

CIP DESIGN AND ENGINEERING MEMORANDUM
08-16

May 22, 2008

TO: Honorable Mayor Kathleen M. Novak and City Council Members

FROM: A.J. Krieger, City Manager
David Allen, Director of Public Works/Utilities
Kurt Kowar, CIP Design and Engineering Manager
Mark Hofmeister, Civil Engineer I

SUBJECT: CR-85 Big Dry Creek Gauging Station Design

RECOMMENDATION:

Attached to this memorandum is a Resolution which, if approved would authorize the Mayor to execute a contract between the City of Northglenn and AMEC Earth and Environmental (AMEC) for the Big Dry Creek Gauging Station Design Project in the amount of \$33,000.00. Staff recommends approval of the proposed Resolution.

BACKGROUND:

Staff is requesting approval of the attached contract for the evaluation and design of a stream gauging station. The intent of the gauging station is to measure the stream flow and the water quality of Big Dry Creek.

As a part of the permitting process for the Wastewater Treatment Plant (WWTP), the cities of Westminster, Broomfield and Northglenn developed a streamflow model of Big Dry Creek. The model is used by the Colorado Department of Public Health and Environment to determine the allowable discharge limits from each city's WWTP. In order to accurately model Big Dry Creek, flow and water quality data is collected upstream of all existing discharge points. At discharge points where the water quality is unknown, the cities have made conservative assumptions of the creek conditions.

In 2006, the City of Northglenn constructed a new pipeline to discharge treated wastewater into Big Dry Creek. The gauging station for the existing discharge pipeline for Big Dry Creek is downstream of the new pipeline and therefore could not be used to accurately measure the Big Dry Creek conditions prior to the additional flows from the new effluent pipeline.

The design and construction of a stream gauging station in a timely manner will allow the maximum amount of data to be collected prior to the permit renewal cycle in the year 2012. In addition, Broomfield has expressed interest in using Northglenn's old gauging station. In exchange for the use of the old station, Broomfield has indicated that they would be willing to financially contribute to the new station. A delay may jeopardize their potential contribution.

On April 14, 2008, the City accepted five (5) proposals for the Big Dry Creek Gauging Station Design project. AMEC was rated as the most qualified firm to complete the design work for the project. City staff has contacted the submitted references and determined the Consultant's past performance was satisfactory. Results of the reference checks are on file at City Hall. Copies of the standard professional service agreement and bid tabulation are attached.

The approved budget for this project, as stated in the 2008 Capital Improvement Program, is \$20,000.00. The difference between budget and the estimated project cost is \$13,000.00. The additional \$13,000 is available from unencumbered funds in the 2007 WWTP Security Fence project (account number 516.69272.000.3999.909). The 2007 WWTP Security Fence project reached final completion on April 7, 2008 and there is sufficient money available to fund the remaining \$13,000.00 balance needed for the stream gauge design. In addition, the following project allows for a phased approach to the project. Phase one as specified in the formal bid is for a preliminary engineering report (PER) and Phase two is for 100% construction documents. The cost for phase one is \$17,820.00 and the cost for Phase two is \$15,180.00. This phased approach will allow the City to proceed with the PER under the 2008 budget and the additional \$13,000.00 amount from the unencumbered funds of the WWTP Security Fence would only be used if the City decides to proceed with Phase two.

The proposed team of personnel from AMEC has considerable knowledge and experience in stream gauge design and evaluation. The project manager has extensive experience in regulatory compliance and development, and the project team is known for developing innovative solutions to meet technical and budgetary requirements.

In order to start collecting data for our next WWTP permit renewal and to work with Broomfield, proceeding with the design of the stream gauge at this time would be advantageous; staff is requesting approval of the proposed Resolution.

POTENTIAL OBJECTION:

City Staff is not aware of any specific opposition to the proposed Resolution.

BUDGET/TIME IMPLICATIONS:

The budget as proposed for the contract is \$33,000.00. Funding is available in the 2008 Capital Improvements Fund account number 516.69272.000.3999.831 in the amount of \$20,000.00 and unencumbered funds are available in account number 516.69272.000.3999.909 in the amount of \$13,000.00.

STAFF REFERENCE:

Please contact Kurt Kowar, CIP Design and Engineering Manager at kkowar@northglenn.org, or (303) 349-3772.

SPONSORED BY: COUNCIL MEMBER MONROE

COUNCILMAN'S RESOLUTION

RESOLUTION NO.

No. CR-85
Series of 2008

Series of 2008

A RESOLUTION APPROVING AN AGREEMENT BETWEEN THE CITY OF NORTHGLENN AND AMEC EARTH AND ENVIRONMENTAL FOR THE BIG DRY CREEK GAUGING STATION DESIGN PROJECT

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NORTHGLENN, COLORADO, THAT:

Section 1. The Agreement between the City of Northglenn and AMEC Earth and Environmental, attached hereto, for the Big Dry Creek Gauging Station Design project is hereby approved and the Mayor is authorized to execute same on behalf of the City.

DATED at Northglenn, Colorado, this ____ day of _____, 2008.

KATHLEEN M. NOVAK
Mayor

ATTEST:

JOHANNA SMALL, CMC
Acting City Clerk

APPROVED AS TO FORM:

COREY Y. HOFFMANN
City Attorney

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT is made and entered into this ____ day of _____, 200__, by and between the City of Northglenn, State of Colorado (hereinafter referred to as the "City") and AMEC Earth and Environmental (hereinafter referred to as "Consultant").

RECITALS:

A. The City requires professional services.

B. Consultant has held itself out to the City as having the requisite expertise and experience to perform the required work for the Project.

NOW, THEREFORE, it is hereby agreed for the consideration hereinafter set forth, that Consultant shall provide to the City, professional consulting services for the Project.

I. SCOPE OF SERVICES

Consultant shall furnish all labor and materials to perform the work and services required for the complete and prompt execution and performance of all duties, obligations, and responsibilities for the Project which are described or reasonably implied from **Exhibit A** which is attached hereto and incorporated herein by this reference.

II. THE CITY'S OBLIGATIONS/CONFIDENTIALITY

The City shall provide Consultant with reports and such other data as may be available to the City and reasonably required by Consultant to perform hereunder. No project information shall be disclosed by Consultant to third parties without prior written consent of the City or pursuant to a lawful court order directing such disclosure. All documents provided by the City to Consultant shall be returned to the City. Consultant is authorized by the City to retain copies of such data and materials at Consultant's expense.

III. OWNERSHIP OF WORK PRODUCT

The City acknowledges that the Consultant's work product is an instrument of professional service. Nevertheless, the products prepared under this Agreement shall become the property of the City upon completion of the work.

IV. COMPENSATION

A. In consideration for the completion of the services specified herein by Consultant, the City shall pay Consultant an amount not to exceed thirty three thousand dollars (\$33,000). Payment shall be made in accordance with the schedule of charges in **Exhibit B** which is attached hereto and incorporated herein by this reference. Invoices will be itemized and include hourly breakdown for all personnel and other charges. The maximum fee specified herein shall include all fees and expenses incurred by Consultant in performing all services hereunder.

B. Consultant may submit monthly or periodic statements requesting payment. Such request shall be based upon the amount and value of the work and services performed by Consultant under this Agreement except as otherwise supplemented or accompanied by such supporting data as may be required by the City.

1. All invoices, including Consultant's verified payment request, shall be submitted by Consultant to the City no later than the twenty-fourth (24th) day of each month for payment pursuant to the terms of this Agreement. In the event Consultant fails to submit any invoice on or before the twenty-fourth (24th) day of any given month, Consultant defers its right to payment pursuant to said late invoice until the twenty-fourth (24th) day of the following month.

2. Progress payments may be claimed on a monthly basis for reimbursable costs actually incurred to date as supported by detailed statements, including hourly breakdowns for all personnel and other charges. The amounts of all such monthly payments shall be paid within thirty (30) days after the timely receipt of invoice as provided by this Agreement.

C. The City has the right to ask for clarification on any Consultant invoice after receipt of the invoice by the City.

D. In the event payment for services rendered has not been made within forty-five (45) days from the receipt of the invoice for any uncontested billing, interest will accrue at the legal rate of interest. In the event payment has not been made within ninety (90) days from the receipt of the invoice for any uncontested billing, Consultant may, after giving seven (7) days written notice and without penalty or liability of any nature, suspend all work on all authorized services specified herein. In the event payment in full is not received within thirty (30) days of giving the seven (7) days written notice, Consultant may terminate this Agreement. Upon receipt of payment in full for services rendered, Consultant will continue with all authorized services.

E. Final payment shall be made within sixty (60) calendar days after all data and reports (which are suitable for reproduction and distribution by the City) required by this Agreement have been turned over to and approved by the City and upon receipt by the City of Consultant's certification that services required herein by Consultant have been fully completed in accordance with this Agreement and all data and reports for the Project.

V. COMMENCEMENT AND COMPLETION OF WORK

Within seven (7) days of receipt from the City of a Notice to Proceed, Consultant shall commence work on all its obligations as set forth in the Scope of Services or that portion of such obligations as is specified in said Notice. Except as may be changed in writing by the City, the Project shall be complete and Consultant shall furnish the City the specified deliverables as provided in Exhibit A.

VI. CHANGES IN SCOPE OF SERVICES

A change in the Scope of Services shall constitute any material change or amendment of services or work which is different from or additional to the Scope of Services specified in Section I of this Agreement. No such change, including any additional compensation, shall be effective, or

paid unless authorized by written amendment executed by the City. If Consultant proceeds without such written authorization, then Consultant shall be deemed to have waived any claim for additional compensation, including a claim based on the theory of unjust enrichment, quantum merit or implied contract. Except as expressly provided herein, no agent, employee, or representative of the City shall have the authority to enter into any changes or modifications, either directly or implied by a course of action, relating to the terms and scope of this Agreement.

VII. PROFESSIONAL RESPONSIBILITY

A. Consultant hereby warrants that it is qualified to assume the responsibilities and render the services described herein and has all requisite corporate authority and professional licenses in good standing, required by law.

B. The work performed by Consultant shall be in accordance with generally accepted professional practices and the level of competency presently maintained by other practicing professional firms in the same or similar type of work in the applicable community.

C. Consultant shall be responsible for the professional quality, technical accuracy, timely completion, and the coordination of all designs, drawings, specifications, reports, and other services furnished by Consultant under this Agreement. Consultant shall, without additional compensation, correct or resolve any errors or deficiencies in his designs, drawings, specifications, reports, and other services, which fall below the standard of professional practice, and reimburse the City for construction costs caused by errors and omissions which fall below the standard of professional practice.

D. Approval by the City of drawings, designs, specifications, reports, and incidental work or materials furnished hereunder shall not in any way relieve Consultant of responsibility for technical adequacy of the work. Neither the City's review, approval or acceptance of, nor payment for, any of the services shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement, and Consultant shall be and remain liable in accordance with applicable performance of any of the services furnished under this Agreement.

E. The rights and remedies of the City provided for under this Agreement are in addition to any other rights and remedies provided by law.

VIII. ILLEGAL ALIENS

A. Certification. By entering into this Agreement, Consultant hereby certifies that, at the time of this certification, it does not knowingly employ or contract with an illegal alien and that Consultant has participated or attempted to participate in the basic pilot program administered by the U.S. Department of Homeland Security in order to confirm the employment eligibility of all employees who are newly hired for employment in the United States.

B. Prohibited Acts. Consultant shall not:

(1) Knowingly employ or contract with an illegal alien to perform work under this Agreement; or

(2) Enter into a contract with a subcontractor that fails to certify to Consultant that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement.

C. Verification.

(1) Consultant has confirmed or attempted to confirm the employment eligibility of all employees who are newly hired for employment in the United States through participation in the basic pilot program administered by the U.S. Department of Homeland Security and, if Consultant is not accepted into the basic pilot program prior to entering into this Agreement, Consultant shall apply to participate in the basic pilot program every three (3) months until Consultant is accepted or this Agreement has been completed, whichever is earlier.

(2) Consultant shall not use basic pilot program procedures to undertake pre-employment screening of job applicants while this Agreement is being performed.

(3) If Consultant obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien, Consultant shall:

a. Notify the subcontractor and the City within three (3) days that Consultant has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and

b. Terminate the subcontract with the subcontractor if within three (3) days of receiving the notice required pursuant to subparagraph (a) hereof, the subcontractor does not stop employing or contracting with the illegal alien; except that Consultant shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

D. Duty to Comply with Investigations. Consultant shall comply with any reasonable request by the Colorado Department of Labor and Employment made in the course of an investigation conducted pursuant to C.R.S. § 8-17.5-102(5)(a) to ensure that Consultant is complying with the terms of this Agreement.

E. If Consultant does not currently employ any employees, Consultant shall sign the Affidavit attached hereto.

IX. INDEMNIFICATION

Consultant agrees to indemnify and hold harmless the City, its officers, employees, and insurers, from and against all liability, claims, and demands, on account of injury, loss, or damage, including without limitation claims arising from bodily injury, personal injury, sickness, disease, death, property loss or damage, if such injury, loss, or damage is caused in whole or in part by, or is claimed to be caused in whole or in part by, the negligent act, omission, error, professional error, mistake, negligence, or other fault of Consultant, any subcontractor of Consultant, or any officer, employee, representative, or agent of Consultant or of any subcontractor of Consultant, or which arise out of any workmen's compensation claim of any employee of Consultant or of any employee

of any subcontractor of Consultant. Consultant agrees to investigate, handle, respond to, and to provide defense for and defend against any such liability, claims or demands at the sole expense of Consultant, or at the option of the City, agrees to pay the City or reimburse the City for the defense costs incurred by the City in connection with, any such liability, claims, or demands. Consultant also agrees to bear all other costs and expenses related thereto, including court costs and attorney fees, whether or not any such liability, claims, or demands alleged are groundless, false, or fraudulent. If it is determined by the final judgment of a court of any competent jurisdiction that such injury, loss, or damage was caused in whole or in part by the act, omission, or other fault of the City, its officers, or its employees, the City shall reimburse Consultant for the portion of the judgment attributable to such act, omission, or other fault of the City, its officers, or employees.

X. INSURANCE

A. Consultant agrees to procure and maintain, at its own cost, a policy or policies of insurance sufficient to insure against all liability, claims, demands, and other obligations assumed by Consultant pursuant to Section IX, above. Such insurance shall be in addition to any other insurance requirements imposed by this Agreement or by law. Consultant shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to Section IX, above, by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.

B. Consultant shall procure and maintain, and shall cause any subcontractor of Consultant to procure and maintain, the minimum insurance coverages listed below. Such coverages shall be procured and maintained with forms and insurers acceptable to the City. All coverages shall be continuously maintained to cover all liability, claims, demands, and other obligations assumed by Consultant pursuant to Section IX, above. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

1. Workmen's compensation insurance to cover obligations imposed by applicable laws for any employee engaged in the performance of work under this Agreement, and Employer's Liability insurance with minimum limits of five hundred thousand dollars (\$500,000) each accident, one million dollars (\$1,000,000) disease - policy limit, and one million dollars (\$1,000,000) disease - each employee. Evidence of qualified self-insured status may be substituted for the workmen's compensation requirements of this paragraph.

2. Commercial general liability insurance with minimum combined single limits of six hundred thousand (\$600,000) each occurrence and one million dollars (\$1,000,000) general aggregate. The policy shall be applicable to all premises and operations. The policy shall include coverage for bodily injury, broad form property damage (including completed operations), personal injury (including coverage for contractual and employee acts), blanket contractual, products, and completed operations. The policy shall contain a severability of interests provision.

3. Professional liability insurance with minimum limits of six hundred thousand dollars (\$600,000) each claim and one million dollars (\$1,000,000) general aggregate.

C. The policy required by paragraph 2. above shall be endorsed to include the City and the City's officers, employees, and consultants as additional insureds. Every policy required above shall be primary insurance, and any insurance carried by the City, its officers, its employees, or its consultants shall be excess and not contributory insurance to that provided by Consultant. No additional insured endorsement to the policy required by paragraph 1. above shall contain any exclusion for bodily injury or property damage arising from completed operations. Consultant shall be solely responsible for any deductible losses under any policy required above.

D. The certificate of insurance provided for the City shall be completed by Consultant's insurance agent as evidence that policies providing the required coverages, conditions, and minimum limits are in full force and effect, and shall be reviewed and approved by the City prior to commencement of the Agreement. No other form of certificate shall be used. If the City is named as an additional insured on any policy which does not allow for the automatic addition of additional insureds, the Consultant's insurance agent shall also provide a copy of all accompanying endorsements recognizing the City as an additional insured. The certificate shall identify this Agreement and shall provide that the coverages afforded under the policies shall not be cancelled, terminated or materially changed until at least thirty (30) days prior written notice has been given to the City. The completed certificate of insurance shall be sent to:

City of Northglenn
Attn: Mark Hofmeister
11701 Community Center Drive
Northglenn, Colorado 80233-8061

E. Failure on the part of Consultant to procure or maintain policies providing the required coverages, conditions, and minimum limits shall constitute a material breach of agreement upon which the City may immediately terminate this Agreement, or at its discretion, the City may procure or renew any such policy or any extended reporting period thereto and may pay any and all premiums in connection therewith, and all monies so paid by the City shall be repaid by Consultant to the City upon demand, or the City may offset the cost of the premiums against any monies due to Consultant from the City.

F. The parties hereto understand and agree that the City, its officers, and its employees, are relying on, and do not waive or intend to waive by any provision of this Agreement, the monetary limitations (presently one hundred fifty thousand dollars (\$150,000) per person and six hundred thousand dollars (\$600,000) per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, Colo. Rev. Stat. §24-10-101 et seq., Colo. Rev. Stat., as from time to time amended, or otherwise available to the City, its officers, or its employees.

XI. NON-ASSIGNABILITY

Neither this Agreement, nor any of the rights or obligations of the parties hereto, shall be assigned by either party without the written consent of the other.

XII. TERMINATION

This Agreement shall terminate at such time as the work in Section I is completed and the requirements of this Agreement are satisfied, or upon the City's providing Consultant with seven (7) days advance written notice, whichever occurs first. In the event the Agreement is terminated by the City's issuance of said written notice of intent to terminate, the City shall pay Consultant for all work previously authorized and completed prior to the date of termination. If, however, Consultant has substantially or materially breached the standards and terms of this Agreement, the City shall have any remedy or right of set-off available at law and equity. If the Agreement is terminated for any reason other than cause prior to completion of the Project, any use of documents by the City thereafter shall be at the City's sole risk, unless otherwise consented to by Consultant.

XIII. CONFLICT OF INTEREST

The Consultant shall disclose any personal or private interest related to property or business within the City. Upon disclosure of any such personal or private interest, the City shall determine if the interest constitutes a conflict of interest. If the City determines that a conflict of interest exists, the City may treat such conflict of interest as a default and terminate this Agreement.

XIV. VENUE

This Agreement shall be governed by the laws of the State of Colorado, and any legal action concerning the provisions hereof shall be brought in the County of Adams, State of Colorado.

XV. INDEPENDENT CONTRACTOR

Consultant is an independent contractor. Notwithstanding any provision appearing in this Agreement, all personnel assigned by Consultant to perform work under the terms of this Agreement shall be, and remain at all times, employees or agents of Consultant for all purposes. Consultant shall make no representation that it is the employee of the City for any purposes.

XVI. NO WAIVER

Delays in enforcement or the waiver of any one or more defaults or breaches of this Agreement by the City shall not constitute a waiver of any of the other terms or obligation of this Agreement.

XVII. ENTIRE AGREEMENT

This Agreement and the attached Exhibits A and B is the entire Agreement between Consultant and the City, superseding all prior oral or written communications. None of the provisions of this Agreement may be amended, modified, or changed, except as specified herein.

XVIII. NOTICE

Any notice or communication between Consultant and the City which may be required, or which may be given, under the terms of this Agreement shall be in writing, and shall be deemed to

have been sufficiently given when directly presented or sent pre-paid, first class United States Mail, addressed as follows:

The City: City of Northglenn
11701 Community Center Drive
Northglenn, Colorado 80233-8061

Consultant: AMEC Earth and Environmental
1002 Walnut Street, Ste 200
Boulder, CO 80302

IN WITNESS WHEREOF, the parties hereto each herewith subscribe the same in duplicate.

CITY OF NORTHGLENN, COLORADO

By: _____
Kathleen M. Novak, Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:

Corey Y. Hoffmann, City Attorney

CONSULTANT:

By: Donna R Colville

Donna R. Colville

Print Name

Department Manager 5/9/08

Title

Date

ATTEST:

By: Carol McAmis

Carol McAmis

Print Name

Administrative Assistant 5/9/08

Title

Date

CITY'S CONTRACT # 303 450-8780

Mark Hofmeister

Name of City's Project Manager

Attached is **EXHIBIT A “SCOPE OF SERVICES”** and **EXHIBIT B “AMOUNT OF COMPENSATION”**

APPENDIX A

SCOPE OF WORK

Phase 1: Preliminary Design Report that includes the following items:

1. Identification of the preferred stream gauge location or alternative stream gauge locations upstream of the newly constructed effluent discharge point NPSED-07 and downstream of the Thompson Ditch headgate.
2. Identification of the preferred type of stream gauge measurement device or alternative measurement devices that will allow accurate flow and water quality measurements to be taken over typical flow conditions (1-30 cfs). We understand that considerations of channel approach, stream bed stabilization, bank stabilization, sedimentation, and instrumentation housing must be taken into consideration. In addition, we understand that the measurement device must maintain the ability to pass flows of the probabilistic 100-year flood flow event without damage to the gauging station or the related measurement equipment.
3. Identification of all associated permits, permit timeframes for approval, and permit contacts for the construction of the gauging station.
4. The development of a planning level cost estimate for the construction of the gauging station.

Phase II: 100 % Construction Documents

1. Completion of 100% design plans, specifications suitable and engineer's estimate for bid documents for the gauging station.
2. Development of 50% construction documents and a table of contents for specifications for the gauging station. With this alternative, we would provide a survey of the selected gauging station location which will include a legal description of the site to allow for the development of easements at the gauging station site.

PROJECT APPROACH

PHASE 1 – PRELIMINARY DESIGN

Task 1.1: Detailed investigation of site characteristics

The first step in designing a stream gauge that is appropriate for a particular site is making a thorough investigation of the reach which is to be measured. Prior to the visit, we will review all existing hydrologic records and floodplain maps to understand the potential flows the stream gauge must pass. During the initial field visit, we will conduct a detailed evaluation of the channel geometry, bank stability, sediment characteristics, floodplain characteristics, channel slope, debris potential and icing potential. Field measurements will be taken as necessary to properly characterize several potential gauging station locations. With the data collected in the field, a preliminary analysis of channel geometry and erosion potential will be completed in the office to better understand the physical constraints for the future design.

Task 1.2: Review of appropriate measurement devices

Numerous forms of measurement devices exist that create known relationships between the

volumetric flow and the depth of flow passing through the device. With the knowledge obtained from the detailed field investigation, each device type will be evaluated for their suitability for this stream gauge. Hydraulic characteristics of each device will be evaluated with respect to the potential gauging location such as the required approach distance, required head loss, and the risk of submergence. Environmental factors will be considered such as the affect of channel sedimentation, icing concerns, ability to pass storm flows, and the ability to self-manage debris. Finally, the potential measurement devices will be evaluated by their ability to incorporate the required automated data collection systems with items such as stilling wells, perforated pipes and stand pipes. Special attention will be given to select configurations and materials for the measurement device that will allow representative water quality data to be automatically collected.

Task 1.3: Conceptual design of primary alternatives

With a limited number of stream gauge locations and appropriate measurement devices selected, we will develop three conceptual designs that will meet the data measurement and collection requirements for the City of Northglenn. These designs will include the basic construction requirements, site access plans, and placement of sensors, data loggers, communications equipment and power supplies as selected by the City. A planning level cost estimate will be provided for each viable design alternative.

Task 1.4: Develop a permitting plan

Construction of the gauging station will likely require permits from several agencies. With the design alternatives proposed and the potential gauging locations, a thorough assessment of the required permits will be conducted. The preliminary design report will include details of all required permits including a summary of the information necessary to apply for the permits, a timeline for the acquisition of the permits, and contact information for each permitting entity.

Task 1.5: Convey Findings for Preliminary Design Report

The technical approach described above is of limited value without a clear understanding by the City of the information gathered and the rationale for selection of gauging methods. Therefore there is a need to develop clear methods of communicating findings and design considerations with the City during the progression of this project. AMEC proposes that this information be conveyed in no less than three ways.

- First, AMEC will be in regular phone and e-mail contact with City staff on an as-needed basis. This will allow City staff free access to AMEC staff if questions or concerns arise. City contacts are always welcome to address the AMEC team directly or their supervisors if they feel that they are not receiving the attention that they expect.
- Second, AMEC proposes that conference calls are held with the City at least twice monthly during the project period. This will assure the free flow of information and ideas between the City and AMEC as well as assure that the City is informed of AMEC's progress. This will become especially important as the City selects the specific measurement equipment to be used and the particular design requirements for that equipment. This regular communication will allow close coordination of these concurrent efforts.
- Third, AMEC will provide the preliminary written design report that will include recommendations for the three most viable alternatives for the stream gauge, the rationale behind the selection of these alternatives, and the planning level cost estimate and the permitting requirements for each alternative.

PHASE 2 – FINAL DESIGN- ALTERNATIVE SCOPE OF WORK

If the City chooses one of the recommended alternatives for the construction of the gauging station, AMEC is prepared to perform the subsequent task of preparing the design plans, construction specifications, and engineer's estimate for constructing the gauging station.

Task 2.1: Identify Final Design Criteria

To start the final design process for the Big Dry Creek gauging Station, a consensus must be reached regarding the precise location and type of gauge to be installed. A kick-off meeting with the City and AMEC staff will be proposed to identify not only the precise stream flow measurement device to be constructed based on the preliminary design report, but to also identify the specific design requirements that will allow proper incorporation and function of the water quality monitoring equipment. Any outstanding issues should be discussed that include, but are not limited to, sensor placement, data logger housing, power requirements, telecommunications, site access, operation and maintenance, and winter management. A period of time to refine the conceptual designs to one particular location may be necessary after the final alternative is selected.

Task 2.2: Final Design Development

After the City and AMEC staff have agreed on one particular location and measurement device, AMEC staff will begin the final design by having a detailed land survey done on the proposed location. This survey will provide the base-map for the design drawings as well as indicate the extent of earthwork that may be required. While the survey is being prepared, the final engineering design for the proposed measurement device will begin. This will include proper sizing of the device to assure accurate flow measurements while maintaining appropriate freeboard and necessary measures to control both erosion and sedimentation. Industry standard software such as U.S. Bureau of Reclamation's WinFlume will be used to verify the design. AutoCAD drawings will be developed as part of this task that clearly describes the selected design. Finally design specifications and an engineer's estimate of the construction costs will be developed as part of this task. The final design and specifications will meet all applicable construction codes and best management practices.

Task 2.3: Convey Findings for Final Design Report

As described in task 1.5, clear communication shall be maintained throughout the Project. We propose that bi-weekly phone meetings continue to be scheduled during Phase 2 to assure the final design meets the needs of the City. In addition, AMEC will provide the City with drawings and design documents when they are 50% complete to assure progress and satisfaction with the forthcoming deliverable. Final sets of AutoCAD drawings and specifications will be provided upon completion of the design.

APPENDIX B

AMOUNT OF COMPENSATION



**2008 Billing Rates
Effective January 1, 2008**

Title	Rate
Principal Engineer	\$176
Senior Engineering Manager	\$152
Senior Project Manager	\$145
Engineering Manager	\$141
Senior Project Engineer	\$119
Project Manager	\$108
Project Engineer	\$108
Staff Engineer II	\$100
Software Engineer	\$97
Geologist II	\$80
Geologist I	\$72
Hydrogeologist	\$92
Hydrologist II	\$80
Hydrologist I	\$67
Engineering Tech II	\$67
Technical Writer	\$67
Financial Analyst	\$113
Clerical	\$54

Surcharges may apply for deposition and testimony.

Expenses incurred will be charged at cost unless otherwise specified below:

Mileage	prevailing IRS rate
Photocopying	\$0.08/page
Photocopying, outside	At Cost
Long-Distance Telephone	At Cost
Project Materials	At Cost
Travel Expenses	At Cost
Other Expenses	At Cost
Computers	No Charge
Computers, outside	At Cost

PROSPECTIVE CONSULTANT'S CERTIFICATE REGARDING EMPLOYING OR CONTRACTING WITH AN ILLEGAL ALIEN

FROM: _____
(Prospective Consultant)

TO: City of Northglenn
PO Box 330061
11701 Community Center Drive
Northglenn, CO 80233

Project Name _____

Bid Number _____ Project No. _____

As a prospective Consultant for the above-identified bid, I (we) do hereby certify that, as of the date of this certification, I (we) do not knowingly employ or contract with an illegal alien and that I (we) have confirmed or attempted to confirm the employment eligibility of all employees who are newly hired for employment in the United States through participation in the basic pilot program administered by the United States Department of Homeland Security.

Executed this 9th day of May, 2008.

Prospective Consultant AMEC E & E

By: Donna R Colville

Title: Department Manager

Finance Dept Use Only	
Initials	_____
Date	_____
PO #	_____

AFFIDAVIT

1. Check and complete one:

I, _____, am a sole proprietor doing business as _____ . I do not currently employ any individuals. Should I employ any individuals during the term of my Agreement with the City, I certify that I will comply with the lawful presence verification requirements outlined in that Agreement.

OR

I, Donna Colville, am an employee of AMEC E+E, a Corporation [specify type of entity-i.e, corporation, limited liability company], that does not currently employ any individuals. Should I employ any individuals during the term of my Agreement with the City, I certify that I will comply with the lawful presence verification requirements outlined in that Agreement.

2. Check one.

I, _____, am a United States citizen or legal permanent resident.

The City must verify this statement by reviewing one of the following items:

- o A valid Colorado Driver's license or a Colorado identification card*
- o A United States military card or a military dependent's identification card*
- o A United States Coast Guard Merchant Mariner card*
- o A Native American tribal document or*
- o In the case of a resident of another state, the driver's license or state-issued identification card from the state of residence, if that state requires the applicant to prove lawful presence prior to the issuance of the identification card*
- o Any other documents or combination of documents listed in the City's "Acceptable Documents for Lawful Presence Verification" chart that prove both the consultant's citizenship/lawful presence and identity.*

OR

I am otherwise lawfully present in the United States pursuant to federal law.

Consultant must verify this statement through the federal systematic alien verification of entitlement program, the "SAVE" program, and provide such verification to the City.

Donna R Colville
Signature

5/9/2008
Date

Reference Check

Project: Big Dry Creek Gauging Station
Consultant/Contractor: AMEC Earth and Environmental
Date: 4/25/08
Page 1

Project Name:	Contact for Reference:	Contact Phone Number:	Reference:
Red Bluff Gauging Station Evaluation	Peter Burck, New Mexico Interstate Stream Commission	(505) 827-6162	NMISC was happy that AMEC stayed within the budget. NMISC still use AMEC for other projects.
Elmer's Two Mile Flow Monitoring	Annie Noble, City of Boulder	(303) 441-3266	Would use AMEC services again, the City of Boulder was happy with their work.
Egeria Creek Flow Monitoring	Peter Miller, Eagle Water and Sanitation	(970) 477-5472	Peter Miller with EW&SD stated that AMEC is a good company, and EW&SD District Board of Directors has great confidence in AMEC (formly Hydrosphere) and has used their services for over 15 years.