of a vote taken at a meeting of the Board of Directors, duly called and held on December 2001 that Lon Mikkelsen and Greg Koonce; Principals of Inter-Fluve, Inc. are authorized to execute contracts and bonds in the name and behalf of Inter-Fluve, Inc. and such execution of any contract or obligation in Inter-Fluve, Inc.'s name on its behalf by such Principals under seal of the company, shall be valid and binding upon this company.

I hereby certify that said vote has not been amended or repealed, and remains in full force and effect as of June 18, 2013 and that Lon Mikkelsen and Greg Koonce remain the duly elected Principals of this corporation.

Dated: June 18, 2013

Attest: \_\_\_\_\_

David Reeves





# CERTIFICATE OF LIABILITY INSURANCE

INFLU-1

OP ID: DT

DATE (MM/DD/YYYY)  
06/18/13

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).

<b>PRODUCER</b> First West, Inc. PO Box 1800 1905 Stadium Dr Bozeman, MT 59715 Richard B. Deming, CIC	406-587-5111	<b>CONTACT NAME:</b> Donna Tucek
	406-587-9162	<b>PHONE (A/C, No, Ext):</b> 406-922-6048 <b>FAX (A/C, No):</b> 406-587-9162 <b>E-MAIL ADDRESS:</b> dtucek@1stwestinsurance.com
<b>INSURED</b> Inter-Fluve, Inc. PO Box 1892 Bozeman, MT 59771-1892	<b>INSURER(S) AFFORDING COVERAGE</b>	
	<b>INSURER A:</b> Cincinnati Insurance Company	<b>NAIC #</b> 10677
	<b>INSURER B:</b> American Economy Ins Co.	19690
	<b>INSURER C:</b> Evanston Insurance Company	35378
	<b>INSURER D:</b>	
	<b>INSURER E:</b>	

**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 INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY	X		CAP5136879	12/31/12	12/31/13	EACH OCCURRENCE \$ 1,000,000
	<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"/> PROJECT <input type="checkbox"/> LOC						DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY			CAA5136879	12/31/12	12/31/13	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS						BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	UMBRELLA LIAB	X		CAP5136879	12/31/12	12/31/13	EACH OCCURRENCE \$ 8,000,000
	<input type="checkbox"/> EXCESS LIAB <input checked="" type="checkbox"/> RETENTION \$ 0						AGGREGATE \$ 8,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	Y/N	N/A	01WC39443210	12/31/12	12/31/13	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	<input type="checkbox"/> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000
C	Professional Liab & Pollution Liab			12CPLC00224	12/14/12	12/14/13	Aggregate 2,000,000 Retention 50,000

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

RE: Geomorphology-Based Design and Permitting for the Suncook River and Floodplain  
 Certificate holder is additional insured for General Liability per conditions and limitations of policy form GA472MT 5-10 available upon request.

<b>CERTIFICATE HOLDER</b>	<b>CANCELLATION</b>
NHDES-1	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
New Hampshire Department of Environmental Services Steve Landry PO Box 95 Concorde, NH 03302-0095	AUTHORIZED REPRESENTATIVE 

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



Thomas S. Burack, Commissioner

January 3, 2013

APPROVED G & C

DATE 1/16/13  
 ITEM # 43

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 retroactively amend a sole source agreement (PO# 1016297) with Inter-Fluve, Inc., VC# 221334, to complete the *Geomorphology-Based Restoration Design and Permitting for the Suncook River and Floodplain* project by extending the completion date to September 30, 2013 from December 31, 2012, changing the Scope of Services to include additional Tasks, and increasing the contract award amount by \$72,851 from \$336,000 to \$408,851, effective upon Governor and Council approval though September 30, 2013. The original agreement was approved by G&C on June 22, 2011, Item # 96. 100% Other (Interagency Pass-Thru Federal) funds.

Funding is available in the account as follows.

	<u>FY 2013</u>	<u>FY2014</u>
03-44-44-440010-8663-102-500731	\$ 71,351	\$1,500
Dept. Environmental Services, Suncook River Geophysical and Design, Contracts for Program Services		

EXPLANATION

This agreement expired on December 31, 2012. It took several months for DES and Inter-Fluve, Inc. to negotiate the amendment language, additional scope of services and associated fees for the remaining tasks associated with this phase of the Suncook River Geophysical Assessment, Design, and Permitting project. Preparation of the design and construction plans for stabilization on the Suncook River to protect the Route 4 Bridge demand meticulous planning by all parties involved. Although every attempt was made to meet the end of year deadline for the existing contract amendment approval, we must now seek a retroactive approval for this essential work to continue. DES is requesting this sole source amendment in order to provide Inter-Fluve, Inc. additional time and funding to complete further design, engineering, and project management services. This amendment represents a greater than ten percent increase in the original grant award, and is categorized as a sole source amendment. Inter-Fluve Inc. and the assembled team currently working on this project represent the most qualified experts in this field. The original contract was awarded to Inter-Fluve, Inc. after a Request for Qualifications process as the most qualified firm. Attempting to re-bid the contract would unreasonably delay and disrupt the continuity of the project without any possibility of selecting a more qualified firm. A copy of the original Contract is included in Attachment A.

DES entered into a \$450,000 Memorandum of Agreement (MOA) with the Division of Homeland Security and Emergency Management to address ongoing river instability issues on the Suncook River in Epsom, NH. Under the MOA, DES entered into two contracts. This contract with Inter-Fluve, Inc. provides for the engineering and permitting portions of the overall project.

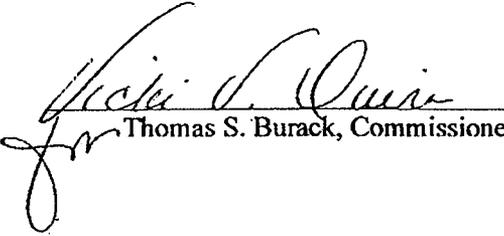
The proposed amendment is necessary for several reasons. One, Tropical Storm Irene and the associated high river flows delayed field data collection efforts on the Suncook River from the fall of 2011 to the summer of

Her Excellency, Governor Margaret Wood Hassan  
and The Honorable Council

Page 2

2012. Additionally, now that data has been collected, Inter-Fluve, Inc. engineers have concluded that a Letter of Map Revision, Conditional Letter of Map Revision, and structural analysis for a proposed valley-spanning sheet piling, designed to protect the Route 4 Bridge and other critical infrastructure, will be required.

In the event that federal or other funds become no longer available, general funds will not be requested to support this program. The agreement has been approved by the Office of the Attorney General as to form, execution, and content. We respectfully request your approval.

  
for Thomas S. Burack, Commissioner

**Agreement for Services with Inter-Fluve, Inc.**  
**Amendment No. 1**

This Agreement (hereinafter called the "Amendment") dated this 14<sup>th</sup> day of December, 2012, is by and between the State of New Hampshire, acting by and through its Department of Environmental Services (hereinafter referred to as the "State") and Inter-Fluve, Inc., acting by and through its Principal, Lon Mikkelson (hereinafter referred to as the "Contractor").

WHEREAS, pursuant to an Agreement (hereinafter called the "Agreement") approved by the Governor and Council on June 22, 2011, the Contractor agreed to perform certain services upon the terms and conditions specified in the Agreement and in consideration of payment by the State of certain sums as specified therein; and

WHEREAS, The Contractor and the State have agreed to amend the Agreement in certain respects;

NOW THEREFORE, in consideration of the foregoing, and the covenants and conditions contained in the Agreement and set forth herein, the parties hereto do hereby agree as follows:

1. Amendment and Modification of Agreement: The Agreement is hereby amended as follows:
  - (A) The Completion Date as set forth in sub-paragraph 1.7 of the agreement shall be changed from December 31, 2012 to September 30, 2013.
  - (B) The Grant Limitation as set forth in sub-paragraph 1.8 of the agreement shall be changed from \$336,000 to \$408,851.
  - (C) The Scope of Services as set forth in Exhibit A shall be amended as follows:

Task 8 & 10 - Sheet pile designs replace AECOM fees in Task 8 and 10 of existing Agreement  
Sheet Pile Designs - AECOM will prepare a Structural Engineering Drawing containing a plan view for 650 linear feet of sheeting and one cross section. In addition, AECOM will prepare one geotechnical construction specification for the sheeting. An AECOM geotechnical engineer will research and select the sheeting size based upon the installation criteria; prepare the material and installation specification; and perform QA/QC. The designs will be incorporated into the submitted 75% and final designs.

**Task 8 & 10 assumptions:**

- steel sheeting with a cap will be specified
- 50 year service life assumed
- channel scour depth based on modeling will be provided by Inter-Fluve
- approximate sheeting depths not to be significantly lower than EL 320
- sheeting will be driven, jetted or excavated and installed in place to clear obstructions
- submittals to Inter-Fluve Inc. will include one drawing sheet and one construction specification

**Task 17 - Alteration of Terrain Permit**

The Alteration of Terrain Permit was deemed unnecessary. Some effort was already expended to advance this permit, but no further work will be completed.

**Task 21. Permitting – FEMA Conditional Letter of Map Revision (CLOMR) Phase 1**

Contractor Initials

Date 12/18/12

AECOM will prepare and submit the CLOMR application to FEMA, including preparation and submittal of the following forms:

- Payment Information Form
- MT-2 Form 1: Overview and Concurrence Form
- MT-2 Form 2: Riverine Hydrology and Hydraulics Form
- MT-2 Form 3: Riverine Structures Form

AECOM will submit the USGS 2010 Suncook River Flood Study report for FEMA review as the existing conditions hydrologic and hydraulic description. AECOM will submit the proposed conditions model developed by Inter-Fluve for FEMA's review as the proposed conditions model. AECOM will also submit a textual description, to be provided by Inter-Fluve, which details all of the changes incorporated by Inter-Fluve into the USGS model to represent proposed conditions. The model will be truncated at the downstream and upstream limits of the project for purposes of FEMA's CLOMR application review. AECOM will delineate the floodplain and floodway boundaries manually for submittal to FEMA for their review as part of the CLOMR application.

Task 21 assumptions:

- CLOMR application submittal will not include a Duplicate Effective or Corrected Effective model
- Levees, berms, and floodwalls do not exist within the revision area.
- Inter-Fluve will provide AECOM with proposed conditions model for submittal to FEMA
- Inter-Fluve will provide AECOM with a textual description of all changes incorporated into the USGS model.
- There are no existing violations of the NFIP regulations present in the project area.
- Inter-Fluve will certify the submittal by signing the application form as a Registered Professional Engineer (PE).
- Inter-Fluve/DES will assist in obtaining community concurrence signatures on the application form.
- The attached estimate assumes \$500 for notification to any property owners affected by any increase in Base Flood Elevation, if necessary. If notification is necessary, it is assumed that parcel data are available from the affected communities in GIS format to facilitate parcel identification and notification.

Contractor Initials

Date 12/18/12

- If there are increases in the BFE due to the project, then Inter-Fluve PE will certify that proposed increases in BFE will not impact any structures and will provide documentation that alternatives were evaluated that would not cause increases in the BFE.
- Inter-Fluve/DES will assist in obtaining as-built drawings of cross drainage structures (bridge, culverts) within the limits of the map revision.

**Task 22. Permitting – FEMA CLOMR Phase 2 Flood Study**

AECOM will respond to one additional data request from FEMA regarding the CLOMR application. AECOM will prepare a Duplicate Effective (DE) model, corrected Duplicate Effective Conditions model, an Existing Conditions model, and a Proposed Conditions model for the response. AECOM will delineate the floodplain and floodway boundaries manually for submittal to FEMA for their review. AECOM will prepare a textual description of the hydraulic analysis and project summary.

**Task 22 assumptions:**

- FEMA will accept effective FIS hydrologic analysis or hydrologic analysis from 2010 USGS Report
- It is assumed that additional surveyed cross sections will not be required
- Levee, berm, and floodwall do not exist within the revision area; Inter-Fluve will provide relevant plans and sections of the proposed work or alternatively modify the existing conditions model cross sections (to be provided by AECOM) to reflect the proposed work. In addition, FEMA agrees to an upstream tie-in location of just upstream of Dover Road.
- There are no existing violations of the NFIP regulations present in the project area

**Task 23. Permitting – FEMA CLOMR Phase 2: Coordinate CLOMR Application**

AECOM will coordinate the CLOMR Application and submit the necessary documents to FEMA.

**Task 24. Bid Process Support**

Inter-Fluve will provide support through the public bidding process.

- 24.1. Review bid package – Inter-Fluve will provide designs and specifications to NH DES for inclusion in the bid package and will review the bid package, developed by NH DES, once complete prior to being sent to contractors.
- 24.2. Pre-bid meeting – Following dispersal of bidding documents, Inter-Fluve will attend a pre-bid meeting for interested contractors. Notice of the pre-bid meeting will be included in the bid package.
- 24.3. Respond to Requests for Information – Inter-Fluve will respond to Requests for Information (RFIs) submitted by potential bidders during the solicitation period. Responses will be prepared in writing and submitted electronically to NH DES for distribution to all plan holders.

Contractor Initials

Date 12/18/12

- 24.4. Prepare Addenda – Inter-Fluve will prepare addenda if required during the solicitation period if determined necessary in conjunction with NH DES. Addenda will be prepared in writing and submitted electronically to NH DES for distribution to all plan holders.
- 24.5. Contractor selection – Inter-Fluve will review the submitted bids and assist the partners in contractor selection

Task 24 Assumptions:

- NH DES will be responsible for printing and advertising the bid documents as necessary

Task 24 Deliverables:

- Review of bid package using track changes, or other digital format
- Attendance at pre-bid site visit
- Written responses to questions from bidders
- Amendments to bid package

Task 25. Construction Management Services

Inter-Fluve will provide services to facilitate the construction process. Most of the review of contractor submittals and all of the construction oversight tasks will be included under a separate contract:

- 25.1. Pre-Construction Meeting – Inter-Fluve will attend a pre-construction meeting in Epsom, NH to review schedule, plans and specifications with the contractor.
- 25.2. Prepare necessary addenda through the construction process as necessary for issue by the project owner. This includes preparation of Field Directives and Owner/Engineer requested changes and responses to Requests for Information by the contractor.
- 25.3. Review of Contractor Submittals – Inter-Fluve will communicate with the partners and contractor, review contractor submittals, review schedule, and establish approved materials (shop drawings, gradations, material specs, etc.) and substitutions as necessary. The contractor will prepare Requests for Information and Change Order Requests, to be reviewed by Inter-Fluve and NH DES. Inter-Fluve will provide printed and electronic forms for use by the partners and contractor in communication of changes, potential change orders and clarifications. (This task will be partially completed under this contract and partially completed under a separate contract)

Task 25 Assumptions:

- Inter-Fluve assumes that the contractor will be responsible for all construction staking, surveys, measurements, or elevation checks as necessary to ensure accuracy with the design plans

Task 25 Deliverables:

- Attendance at pre-construction meeting
- Digital copy of any necessary addenda submitted to NH DES and the contractor

Contractor Initials

Date 12/18/12

- (D) The Contract Price and Method of payment as set forth in Exhibit B shall be amended to eliminate further payments to Task 17, allowing the remaining amount to be reallocated to new Task 21:

Task	Description	Expended	Remaining (to be reallocated)
17	Alteration of Terrain Permit Application	\$7,512	\$13,588

- (E) The Contract Price and Method of payment as set forth in Exhibit B shall be amended to include payment for the additional tasks payable upon completion and review of deliverables by DES as follows:

Task	Description	Reallocated funding	New funding
21	Conditional Letter of Map Revision - Phase I	\$13,588	\$7,660
22	Conditional Letter of Map Revision - Phase II	\$0	\$34,169
23	Submit Conditional Letter of Map Revision	\$0	\$10,960
24	Construction bid document preparation	\$0	\$11,088
25	Pre-construction meeting and contractor selection	\$0	\$8,974
Totals		\$13,588	\$72,851

2. **Effective Date of Amendment:** This Amendment shall take effect upon the date of approval of this Amendment by the Governor and Executive Council of the State of New Hampshire.
3. **Continuance of Agreement:** Except as specifically amended and modified by the terms and conditions of this Amendment, the Agreement, and the obligations of the parties thereunder, shall remain in full force and effect in accordance with the terms and conditions set forth therein.

Contractor Initials

Date 12/18/12

IN WITNESS WHEREOF, the parties have hereunto set their hands as of the day and year first above written.

Inter-Fluve, Inc.

By [Signature]  
Principal, Lon Mikkelson

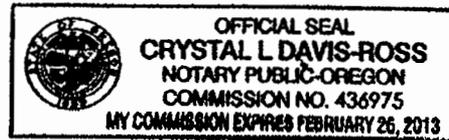
Oregon  
STATE OF ~~NEW HAMPSHIRE~~  
COUNTY OF Hood River

On this the 18 day of December, 2012, before the undersigned officer, personally appeared Lon Mikkelson, Principal who acknowledged himself to be the person who executed the foregoing instrument for the purpose therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

[Signature]  
enter name notary public/JOP, select title

My Commission Expires: date  
February 26, 2013



THE STATE OF NEW HAMPSHIRE  
Department of Environmental Services

By [Signature]  
for Thomas S. Burack, Commissioner

Approved by Attorney General this 27 day of December, 2012

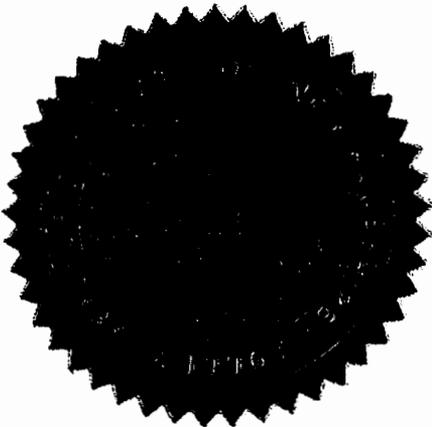
OFFICE OF ATTORNEY GENERAL  
By [Signature] Evan McCallister, AAG

By [Signature]  
Contractor Initials [Signature]  
Date 12/18/12

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 Inter-Fluve, Inc. a(n) Montana corporation, is authorized to transact business in New Hampshire and qualified on May 9, 2011. 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 20<sup>th</sup> day of December, A.D. 2012

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

William M. Gardner  
Secretary of State



Applied River and Wetland Restoration  
Founded 1983

December 19, 2012

To: Whom it may concern

Re: Corporate Resolution

I, David Reeves, hereby certify that I am the duly elected Secretary/Treasurer of Inter-Fluve, Inc. I hereby certify the following is a true copy of a vote taken at a meeting of the Board of Directors, duly called and held on December 2001 that Lon Mikkelsen and Greg Koonce; Principals of Inter-Fluve, inc. are authorized to execute contracts and bonds in the name and behalf of Inter-Fluve, Inc. and such execution of any contract or obligation in Inter-Fluve, Inc.'s name on its behalf by such Principals under seal of the company, shall be valid and binding upon this company.

I hereby certify that said vote has not been amended or repealed, and remains in full force and effect as of December 19, 2012, and that Lon Mikkelsen and Greg Koonce remain the duly elected Principals of this corporation.

Dated: December 19, 2012

Attest: David Reeves

David Reeves





# CERTIFICATE OF LIABILITY INSURANCE

INFLU-1

OP ID: DT

DATE (MM/DD/YYYY)  
12/19/12

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).

<b>PRODUCER</b> First West, Inc. PO Box 1800 1905 Stadium Dr Bozeman, MT 59715 Richard B. Deming, CIC	406-587-5111	<b>CONTACT NAME:</b> Donna Tucek <b>PHONE (A/C, No, Ext):</b> 406-922-6048 <b>E-MAIL ADDRESS:</b> dtucek@1stwestinsurance.com	<b>FAX (A/C, No):</b> 406-587-9162
	406-587-9162		
<b>INSURED</b> Inter-Fluve, Inc. PO Box 1892 Bozeman, MT 59771-1892	<b>INSURER(S) AFFORDING COVERAGE</b>		<b>NAIC #</b>
	<b>INSURER A:</b> Cincinnati Insurance Company		10677
	<b>INSURER B:</b> American Economy Ins Co.		19690
	<b>INSURER C:</b> Evanston Insurance Company		35378
	<b>INSURER D:</b>		
	<b>INSURER E:</b>		
<b>INSURER F:</b>			

**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 INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR	X	CAP5136879	12/31/12	12/31/13	EACH OCCURRENCE \$ 1,000,000
	<input type="checkbox"/> GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000
						MED EXP (Any one person) \$ 5,000
						PERSONAL & ADV INJURY \$ 1,000,000
A	<input type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		CAA5136879	12/31/12	12/31/13	GENERAL AGGREGATE \$ 2,000,000
						PRODUCTS - COMP/OP AGG \$ 2,000,000
						COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
						BODILY INJURY (Per person) \$
A	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 0		CAP5136879	12/31/12	12/31/13	BODILY INJURY (Per accident) \$
						PROPERTY DAMAGE (Per accident) \$
						EACH OCCURRENCE \$ 8,000,000
						AGGREGATE \$ 8,000,000
B	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below <input type="checkbox"/> Y <input type="checkbox"/> N	N/A	01WC39443210	12/31/12	12/31/13	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER
						E.L. EACH ACCIDENT \$ 500,000
						E.L. DISEASE - EA EMPLOYEE \$ 500,000
						E.L. DISEASE - POLICY LIMIT \$ 500,000
C	<b>Professional Liab &amp; Pollution Liab</b>		12CPLC00224	12/14/12	12/14/13	Aggregate 2,000,000
						Retention 50,000

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

Certificate holder is additional insured for General Liability per conditions and limitations of policy form GA472MT 5-10 available upon request.

**CERTIFICATE HOLDER****CANCELLATION**

State of New Hampshire  
 Dept of Environmental Services  
 PO Box 95  
 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

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The State of New Hampshire  
DEPARTMENT OF ENVIRONMENTAL SERVICES

Jeff Marcant



Thomas S. Burack, Commissioner

June 9, 2011

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

APPROVED G & C

DATE 6/22/11  
ITEM # 96

REQUESTED ACTION

Authorize the Department of Environmental Services to enter into an agreement with Inter-Fluve, Inc., Madison, WI (VC #221334), in the amount of \$336,000 to complete the *Geomorphology-Based Restoration Design and Permitting for the Suncook River and Floodplain* project effective upon Governor and Council approval through December 31, 2012. 100% Other (Interagency Pass-Thru Federal) funds.

Funding is available in the account as follows:

03-44-44-440010-8663-102-500731 FY 2011  
\$336,000  
Dept Environmental Services, Suncook River Geophysical and Design, Contracts for Program Services

EXPLANATION

DES entered into a \$450,000 Memorandum of Agreement (MOA) with the Division of Homeland Security and Emergency Management to address ongoing river instability issues at the Suncook River in Epsom. Under the MOA, DES will enter into two contracts. This contract involves the engineering and permitting portions of the overall project. A separate contract, to be managed by the NH Geological Survey, will provide for the collection of geophysical data. The outcomes of the geophysical survey will provide subsurface geological data necessary to inform the engineering design and permitting. The geophysical data collection and engineering/permitting contracts will run concurrently and be coordinated by DES.

On May 14-15, 2006, the Suncook River experienced an avulsion, by which about one mile of river channel changed location by dissecting a former wetland and gravel pit. The avulsion has resulted in major effects on the Suncook, including upstream migrating headcuts and considerable erosion on the new Suncook River mainstem and contributing tributaries. Upstream migrating headcuts pose threats to public infrastructure, including the Route 4 bridge and Black Hall Road bridge in Epsom. Thus, the potential continues to exist for safety risks to public bridge infrastructure and residents on the Suncook River in the vicinity of the avulsion.

Grade control structures are designed to arrest further headcutting and have been proposed to be installed in the Suncook River and Leighton Brook where site conditions are favorable for installation. A headcut has progressed upstream and is now located 575 feet downstream of the state-owned Route 4 bridge just east of the Epsom traffic circle. A second headcut has progressed upstream on Leighton

Brook, and is located 160 feet downstream of the recently replaced Black Hall Road culvert in Epsom. If these headcuts continue to progress upstream and reach the bridge crossings, the potential for the bridge infrastructure to become compromised increases greatly, posing a safety risk to local citizens and the traveling public. In the case of the Route 4 bridge, any failure or bridge closing will result in a 6-mile detour and \$1.5 million would be needed to replace the bridge that carries 18,000 vehicles per day.

The primary purpose of this project is to generate final engineering designs and permitting for grade controls on the main stem of the Suncook River downstream of the Route 4 Bridge, and grade controls on Leighton Brook downstream of the Black Hall Road crossing. Additional tasks to be carried out with this project will include bank restoration, and an alternatives analysis for floodplain access and attenuation of floodwaters in the vicinity of the avulsion.

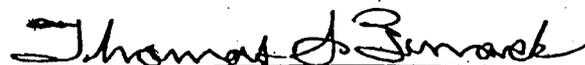
The Department of Environmental Services issued a Request For Qualifications (RFQ) for the *Geomorphology-Based Restoration Design and Permitting for the Suncook River and Floodplain* project in December 2010. Two Statement of Qualifications packages were received. The Statement of Qualifications packages were ranked based on the criteria included in the RFQ: specialized experience of the project team, project personnel, and project approach.

Each reviewer used a standardized scoring sheet, which was based on the selection criteria listed in Section V of the Request for Qualifications. All of the scores recorded for each section of selection criteria for each firm were summed to calculate a cumulative score for each qualification package, which are shown in Attachment A.

Based upon the outcomes of ranking the qualification packages, both firms were invited to attend an interview with DES staff on March 10, 2011, where each project team presented their scope of work in greater detail and participated in a structured interview format. Following the interviews, five reference checks were performed for each firm by DES personnel.

The DES review and interview team met on March 30, 2011, and made the decision to enter into a contract for services with Inter-Fluve, Inc. based on results of the interview, quality of the qualification package submitted, and the outcome of the reference checks. Inter-Fluve, Inc. is a firm completely dedicated to geomorphology-based river restoration solutions and they have demonstrated their expertise working on large river systems similar to the Suncook River across the country. In addition, the response to the reference checks for Inter-Fluve, Inc. was extremely convincing and built confidence with the interview team that a contract should be executed with Inter-Fluve.

DES negotiated a scope of services and payment schedule with the highest qualified firm. The total cost associated with the contract between DES and Inter-Fluve, Inc. is \$336,000. The contract 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

Attachment A: Interview Summary Scoring Tables for Geomorphology-based Restoration Design and Permitting for the Suncook River and Floodplain Project (Page 2 of 2)

Interview Team Members

Name	Title	Years of Experience
Phil Trowbridge, P.E.	Water Quality Standards Program Manager, Watershed Management Bureau, NHDES	15
Steve Couture	Rivers Management and Protection Program Coordinator, NHDES	9
Rick Chormann	State Geologist, NHDES Geological Survey	26
Shane Csiki	Fluvial Geomorphologist, NHDES Geological Survey	9
Ridge Mauck, P.E.	Supervisor, Alteration of Terrain Bureau, NHDES	28
Steve Landry	Merrimack Watershed Supervisor, Watershed Assistance Section, NHDES	19

**Attachment A: Interview Summary Scoring Tables for Geomorphology-based Restoration Design and Permitting for the Suncook River and Floodplain Project (Page 1 of 2)**

Firm	Category	Reviewers and Individual Scores						Totals
		Reviewer #1	Reviewer #2	Reviewer #3	Reviewer #4	Reviewer #5	Reviewer #6	
Inter-Fluve Inc.	1) Experience in stream restoration field	15	13	13	12	14	14	81
	2) Geomorph reach determination	5	5	5	5	5	5	30
	3) Geological factor influence on geomorphology	4	5	5	5	5	5	29
	4) Experience with environmental permitting	4	5	5	5	4	5	28
	5) Experience with bid documents	5	5	5	5	3	5	28
	6) Experience with projects similar in scope	5	4	5	5	5	4	28
	7) Specialized training of project team	15	12	13	13.5	12	14	79.5
	8) Public involvement and communications	18	20	18	20	18	18	112
	9) Geophysical data incorporation	5	5	4	5	5	3	27
	10) Infrastructure risk assessment from headcuts	5	5	4.5	5	4	4	27.5
	11) Design approach for grade controls	13	12	12	13	13	13	76
	12) Scheduling for 2011	2	2	2	1.5	2	2	11.5
<b>Total Score</b>							<b>557.5</b>	

Firm	Interview Question	Reviewers and Individual Scores						Totals
		Reviewer #1	Reviewer #2	Reviewer #3	Reviewer #4	Reviewer #5	Reviewer #6	
Vanesse Hangen Brustlin	1) Experience in stream restoration field	12	15	12	10	12	13	74
	2) Geomorph reach determination	2	5	3	4	4	5	23
	3) Geological factor influence on geomorphology	4	5	4	4	5	5	27
	4) Experience with environmental permitting	5	4	5	5	3	5	27
	5) Experience with bid documents	5	5	4	5	5	5	29
	6) Experience with projects similar in scope	5	4	3	1	1	5	19
	7) Specialized training of project team	15	12	13	13	14	14	81
	8) Public involvement and communications	18	20	18	20	18	19	113
	9) Geophysical data incorporation	5	3	4.5	4	4	3	23.5
	10) Infrastructure risk assessment from headcuts	5	5	4.5	5	4	3	26.5
	11) Design approach for grade controls	11	11	9.5	7	13	11	62.5
	12) Scheduling for 2011	2	2	2	2	2	2	12
<b>Total Score</b>							<b>517.5</b>	



# CERTIFICATE OF LIABILITY INSURANCE

OP ID: MB

DATE (MM/DD/YYYY)  
05/06/11

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 First West, Inc. PO Box 1800 1905 Stadium Dr Bozeman, MT 59715	406-587-5111	CONTACT NAME: Meridee Becker	
	406-587-9162	PHONE (A/C, No, Ext): 406-922-6021 FAX (A/C, No): 406-587-9162	
		E-MAIL ADDRESS: meridee@fstwest.com	
		PRODUCER CUSTOMER ID #: INFLU-1	
INSURED Inter-Fluve, Inc. PO Box 1892 Bozeman, MT 59771-1892	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A: Cincinnati Insurance Company		10677
	INSURER B: American Economy Ins Co.		19690
	INSURER C: Evanston Insurance Company		35378
	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	ADDITIONAL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> GENERAL LIABILITY	X	CAP5136879	12/31/10	12/31/11	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR					MED EXP (Any one person) \$ 5,000
	GENL AGGREGATE LIMIT APPLIES PER:					PERSONAL & ADV INJURY \$ 1,000,000
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC					GENERAL AGGREGATE \$ 2,000,000
						PRODUCTS - COMPI/OP AGG \$ 2,000,000
						\$
A	AUTOMOBILE LIABILITY					COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input type="checkbox"/> ANY AUTO					BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS					BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> SCHEDULED AUTOS		CAA5136879	12/31/10	12/31/11	PROPERTY DAMAGE (Per accident) \$
A	<input checked="" type="checkbox"/> HIRED AUTOS		CAA5136879	12/31/10	12/31/11	\$
A	<input checked="" type="checkbox"/> NON-OWNED AUTOS		CAA5136879	12/31/10	12/31/11	\$
						\$
A	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR					EACH OCCURRENCE \$ 8,000,000
	<input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE		CAP5136879	12/31/10	12/31/11	AGGREGATE \$ 8,000,000
	<input type="checkbox"/> DEDUCTIBLE					\$
	<input type="checkbox"/> RETENTION \$					\$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY					<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y/N	02WC55716840	12/31/10	12/31/11	E.L. EACH ACCIDENT \$ 500,000
	If yes, describe under DESCRIPTION OF OPERATIONS below	N/A				E.L. DISEASE - EA EMPLOYEE \$ 500,000
						E.L. DISEASE - POLICY LIMIT \$ 500,000
C	Professional Liab		10CPLC00224	12/14/10	12/14/11	Aggregate 2,000,000
	& Pollution Liab					Ded 50,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)  
Certificate holder is additional insured for General Liability per conditions and limitations of policy form GA472 10-01 available upon request.

<b>CERTIFICATE HOLDER</b>  State of New Hampshire Dept of Environmental Services PO Box 95 Concord, NH 03302-0095	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

© 1988-2009 ACORD CORPORATION. All rights reserved.



Applied River and Wetland Restoration  
Founded 1983

June 6, 2011

To: Whom it may concern

Re: Corporate Resolution

I, David Reeves, hereby certify that I am the duly elected Secretary/Treasurer of Inter-Fluve, Inc. I hereby certify the following is a true copy of a vote taken at a meeting of the Board of Directors, duly called and held on December 2001 that Lon Mikkelsen and Greg Koonce; Principals of Inter-Fluve, inc. are authorized to execute contracts and bonds in the name and behalf of Inter-Fluve, Inc. and such execution of any contract or obligation in Inter-Fluve, Inc.'s name on its behalf by such Principals under seal of the company, shall be valid and binding upon this company.

I hereby certify that said vote has not been amended or repealed, and remains in full force and effect as of June 6, 2011, and that Lon Mikkelsen and Greg Koonce remain the duly elected Principals of this corporation.

Dated: June 6, 2011

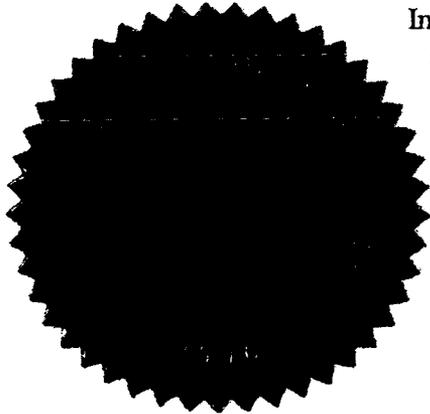
Attest: \_\_\_\_\_

David Reeves

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 Inter-Fluve, Inc. , a(n) Montana corporation, is authorized to transact business in New Hampshire and qualified on May 9, 2011. I further certify that all fees 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 7<sup>th</sup> day of June, A.D. 2011

A handwritten signature in cursive script, appearing to read "William Gardner", written in black ink.

William M. Gardner  
Secretary of State

**EXHIBIT C**  
**SPECIAL PROVISIONS**

No special provisions apply.

Initials Colk  
Date 11/2/11

**EXHIBIT B**

**CONTRACT PRICE AND METHOD OF PAYMENT**

All services shall be performed to the satisfaction of DES before payment is made. Payments shall be made on the following schedule upon receipt and approval of stated deliverables and upon receipt of an associated invoice.

1. Upon completion of Task 1 and receipt of associated Deliverables	\$7,000
2. Upon completion of Task 2 and receipt of associated Deliverables	\$10,000
3. Upon completion of Task 3 and receipt of associated Deliverables	\$34,500
4. Upon completion of Task 4 and receipt of associated Deliverables	\$37,500
5. Upon completion of Task 5 and receipt of associated Deliverables	\$5,500
6. Upon completion of Task 6 and receipt of associated Deliverables	\$3,000
7. Upon completion of Task 7 and receipt of associated Deliverables	\$4,500
8. Upon completion of Task 8 and receipt of associated Deliverables	\$31,500
9. Upon completion of Task 9 and receipt of associated Deliverables	\$30,000
10. Upon completion of Task 10 and receipt of associated Deliverables	\$29,000
11. Upon completion of Task 11 and receipt of associated Deliverables	\$33,500
12. Upon completion of Task 12 and receipt of associated Deliverables	\$20,000
13. Upon completion of Task 13 and receipt of associated Deliverables	\$9,100
14. Upon completion of Task 14 and receipt of associated Deliverables	\$24,200
15. Upon completion of Task 15 and receipt of associated Deliverables	\$8,300
16. Upon completion of Task 16 and receipt of associated Deliverables	\$14,300
17. Upon completion of Task 17 and receipt of associated Deliverables	\$21,100
18. Upon completion of Task 18 and receipt of associated Deliverables	\$1,800
19. Upon completion of Task 19 and receipt of associated Deliverables	\$6,200
20. Upon completion of Task 20 and receipt of associated Deliverables	<u>\$5,000</u>
<b>Total</b>	<b>\$336,000</b>

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Date 4/2/11

17. *Prepare and submit NHDES Alteration of Terrain Permit Application* – Inter-Fluve will prepare and submit the NHDES Alteration of Terrain Permit Application relative to design and construction for the Suncook River project area. This includes responding to requests for additional information required to satisfy permit review requirements. The level of effort for the preparation of this permit is based on best engineering judgment and may vary upon completion of the designs. If the designs require a much larger area of impacted terrain, the additional level of effort for completing this permit can be added via contract addendum. This scope includes up to one round of comments and revisions from the regulatory agencies.

Deliverables: Copies of the approved Alteration of Terrain Permit and meeting notes.

18. *Convene abutter and private land owner meeting* - Following the project kickoff meeting and prior to any fieldwork activities, Inter-Fluve will facilitate a meeting of landowners abutting the project site, including all areas in which field work will be conducted. The goal of this meeting will be to inform and educate the abutters about the project and to ask for permission from those that have not already granted it, to gain access to their land to conduct the surveys. Landowner permission for fieldwork and as required for permitting will be requested, but cannot be guaranteed. Project Partners will take the lead at this and all public meetings and Inter-Fluve and its team will provide technical assistance through preparation and delivery of PowerPoint presentations and answering of technical questions relating to the studies and designs involved with this scope of work. Project Partners will also schedule and organize this and other public meetings including selecting meeting locations, notifying landowners and stakeholders, publicizing the meetings as necessary, and producing meeting notes.

Deliverables: Meeting summary document and signed, property access permission forms from abutters in the project area

19. *Convene Public Meeting #1* - Inter-Fluve will provide technical assistance during a public meeting in Epsom. A power point presentation regarding proposed work will be developed and submitted for partner edits 1 week prior to the scheduled outreach meeting.

Deliverables: Meeting summary document and copy of power point presentation

20. *Convene Public Meeting #2* - Inter-Fluve will provide technical assistance during a second public meeting in Epsom. A power point presentation and posters detailing designs will be developed and submitted for partner edits 1 week prior to the scheduled outreach meeting

Deliverables: Meeting summary document and copies of power point presentation and other outreach materials

DES Wetlands Bureau, DES Alteration of Terrain (AoT) Bureau, DES Shoreland Section, NH Fish and Game Department (NHFG), U.S. Army Corps of Engineers (Corps), U.S. Environmental Protection Agency (EPA), and the U.S. Fish and Wildlife Service (USFWS). The intent of the meeting will be to present and discuss the project, identify any areas of special concern, and verify exemptions from several environmental permits

Deliverables: Meeting summary document and outline for permitting requirements relative to construction of grade control and floodplain access for the Suncook River and Leighton Brook.

14. *Prepare and submit NHDES Standard Dredge and Fill Permit Application* – Inter-Fluve will prepare and submit the NHDES Standard Dredge and Fill Permit Application relative to design and construction for the Suncook River project area. This includes responding to requests for additional information required to satisfy permit review requirements. This permit application will be submitted as 'restoration' and will not require the submittal of impact fees or compensatory mitigation. This scope includes up to one round of comments and revisions from the regulatory agencies.

Deliverables: Copies of the approved NHDES Standard Dredge and Fill Permit Application and meeting notes.

15. *Prepare and submit NHDES Shoreland Permit Application* – Inter-Fluve will prepare and submit the NHDES Shoreland Permit Application relative to design and construction for the Suncook River project area. This includes responding to requests for additional information required to satisfy permit review requirements. This permit application will be submitted as 'restoration' and will not require the submittal of impact fees or compensatory mitigation. This scope includes up to one round of comments and revisions from the regulatory agencies.

Deliverables: Copies of the approved NHDES Shoreland Permit Application and meeting notes.

16. *Prepare and submit Stormwater Pollution Prevention Plan (SWPPP)* – Inter-Fluve will prepare and submit a Stormwater Pollution Prevention Plan for use in obtaining future coverage under the EPA Construction General Permit. Screening for the occurrence of rare, threatened, and endangered plant and animal species and natural communities will be completed using the NH Natural Heritage Bureau DataCheck Tool for the affected landowners that have given permission. Additional special studies needed to document or address potential impacts to protected species or natural communities will not be completed, but can be added via contract addendum. Additional special historical resources studies, including archaeological surveys, are not included in this scope of work. This scope includes the preparation and submittal of the SWPPP, but Inter-Fluve is not responsible for the payment of fees associated with the SWPPP. This scope includes up to one round of comments and revisions from the regulatory agencies.

Deliverables: Copies of the approved Stormwater Pollution Prevention Plan and pre-application meeting notes.

results that support the 75% designs. Appendices included as appropriate. This technical memorandum will include estimated quantities and an *Engineer's Opinion of Probable Cost* for construction. Cost estimates will include materials, equipment, and construction supervision. Plans will be presented in 11 inch x 17 inch format as a PDF.

11. *Generate final design submittal (grade control and Leighton Brook)* - Following the 75% design review meeting and completion of regulatory permitting, Inter-Fluve will submit plans and specifications complete to the 90% level for review and comment. Upon receipt of final comments, Inter-Fluve will develop 100% final construction ready plans and specifications suitable for inclusion in the final bid package and stamped by a professional engineer licensed in the State of New Hampshire. The intent is that these plans will be used for competitive bidding purposes with oversight by qualified personnel. The 90% and 100% submittals will include the following:
  - a. *Plans* based on the previous submittal and comments received. Plans will be 11 inch x 17 inch as a PDF copy with a Word copy of the Specifications and Report.
  - b. *Engineer's Opinion of Probable Cost*
  - c. *Bid Item List* with quantities
  - d. *Special Technical Specifications*
  - e. *Final Report* - An updated Design Technical Memorandum will be completed that summarizes the contract tasks, design process and alternatives analysis considered in developing the restoration design and construction sequencing. Plans, specs, and Engineers Opinion of Probable Cost will be included

**Deliverables:** Three sets of final plans stamped by a professional engineer licensed in the State of New Hampshire. Two copies of full sized plans sheets will be provided in hard copy. Final design plans will also be presented on 8 ½ inch x 11 inch sheets in accordance with US Army Corps of Engineer submittal requirements. Final Report, Engineer's Opinion of Probable Cost, Bid Item List, Special Technical Specifications.

12. *Generate floodplain access alternatives* - Following data collection and hydraulic analysis, Inter-Fluve will create two conceptual level design alternatives for floodplain access grading designs that will be included in the 30% design submittal. GEO-RAS inundation mapping will be completed for the preferred design. The preferred floodplain access alternative will be added to the preliminary and final designs. This will likely entail 2-3 additional sheets in the planset.

**Deliverables:** Technical memorandum presenting both conceptual level design alternatives for floodplain access. GEO-RAS mapping and modeling results. Inter-Fluve will schedule and facilitate a design progress meeting for the 30%, 75% and 90% submittal milestones. These meetings will allow Inter-Fluve to review specific project plan details with the project partners and solicit feedback. Meetings will update the group on the status of work, problems encountered, and planned next steps.

13. *Coordinate and attend pre-application meeting* – Inter-Fluve will coordinate and attend one pre-application meeting with staff from the pertinent state and federal regulatory agencies, including:

- c. 2D Hydraulic model - Inter-Fluve will complete a 2D hydraulic model for the areas around the grade control installations downstream of the Rte 4 Bridge on the Suncook River. This model will be run for both existing and proposed conditions.
- d. *Proposed conditions (floodplain access)* - A three-dimensional AutoCAD-Civil 3D surface will be developed for the preferred floodplain access alternative upstream of the avulsion site. These data will be incorporated into GEO-RAS, along with the final design CAD data for the grade controls and Leighton Brook. Geomorphic data and hydraulic data will be used to develop a stable design.

Deliverables: All data, models, and calculations relative to hydrology and hydraulics.

- 9. *Prepare progress submittal on preliminary design (30%)* – Inter-Fluve will prepare a progress submittal for grade control and Leighton Brook at the 30% completion level. The full extent of final design tasks will be dictated by the need for bank stabilization, sediment management requirements, fisheries time of year restrictions, regulatory requirements for dewatering and diversion, permitting, and landowner requirements for access, staging and traffic.

Deliverables: Design progress meeting, plan sheets, and a technical memorandum. The brief technical memorandum will be prepared describing the engineering analysis and results that support the 30% designs. Appendices included as appropriate. This technical memorandum will include estimated quantities and an *Engineer's Opinion of Probable Cost* for construction. Cost estimates will include materials, equipment, and construction supervision.

- 10. *Prepare progress submittal on preliminary design (75%)* - Inter-Fluve will prepare a progress submittal at the 75% completion level. The 75% submittal will be appropriate for initial permitting. This progress submittal will include the following plan sheet layout:

- a. Cover (1 sheet)
- b. General notes (2 sheets)
- c. Existing conditions, access and staging, benchmarks, soil boring locations (3 sheets)
- d. Proposed conditions plan view and profile, project disturbance limits, grading, property boundaries and right of way, location of utilities, drainage facilities, and associated appurtenances, designated or designed wetlands, and property lines and related information compiled from existing maps and records (4 sheets)
- e. Sequencing (as proposed conditions – 2 sheets)
- f. Quantitative cross sections showing existing and proposed (3 sheets)
- g. Typical cross-sections for proposed river conditions (2 sheets)
- h. Typical details (3 sheets)
- i. Stabilized construction entrance, access and staging details (1 sheet)
- j. Suggested water and erosion/sediment control details (1 sheet)
- k. Erosion control and permitting boundaries, resource impact table (1 sheet)
- l. Planting plan (1 sheet)

Deliverables: Design progress meeting, plan sheets and a technical memorandum. The brief technical memorandum will be prepared describing the engineering analysis and

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Date 6/2/11

6. *Develop and evaluate construction logistics* – Construction logistics will be further evaluated prior to and again following approved 30% designs, including logical construction access routes, traffic management, staging areas, disposal sites for excavated material, and source stone material for construction as needed. Landowners recommended for construction access will be identified. Construction easement agreements and documentation is the responsibility of others.

Deliverables: Design recommendations for construction staging and access, and for protecting existing infrastructure. Utility locations and design recommendations will be included in the Technical Memorandum and incorporated into the design plans.

7. *Perform fluvial geomorphic analysis* – Existing data and updated survey information will be used to correlate plan, profile, channel type, slope, substrate, bank soils, surficial geologic controls, valley characteristics, and proposed vegetation. These data will be used in conjunction with hydrologic and hydraulic data to develop a long-term stable design.

Deliverables: All data, models, and calculations relative to completing the fluvial geomorphic analysis.

8. *Complete hydrology and hydraulics* – Inter-Fluve will verify hydraulics under the final proposed conditions, including:

a. *Hydrology* – Inter-Fluve will collect available and relevant hydrologic data from local, state and federal sources, including that used for the USGS HEC-RAS model. Review the most recent FEMA hydrologic information for the Suncook River (URS 2008, USGS 2009). Basic hydrologic data review will include review of previously completed flow estimates for various return interval floods (low flow, 1.5, 10 and 100-year) and modifications using gauge transfer, regional regression and statistical analysis methods.

b. *1D Hydraulic model - Existing conditions* - Collect available and relevant hydraulic model data from local, state and federal sources, including the USGS HEC-RAS model. Update a hydraulic model (GEO-RAS or HEC-RAS) of existing conditions including recently surveyed cross-sections in areas prone to lateral and vertical change. The existing conditions model will cover the entire project area, and will include sufficient reach length upstream of Route 4, and downstream of the confluence with the original main stem channel to encompass areas hydraulically impacted by the project. The model will be run for a series of flow events (base, 1.5, 10, 100, and 500-year return interval flow). Boundary conditions will be established for the project reach. *Proposed conditions (grade control and Leighton Brook)* - Inter-Fluve will create a hydraulic model of the site under the proposed grade controls and Leighton Brook restoration design. HEC-RAS model runs during final design iterations will be used to quantify the effect of the treatments on flooding during the 100 and 500 year flood events. Sediment transport and shear stress analysis will be used to characterize thresholds and to size bed and bank treatments. Modeling will assess potential for scour impacts on upstream and downstream infrastructure and utilities. (e.g., culverts, berms, bridges and roads).

Leighton Brook, bank stabilization adjacent to the installed grade controls, and floodplain reconnection on the Suncook River between the Rte 4 Bridge and the avulsion site. Survey necessary for a 2D hydraulic model in the vicinity of the grade control installations near the Rte 4 bridge will also be completed. Inter-Fluve will use survey data collected by the USGS to complete their hydraulic model (USGS, 2009) where possible, but will collect additional cross-sectional survey data as necessary for the completion of an updated 1D hydraulic model for the Suncook River and Leighton Brook within the study area. This survey will extend from upstream of the Route 4 Bridge on the mainstem of the Suncook River to approximately 0.4 miles downstream of its confluence with the abandoned main channel so as to capture the influence of Round Pond and the floodplains and meander scars downstream. As desired by the Project Partners, this survey will include a re-survey of the 27 cross sections completed by VHB as described in their 2008 report and shown in Figure C-1 in Appendix B of that report. This will provide some information on the amount of channel change that has occurred within the study area. Survey monuments installed by VHB will be resurveyed where possible and repeat cross section locations will be estimated using maps and GPS coordinates where monuments cannot reasonably be relocated. The level of detail in this survey will also provide enough detail for design plans for the grade control structures, bank stabilization, and limited floodplain reconnection. Inter-Fluve will use a combination of GPS-RTK and total station surveying equipment to gather the necessary topographic data. This survey will not include information necessary for the geotechnical investigation as this will be completed by others under a separate contract. Geotechnical information necessary for completion of designs will be provided to Inter-Fluve in a commonly-used electronic format in a timely manner. Property boundaries and right of way lines will be obtained from electronic GIS or Auto-CAD files from the Town or State and will not be field-surveyed.

**Deliverables:** Digital copies of field data sheets, and data files from GPS-RTK and total station equipment. Memorandum that compares VHB cross section data to that collected by Inter-Fluve in 2011.

5. *Perform structural engineering assessment* – Project team engineers will verify assumptions regarding structural elements of the project. A structural and transportation engineer will accompany the project geomorphologists and project manager to complete the following:
  - a. *One-day visual infrastructure inspection* – Complete a 1-day visual inspection of the potentially affected roads, bridges, culverts, building foundations, railroad and trail berms, dams, and other infrastructure within the project area. These inspections will be conducted prior to submittal of the 30% plans, in order to highlight any potential design issues.
  - b. *Utility information* – GIS-based or other utility location data available from the Town of Epsom and other local entities will be incorporated into the plans. Inter-Fluve will confirm the location of utilities that can be visually observed during the topographic survey. Relocation or interruption of utilities will not be included in the designs for this project.

**Deliverables:** Memorandum summarizing findings from the infrastructure inspection that highlight any potential design issues that need to be considered by the project team. This memorandum will also include any updates on potential utility issues relative to proposed plans.

Initials lck  
Date 6/27/11

## EXHIBIT A

### SCOPE OF SERVICES

Inter-Fluve, Inc. (Inter-Fluve) of Madison, WI, will complete the following design and engineering services in support of the *Geomorphology-Based Restoration Design and Permitting for the Suncook River and Floodplain* project.

1. *Convene project kickoff meeting* - Inter-Fluve team members will coordinate and participate in an initial kick-off meeting. The meeting will include a site walk and discussion with project partners as recommended by NHDES. It is anticipated that a representative from each of the members of the Design Team (Inter-Fluve, AECOM, Field Geology Services, and Headwaters Hydrology) will participate in this meeting.

Deliverables: Copies of all final presentation media and work products in electronic format suitable for web posting. Summary documents from site walk and meeting in electronic format.

2. *Perform existing data collection* (partially completed as part of the RFQ process)- Inter-Fluve will acquire existing data (sediment transport analyses, aerial mapping, geomorphological survey data, etc.) on the project area from federal and state agencies and universities that have conducted studies on the Suncook River avulsion site and will supplement and utilize as required.

Deliverables: Memorandum detailing the acquired data, citation listing, and copies of existing data in electronic format.

3. *Perform site assessment* - Inter-Fluve will complete repeat Wolman pebble counts along the cross sections completed by VHB. This will allow us to compare the surface grain size under existing conditions with those soon after the avulsion occurred. Inter-Fluve will collect sub-pavement bulk sediment samples to be analyzed by a lab for grain size distribution. Inter-Fluve will attempt to determine the exact locations established in the VHB study and replicate these samples. Inter-Fluve anticipates the collection of 10 sub-pavement samples: 2 upstream of the Route 4 Bridge, 2 between the bridge and the avulsion location, 2 between the avulsion site and the confluence with the original side channel, 1 between the confluence with the original side channel and the confluence with the original main channel, 2 downstream of the confluence with the original main channel, and 1 in the original main channel. This will provide a good comparison with earlier studies and will also inform the restoration designs

Deliverables: Electronic copies of field data sheets, frequency distribution curves, sub-pavement bulk sediment lab analyses results, and a memorandum comparing current conditions to those shortly after the avulsion.

4. *Conduct topographic survey* - Inter-Fluve will conduct up to 6 days of topographic survey sufficient for 1D hydraulic modeling and restoration designs for the installation of grade controls downstream of the Rte 4 Bridge on the Suncook River, grade control downstream of the Black Hall Rd on

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.

**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 OK  
Date 4/2/11

**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

Subject:

Geomorphology-Based Restoration Design & Permitting - Suncook River

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 PO Box 95, Concord NH 03302-0095	
1.3 Contractor Name Inter-Fluve, Inc.		1.4 Contractor Address 3602 Atwood Avenue, Suite 3, Madison, WI 53714	
1.5 Contractor Phone Number (617) 714-5537	1.6 Account Number 03-44-44-440010-8663-102	1.7 Completion Date December 31, 2012	1.8 Price Limitation \$336,000
1.9 Contracting Officer for State Agency Stephen C. Landry, Merrimack Watershed Supervisor		1.10 State Agency Telephone Number (603) 271-2969	
1.11 Contractor Signature <i>[Signature]</i>		1.12 Name and Title of Contractor Signatory GREG KOONCE, PRINCIPAL	
1.13 Acknowledgement: State of <u>OR</u> , County of <u>Wasco</u> On <u>6/3/11</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 <i>Crystal L Davis-Ross</i> [Seal]			
1.13.2 Name and Title of Notary or Justice of the Peace Crystal L Davis-Ross			
1.14 State Agency Signature <i>Thomas S. Burack</i>		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: <i>[Signature]</i> On: <u>8/8/11</u>			
1.18 Approval by the Governor and Executive Council By: _____ On: _____			