

State of Colorado, Colorado Water Conservation Board
Contract Routing Number (CLIN #): 08 PUA 00105
Contract No. 150418
Grant Amount: \$201,377

GRANT CONTRACT

THIS CONTRACT, by and between the State of Colorado, for the use and benefit of the Department of Natural Resources, Colorado Water Conservation Board, located at 1313 Sherman Street, Suite 721, Denver, Colorado 80203, (the "State"), and Moffat County, a county of the State of Colorado, located at 221 W Victory Way, Suite 130, Craig, CO 81625 ("Contractor" or "Grantee").

FACTUAL RECITALS

- A. Authority exists in the law and funds have been budgeted, appropriated and otherwise made available and a sufficient unencumbered balance thereof remains available for encumbering and subsequent payment of this contract through the Colorado Financial Reporting Systems (COFRS).
- B. Required approval, clearance and coordination have been accomplished from and with appropriate agencies.
- C. Grantee's bid was selected in accordance with Colorado law and State Procurement Rules pursuant to the issuance of a grant which was awarded to Grantee by the Colorado Water Conservation Board in January 2008;
- D. Authority for the agency entering into this Contract arises from Colorado Revised Statutes (CRS) 39-29-109(1)(a)(III), 37-75-102 and 37-74-104(2)(c) and Senate Bill 06-179 adopted by the 2006 General Assembly.
- E. The State has allocated grant funds for the Yampa Agricultural Water Needs Study. Grantee is ready, willing and able to provide such a task.

NOW THEREFORE, in consideration of and subject to the terms, conditions, provisions and limitations contained in this contract, the State and Contractor agree as follows:

AGREEMENT

1. Definitions

The following terms as used in this contract shall be construed and interpreted as follows, unless the context otherwise expressly requires a different construction and interpretation:

- 1.1. "Compensation" means the funds payable to Contractor by the State which are related to the Goods and Services set forth in the Scope of Work set forth in **Exhibit A**, attached hereto and incorporated herein.
- 1.2. "Contract" means this contract for Goods and Services, its terms and conditions, attached exhibits, documents incorporated by reference under the terms of this contract, and any future modifying agreements, exhibits, attachments or references that are incorporated pursuant to State Fiscal Rules and Policies.

- 1.3. **"Exhibit"** means a statement of work document, schedule, budget, or other identified exhibit which has been incorporated into and attached to this contract.
- 1.4. **"Goods"** means anything that is produced or manufactured and that is obtained by the State, either in and of itself, or in conjunction with services.
- 1.5. **"Services"** means services performed or tangible material produced or delivered in the performance of services.

BASIC CONTRACT TERMS

2. Statement of Work

Contractor shall perform the Services described in **Exhibit A, Scope of Work**.

3. Performance Standard

Contractor shall perform the Services described in **Exhibit A, Scope of Work**, in accordance with the highest standard of care, skill and diligence provided by a professional person or company in performance of work similar to the Services, and all services, and all consumables, products, and materials used in performance of the Services shall be of good quality and free from faults and defects. Contractor warrants that (a) services or goods provided under this contract shall meet the description in **Exhibit A, Scope of Work**, (b) there are no pending or threatened suits, claims, or actions of any type with respect to the services or goods provided and (c) the services and goods shall be free and clear of any liens, encumbrances, or claims arising by or through Contractor or any party related to Contractor.

4. Performance Term

- 4.1. This contract shall be effective upon approval by the Colorado State Controller, or designee (the "Effective Date") and extend through **June 30, 2009**. Performance of this contract shall commence as soon as practicable after the Effective Date and shall be undertaken and performed in the sequence and manner set forth in **Exhibit A, Scope of Work**.
- 4.2. In the event the State desires to continue the Services and a replacement contract has not been fully approved by the termination date of this contract, the State, upon written notice to Contractor, may unilaterally extend this contract for a period of up to three (3) months. The contract shall be extended under the same terms and conditions as the original contract, including, but not limited to prices, rates and service delivery requirements. This extension shall terminate at the end of the three (3) month period or when the replacement contract is signed by the Colorado State Controller or an authorized delegate.

5. Grant Award (Compensation)

- 5.1. Payment of compensation pursuant to this contract will be made as earned, in whole or in part, from available State funds encumbered in a maximum amount not to exceed \$201,377 for the performance of the Services required by this contract and **Exhibit A, Scope of Work**. Satisfactory performance under the terms of this contract shall be a condition precedent to the State's obligation to compensate Contractor.
- 5.2. The maximum compensation payable under this contract, and under any renewal hereof, shall include all Contractor fees, costs and expenses.
- 5.3. The State shall not be liable to Contractor for payment of work or services or for costs or expenses incurred by Contractor prior to the "Effective Date".

- 5.4. The maximum amount available during each fiscal year of this contract for the purchase of Goods and Services shall be \$201,377 in fiscal years 2008 and 2009.

6. Availability of Funds

This contract is contingent upon the continuing availability of State appropriations as provided in Section 2 of the Colorado Special Provisions, incorporated as a part of this contract. The State is prohibited by law from making fiscal commitments beyond the term of its current fiscal period. If Federal appropriations or grants fund this contract in whole or in part, the contract is subject to and contingent upon the continuing availability of appropriated Federal funds for this contract. If State of Colorado or Federal funds are not appropriated, or otherwise become unavailable to fund this contract, the State may immediately terminate the contract in whole or in part without further liability.

PROCEDURES FOR AND OBLIGATIONS OF CONTRACT PERFORMANCE

7. Billing/Payment Procedure

- 7.1. The State shall establish billing procedures and pay Contractor the contract price or rate for Services performed, reviewed, and accepted or Goods delivered, inspected, and accepted pursuant to all the terms and conditions of this contract, including without limitation, performance, quality, milestones and completion requirements for payment set forth in **Exhibit A**, Scope of Work, and the State's inspection and acceptance rights in Section 8. Contractor shall submit invoices for payment on forms and provide requested documentation in a manner prescribed or approved by the State. Payments pursuant to this contract shall be made as earned, in whole or in part, from available funds encumbered for the purchase of the described Services and Goods. Incorrect payments by the State to Contractor due to omission, error, fraud, or defalcation shall be recovered from Contractor by deduction from subsequent payments under this contract or other contracts between the State and Contractor or collected as a debt due to the State.
- 7.2. Invoices and payments shall be mailed using the US Postal Service or other delivery service with a properly addressed stamped envelop to the address specified by the Contractor on form W-9 or other similar form and by the State in its billing procedures.
- 7.3. The State shall make payment in full with respect to each invoice within forty-five (45) days of receipt thereof, provided that the amount invoiced represents Goods and/or Services which have been accepted by the State and the form of the invoice is acceptable to the State. Uncontested amounts not paid by the State within forty-five (45) days shall bear interest on the unpaid balance beginning with the forty-sixth (46th) day at a rate of one percent (1%) per month until paid in full; provided, however, that no interest shall accrue with respect to unpaid amounts for which the State has delivered to Contractor notice of a good faith dispute. Contractor shall invoice the State separately for accrued interest on delinquent amounts. The billing shall reference the delinquent payment, the number of day's interest to be paid and the applicable interest rate.

8. Inspection and Acceptance

The State reserves the right to inspect Services provided under this contract at all reasonable times and places during the term of this contract, including any extensions. If any of the Services does not conform to contract requirements, the State may require Contractor to promptly perform the Services again in conformity with contract requirements, at no additional cost to the State. When defects in the quality or quantity of Services cannot be corrected by re-performance, the State may:

- (a) require Contractor to take necessary action to ensure that future performance conforms to this contract requirements; and
- (b) equitably reduce the payment due to Contractor to reflect the reduced value of the Services performed.

These remedies shall in no way limit the remedies available to the State in other provisions of this contract

or remedies otherwise available in equity or at law, all of which may be exercised by the State, at its option, in lieu of or in conjunction with the preceding measures. Furthermore, the reduction, delay or denial of payment under this provision shall not constitute a breach of contract or default by the State.

9. Reporting

Unless otherwise provided in this contract or the exhibits hereto, Contractor shall submit, on a quarterly basis and upon termination or completion of work, a written progress report analyzing the performance under this contract and specifying progress made for each activity identified in Contractor's duties and obligations. Such written analysis shall be in accordance with the procedures developed and prescribed by the State. The preparation of reports in a timely manner shall be the responsibility of Contractor and failure to comply may result in the delay of payment of funds and/or termination of this contract. Required reports shall be submitted to the State not later than the end of each calendar quarter, or at such time as otherwise specified. Notwithstanding anything herein to the contrary, including without limitation the priority provisions set forth in Section 35, specific reporting requirements set forth in **Exhibit A**, Scope of Work, or in other exhibits to this contract, shall take precedence over this general reporting provision.

10. Rights in Data, Documents, and Computer Software

- 10.1 Any software, research, reports, studies, data, photographs, negatives or other documents, drawings, models, materials, or work product of any type, including drafts, prepared by Contractor in the performance of its obligations under this contract (the "Work Product"), shall be the exclusive property of the State and all Work Product shall be delivered to the State by Contractor upon completion, termination, or cancellation of this contract. The rights of the State with respect to such Work Product shall include, but not be limited to, the right to copy, publish, display, transfer, prepare derivative works, or otherwise use such Work.
- 10.2 Contractor shall not use, willingly allow, cause or permit such property to be used for any purpose other than the performance of Contractor's obligations under this contract, without the prior written consent of the State. The rights of the State with respect to such property shall include, but not be limited to, the right to copy, publish, display, transfer, prepare derivative works, or otherwise use such property.

11. Maintenance, Inspection and Monitoring of Records

- 11.1 Contractor shall maintain a complete file of all records, documents, communications, notes and other written materials or electronic media, files or communications, which pertain in any manner to the operation of programs or the delivery of Services or Goods under this contract, and shall maintain such records for a period of three (3) years after the date of termination of this contract or final payment hereunder, whichever is later, or for such further period as may be necessary to resolve any matters which may be pending, or until an audit has been completed; provided, that if an audit by or on behalf of the Federal and/or Colorado State government has begun but is not completed or audit findings have not been resolved after a three (3) year period, such materials shall be retained until the resolution of the audit findings.

- 11.2 Contractor shall permit the State, the Federal Government or any other duly authorized agent of a governmental agency to audit, inspect, examine, excerpt, copy and/or transcribe Contractor's records during the term of this contract and for a period of three (3) years following termination of this contract or final payment hereunder, whichever is later, to assure compliance with the terms hereof or to evaluate Contractor's performance hereunder.
- 11.3 Contractor also shall permit these same described entities to monitor all activities conducted by Contractor pursuant to the terms of this contract. As the monitoring agency, in its sole discretion, may deem necessary or appropriate, such monitoring may consist of internal evaluation procedures, examination of program data, special analyses, on-site checking, formal audit examinations, or any other reasonable procedure. All such monitoring shall be performed in a manner that will not unduly interfere with contract performance.

12. Confidentiality of State Records and Information

- 12.1 Contractor acknowledges that it may come into contact with confidential information in connection with this contract or in connection with the performance of its obligations under this contract, including but not limited, to personal records and information of individuals. It shall be the responsibility of Contractor to keep all State records and information confidential at all times and to comply with all Colorado State and Federal laws and regulations concerning the confidentiality of information to the same extent applicable to the State. Any request or demand for information in the possession of Contractor made by a third party who is not an authorized party to this contract shall be immediately forwarded to the State's principal representative for resolution.
- 12.2 Contractor shall notify all of its agent, employees, subcontractors and assigns who will come into contact with State information that they are subject to the confidentiality requirements set forth herein, and shall provide each with a written explanation of the requirements before they are permitted to access information or data. Contractor shall provide and maintain a secure environment that ensures confidentiality of all State records and information wherever located. No State information of any kind shall be distributed or sold to any third party or used by Contractor or its agents in any way, except as authorized by the contract and as approved by the State. State information shall not be retained in any files or otherwise by Contractor or its agents, except as set forth in this contract and approved by the State. Disclosure of State records or information may be cause for legal action against Contractor or its agents. Defense of any such action shall be the sole responsibility of Contractor.

13. Litigation Reporting

Contractor, within ten (10) days after being served with a summons, complaint, or other pleading in a case which involves Services provided or Contractor's performance under this contract, which has been filed in any Federal or state court or administrative agency, shall deliver copies of such document to the State's principal representative, or in absence of such designation, to the chief executive officer of the department, agency, or institution executing this contract on behalf of the State.

14. Conflict of Interest.

- 14.1 During the term of this contract, Contractor shall not engage in any business or personal activities or practices or maintain any relationships which conflict in any way with the full performance of Contractor's obligations under this contract.
- 14.2 Additionally, Contractor acknowledges that in governmental contracting, even the appearance of a conflict of interest is harmful to the interests of the State. Thus, Contractor shall refrain from any practices, activities or relationships that could reasonably be considered to be in conflict with the full performance of Contractor's obligations to the State in accordance with the terms and conditions of this contract, without the prior written approval of the State.

- 14.3. In the event that Contractor is uncertain whether the appearance of a conflict of interest may reasonably exist, Contractor shall submit to the State a full disclosure statement setting forth the relevant details for the State's consideration and direction. Failure to promptly submit a disclosure statement or to follow the State's direction in regard to the apparent conflict shall be grounds for termination of the contract.
- 14.4. Contractor and subcontractors, permitted under the terms of this contract, shall maintain a written code of standards governing the performance of their respective employees engaged in the award and administration of contracts. No employee, officer or agent of Contractor or any permitted subcontractor shall participate in the selection, or in the award or administration of a contract or subcontract supported by Federal funds if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when:
- (a) an employee, officer or agent;
 - (b) any member of the employee's immediate family;
 - (c) an employee's partner; or
 - (d) an organization, which employs, or is about to employ, any of the above,
- has a financial or other interest in the firm selected for award. Contractor's or subcontractor's officers, employees, or agents shall neither solicit nor accept gratuities, favors, or anything of monetary value from Contractor, potential contractors, or parties to sub-agreements.

REPRESENTATIONS AND WARRANTIES

15. Warranties. During the term of this contract and for a period of twelve months following the State's final acceptance under this contract, Contractor warrants as follows:

- 15.1 All Services under this Contract shall be performed in accordance with the specifications set forth in this contract and **Exhibit A** and in a manner acceptable to the State. Contractor shall re-perform any Services that fail to satisfy this warranty.
- 15.2 All deliverables delivered under this contract by Contractor shall meet the specifications set forth in this contract and **Exhibit A**. Contractor shall correct or replace any deliverables which fail to satisfy this warranty.

The foregoing warranties and such other warranties as may be set forth in **Exhibit A**, Scope of Work, are a part of the minimum work requirements of this contract, and as such will be at no additional cost to the State.

16. Licenses, Permits, and Responsibilities

Contractor certifies that, at the time of entering into this contract, it has currently in effect all necessary licenses, certifications, approvals, insurance, permits, and other authorizations required to properly perform the Services and/or deliver the Goods covered by this contract. Contractor warrants that it shall maintain all necessary licenses, certifications, approvals, insurance, permits, and other authorizations required to properly perform this contract, without reimbursement by the State or other adjustment in contract price. Additionally, all employees of Contractor performing services under this contract shall hold the required licenses or certification, if any, to perform their responsibilities. Contractor, if a foreign corporation or other entity transacting business in the State of Colorado, further certifies that it currently has obtained and shall maintain any applicable certificate of authority to do business in the State of Colorado and has designated a registered agent in Colorado to accept service of process. Any revocation, withdrawal or non-renewal of licenses, certifications, approvals, insurance, permits or any such similar requirements necessary for Contractor to properly perform this contract, shall be deemed to be a default by Contractor and grounds for termination of this contract by the State.

17. Tax Exempt Status

Contractor acknowledges that the State of Colorado is not liable for any sales, use, excise, property or other taxes imposed by any Federal, State or local government tax authority. The State also is not liable for any Contractor franchise or income related tax. No taxes of any kind shall be charged to the State.

18. Legal Authority

Contractor warrants that it possesses the legal authority to enter into this contract and that it has taken all actions required by its procedures, by-laws, and/or applicable laws to exercise that authority, and to lawfully authorize its undersigned signatory to execute this contract and to bind Contractor to its terms. Contractor agrees it shall submit voluntarily to the personal jurisdiction of the Federal and State courts in the State of Colorado and venue in the City and County of Denver, Colorado. The person(s) executing this contract on behalf of Contractor warrant(s) that such person(s) have full authorization to execute this contract.

19. Compliance with Applicable Law

19.1 Contractor shall at all times during the execution of this contract strictly adhere to, and comply with, all applicable Federal and Colorado State laws, and their implementing regulations, as they currently exist and may hereafter be amended, which laws and regulations are incorporated herein by this reference as terms and conditions of this contract. Contractor also shall require compliance with such laws and regulations by subcontractors under subcontracts permitted under this contract.

REMEDIES

20. Remedies

In addition to any other remedies provided for in this contract, and without limiting the remedies otherwise available at law or in equity, the State may exercise the following remedial actions if Contractor substantially fails to satisfy or perform the duties and obligations in this contract. "Substantial failure" to satisfy duties and obligations shall be defined to mean material, insufficient, incorrect or improper performance, activities, or inaction by Contractor. These remedial actions are as follows:

- (a) Suspend Contractor's performance pending necessary corrective action as specified by the State, without Contractor's entitlement to adjustment in price/cost or schedule. Furthermore, at the State's option, a directive to suspend may include suspension of this entire contract or any particular part of this contract that the State determines in good faith would not be beneficial or in the State's best interests due to Contractor's substantial non-performance. Accordingly, the State shall not be liable to Contractor for costs incurred after the State has duly notified Contractor of the suspension of performance under this provision, and Contractor shall promptly cease performance and incurring costs in accordance with the State's directive;
- (b) Withhold payment to Contractor until the necessary Services or corrections in performance, development or manufacture are satisfactorily completed;
- (c) Request the removal from work on this contract of employees or agents of Contractor identified by the State, in its reasonable judgment, as being incompetent, careless, insubordinate, unsuitable, or otherwise unacceptable, or whose continued employment on this contract the State deems to be contrary to the public interest or not in the best interests of the State;
- (d) Deny payment for those Services or obligations which have not been performed which have not been provided and which, due to circumstances caused by Contractor, cannot be performed, or if performed would be of no value to the State. Denial of the amount of payment must be reasonably related to the value of work or performance lost to the State; and/or
- (e) Terminate this contract for default.

The above remedies are cumulative and the State, in its sole discretion, may exercise any or all of them individually or simultaneously.

21. Termination for Convenience

- 21.1 When the interests of the State so require, the State may terminate this contract in whole or in part, for the convenience of the State. The State shall give written notice of termination to Contractor specifying the termination of all or a portion of this contract and the effective date of such. Exercise by the State of this termination for convenience provision shall not be deemed a breach of contract by the State. Upon receipt of written notice, Contractor shall incur no further obligations in connection with the terminated work and, on the date set in the notice of termination, Contractor shall stop work to the extent specified. Contractor also shall terminate outstanding orders and subcontracts as they relate to the terminated work. All finished or unfinished documents, data, studies, research, surveys, drawings, maps, models, photographs, and reports or other materials prepared by Contractor under this contract shall, at the option of the State, be delivered by Contractor to the State and shall become the State's property. The State may direct Contractor to assign Contractor's right, title, and interest under terminated orders or subcontracts to the State. Contractor shall complete and deliver to the State the work not terminated by the notice of termination and may incur obligations as are necessary to do so within the contract terms.
- 21.2 If this contract is terminated by the State as provided herein, Contractor shall be paid an amount which bears the same ratio to the total compensation as the Services satisfactorily performed or the deliverables satisfactorily delivered or installed bear to the total Services or deliverables covered by this contract, less payments of compensation previously made. In addition, for contracts that are less than 60% completed, the State may reimburse the contractor for a portion of actual out-of-pocket expenses (not otherwise reimbursed under this contract) incurred by Contractor during the contract period which are directly attributable to the uncompleted portion of Contractor's obligations covered by this contract. In no event shall reimbursement under this clause exceed the contract amount. If this contract is terminated for cause, or due to the fault of the Contractor, the Termination for Cause or Default provision shall apply.

22. Termination for Default/Cause

If Contractor refuses or fails to perform any of the provisions of this contract with such diligence as will ensure its completion within the time and pursuant to the requirements and terms specified in this contract, the State may notify Contractor in writing of such non-performance. If Contractor fails to promptly correct such delay or non-performance within the time specified, the State, may at its option, terminate this entire contract or such part of this contract as to which there has been delay or a failure to properly perform. If terminated for cause, the State shall only reimburse Contractor for accepted work or deliverables received up to the date of termination and final payments may be withheld. In the event of termination, all finished or unfinished documents, data, studies, research surveys, reports, other materials prepared by Contractor, or materials owned by the State in the possession of Contractor, at the option of the State, shall be returned immediately to the State or retained by the State as its property. At the State's option, Contractor shall continue performance of this contract to the extent not terminated, if any, and shall be liable for excess costs incurred by the State in procuring from third parties replacement services or substitute goods as cover. Notwithstanding any remedial action by the State, Contractor also shall remain liable to the State for any damages sustained by the State by virtue of any breach by Contractor and the State may withhold any payment to Contractor for the purpose of mitigating the State's damages, until such time as the exact amount of damages due to the State from Contractor is determined. Upon termination by the State, Contractor shall take timely, reasonable and necessary action to protect and preserve property in the possession of Contractor in which the State has an interest. Further, the State may withhold amounts due to Contractor as the State deems necessary to protect the State against loss because of outstanding liens or claims of former lien holders and to reimburse the State for the excess costs incurred in procuring similar goods or services. Any action taken by the State hereunder or pursuant to paragraph 15 shall not be cause for Contractor to terminate this Contract for default or material breach. If, after termination by the State, it is determined for any reason that Contractor was not in default or that Contractor's action/inaction was excusable, such termination shall be treated as a termination for convenience and the rights and obligations of the parties shall be the same as if this contract had been terminated for convenience, as described herein.

23. Insurance

- 23.1 The Contractor shall obtain, and maintain at all times during the term of this agreement, insurance in the following kinds and amounts:
- a. Worker's Compensation Insurance as required by state statute, and Employer's Liability Insurance covering all of the Contractor's employees acting within the course and scope of their employment.
 - b. Commercial General Liability Insurance written on ISO occurrence form CG 00 01 10/93 or equivalent, covering premises operations, fire damage, independent contractors, products and completed operations, blanket contractual liability, personal injury, and advertising liability with minimum limits as follows:
 - i. \$1,000,000 each occurrence;
 - ii. \$1,000,000 general aggregate;
 - iii. \$1,000,000 products and completed operations aggregate; and
 - iv. \$50,000 any one fire.

If any aggregate limit is reduced below \$1,000,000 because of claims made or paid, the contractor shall immediately obtain additional insurance to restore the full aggregate limit and furnish to the State a certificate or other document satisfactory to the State showing compliance with this provision.

- c. Automobile Liability Insurance covering any auto (including owned, hired and non-owned autos) with a minimum limit as follows: \$1,000,000 each accident combined single limit.
- 23.2 The State of Colorado shall be named as additional insured on the Commercial General Liability and Automobile Liability Insurance policies (leases and construction contracts will require the additional insured coverage for completed operations on endorsements CG 2010 11/85, CG 2037, or equivalent). Coverage required of the contract will be primary over any insurance or self-insurance program carried by the State of Colorado.
- 23.3 The Contractor will require all insurance policies in any way related to the contract and secured and maintained by the Contractor to include clauses stating that each carrier will waive all rights of recovery, under subrogation or otherwise, against the State of Colorado, its agencies, institutions, organizations, officers, agents, employees and volunteers.
- 23.4 All policies evidencing the insurance coverages required hereunder shall be issued by insurance companies satisfactory to the State.
- 23.5 The Contractor shall provide certificates showing insurance coverage required by this contract to the State within 7 business days of the effective date of the contract, but in no event later than the commencement of the services under the contract. No later than 15 days prior to the expiration date of any such coverage, the contractor shall deliver the State certificates of insurance evidencing renewals thereof. At any time during the term of this contract, the State may request in writing, and the contractor shall thereupon within 10 days supply to the State, evidence satisfactory to the State of compliance with the provisions of this section.
- 23.6 Notwithstanding subsection (a) of this section, if the Contractor is a "public entity" within the meaning of the Colorado Governmental Immunity Act, CRS 24-10-101, et seq., as amended ("Act"), the contractor shall at all times during the term of this contract maintain only such liability insurance, by commercial policy or self-insurance, as is necessary to meet its liabilities under the Act. Upon request by the State, the contractor shall show proof of such insurance satisfactory to the State.

24. Governmental Immunity

Notwithstanding any other provision of this contract to the contrary, no term or condition of this contract shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protection, or other provisions of the Governmental Immunity Act. The parties understand and agree that liability for claims for injuries to persons or property arising out of negligence of the State of Colorado, its departments, institutions, agencies, boards, officials and employees is controlled and limited by the provisions of sections 24-10-101, *et seq.*, C.R.S., as now or hereafter amended and the risk management statutes, sections 24-30-1501, *et seq.*, C.R.S., as now or hereafter amended.

25. Force Majeure

Neither Contractor nor the State shall be liable to the other for any delay in, or failure of performance of, any covenant or promise contained in this contract, nor shall any delay or failure constitute default or give rise to any liability for damages if, and only to the extent that, such delay or failure is caused by "force majeure." As used in this contract "force majeure" means acts of God; acts of the public enemy; public health/safety emergency acts of the State or any governmental entity in its sovereign capacity; fires; floods, epidemics; quarantine restrictions; strikes or other labor disputes; freight embargoes; or unusually severe weather.

MISCELLANEOUS PROVISIONS

26. Representatives

Each individual identified below is the principal representative of the designating party. All notices required to be given to a party pursuant to this contract shall be hand delivered with receipt required or sent by certified or registered mail to such party's principal representative at the address for such party set forth below. Either party may from time to time designate by written notice substitute addresses or persons to whom such notices shall be sent.

For the State:

Name: Rick Brown

Title: Section Chief, Intrastate Water Management and Development, CWCB

Address: 1313 Sherman Street, Room 721, Denver, CO 80203

Telephone: (303) 866-3514

For Contractor:

Name: Jeff Comstock

Title: Director, Moffat County Natural Resources Department

Address: 221 W Victory Way, Suite 130, Craig, CO 81625

Telephone: (970) 826-3411

27. Assignment and Successors

Unless otherwise specified in **Exhibit A**, Scope of Work, Contractor's rights and obligations under this contract shall be deemed to be personal and may not be transferred, assigned or subcontracted without the prior, written consent of the State, which shall not be unreasonably withheld. Any attempt at assignment, transfer or subcontracting without such consent shall be void, except that Contractor may assign the right to receive payments from the State pursuant to section 4-9-318, C.R.S. All subcontracts and subcontractors consented to by the State shall be made subject to the requirements, terms and conditions of this contract. Contractor alone shall be responsible for all subcontracting arrangements, directions and delivery of subcontracted work or Goods, and performance of any subcontracted Services. Contractor shall require and ensure that each subcontractor shall assent in writing to all the terms and conditions of this contract, including an obligation of the subcontractor to indemnify the State as is required under Section 3 of the Colorado Special Provisions, incorporated as a part of this contract.

28. Third Party Beneficiaries

The enforcement of the terms and conditions of this contract and all rights of action relating to such enforcement shall be strictly reserved to the State and Contractor. Nothing contained in this contract shall

give or allow any claim or right of action whatsoever by any third person. It is the express intention of the State and Contractor that any such person or entity, other than the State or Contractor, receiving services or benefits under this contract shall be deemed an incidental beneficiary only.

29. Severability

To the extent this contract may be executed and performance of the obligations of the parties may be accomplished within the intent of the contract, the terms of this contract are severable. Should any term or provision hereof be declared invalid or become inoperative for any reason, such invalidity or failure shall not affect the validity of any other term or provision hereof.

30. Waiver

The waiver of any breach of a term, provision, or requirement of this contract shall not be construed or deemed as waiver of any subsequent breach of such term, provision, or requirement, or of any other term, provision, or requirement.

31. Entire Understanding

This contract is intended as the complete integration of all understandings between the parties. No prior or contemporaneous addition, deletion, or other amendment hereto shall have any force or effect whatsoever, unless embodied herein in writing. No subsequent novation, renewal, addition, deletion, or other amendment hereto shall have any force or effect unless embodied in a writing executed and approved pursuant to the Colorado State Fiscal Rules.

32. Survival of Certain Contract Terms

Notwithstanding anything herein to the contrary, all terms and conditions of this contract, including but not limited to its exhibits and attachments, which may require continued performance, compliance, or effect beyond the termination date of the contract, shall survive such termination date and shall be enforceable by the State in the event of the Contractor's failure to perform or comply as required.

33. Modification and Amendment

- 32.1 This contract is subject to such modifications as may be required by changes in Federal or Colorado State law, or their implementing regulations. Any such required modification automatically shall be incorporated into and be part of this contract on the Effective Date of such change, as if fully set forth herein.
- 32.2 Except as specifically provided in this contract, no modification of this contract shall be effective unless agreed to in writing by both parties in an Amendment to this contract, properly executed and approved in accordance with Colorado State law and State Fiscal Rules.

34. Venue

Venue for any action related to performance of this contract shall be in the City and County of Denver, Colorado.

35. Order of Precedence

The provisions of this contract shall govern the relationship of the State and Contractor. In the event of conflicts or inconsistencies between this contract and its exhibits or attachments, such conflicts or inconsistencies shall be resolved by reference to the documents in the following order of priority:

- (a) Colorado Special Provisions, pages 12 to 13.
- (b) Remaining pages of the contract, pages 1 to 11.
- (c) **Exhibit A**, Statement of Work.

SPECIAL PROVISIONS

The Special Provisions apply to all Contracts except where noted in *italics*.

1. **CONTROLLER'S APPROVAL. CRS 24-30-202 (1).** This Contract shall not be deemed valid until it has been approved by the Colorado State Controller or designee.
2. **FUND AVAILABILITY. CRS 24-30-202(5.5).** Financial obligations of the State payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available.
3. **INDEMNIFICATION.** To the extent allowed by law, Contractor shall indemnify, save, and hold harmless the State, its employees and agents, against any and all claims, damages, liability and court awards including costs, expenses, and attorney fees and related costs, incurred as a result of any act or omission by Contractor, or its employees, agents, subcontractors, or assignees pursuant to the terms of this Contract.
[Applicable Only to Intergovernmental Contracts] No term or condition of this Contract shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protection, or other provisions, of the Colorado Governmental Immunity Act, CRS 24-10-101 et seq., or the Federal Tort Claims Act, 28 U.S.C. 2671 et seq., as applicable, as now or hereafter amended.
4. **INDEPENDENT CONTRACTOR. 4 CCR 801-2.** Contractor shall perform its duties hereunder as an independent Contractor and not as an employee. Neither Contractor nor any agent or employee of Contractor shall be or shall be deemed to be an agent or employee of the state. Contractor shall pay when due all required employment taxes and income taxes and local head taxes on any monies paid by the state pursuant to this Contract. Contractor acknowledges that Contractor and its employees are not entitled to unemployment insurance benefits unless Contractor or a third party provides such coverage and that the state does not pay for or otherwise provide such coverage. Contractor shall have no authorization, express or implied, to bind the state to any agreement, liability or understanding, except as expressly set forth herein. Contractor shall provide and keep in force workers' compensation (and provide proof of such insurance when requested by the state) and unemployment compensation insurance in the amounts required by law and shall be solely responsible for its acts and those of its employees and agents.
5. **NON-DISCRIMINATION.** Contractor agrees to comply with the letter and the spirit of all applicable State and federal laws respecting discrimination and unfair employment practices.
6. **CHOICE OF LAW.** The laws of the State of Colorado, and rules and regulations issued pursuant thereto, shall be applied in the interpretation, execution, and enforcement of this Contract. Any provision of this Contract, whether or not incorporated herein by reference, which provides for arbitration by any extra-judicial body or person or which is otherwise in conflict with said laws, rules, and regulations shall be considered null and void. Nothing contained in any provision incorporated herein by reference which purports to negate this or any other special provision in whole or in part shall be valid or enforceable or available in any action at law, whether by way of complaint, defense, or otherwise. Any provision rendered null and void by the operation of this provision will not invalidate the remainder of this Contract, to the extent that this Contract is capable of execution. At all times during the performance of this Contract, Contractor shall strictly adhere to all applicable federal and State laws, rules, and regulations that have been or may hereafter be established.
7. **[Not Applicable to Intergovernmental Contracts] VENDOR OFFSET. CRS 24-30-202 (1) and 24-30-202.4.** The State Controller may withhold payment of certain debts owed to State agencies under the vendor offset intercept system for: (a) unpaid child support debt or child support arrearages; (b) unpaid balances of tax, accrued interest, or other charges specified in Article 21, Title 39, CRS; (c) unpaid loans due to the Student Loan Division of the Department of Higher Education; (d) amounts required to be paid to the Unemployment Compensation Fund; and (e) other unpaid debts owing to the State or its agencies, as a result of final agency determination or reduced to judgment, as certified by the State Controller.

8. SOFTWARE PIRACY PROHIBITION. Governor's Executive Order D 002 00. No State or other public funds payable under this Contract shall be used for the acquisition, operation, or maintenance of computer software in violation of federal copyright laws or applicable licensing restrictions. Contractor hereby certifies that, for the term of this Contract and any extensions, Contractor has in place appropriate systems and controls to prevent such improper use of public funds. If the State determines that Contractor is in violation of this paragraph, the State may exercise any remedy available at law or equity or under this Contract, including, without limitation, immediate termination of this Contract and any remedy consistent with federal copyright laws or applicable licensing restrictions.

9. EMPLOYEE FINANCIAL INTEREST. CRS 24-18-201 and 24-50-507. The signatories aver that to their knowledge, no employee of the State has any personal or beneficial interest whatsoever in the service or property described in this Contract.

10. [Not Applicable to Intergovernmental Contracts]. ILLEGAL ALIENS – PUBLIC CONTRACTS FOR SERVICES AND RESTRICTIONS ON PUBLIC BENEFITS. CRS 8-17.5-101 and 24-76.5-101. Contractor certifies that it shall comply with the provisions of CRS 8-17.5-101 et seq. Contractor shall not knowingly employ or Contract with an illegal alien to perform work under this Contract or enter into a Contract with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or Contract with an illegal alien to perform work under this Contract. Contractor represents, warrants, and agrees that it (i) has verified that it does not employ any illegal aliens, through participation in the Basic Pilot Employment Verification Program administered by the Social Security Administration and Department of Homeland Security, and (ii) otherwise shall comply with the requirements of CRS 8-17.5-102(2)(b). Contractor shall comply with all reasonable requests made in the course of an investigation under CRS 8-17.5-102 by the Colorado Department of Labor and Employment. Failure to comply with any requirement of this provision or CRS 8-17.5-101 et seq., shall be cause for termination for breach and Contractor shall be liable for actual and consequential damages.

Contractor, if a natural person eighteen (18) years of age or older, hereby swears or affirms under penalty of perjury that he or she (i) is a citizen or otherwise lawfully present in the United States pursuant to federal law, (ii) shall comply with the provisions of CRS 24-76.5-101 et seq., and (iii) shall produce one form of identification required by CRS 24-76.5-103 prior to the Effective Date of this Contract.

Revised October 25, 2006

Effective Date of Special Provisions: August 7, 2006

THE PARTIES HERETO HAVE EXECUTED THIS CONTRACT

GRANTEE:

STATE OF COLORADO:

BILL RITTER, JR. GOVERNOR

Moffat County

By Phil Brown 5-9-08
For Executive Director, Department of Natural Resources

Thomas J. Mathers
Signature of Authorized Officer

Thomas J. Mathers
(Print) Name & Title of Authorized Officer

Date 4-29-08

LEGAL REVIEW:
Attorney General, John W. Suthers

By N/A

CORPORATIONS:
(A corporate attestation is required.)

Attest (Seal) By Stephanie Beckett
(/County Clerk)

(Place corporate seal here, if available)

ALL CONTRACTS MUST BE APPROVED BY THE STATE CONTROLLER

CRS 24-30-202 requires that the State Controller approve all state Contracts. This Contract is not valid until the State Controller, or such assistant as he may delegate, has signed it. The Contractor is not authorized to begin performance until the Contract is signed and dated below. If performance begins prior to the date below, the State of Colorado may not be obligated to pay for the goods and/or services provided.

STATE CONTROLLER
David J. McDermott, CPA

By Dianne C. Stump
Date 6-6-08

EXHIBIT A - SCOPE OF WORK

Agricultural Water Needs Assessment and Water Supply Analysis Yampa, White, and Green River Basins

Water Activity Name

Agricultural Water Needs Assessment and Water Supply Analysis.

Grant Recipient

Moffat County

Funding Source

Yampa/White Basin Account

Introduction and Background

In 2005, House Bill 05-1177, the Colorado Water for the 21st Century Act, was signed into law. Among other provisions, the bill provides for the creation of Basin Roundtables. Each Basin Roundtable is charged with formulating a water needs assessment, conducting an analysis of available un-appropriated water, and proposing projects or methods for meeting those needs. In 2006, the House Bill 05-1400 was signed into law. HB-1400 provides a source of funding for basin roundtables to conduct such studies.

In 2003, the Colorado Water Conservation Board (CWCB) completed the Statewide Water Supply Initiative (SWSI). That study included estimates of water demands in the White and Yampa River Basin through 2030. SWSI concluded there was little "gap" between projected municipal and industrial water demands and available water supplies in the basins. While SWSI provided a valuable coarse assessment of water demands for the municipal, industrial, and agricultural sectors, concerns were raised at that time that the analysis did not accurately reflect the agricultural water shortages in some of the water districts and especially as it exists on the tributaries. One concern was that the Yampa River Basin analysis of agricultural demand was not based on high altitude crop coefficients, thus understating the demand for water in the Yampa River Basin.

SWSI also noted that up to an additional 39,000 acres of agricultural lands could be developed in the basins but did not investigate the location or impact of additional agricultural demand in these basins. The Colorado River Water Conservation District Small Reservoir Study identified sites for additional water supply storage in the Yampa Basin. That study highlighted the need to look at integrating irrigation practices with storage to better meet water demands.

Given this background, we believe it is appropriate and opportune for a study to be undertaken under the auspices of HB-1177 and the Yampa/White/Green River Basin Roundtable to accurately identify agricultural water needs and shortages in the basins and identify projects to satisfy those needs.

This proposed work plan is being submitted by the Yampa/White/Green Basin Roundtable to the Colorado Department of Natural Resources (DNR) Office of Interbasin Compact Negotiations for review and approval. This workplan was prepared under a task order to DNR's study contractor. This workplan may form the basis of a future Water Supply Reserve Account application. Coordination with and concurrence of CWCBC will be essential in any tasks involving refinement of the Colorado Decision Support System.

Objectives

The objectives of the proposed study are to:

1. Refine and update previous estimates of current agricultural water demands, supplies, and shortages for the Yampa/White/Green River Basin through use of the State's Decision Support System (DSS) models and data
2. Identify and evaluate shortages for the future agricultural demands.
3. Assess the impacts of climate change on agricultural water availability
4. Assess the impacts of energy sector water supply development on agricultural water availability in the White River basin.
5. Assess water supply development alternatives to satisfy shortages identified in (1), (2) and (3).
6. Assess the effects on return flows of various irrigation practices or changes in those practices.
7. Investigate creative solutions that benefit multiple interests (e.g., agriculture, energy, recreation, environment, etc.).

Tasks

This scope of work is divided into six major tasks with multiple sub-tasks under each, addressing each of the objectives. The following is a list and description of tasks to be completed under this scope of work.

Task 1 – Estimate Existing Agricultural Water Shortages

1.1 Revisit/Revise Agricultural Water Demands

Two water districts in the Yampa/White/Green River Basin were identified in SWSI as being significantly water short (> 10 percent average annual shortfall) with respect to agriculture: Districts 44 and 54. The approach used in SWSI for these estimates relied on the calculation of irrigation demands based on year 2000 irrigated acreage coverages and State DSS calculations of total maximum annual irrigation water requirements (IWR), and comparison to estimated historical levels of water supply (based on historical diversions) to obtain current estimates of supply available to the crops (water supply limited values, WSL). The difference between these two parameters (IWR – WSL) by water district was assumed to be a reasonable estimate of agricultural shortages. As part of Task 1.1, the following calculational basis will be re-examined and, potentially, refined and updated as appropriate.

- The year 2000 DSS irrigated acreage coverages should be re-examined with Roundtable members and water administrators through the presentation of plots of the year 2000 irrigated acreages on more recent (2005) aerial photographs. If necessary, field surveys should be performed in future efforts to resolve uncertainties.
- Current level of agricultural water demands in the models will be updated to reflect, where appropriate, high altitude crop coefficients. This may require execution of the State's StateCU program component of the CDSS. Irrigation water requirements are expected to increase by 10 to 15 percent with the high altitude coefficients.
- Maximum use efficiencies used in the models will be summarized and reviewed with the Roundtable members.

This type of work will be conducted in coordination with the current or planned State DSS updates for these basins.

1.2 Revise/Execute CDSS Water Allocation Model (StateMod)

The input data files for the StateMod Program will be revised to reflect the agreed on revisions from subtask 1.1. Discussions with the Roundtable members will occur on concerns about application of the DSS tools and data for estimating current water availability and current shortages in the basins. A new baseflow data set for the StateMod model will be prepared and executions of the model performed. Re-calibration of the model may be required if dictated by comparisons between historical streamflow/diversion data and simulated results. This new Baseline data set will reflect current operations for the 1909 through 2005 period (White is presently being updated to 1909-2005). Results of these simulations will be summarized in an Excel Workbook.

1.3 Present Results of Revised Current Agricultural Water Shortage Analysis

Prepare charts, annotated maps, figures, and tables showing the location, timing, and amounts of current agricultural shortages ("gap"). Prepare a technical memorandum of the refinements for estimating current agricultural demands, methodology, assumptions, and results. Discussions will be conducted with Roundtable members on their concerns

Task 1 Deliverables

- Simulation inputs and outputs used in presented analyses of current water shortages.
- Excel based spreadsheets used in calculation of shortages.
- Technical memo describing methodology, assumptions, and results of revised analyses.

Task Cost: \$22,580

Task 2 – Identify and Evaluate Shortages for Future Agricultural Demands

SWSI identified the potential to increase Basin irrigated acreage by up to 39,000, if water supplies were developed. Simultaneous to this, SWSI projected a potential decrease of up to 2,600 acres by 2030 due to water rights transfers and urbanization. These estimates result in a 2030 projected net change ranging from (-) 2,600 acres to (+) 39,000 acres. The objective of this sub-task is to firm up these projections by re-examining available information substantiating the previous estimates and through discussions with Basin Roundtable members and members of the agricultural community in the basins.

2.1 Prepare Maps Showing Potential Location of Future Agricultural Lands

Working with Basin Roundtable members and other stakeholders, collect and digitize (in ArcGIS) the general boundaries of the 39,000 acres of potential future irrigated land that have been previously defined. Superimpose these lands on current (2005) color aerial photography and prepare maps by drainage showing the potential future irrigated lands. Visit with the Roundtable and Water Administrators for any refinement suggested in the potential future irrigated lands.

2.2 Define Irrigation Water Requirements for Future Agricultural Lands

Using the refinements resulting from subtask 2.1 and high altitude crop coefficients (where applicable) and representative cropping patterns, prepare estimates of irrigation water requirements for the future agricultural lands. Assess and project a range of annual water demands for at least three different levels of future agricultural development.

These are the supply "gaps" (prior to identification of future water sources to serve those gaps).

2.3 Present Results of Future Agricultural Water Shortage Analysis

Prepare charts, annotated maps, figures, and tables showing the location, timing, and amounts of agricultural shortages ("gap") for future lands. Prepare a technical memorandum of the refinements for estimating agricultural demands on future lands, methodology, assumptions, and results.

Task 2 Deliverables

- Simulation inputs and outputs used in presented analyses of water shortages for future agricultural lands.
- Excel based spreadsheets used in calculation of shortages.
- Technical memo describing methodology, assumptions, and results of revised analyses.

Task Cost: \$14,195

Task 3 – Assess the Impacts of Climate Change on Agricultural Water Availability

Climate change has the potential to alter several facets of agricultural water supply and demand. The timing and amount of water yielded by the basin could change, with runoff potentially occurring earlier than in the past, water yield potentially reduced. Additionally, crop water requirements and growing season timing can change with increased temperatures.

3.1 Identify Trends in Precipitation and Runoff and Potential Changes in Crop Water Requirements

Analyze historic basin precipitation and stream flow records and identify any trends in precipitation or peak runoff timing. Summarize current research regarding the changes in crop water requirements associated with climate change.

3.2 Present Results of Potential Agricultural Water Shortages Due to Climate Change

Based on trends and research identified in 3.1 (or if no trends are identified, use reasonable adjustments), prepare charts, annotated maps, figures, and tables showing the location, timing, and amounts of agricultural shortages ("gap") the current irrigated lands and the three levels of future agricultural development scenarios identified in 2.2.

Task 3 Deliverables

- Simulation inputs and outputs used in presented analyses of water shortages for scenarios of early and/or reduced runoff and modified crop water requirements.
- Excel based spreadsheets used in calculation of shortages.
- Technical memo describing findings of task 3.1, and the methodology, assumptions, and results of revised analyses.

Task Cost: \$31,550

Task 4 – Assess the Impacts of Energy Sector Water Supply Development on Agricultural Water Availability in the White River Basin.

4.1 Identify Potential Future Energy Sector Water Demands

The Yampa/White and Colorado Basin Roundtables are undertaking an Energy Needs Assessment Report. This report is to estimate water demands from the energy sector in the basins, identify water supply sources and outline cooperative management arrangements. The results of this report will be reviewed to provide water demand estimates for the near and long term, and for varying levels of energy production.

4.2 Perform Assessment of Impacts to Water Availability

The Energy Needs Assessment Report is to summarize supply sources and address impacts to river administration. The results from the report will be augmented in this project and compared with a water rights analysis that uses the Statemod program. An analysis of conditional water rights in the White River basin will reveal the impacts of development of conditional rights that could be used by the energy sector in relation to agricultural water rights. Energy companies have also acquired agricultural water rights and currently lease these back for agricultural use. The location, amount and seniority of these rights should be determined and included in the overall analysis. The analysis should include charts, annotated maps, figures, and tables showing the location, timing, and impacts to water availability caused by development of water (conditional rights and/or transfers) for use by the energy sector .

Task 4 Deliverables

- Maps and tables that show the location, seniority, amount and use type of water rights associated with energy development, including those associated with agricultural water rights owned by energy companies

- Technical memo summarizing the results of the Energy Needs Assessment Report and the water rights analysis, including impacts on water available for agricultural use (shortage analysis).

Task Cost: \$26,400

Task 5 – Assess Water Supply Development Alternatives to Satisfy Shortages Identified in Tasks 1, 2 and 3

5.1 Catalog Information on Currently Identified Water Supply Projects

There are several sources of information pertaining to currently identified water supply projects. Sources of data include, but are not limited to, existing projects named in the SWSI report as Identified Projects and Processes (IP&Ps), projects listed in the Colorado River Water Conservation District Small Reservoir Study, and conditional direct flow and storage water rights. Members of the Basin Roundtable will be asked to provide insight into these projects. Discussions with the Basin Roundtable may lead to identification of new projects not already documented in the above sources. These projects may be structural (e.g., new storage) or non-structural (e.g., improved irrigation efficiency).

5.2 Perform Assessment of Currently Legally Available Water Supplies, Including Both Surface Water and Groundwater Supplies

The DSS surface water model (StateMod) is a water allocation model that computes available flows at several user-defined points in the basin. Using the updated DSS models from Task 1, currently legally available water throughout the basin will be modeled using StateMod or other water allocation models. Model results should be analyzed at several key locations in the basin where currently identified projects would be located. This will serve as a baseline model run for subsequent alternatives analyses.

As part of this task, the results of the DSS supply availability calculations, as well as key model assumptions and parameter values, will be presented and discussed with Basin Roundtable members. Any remaining concerns about use of the DSS model results, not already addressed as part of Task 1, will be addressed in this task.

Groundwater is not widely used as a water source in the Yampa/White/Green River Basin. No groundwater model was developed during the DSS process for this basin. However, groundwater usage and resources in the basin will be coarsely estimated if alternatives identified in Task 3.1 have groundwater as a source of water.

5.3 Develop and Quantify Conceptual Alternatives – Individual Projects or Groups of Projects – To Meet Projected Agricultural Needs

Water shortfalls identified in previous tasks along with an understanding of identified and potential new projects, will guide the development and quantification

of up to five alternatives. Items to consider in developing alternatives include the implementation of individual projects or groups of projects, sensitivity to conditional water rights development, and change of use in the basin (e.g., from agricultural to oil-shale), environmental and recreational impacts (both positive and negative), federal permit requirements, and other regulatory requirements affecting project feasibility such as spillway sizing. Nonstructural alternatives such as increasing delivery and irrigation efficiency will also be evaluated. Storage routing and water supply modeling for the alternative projects should be used to quantify the potential yields and reliability of the various project alternatives, recognizing that supplies for a water project may be the same source of supplies identified for another project.

5.4 Provide Planning Level Comparison of Alternatives Based on Supply Yields, Cost Estimates, Feasibility, and Regulatory Considerations

This subtask will require a clearly defined scoring or ranking system for comparison of the named criteria above. This task should identify potential conflicts between users and foster a collaborative approach to project implementation. Criteria for regulatory considerations can be obtained from the statewide non-consumptive report.

Task 5 Deliverables

- Table and map of all currently identified water supply projects (Task 5.1)
- Memorandum summarizing analyses of currently legally available water at key points in the basin, typically alternative project sites (Task 5.2)
- Memorandum describing development and quantification of alternatives, the modeling results and ranking/scoring (Tasks 5.3 and 5.4)

Task Cost \$51,625

Task 6 - Assess the Effects on Historical Late Season Return Flows from Agricultural Efficiency Alternatives

Basin water users have expressed concern about the change in return flows to the streams caused by changes in irrigation practices that may be included in the alternatives developed in Task 5 (e.g., changing from flood to sprinkler irrigation). Concern centers on uncertainty of how return flows are affected by change in irrigation practices. Return flows may be diminished later in the season if higher efficiency irrigation is implemented and less water applied to crops returns to the stream through the aquifer system. The State DSS, and/or alternative calculation methods, will be employed to analyze the potential impacts of reduced return flows from changes in irrigation efficiency on water rights and streamflows. Investigate various means (i.e., stream recharge plans) that would help to preserve late season levels of streamflow

Task 6 Deliverables

Memorandum addressing changes in irrigation practices for each of the scenarios developed in Task 5.3 with quantification and analysis of resulting change in late season return flows.

Task Cost: \$19,370

Task 7 - Investigate Creative Solutions that Benefit Multiple Interests (e.g., Agriculture, Energy, Recreation, Etc.)

Prepare a memorandum discussing and illustrating how water supply projects can be developed or enhanced to benefit multiple interests (i.e., compensatory in-basin storage, stream recharge plans, intermittent supply plans, recreation, environment). Identify possible funding sources for meeting all beneficial uses of the potential projects

Coordination with the Energy Needs Assessment and the roundtable's ongoing non-consumptive needs assessment will be paramount. Creative solutions will need coordination between these two components of the roundtable and will be jointly developed, as one solution cannot stand isolated without affecting other water uses. It is the intent of this project to share data between other projects and not use grant money to repeat data that has already been collected. Climate data, flow data, and consumption information should only be gathered once and shared between the ag, energy, and recreation research projects. It is likely that the first of the research projects will be where shared data will be collected and the subsequent projects will use and supplement existing data.

Task 7 Deliverable

Memorandum listing multi-interest water supply solutions, project enhancements, and potential funding sources.

The memorandum will also describe how solutions proposed coordinate, complement, and impact water needs related to with the Energy Needs Assessment and non-consumptive uses of the river. Specifically in areas where similar data is needed (i.e. climate records, flow records etc.) between other research, the contractors will not replicate but rather share data. A description of how data was shared will be detailed as a deliverable.

Task Cost: \$17,350

Total Cost of Tasks: \$183,070

10% of task cost for expenses: \$18,307

Total Contract Maximum: \$201,377

Budget

The tasks outlined above are summarized in the following table:

Task	Hours	Total
Task 1 - Estimate Existing Agricultural Water Shortages	196	\$ 22,580
Task 2 - Identify and Evaluate Shortages for Future Agricultural Demands	120	\$ 14,195
Task 3 - Assess the Impacts of Climate Change on Agricultural Water Availability	220	\$ 31,550
Task 4 - Assess the Impacts of Energy Sector Water Supply Development on Agricultural Water Availability in the White River Basin.	185	\$ 26,400
Task 5 - Assess Water Supply Development Alternatives to Satisfy Shortages Identified in Tasks 1, 2 and 3	365	\$ 51,625
Task 6 - Assess the Effects on Historical Late Season Return Flows from Agricultural Efficiency Alternatives	140	\$ 19,370
Task 7 - Investigate Creative Solutions that Benefit Multiple Interests (e.g., Agriculture, Energy, Recreation, Etc.)	90	\$ 17,350
Expenses 10% (Travel, copies, etc...)		\$ 18,307
Project Total	1,316	\$ 201,377

CDM staff and sub-consultants expected to work on this project are listed in the following table:

Employee	Classification	Hourly rate
Morea, S	Officer	\$ 250
DiNatale, K	Principal/Associate	\$ 225
McCurry, G	Principal/Associate	\$ 180
Simpson, H	Senior Engineer	\$ 150
Bethel, R.	Senior Engineer	\$ 135
McCluskey, M	Senior Engineer	\$ 115
Bliss, M	Engineer II	\$ 95
Dimick, J	Engineer II	\$ 85
Brewer, C	Engineer I	\$ 75
Smith, N	Engineer I	\$ 85
Donovan, D	Senior Administrative	\$ 100
Epson, C	Word Processing	\$ 80
Razes, B	Clerical	\$ 80

Schedule

Task	Start Date	Finish Date
1	Upon NTP	NTP + 90 days
2	Upon NTP	NTP + 180 days
3	Upon NTP	NTP + 180 days
4	Upon NTP	12/31/08
5	NTP + 60 days	12/31/08
6	NTP + 60 days	12/31/08
7	NTP + 60 days	12/31/08

NTP = Notice to Proceed

Note that 12/31/08 is specified in Exhibit A as the end date of the contract

Payment

Payment will be made based on actual expenditures and invoicing by the water activity sponsor. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 5 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed.

All products, data and information developed as a result of this grant must be provided to CWCBC in hard copy and electronic format as part of the project documentation.

Yampa Agricultural Water Needs Assessment 4/4/2008													
Staff Classification and Estimated Hours for Subtask													
Task/Subtask	Officer/Principal		Associate		Senior Engineer		Staff Engineer (Modeler/GIS)		Clerical		Task or Project Summary		
	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	
Task 1 - Estimate Existing Agricultural Water Shortages		\$225		\$180		\$130		\$100		\$80			
1.1 Revisit/ Revise Agricultural Water Demands (1)	4	\$900	2	\$360	10	\$1,300	40	\$4,000	10	\$800	64	\$7,360	
1.2 Revise/ Execute CDSS Water Allocation Model (StateMod)	4	\$900	4	\$720	10	\$1,300	40	\$4,000	20	\$1,600	74	\$8,520	
1.3 Present Results of Revised Current Agricultural Water Shortage Analysis	8	\$1,800		\$0	10	\$1,300	20	\$2,000	20	\$1,600	58	\$6,700	
Total Task	16	\$3,600	6	\$1,080	30	\$3,900	100	\$10,000	50	\$4,000	196	\$22,580	
Task 2 - Identify and Evaluate Shortages for Future Agricultural Demands													
2.1 Prepare Maps Showing Potential Location of Future Agricultural Lands		\$0	4	\$720	5	\$650	30	\$3,000		\$0			
2.2 Define Irrigation Water Requirements for Future Agricultural Lands	3	\$675		\$0	20	\$2,600	20	\$2,000		\$0			
2.3 Present Results of Future Agricultural Water Shortage Analysis	2	\$450		\$0	10	\$1,300	20	\$2,000	10	\$800			
Total Task	5	\$1,125	4	\$720	35	\$4,550	70	\$7,000	10	\$800	120	\$14,195	
Task 3 - Assess the Impacts of Climate Change on Agricultural Water Availability													
3.1 Identify Trends in Precipitation and Runoff and Potential Changes in Crop Water Requirements	20	\$4,500	20	\$3,600	10	\$1,300	50	\$5,000		\$0			
3.2 Present Results of Potential Agricultural Water Shortages Due to Climate Change	10	\$2,250	10	\$1,800	30	\$3,900	60	\$6,000	40	\$3,200			
Total Task	30	\$6,750	30	\$5,400	40	\$5,200	110	\$11,000	40	\$3,200	220	\$31,550	
Task 4 - Assess the Impacts of Energy Sector Water Supply Development on Agricultural Water Availability in the White River Basin.													
4.1 Identify Potential Future Energy Sector Water Demands	10	\$2,250	10	\$1,800	20	\$2,600	15	\$1,500		\$0			
4.2 Perform Assessment of Impacts to Water Availability	10	\$2,250	10	\$1,800	40	\$5,200	90	\$9,000		\$0			
Total Task	20	\$4,500	20	\$3,600	60	\$7,800	105	\$10,500	0	\$0	185	\$26,400	
Task 5 - Assess Water Supply Development Alternatives to Satisfy Shortages Identified in Tasks 1, 2 and 3													
5.1 Catalog Information on Currently Identified Water Supply Projects	10	\$2,250		\$0	20	\$2,600	10	\$1,000		\$0			
5.2 Perform Assessment of Currently Legally Available Water Supplies, Including Both Surface Water and Groundwater Supplies	10	\$2,250		\$0	10	\$1,300	40	\$4,000		\$0			
5.3 Develop and Quantify Conceptual Alternatives - Individual Projects or Groups of Projects - To Meet Projected Agricultural Needs	40	\$9,000		\$0	40	\$5,200	60	\$6,000		\$0	140		
5.4 Provide Planning Level Comparison of Alternatives Based on Supply Yields, Cost Estimates, Feasibility, and Regulatory Considerations	25	\$5,625		\$0	80	\$10,400	20	\$2,000		\$0			
Total Task	85	\$19,125	0	\$0	150	\$19,500	130	\$13,000	0	\$0	365	\$51,625	
Task 6 - Assess the Effects on Historical Late Season Return Flows from Agricultural Efficiency Alternatives													
Total Task	30	\$6,750	4	\$720	30	\$3,900	80	\$8,000	0	\$0	140	\$19,370	
Task 7 - Investigate Creative Solutions that Benefit Multiple Interests (e.g., Agriculture, Energy, Recreation, Etc.)													
Total Task	30	\$6,750	20	\$3,600	40	\$5,200	10	\$1,000	10	\$800	90	\$17,350	
Total Labor Project Cost (and Associated Hours)	216	\$48,600	84	\$15,120	385	\$50,050	605	\$60,500	110	\$8,800	1316	\$183,070	
Expenses (10% of Labor Cost)												\$18,307	
TOTAL PROJECT COST												\$201,377	