

STATE OF COLORADO
Colorado Water Conservation Board
Grant Agreement
with
Lower Arkansas Valley Water Conservancy District
Contract Number C150457

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1. PARTIES

This Grant Agreement (hereinafter called "Grant") is entered into by and between Lower Arkansas Valley Water Conservancy District (hereinafter called "Grantee"), and the STATE OF COLORADO acting by and through the Department of Natural Resources, Colorado Water Conservation Board (hereinafter called the "State or CWCB").

2. EFFECTIVE DATE AND NOTICE OF NONLIABILITY.

This Grant shall not be effective or enforceable until it is approved and signed by the Colorado State Controller or designee (hereinafter called the "Effective Date"). The State shall not be liable to pay or reimburse Grantee for any performance hereunder, including, but not limited to costs or expenses incurred, or be bound by any provision hereof prior to the Effective Date.

3. RECITALS

A. Authority, Appropriation, And Approval

Authority for the agency entering into this Contract arises from Colorado Revised Statutes (CRS) 39-29-109(2)(c), 37-75-102 and 37-75-104(2)(c) and Senate Bill 06-179 adopted by the 2006 General Assembly, and a sufficient unencumbered balance thereof remains available for payment. Required approvals, clearance and coordination have been accomplished from and with appropriate agencies.

B. Consideration

The Parties acknowledge that the mutual promises and covenants contained herein and other good and valuable consideration are sufficient and adequate to support this Grant.

C. Purpose

The Water Supply Reserve Account provides money for grants and loans to complete water activities, which are broadly defined and include water supply and environmental projects and/or studies. This Grant is for the Arkansas River Basin John Martin Wetlands and Neeoshe Reservoir Non-consumptive Needs Quantification in the Arkansas River Basin.

D. References

All references in this Grant to sections (whether spelled out or using the § symbol), subsections, exhibits or other attachments, are references to sections, subsections, exhibits or other attachments contained herein or incorporated as a part hereof, unless otherwise noted.

4. DEFINITIONS

The following terms as used herein shall be construed and interpreted as follows:

A. Budget

"Budget" means the budget for the Work described in **Exhibit A**.

B. Evaluation

"Evaluation" means the process of examining Grantee's Work and rating it based on criteria established in §6 and **Exhibit A**.

C. Exhibits and other Attachments

The following are attached hereto and incorporated by reference herein: **Exhibit A**.

D. Goods

"Goods" means tangible material acquired, produced, or delivered by Grantee either separately or in conjunction with the Services Grantee renders hereunder.

E. Grant

"Grant" means this Grant, its terms and conditions, attached exhibits, documents incorporated by reference under the terms of this Grant, and any future modifying agreements, exhibits, attachments or references incorporated herein pursuant to Colorado State law, Fiscal Rules, and State Controller Policies.

F. Grant Funds

"Grant Funds" means available funds payable by the State to Grantee pursuant to this Grant.

G. Party or Parties

"Party" means the State or Grantee and "Parties" means both the State and Grantee.

H. Program

"Program" means the Water Supply Reserve Account grant program that provides the funding for this Grant.

I. Review

"Review" means examining Grantee's Work to ensure that it is adequate, accurate, correct and in accordance with the criteria established in §6 and **Exhibit A**.

J. Services

"Services" means the required services to be performed by Grantee pursuant to this Grant.

K. Sub-grantee

"Sub-grantee" means third-parties, if any, engaged by Grantee to aid in performance of its obligations.

L. Work

"Work" means the tasks and activities Grantee is required to perform to fulfill its obligations under this Grant and **Exhibit A**., including the performance of the Services and delivery of the Goods.

M. Work Product

"Work Product" means the tangible or intangible results of Grantee's Work, including, but not limited to, software, research, reports, studies, data, photographs, negatives or other finished or unfinished documents, drawings, models, surveys, maps, materials, or work product of any type, including drafts.

5. TERM and EARLY TERMINATION.

Initial Term-Work Commencement

The Parties respective performances under this Grant shall commence on the later of either the Effective Date or December 1, 2009. This Grant shall terminate on June 30, 2011 unless sooner terminated or further extended as specified elsewhere herein.

6. STATEMENT OF WORK

A. Completion

Grantee shall complete the Work and its other obligations as described herein and in **Exhibit A** on or before June 30, 2011. The State shall not be liable to compensate Grantee for any Work performed prior to the Effective Date or after the termination of this Grant.

B. Goods and Services

Grantee shall procure Goods and Services necessary to complete the Work. Such procurement shall be accomplished using the Grant Funds and shall not increase the maximum amount payable hereunder by the State.

C. Employees

All persons employed by Grantee or Sub-grantees shall be considered Grantee's or Sub-grantees' employee(s) for all purposes hereunder and shall not be employees of the State for any purpose as a result of this Grant.

7. PAYMENTS TO GRANTEE

The State shall, in accordance with the provisions of this §7, pay Grantee in the following amounts and using the methods set forth below:

A. Maximum Amount

The maximum amount payable under this Grant to Grantee by the State is \$148,975, as determined by the State from available funds. Grantee agrees to provide any additional funds required for the successful completion of the Work. Payments to Grantee are limited to the unpaid obligated balance of the Grant as set forth in **Exhibit A**. The maximum amount payable by the State to Grantee during each State fiscal year of this Grant shall be:

\$148,975 in FY2010
\$148,975 in FY2011, minus any funds expended in FY2010 and 2011

i. Advance, Interim and Final Payments

Any payment allowed under this Grant or in **Exhibit A** shall comply with State Fiscal Rules and be made in accordance with the provisions of this Grant or such Exhibit. Grantee shall initiate any payment requests by submitting invoices to the State in the form and manner set forth in approved by the State.

ii. Interest

The State shall fully pay each invoice within 45 days of receipt thereof if the amount invoiced represents performance by Grantee previously accepted by the State. Uncontested amounts not paid by the State within 45 days may, if Grantee so requests, bear interest on the unpaid balance beginning on the 46th day at a rate not to exceed one percent per month until paid in full; provided, however, that interest shall not accrue on unpaid amounts that are subject to a good faith dispute. Grantee 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 interest rate.

iii. Available Funds-Contingency-Termination

The State is prohibited by law from making fiscal commitments beyond the term of the State's current fiscal year. Therefore, Grantee's compensation is contingent upon the continuing availability of State appropriations as provided in the Colorado Special Provisions, set forth below. If federal funds are used with this Grant in whole or in part, the State's performance hereunder is contingent upon the continuing availability of such funds. Payments pursuant to this Grant shall be made only from available funds encumbered for this Grant and the State's liability for such payments shall be limited

to the amount remaining of such encumbered funds. If State or federal funds are not appropriated, or otherwise become unavailable to fund this Grant, the State may immediately terminate this Grant in whole or in part without further liability in accordance with the provisions herein.

iv. Erroneous Payments

At the State's sole discretion, payments made to Grantee in error for any reason, including, but not limited to overpayments or improper payments, and unexpended or excess funds received by Grantee, may be recovered from Grantee by deduction from subsequent payments under this Grant or other Grants, grants or agreements between the State and Grantee or by other appropriate methods and collected as a debt due to the State. Such funds shall not be paid to any party other than the State.

B. Use of Funds

Grant Funds shall be used only for eligible costs identified herein and/or in the Budget. The State's total consideration shall not exceed the maximum amount shown herein.

C. Matching Funds

Grantee shall provide matching funds as provided in **Exhibit A**.

8. REPORTING - NOTIFICATION

Reports, Evaluations, and Reviews required under this §8 shall be in accordance with the procedures of and in such form as prescribed by the State and in accordance with §19, if applicable.

A. Performance, Progress, Personnel, and Funds

Grantee shall submit a report to the State upon expiration or sooner termination of this Grant, containing an Evaluation and Review of Grantee's performance and the final status of Grantee's obligations hereunder. In addition, Grantee shall comply with all reporting requirements, if any, set forth in **Exhibit A**.

B. Litigation Reporting

Within 10 days after being served with any pleading in a legal action filed with a court or administrative agency, related to this Grant or which may affect Grantee's ability to perform its obligations hereunder, Grantee shall notify the State of such action and deliver copies of such pleadings to the State's principal representative as identified herein. If the State's principal representative is not then serving, such notice and copies shall be delivered to the Executive Director of the Colorado Department of Natural Resources.

C. Noncompliance

Grantee's failure to provide reports and notify the State in a timely manner in accordance with this §8 may result in the delay of payment of funds and/or termination as provided under this Grant.

D. SubGrants

Copies of any and all subGrants entered into by Grantee to perform its obligations hereunder shall be submitted to the State or its principal representative upon request by the State. Any and all subGrants entered into by Grantee related to its performance hereunder shall comply with all applicable federal and state laws and shall provide that such subGrants be governed by the laws of the State of Colorado.

9. GRANTEE RECORDS

Grantee shall make, keep, maintain and allow inspection and monitoring of the following records:

A. Maintenance

Grantee shall make, keep, maintain, and allow inspection and monitoring by the State of a complete file of all records, documents, communications, notes and other written materials, electronic media files, and communications, pertaining in any manner to the Work or the delivery of Services (including, but not limited to the operation of programs) or Goods hereunder. Grantee shall maintain such records (the Record Retention Period) until the last to occur of the following: (i) a period of three years after the date this Grant is completed or terminated, or (ii) final payment is made hereunder, whichever is later, or (iii) for such further period as may be necessary to resolve any pending matters, or (iv) if an audit is occurring, or Grantee has received notice that an audit is pending, then until such audit has been completed and its findings have been resolved (the "Record Retention Period").

B. Inspection

Grantee shall permit the State, the federal government and any other duly authorized agent of a governmental agency to audit, inspect, examine, excerpt, copy and/or transcribe Grantee's records related to this Grant during the Record Retention Period for a period of three years following termination of this

Grant or final payment hereunder, whichever is later, to assure compliance with the terms hereof or to evaluate Grantee's performance hereunder. The State reserves the right to inspect the Work at all reasonable times and places during the term of this Grant, including any extension. If the Work fails to conform to the requirements of this Grant, the State may require Grantee promptly to bring the Work into conformity with Grant requirements, at Grantee's sole expense. If the Work cannot be brought into conformance by re-performance or other corrective measures, the State may require Grantee to take necessary action to ensure that future performance conforms to Grant requirements and exercise the remedies available under this Grant, at law or inequity in lieu of or in conjunction with such corrective measures.

C. Monitoring

Grantee shall permit the State, the federal government, and other governmental agencies having jurisdiction, in their sole discretion, to monitor all activities conducted by Grantee pursuant to the terms of this Grant using any reasonable procedure, including, but not limited to: internal evaluation procedures, examination of program data, special analyses, on-site checking, formal audit examinations, or any other procedures. All monitoring controlled by the State shall be performed in a manner that shall not unduly interfere with Grantee's performance hereunder.

D. Final Audit Report

If an audit is performed on Grantee's records for any fiscal year covering a portion of the term of this Grant, Grantee shall submit a copy of the final audit report to the State or its principal representative at the address specified herein.

10. CONFIDENTIAL INFORMATION-STATE RECORDS

Grantee shall comply with the provisions on this §10 if it becomes privy to confidential information in connection with its performance hereunder. Confidential information, includes, but is not necessarily limited to, state records, personnel records, and information concerning individuals. The State shall notify the Grantee in writing and notate any State records and information that are classified by the State as being "Confidential" and given to the Grantee in connection with its performance hereunder. The provisions of this Section 10 shall only apply to such notated records and information.

A. Confidentiality

Grantee shall keep all State records and information confidential at all times and to comply with all laws and regulations concerning confidentiality of information. Any request or demand by a third party for State records and information in the possession of Grantee shall be immediately forwarded to the State's principal representative.

B. Notification

Grantee shall notify its agent, employees, Sub-grantees, and assigns who may come into contact with State records and confidential information that each is subject to the confidentiality requirements set forth herein, and shall provide each with a written explanation of such requirements before they are permitted to access such records and information.

C. Use, Security, and Retention

Confidential information of any kind shall not be distributed or sold to any third party or used by Grantee or its agents in any way, except as authorized by this Grant or approved in writing by the State. Grantee shall provide and maintain a secure environment that ensures confidentiality of all State records and other confidential information wherever located. Confidential information shall not be retained in any files or otherwise by Grantee or its agents, except as permitted in this Grant or approved in writing by the State.

D. Disclosure-Liability

Disclosure of State records or other confidential information by Grantee for any reason may be cause for legal action by third parties against Grantee, the State or their respective agents. Grantee 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 Grantee, or its employees, agents, Sub-grantees, or assignees pursuant to this §10.

11. CONFLICTS OF INTEREST

Grantee 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 Grantee's obligations hereunder. Grantee acknowledges that

with respect to this Grant, even the appearance of a conflict of interest is harmful to the State's interests. Absent the State's prior written approval, Grantee shall refrain from any practices, activities or relationships that reasonably appear to be in conflict with the full performance of Grantee's obligations to the State hereunder. If a conflict or appearance exists, or if Grantee is uncertain whether a conflict or the appearance of a conflict of interest exists, Grantee shall submit to the State a disclosure statement setting forth the relevant details for the State's consideration. Failure to promptly submit a disclosure statement or to follow the State's direction in regard to the apparent conflict constitutes a breach of this Grant.

12. REPRESENTATIONS AND WARRANTIES

Grantee makes the following specific representations and warranties, each of which was relied on by the State in entering into this Grant.

A. Standard and Manner of Performance

Grantee shall perform its obligations hereunder in accordance with the highest standards of care, skill and diligence in the industry, trades or profession and in the sequence and manner set forth in this Grant.

B. Legal Authority – Grantee and Grantees Signatory

Grantee warrants that it possesses the legal authority to enter into this Grant 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 Grant, or any part thereof, and to bind Grantee to its terms. If requested by the State, Grantee shall provide the State with proof of Grantee's authority to enter into this Grant within 15 days of receiving such request.

C. Licenses, Permits, Etc.

Grantee represents and warrants that as of the Effective Date it has, and that at all times during the term hereof it shall have, at its sole expense, all licenses, certifications, approvals, insurance, permits, and other authorization required by law to perform its obligations hereunder. Grantee warrants that it shall maintain all necessary licenses, certifications, approvals, insurance, permits, and other authorizations required to properly perform this Grant, without reimbursement by the State or other adjustment in Grant Funds. Additionally, all employees and agents of Grantee performing Services under this Grant shall hold all required licenses or certifications, if any, to perform their responsibilities. Grantee, if a foreign corporation or other foreign entity transacting business in the State of Colorado, further warrants that it currently has obtained and shall maintain any applicable certificate of authority to transact 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 Grantee to properly perform the terms of this Grant shall be deemed to be a material breach by Grantee and constitute grounds for termination of this Grant.

13. INSURANCE

Grantee and its Sub-grantees shall obtain and maintain insurance as specified in this section at all times during the term of this Grant: All policies evidencing the insurance coverage required hereunder shall be issued by insurance companies satisfactory to Grantee and the State.

A. Grantee

i. Public Entities

If Grantee is a "public entity" within the meaning of the Colorado Governmental Immunity Act, CRS §24-10-101, et seq., as amended (the "GIA"), then Grantee shall maintain at all times during the term of this Grant such liability insurance, by commercial policy or self-insurance, as is necessary to meet its liabilities under the GIA. Grantee shall show proof of such insurance satisfactory to the State, if requested by the State. Grantee shall require each Grant with Sub-grantees that are public entities, providing Goods or Services hereunder, to include the insurance requirements necessary to meet Sub-grantee's liabilities under the GIA.

ii. Non-Public Entities

If Grantee is not a "public entity" within the meaning of the GIA, Grantee shall obtain and maintain during the term of this Grant insurance coverage and policies meeting the same requirements set forth in §13(B) with respect to sub-Grantees that are not "public entities".

B. Sub-Grantees

Grantee shall require each Grant with Sub-grantees, other than those that are public entities, providing Goods or Services in connection with this Grant, to include insurance requirements substantially similar to the following:

i. Worker's Compensation

Worker's Compensation Insurance as required by State statute, and Employer's Liability Insurance covering all of Grantee and Sub-grantee employees acting within the course and scope of their employment.

ii. General Liability

Commercial General Liability Insurance written on ISO occurrence form CG 00 01 10/93 or equivalent, covering premises operations, fire damage, independent Grantees, products and completed operations, blanket Grantual liability, personal injury, and advertising liability with minimum limits as follows: **(a)** \$1,000,000 each occurrence; **(b)** \$1,000,000 general aggregate; **(c)** \$1,000,000 products and completed operations aggregate; and **(d)** \$50,000 any one fire. If any aggregate limit is reduced below \$1,000,000 because of claims made or paid, Sub-grantee shall immediately obtain additional insurance to restore the full aggregate limit and furnish to Grantee a certificate or other document satisfactory to Grantee showing compliance with this provision.

iii. Automobile Liability

Automobile Liability Insurance covering any auto (including owned, hired and non-owned autos) with a minimum limit of \$1,000,000 each accident combined single limit.

iv. Additional Insured

Grantee and the State shall be named as additional insured on the Commercial General Liability and Automobile Liability Insurance policies (leases and construction Grants require additional insured coverage for completed operations on endorsements CG 2010 11/85, CG 2037, or equivalent).

v. Primacy of Coverage

Coverage required of Grantee and Sub-grantees shall be primary over any insurance or self-insurance program carried by Grantee or the State.

vi. Cancellation

The above insurance policies shall include provisions preventing cancellation or non-renewal without at least 45 days prior notice to the Grantee and the State by certified mail.

vii. Subrogation Waiver

All insurance policies in any way related to this Grant and secured and maintained by Grantee or its Sub-grantees as required herein shall include clauses stating that each carrier shall waive all rights of recovery, under subrogation or otherwise, against Grantee or the State, its agencies, institutions, organizations, officers, agents, employees, and volunteers.

C. Certificates

Grantee and all Sub-grantees shall provide certificates showing insurance coverage required hereunder to the State within seven business days of the Effective Date of this Grant. No later than 15 days prior to the expiration date of any such coverage, Grantee and each Sub-grantee shall deliver to the State or Grantee certificates of insurance evidencing renewals thereof. In addition, upon request by the State at any other time during the term of this Grant or any sub-grant, Grantee and each Sub-grantee shall, within 10 days of such request, supply to the State evidence satisfactory to the State of compliance with the provisions of this §13.

14. BREACH

A. Defined

In addition to any breaches specified in other sections of this Grant, the failure of either Party to perform any of its material obligations hereunder in whole or in part or in a timely or satisfactory manner, constitutes a breach. The institution of proceedings under any bankruptcy, insolvency, reorganization or similar law, by or against Grantee, or the appointment of a receiver or similar officer for Grantee or any of its property, which is not vacated or fully stayed within 20 days after the institution or occurrence thereof, shall also constitute a breach.

B. Notice and Cure Period

In the event of a breach, notice of such shall be given in writing by the aggrieved Party to the other Party in the manner provided in §16. If such breach is not cured within 30 days of receipt of written notice, or if a cure cannot be completed within 30 days, or if cure of the breach has not begun within 30 days and pursued with due diligence, the State may exercise any of the remedies set forth in §15. Notwithstanding anything to the contrary herein, the State, in its sole discretion, need not provide advance notice or a cure period and may immediately terminate this Grant in whole or in part if reasonably necessary to preserve public safety or to prevent immediate public crisis.

15. REMEDIES

If Grantee is in breach under any provision of this Grant, the State shall have all of the remedies listed in this §15 in addition to all other remedies set forth in other sections of this Grant following the notice and cure period set forth in §14(B). The State may exercise any or all of the remedies available to it, in its sole discretion, concurrently or consecutively.

A. Termination for Cause and/or Breach

If Grantee fails to perform any of its obligations hereunder with such diligence as is required to ensure its completion in accordance with the provisions of this Grant and in a timely manner, the State may notify Grantee of such non-performance in accordance with the provisions herein. If Grantee thereafter fails to promptly cure such non-performance within the cure period, the State, at its option, may terminate this entire Grant or such part of this Grant as to which there has been delay or a failure to properly perform. Exercise by the State of this right shall not be deemed a breach of its obligations hereunder. Grantee shall continue performance of this Grant to the extent not terminated, if any.

i. Obligations and Rights

To the extent specified in any termination notice, Grantee shall not incur further obligations or render further performance hereunder past the effective date of such notice, and shall terminate outstanding orders and sub-Grants with third parties. However, Grantee shall complete and deliver to the State all Work, Services and Goods not cancelled by the termination notice and may incur obligations as are necessary to do so within this Grant's terms. At the sole discretion of the State, Grantee shall assign to the State all of Grantee's right, title, and interest under such terminated orders or sub-Grants. Upon termination, Grantee shall take timely, reasonable and necessary action to protect and preserve property in the possession of Grantee in which the State has an interest. All materials owned by the State in the possession of Grantee shall be immediately returned to the State. All Work Product, at the option of the State, shall be delivered by Grantee to the State and shall become the State's property.

ii. Payments

The State shall reimburse Grantee only for accepted performance up to the date of termination. If, after termination by the State, it is determined that Grantee was not in breach or that Grantee's action or inaction was excusable, such termination shall be treated as a termination in the public interest and the rights and obligations of the Parties shall be the same as if this Grant had been terminated in the public interest, as described herein.

iii. Damages and Withholding

Notwithstanding any other remedial action by the State, Grantee also shall remain liable to the State for any damages sustained by the State by virtue of any breach under this Grant by Grantee and the State may withhold any payment to Grantee for the purpose of mitigating the State's damages, until such time as the exact amount of damages due to the State from Grantee is determined. The State may withhold any amount that may be due to Grantee as the State deems necessary to protect the State, including loss as a result of outstanding liens or claims of former lien holders, or to reimburse the State for the excess costs incurred in procuring similar goods or services. Grantee shall be liable for excess costs incurred by the State in procuring from third parties replacement Work, Services or substitute Goods as cover.

B. Early Termination in the Public Interest

The State is entering into this Grant for the purpose of carrying out the public policy of the State of Colorado, as determined by its Governor, General Assembly, and/or Courts. If this Grant ceases to further the public policy of the State, the State, in its sole discretion, may terminate this Grant in whole or in part. Exercise by the State of this right shall not constitute a breach of the State's obligations hereunder. This

subsection shall not apply to a termination of this Grant by the State for cause or breach by Grantee, which shall be governed by §15(A) or as otherwise specifically provided for herein.

i. Method and Content

The State shall notify Grantee of such termination in accordance with §16. The notice shall specify the effective date of the termination and whether it affects all or a portion of this Grant.

ii. Obligations and Rights

Upon receipt of a termination notice, Grantee shall be subject to and comply with the same obligations and rights set forth in §15(A)(i).

iii. Payments

If this Grant is terminated by the State pursuant to this §15(B), Grantee shall be paid an amount which bears the same ratio to the total reimbursement under this Grant as the Services satisfactorily performed bear to the total Services covered by this Grant, less payments previously made.

Additionally, if this Grant is less than 60% completed, the State may reimburse Grantee for a portion of actual out-of-pocket expenses (not otherwise reimbursed under this Grant) incurred by Grantee which are directly attributable to the uncompleted portion of Grantee's obligations hereunder; provided that the sum of any and all reimbursement shall not exceed the maximum amount payable to Grantee hereunder.

C. Remedies Not Involving Termination

The State, its sole discretion, may exercise one or more of the following remedies in addition to other remedies available to it:

i. Suspend Performance

Suspend Grantee's performance with respect to all or any portion of this Grant pending necessary corrective action as specified by the State without entitling Grantee to an adjustment in price/cost or performance schedule. Grantee shall promptly cease performance and incurring costs in accordance with the State's directive and the State shall not be liable for costs incurred by Grantee after the suspension of performance under this provision.

ii. Withhold Payment

Withhold payment to Grantee until corrections in until corrections in Grantee's performance are satisfactorily made and completed.

iii. Deny Payment

Deny payment for those obligations not performed, that due to Grantee's actions or inactions, cannot be performed or, if performed, would be of no value to the State; provided, that any denial of payment shall be reasonably related to the value to the State of the obligations not performed.

iv. Removal

Demand removal of any of Grantee's employees, agents, or Sub-grantees whom the State deems incompetent, careless, insubordinate, unsuitable, or otherwise unacceptable, or whose continued relation to this Grant is deemed to be contrary to the public interest or not in the State's best interest.

v. Intellectual Property

If Grantee infringes on a patent, copyright, trademark, trade secret or other intellectual property right while performing its obligations under this Grant, Grantee shall, at the State's option (a) obtain for the State or Grantee the right to use such products and services; (b) replace any Goods, Services, or other product involved with non-infringing products or modify them so that they become non-infringing; or, (c) if neither of the foregoing alternatives are reasonably available, remove any infringing Goods, Services, or products and refund the price paid therefore to the State.

16. NOTICES and REPRESENTATIVES

Each individual identified below is the principal representative of the designating Party. All notices required to be given hereunder shall be hand delivered with receipt required or sent by certified or registered mail to such Party's principal representative at the address set forth below. In addition to, but not in lieu of a hard-copy notice, notice also may be sent by e-mail to the e-mail addresses, if any, 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. Unless otherwise provided herein, all notices shall be effective upon receipt.

A. State:

Jacob Bornstein, Program Manager, Intrastate Water Management & Development Section
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
Jacob.bornstein@state.co.us

B. Grantee:

SeEtta Moss, Chairperson, ABRT NCNA Committee
Lower Arkansas Valley Water Conservancy District
801 Swink Avenue
Rocky Ford, CO 81067
cquezada@centurytel.net

17. RIGHTS IN DATA, DOCUMENTS, AND COMPUTER SOFTWARE

Any software, research, reports, studies, data, photographs, negatives or other documents, drawings, models, materials, or Work Product of any type, including drafts, prepared by Grantee in the performance of its obligations under this Grant shall be the nonexclusive property of the State and, all Work Product shall be delivered to the State by Grantee upon completion or termination hereof. The State's nonexclusive rights in such Work Product shall include, but not be limited to, the right to copy, publish, display, transfer, and prepare derivative works.

18. GOVERNMENTAL IMMUNITY

Notwithstanding any other provision to the contrary, nothing herein shall constitute 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., as amended. Liability for claims for injuries to persons or property arising from the negligence of the State of Colorado, its departments, institutions, agencies, boards, officials, and employees is controlled and limited by the provisions of the Governmental Immunity Act and the risk management statutes, CRS §24-30-1501, et seq., as amended.

19. STATEWIDE GRANT MANAGEMENT SYSTEM

If the maximum amount payable to Grantee under this Grant is \$100,000 or greater, either on the Effective Date or at anytime thereafter, this §19 applies.

Grantee agrees to be governed, and to abide, by the provisions of CRS §24-102-205, §24-102-206, §24-103-601, §24-103.5-101 and §24-105-102 concerning the monitoring of vendor performance on state Grants and inclusion of Grant performance information in a statewide Grant management system.

Grantee's performance shall be subject to Evaluation and Review in accordance with the terms and conditions of this Grant, State law, including CRS §24-103.5-101, and State Fiscal Rules, Policies and Guidance. Evaluation and Review of Grantee's performance shall be part of the normal Grant administration process and Grantee's performance will be systematically recorded in the statewide Grant Management System. Areas of Evaluation and Review shall include, but shall not be limited to quality, cost and timeliness. Collection of information relevant to the performance of Grantee's obligations under this Grant shall be determined by the specific requirements of such obligations and shall include factors tailored to match the requirements of Grantee's obligations. Such performance information shall be entered into the statewide Grant Management System at intervals established herein and a final Evaluation, Review and Rating shall be rendered within 30 days of the end of the Grant term. Grantee shall be notified following each performance Evaluation and Review, and shall address or correct any identified problem in a timely manner and maintain work progress.

Should the final performance Evaluation and Review determine that Grantee demonstrated a gross failure to meet the performance measures established hereunder, the Executive Director of the Colorado Department of Personnel and Administration (Executive Director), upon request by the CWCB, and showing of good cause,

may debar Grantee and prohibit Grantee from bidding on future Grants. Grantee may contest the final Evaluation, Review and Rating by: **(a)** filing rebuttal statements, which may result in either removal or correction of the evaluation (CRS §24-105-102(6)), or **(b)** under CRS §24-105-102(6), exercising the debarment protest and appeal rights provided in CRS §§24-109-106, 107, 201 or 202, which may result in the reversal of the debarment and reinstatement of Grantee, by the Executive Director, upon showing of good cause.

20. GENERAL PROVISIONS

A. Assignment and SubGrants

Unless otherwise specified in Exhibit A, Statement of Work, Grantee's rights and obligations hereunder are personal and may not be transferred, assigned or subGranted without the prior, written consent of the State. Any attempt at assignment, transfer, subGranting without such consent shall be void. All assignments, subGrants, or Sub-grantees approved by Grantee or the State are subject to all of the provisions hereof. Grantee shall be solely responsible for all aspects of subGranting arrangements and performance.

B. Binding Effect

Except as otherwise provided in §20(A), all provisions herein contained, including the benefits and burdens, shall extend to and be binding upon the Parties' respective heirs, legal representatives, successors, and assigns.

C. Captions

The captions and headings in this Grant are for convenience of reference only, and shall not be used to interpret, define, or limit its provisions.

D. Counterparts

This Grant may be executed in multiple identical original counterparts, all of which shall constitute one agreement.

E. Entire Understanding

This Grant represents the complete integration of all understandings between the Parties and all prior representations and understandings, oral or written, are merged herein. Prior or contemporaneous additions, deletions, or other changes hereto shall not have any force or affect whatsoever, unless embodied herein.

F. Indemnification-General

Grantee 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 Grantee, or its employees, agents, Sub-grantees, or assignees pursuant to the terms of this Grant; however, the provisions hereof shall not 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.

G. Jurisdiction and Venue

All suits, actions, or proceedings related to this Grant shall be held in the State of Colorado and exclusive venue shall be in the City and County of Denver.

H. Modification

i. By the Parties

Except as specifically provided in this Grant, modifications of this Grant shall not be effective unless agreed to in writing by both parties in an amendment to this Grant, properly executed and approved in accordance with applicable Colorado State law, State Fiscal Rules, and Office of the State Controller Policies, including, but not limited to, the policy entitled MODIFICATIONS OF GRANTS - TOOLS AND FORMS.

ii. By Operation of Law

This Grant 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 Grant on the effective date of such change, as if fully set forth herein.

I. Order of Precedence

The provisions of this Grant shall govern the relationship of the State and Grantee. In the event of conflicts or inconsistencies between this Grant and its exhibits and attachments including, but not limited to, those provided by Grantee, such conflicts or inconsistencies shall be resolved by reference to the documents in the following order of priority:

- i. Colorado Special Provisions,
- ii. The provisions of the main body of this Grant,
- iii. Exhibit A.

J. Severability

Provided this Grant can be executed and performance of the obligations of the Parties accomplished within its intent, the provisions hereof are severable and any provision that is declared invalid or becomes inoperable for any reason shall not affect the validity of any other provision hereof.

K. Survival of Certain Grant Terms

Notwithstanding anything herein to the contrary, provisions of this Grant requiring continued performance, compliance, or effect after termination hereof, shall survive such termination and shall be enforceable by the State if Grantee fails to perform or comply as required.

L. Taxes

The State is exempt from all federal excise taxes under IRC Chapter 32 (No. 84-730123K) and from all State and local government sales and use taxes under CRS §§39-26-101 and 201 et seq. Such exemptions apply when materials are purchased or services rendered to benefit the State; provided however, that certain political subdivisions (e.g., City of Denver) may require payment of sales or use taxes even though the product or service is provided to the State. Grantee shall be solely liable for paying such taxes as the State is prohibited from paying for or reimbursing Grantee for them.

M. Third Party Beneficiaries

Enforcement of this Grant and all rights and obligations hereunder are reserved solely to the Parties, and not to any third party. Any services or benefits which third parties receive as a result of this Grant are incidental to the Grant, and do not create any rights for such third parties.

N. Waiver

Waiver of any breach of a term, provision, or requirement of this Grant, or any right or remedy hereunder, whether explicitly or by lack of enforcement, shall not be construed or deemed as a waiver of any subsequent breach of such term, provision or requirement, or of any other term, provision, or requirement.

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21. COLORADO SPECIAL PROVISIONS

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

A. 1. CONTROLLER'S APPROVAL. CRS §24-30-202 (1).

This Grant shall not be deemed valid until it has been approved by the Colorado State Controller or designee.

B. 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.

C. 3. GOVERNMENTAL IMMUNITY.

No term or condition of this Grant shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections, 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. §§1346(b) and 2671 et seq., as applicable now or hereafter amended.

D. 4. INDEPENDENT CONTRACTOR

Grantee shall perform its duties hereunder as an independent Grantee and not as an employee. Neither Grantee nor any agent or employee of Grantee shall be deemed to be an agent or employee of the State. Grantee and its employees and agents are not entitled to unemployment insurance or workers compensation benefits through the State and the State shall not pay for or otherwise provide such coverage for Grantee or any of its agents or employees. Unemployment insurance benefits shall be available to Grantee and its employees and agents only if such coverage is made available by Grantee or a third party. Grantee shall pay when due all applicable employment taxes and income taxes and local head taxes incurred pursuant to this Grant. Grantee shall not have authorization, express or implied, to bind the State to any Grant, liability or understanding, except as expressly set forth herein. Grantee shall **(a)** provide and keep in force workers' compensation and unemployment compensation insurance in the amounts required by law, **(b)** provide proof thereof when requested by the State, and **(c)** be solely responsible for its acts and those of its employees and agents.

E. 5. COMPLIANCE WITH LAW.

Grantee shall strictly comply with all applicable federal and State laws, rules, and regulations in effect or hereafter established, including, without limitation, laws applicable to discrimination and unfair employment practices.

F. 6. CHOICE OF LAW.

Colorado law, and rules and regulations issued pursuant thereto, shall be applied in the interpretation, execution, and enforcement of this grant. Any provision included or incorporated herein by reference which conflicts with said laws, rules, and regulations shall be null and void. Any provision incorporated herein by reference which purports to negate this or any other Special Provision in whole or in part shall not 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 shall not invalidate the remainder of this Grant, to the extent capable of execution.

G. 7. BINDING ARBITRATION PROHIBITED.

The State of Colorado does not agree to binding arbitration by any extra-judicial body or person. Any provision to the contrary in this contract or incorporated herein by reference shall be null and void.

H. 8. SOFTWARE PIRACY PROHIBITION. Governor's Executive Order D 002 00.

State or other public funds payable under this Grant shall not be used for the acquisition, operation, or maintenance of computer software in violation of federal copyright laws or applicable licensing restrictions. Grantee hereby certifies and warrants that, during the term of this Grant and any extensions, Grantee has and shall maintain in place appropriate systems and controls to prevent such improper use of public funds. If the State determines that Grantee is in violation of this provision, the State may exercise any remedy available at law or in equity or under this Grant, including, without limitation, immediate termination of this Grant and any remedy consistent with federal copyright laws or applicable licensing restrictions.

I. 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 Grant. Grantee has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with the performance of Grantee's services and Grantee shall not employ any person having such known interests.

J. 10. VENDOR OFFSET. CRS §§24-30-202 (1) and 24-30-202.4.

[*Not Applicable to intergovernmental agreements*] Subject to CRS §24-30-202.4 (3.5), the State Controller may withhold payment under the State's vendor offset intercept system for debts owed to State agencies for: (a) unpaid child support debts or child support arrearages; (b) unpaid balances of tax, accrued interest, or other charges specified in CRS §39-21-101, et seq.; (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 as a result of final agency determination or judicial action.

K. 11. PUBLIC GRANTS FOR SERVICES. CRS §8-17.5-101.

[Not Applicable to Agreements relating to the offer, issuance, or sale of securities, investment advisory services or fund management services, sponsored projects, intergovernmental Agreements, or information technology services or products and services] Grantee certifies, warrants, and agrees that it does not knowingly employ or Grant with an illegal alien who shall perform work under this Grant and shall confirm the employment eligibility of all employees who are newly hired for employment in the United States to perform work under this Grant, through participation in the E-Verify Program or the State program established pursuant to CRS §8-17.5-102(5)(c), Grantee shall not knowingly employ or Grant with an illegal alien to perform work under this Grant or enter into a Grant with a Sub-grantee that fails to certify to Grantee that the Sub-grantee shall not knowingly employ or Grant with an illegal alien to perform work under this Grant. Grantee (a) shall not use E-Verify Program or State program procedures to undertake pre-employment screening of job applicants while this Grant is being performed, (b) shall notify the Sub-grantee and the Granting State agency within three days if Grantee has actual knowledge that a Sub-grantee is employing or Granting with an illegal alien for work under this Grant, (c) shall terminate the subGrant if a Sub-grantee does not stop employing or Granting with the illegal alien within three days of receiving the notice, and (d) shall comply with reasonable requests made in the course of an investigation, undertaken pursuant to CRS §8-17.5-102(5), by the Colorado Department of Labor and Employment. If Grantee participates in the State program, Grantee shall deliver to the Granting State agency, Institution of Higher Education or political subdivision, a written, notarized affirmation, affirming that Grantee has examined the legal work status of such employee, and shall comply with all of the other requirements of the State program. If Grantee fails to comply with any requirement of this provision or CRS §8-17.5-101 et seq., the Granting State agency, institution of higher education or political subdivision may terminate this Grant for breach and, if so terminated, Grantee shall be liable for damages.

L. 12. PUBLIC GRANTS WITH NATURAL PERSONS. CRS §24-76.5-101.

Grantee, if a natural person eighteen (18) years of age or older, hereby swears and affirms under penalty of perjury that he or she (a) is a citizen or otherwise lawfully present in the United States pursuant to federal law, (b) shall comply with the provisions of CRS §24-76.5-101 et seq., and (c) has produced one form of identification required by CRS §24-76.5-103 prior to the effective date of this Grant.

SPs Effective 1/1/09

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22. SIGNATURE PAGE

Grant Routing Number 10 PDA 9922

THE PARTIES HERETO HAVE EXECUTED THIS GRANT

* Persons signing for Grantee hereby swear and affirm that they are authorized to act on Grantee's behalf and acknowledge that the State is relying on their representations to that effect.

<p style="text-align: center;">GRANTEE</p> <p style="text-align: center;">Lower Arkansas Valley Water Conservancy District</p> <p>By: <u>Jay Winner</u> Title: <u>Executive Director</u></p> <p><u>[Signature]</u> *Signature</p> <p>Date: <u>11-18-09</u></p>	<p style="text-align: center;">STATE OF COLORADO</p> <p style="text-align: center;">Bill Ritter, Jr. GOVERNOR Department of Natural Resources James B. Martin, Executive Director</p> <p><u>[Signature]</u> By: Eric Hecox, Section Chief, Intrastate Water Management and Development, CWCB</p> <p>Signatory avers to the State Controller or delegate that Grantee has not begun performance or that a Statutory Violation waiver has been requested under Fiscal Rules</p> <p>Date: <u>12/16/09</u></p>
<p style="text-align: center;">2nd Grantee Signature if Needed</p> <p>By: _____ Title: _____</p> <p>_____ *Signature</p> <p>Date: _____</p>	<p style="text-align: center;">LEGAL REVIEW</p> <p style="text-align: center;">John W. Suthers, Attorney General</p> <p>By: _____ Signature - Assistant Attorney General</p> <p>Date: _____</p>

ALL GRANTS REQUIRE APPROVAL BY THE STATE CONTROLLER

CRS §24-30-202 requires the State Controller to approve all State Grants. This Grant is not valid until signed and dated below by the State Controller or delegate. Grantee is not authorized to begin performance until such time. If Grantee begins performing prior thereto, the State of Colorado is not obligated to pay Grantee for such performance or for any goods and/or services provided hereunder.

<p style="text-align: center;">STATE CONTROLLER David J. McDermott, CPA</p> <p>By: <u>[Signature]</u></p> <p>Date: <u>1-11-10</u></p>
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Scope of Work

Arkansas River Basin John Martin Wetlands and Neenoshe Reservoir

Non-consumptive Needs Quantification

This Scope of Work is divided into four sections as suggested in the Grant Application Instructions. Section 1 provides a description of each major task associated with the project along with a functional description of who will be completing the work and a description of the deliverables associated with the task. Section 2 lists the key personnel proposed for the project along with a brief description of their relevant project experience. Section 3 presents a detailed breakdown of the costs to complete the study and Section 4 presents the proposed Project Schedule.

Section 1 Task Summary

Introduction and Background

The Arkansas Basin nonconsumptive needs assessment subcommittee has been meeting for 18 months to complete the Arkansas Basin's Nonconsumptive Needs Assessment, which is required under HB05-1177. The subcommittee's efforts have focused on the following key efforts:

- Identifying environmental and recreational attributes in the Arkansas Basin
- Prioritizing environmental and recreational needs in relation to water resources in the Arkansas Basin
- Identifying what areas in the basin require further analysis regarding quantification on environmental and recreational needs

The nonconsumptive needs assessment subcommittee is adopting a phased approach that will allow the Arkansas Basin Roundtable to prepare an initial gap analysis for consumptive and nonconsumptive needs in the basin while we pursue quantification needs of those identified high priority areas for which quantification is lacking. This phased approach will avoid delaying the basin gap analysis while ensuring that all of the high priority needs areas are adequately assessed and incorporated into the gap analysis in later phases. The nonconsumptive needs assessment subcommittee has identified three critical areas of focus for the next assessment phase. These include site-specific quantification for wetlands west of John Martin Reservoir that support bird habitat, site-specific quantification of lake levels for Neenoshe Reservoir that support Least Tern and Piping Plover breeding habitats, and development of a river restoration plan for 44 miles of Fountain Creek that has multiple problems associated with impacts of increased population. The Fountain Creek portion of the needs assessment is being addressed under a separate contract and is considered an in-kind service for the overall needs assessment effort. These assessments will provide vital information for the needs assessment of both environmental and recreational attributes including the following: preserving habitat for birds that are of statewide conservation concern and/or listed as Threatened and Endangered; maintaining, improving, and providing additional wetlands that reduce area flooding by storing water, recharging water aquifers, and filtering

sediment that protects downstream reaches and reservoirs from sediment loading; maintaining wetland and aquatic habitats that serve as waterfowl production areas that are needed to maintain and enhance waterfowl hunting opportunities; providing aquatic habitat necessary for fishing opportunities; and maintaining and/or improving general wildlife and especially bird watching recreational activities.

Study Objectives

The objectives of the study are to:

- Identify flow needs to support wetlands west of John Martin Reservoir that support critical environmental and recreational bird habitat.
- Identify lake levels needed to support habitat of Least Tern and Piping Plover near Neenoshe Reservoir.
- Preparation of a river restoration plan for 44 miles of Fountain Creek including land use mapping for the entire stretch (not contained in this scope of work but in-kind services will provide this information).
- The site-specific quantification will focus on the timing of existing flows within the basin. The applicant realizes that the Arkansas Basin quantification identified as part of the project will need to be considered in light of existing water rights. The purpose of the quantification is to identify future multi-purpose opportunities with planned projects such as the Super Ditch project.

Task 1 Meetings, Coordination, and Methodology Development

Task 1.1 Kick-off Meeting and Site Visit

Kick-off Meeting

Consultant will conduct a kick-off meeting with the Arkansas Basin Nonconsumptive Needs Assessment Subcommittee and other key project stakeholders such as Colorado Division of Wildlife (CDOW) and water providers in the basin to discuss the following:

- Review of scope of work
- Review schedule
- Coordination with CDOW and other stakeholders on existing data for John Martin Reservoir and Neenoshe Reservoir
- Discuss Task 1.3 Methodology Development

Site Visit

Consultant will conduct an initial site visit to delineate the study area and assist with methodology development. The Consultant will meet with the stakeholders in the field to discuss what sites should be covered during field data collection. The site visit will be conducted over one day at both John Martin and Neenoshe Reservoirs. At the end of the site visit the Consultant should have a map of areas to focus on for the field data collection effort and the quantification study.

Task 1.2 Coordination Meetings

The primary means of coordinating on project activities will take place through the Arkansas Basin Nonconsumptive Needs Assessment Subcommittee. This subcommittee will include water providers in the basin. The Consultant team will meet with the Subcommittee on a bi-monthly basis during the course of the project. At a minimum the CDM project manager will

meet with the Subcommittee. When key deliverables are presented to the Subcommittee, other project team members will attend the Subcommittee meetings. It is anticipated that other project team members will attend up to four subcommittee meetings. The CDM team will also develop monthly status reports on study progress. The following topics will be discussed during the bimonthly Subcommittee meetings:

- Coordination on field efforts with CDOW and other stakeholders
- Discuss historic data collection
- Discuss field data collection
- Discuss data analysis
- Draft report summarizing study results
- Utilizing work efforts in coordination with other studies in the basin such as the Super Ditch project

Task 1.3 Methodology Development Meetings

Consultant will conduct this task in three phases:

1. An initial phase to draft alternative methodologies for determining wetland flow needs and minimum lake levels;
2. A second phase in which experts will be brought together via conference call and an internet meeting to discuss which methodology is most appropriate for the John Martin wetlands and Neenoshe Reservoir nonconsumptive needs quantification; and,
3. A final phase where stakeholders, including water providers and water rights holders, are brought together via conference call or webinar to provide their input and final buy-off.

The results of this task will be documented in a technical memorandum that will become the basis of the next tasks that include historic data collection results, the data gap analysis, and the methodology for field data collection. It is assumed that the initial phase of drafting a list of alternative methodologies for determining wetland flow needs and minimum lake levels will be discussed at the kick-off meeting.

Deliverables

Consultant will prepare meeting agendas and summarize action items for the kick-off meeting, coordination meetings and meetings conducted regarding methodology development.

Consultant will develop a technical memorandum describing the recommended methodology to quantify flow needs at John Martin Reservoir and Neenoshe Reservoir.

Task 2 Data Collection

Task 2.1 Historic Data Collection and Site Visit

Initial data collection for John Martin and Neenoshe Reservoirs will include gathering hydrologic/hydraulic data, wetlands studies, and species data. The following sections discuss each type of data, methods for data collection, and potential sources. For this task the Consultant will:

- Research primary sources for this data
- Obtain data by the most appropriate means available
- Summarize data in a technical memorandum

Hydrologic and Hydraulic Data

Consultant will collect hydrologic data near John Martin Reservoir and Neenoshe Reservoir from the U.S. Geologic Survey (USGS) National Water Information System (NWIS) via internet download. Consultant will gather water diversion data near John Martin Reservoir and Neenoshe Reservoir from Hydrobase and other sources recommended by the Needs Assessment Subcommittee.

Consultant will download digital elevation models (DEM) or national elevation data (NED) in order to develop contours for both John Martin and Neenoshe Reservoirs. Consultant will work the Needs Assessment Subcommittee and CDOW to historic hydrologic and hydraulic data for Neenoshe Reservoir including:

- Bathymetric data or surveys
- Inflow and outflow records
- Stage relationships
- Evaporation rates
- Historic lake level data

Wetland Studies

The Colorado Natural Heritage Program (CNHP) and the CDOW have conducted wetland studies throughout the state. Consultant will gather available wetland studies or other wetland data from these potential data sources through phone calls and internet searches. Additionally, the U.S. Fish and Wildlife Service (USFWS) may have data available through their National Wetlands Inventory (NWI). This data is not currently obtainable digitally, but paper copies may be available from local USFWS offices. Consultant will discuss with USFWS if there is any more recent data than the current data sets.

Wildlife Species Data

Both the John Martin Reservoir area and Neenoshe Reservoir (as part of the larger Queens State Wildlife Area) are managed by the State of Colorado. As such, the CDOW will most likely have information on threatened and endangered and other wildlife species that use wetland and other aquatic habitats within these locations. Phone calls to the CDOW and Parks Department should generate, at a minimum, wildlife species lists for both reservoirs. In addition, Consultant will work with nonconsumptive needs assessment subcommittee chair to identify birding organizations that may have additional species information. Consultant will contact these organizations via conference calls.

Task 2.2 Data Gap Analysis

Based on Task 1.3 and comparing with the historic data collected, the Consultant will identify data gaps that need to be filled by field data collection and develop a sampling plan to collect data gaps through field work.

Task 2.3 Field Data Collection

Based on the data gap analysis, the sampling plan, and the initial site visit in Task 2.1, the Consultant will implement a field data collection effort. The following sections outline the basis and assumptions associated with field data collection for each type of data.

John Martin Reservoir

Hydrologic and Hydraulic Data

The Consultant is assuming that field collection hydrologic and hydraulic data will not be necessary beyond visual surveys and anecdotal information noted during the wetland studies because species lists will be gathered during the historic data collection task.

Wetland Studies

The Consultant will conduct field surveys of wetland habitat at John Martin Reservoir, particularly in the Ft. Lyon area. Surveys for wetland and other aquatic habitats will conform to the *Corps of Engineers Wetlands Delineation Manual* (1987) and the *Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Great Plains Region* (2008). All habitats within the study area will be mapped using Cowardin et. al's *Classification of Wetlands and Deep Water Habitats of the United States* (1979). Data will be collected using the appropriate data forms and a sub-meter accuracy GPS. Collected data will include:

- Plant species, soil type, and hydrology indicators at each sampling point entered onto a field data form
- GPS data for each sampling point
- GPS data for the limits of each identified wetland
- GPS data and field notes for any other pertinent habitats, species locations (i.e., special-status wildlife; invasive plants; bird nests)
- Photo documentation for each sampling point and delineated habitat

Wildlife Species Surveys

The Consultant is assuming that field collection of wildlife species data will not be necessary beyond visual surveys and anecdotal information noted during the wetland studies because this data should be available as a result of historic data collection.

Neenoshe Reservoir

Hydrologic and Hydraulic Data

The Consultant is assuming that field collection hydrologic and hydraulic data will not be necessary beyond visual surveys and anecdotal information noted during the habitat surveys. CNHP has studied the area around Neenoshe reservoir and the Consultant will review this study for any hydrologic information.

Habitat Surveys

The Consultant will conduct field surveys of habitats at Neenoshe Reservoir. Surveys for wetland and other aquatic habitats will conform with the *Corps of Engineers Wetlands Delineation Manual* (1987) and the *Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Great Plains Region* (2008). All habitats within the study area will be mapped using Cowardin et. al's *Classification of Wetlands and Deep Water Habitats of the United States* (1979). The types of habitat that the Consultant identifies include sand bars, mudflats, and open water which would be captured when completing a wetland and other aquatic habitats delineation; therefore, the methodology is the same as for John Martin Reservoir. Data will be collected using the appropriate data forms and a sub-meter accuracy GPS. Collected data will include:

- Plant species, soil type, and hydrology indicators at each sampling point entered onto a field data form

- GPS data for each sampling point
- GPS data for the limits of each identified wetland
- GPS data and field notes for any other pertinent habitats, species locations (i.e., special-status wildlife; invasive plants; bird nests)
- Photo documentation for each sampling point and delineated habitat

Wildlife Species Surveys

The Consultant is assuming that field collection of wildlife species data will not be necessary beyond visual surveys and anecdotal information noted during the habitat surveys.

Deliverables

Consultant will develop following deliverables for Task 2:

- Technical Memorandum on data gaps
- Sampling Plan

Tasks 2.1 and 2.3 will be summarized in Task 3 technical memorandums.

Task 3 Data Analysis

Task 3.1 Data Summary and Processing

The Consultant will enter all field data into databases as necessary to conduct needs quantification based on the methodologies developed in Task 1.3. Additionally, the consultant will complete initial data processing. The sections below provide more detail on the data entry and processing for each type of data.

Hydrology and Hydraulic Data Entry and Processing

No new hydrology/hydraulic data will be collected during the field surveys; therefore, data entry and processing will be confined to the data collected in Task 2.1. Flow data and lake levels will be placed in an *Excel* spreadsheet. DEMs or NEDs will be converted to contours using GIS applications and saved as shape files. Mapping of information will be created for stakeholder review.

Wetland and Habitat Data Entry and Processing

Wetland and habitat data collection consists of filling out field data forms and obtaining GPS mapping points. The Consultant will enter field data forms into an *Excel* spreadsheet and convert GPS points into a shape file that can be mapped for stakeholder review.

Wildlife Species Data Entry and Processing

No new wildlife species data is anticipated to be collected during the field surveys; therefore, data entry and processing will be confined to the data collected in Task 2.1. Wildlife species lists will be placed in a table and expanded to include listing status, habitat requirements, and whether or not the species might require consideration during the needs quantifications (e.g. nest flooding of piping plovers).

Task 3.2 John Martin Wetlands Quantification

Three methods of analysis have initially been identified for quantifying wetland water needs at John Martin Reservoir. The implementation of these methods is dependent upon model and data availability. At a minimum, a method similar to the Wetland Net Water Requirements

Modeling as described below will be utilized for the wetlands needs at John Martin Reservoir. As part of the analysis, seasonal and water year quantities will be specified. Therefore, all three methods and their associated assumptions will be discussed below. Generally, the Consultant assumes:

- A simple quantification scheme will be developed based on historical and field collection data
- The primary source of water for wetlands (Arkansas River, groundwater, canal seepage, etc.) will be identified during field data collection
- Quantification will not include highly detailed hydrologic or hydraulic modeling if existing models are not available to the Consultant

The following three methods are options for estimating wetlands water requirements. The method chosen will be completed after the site-visit and Task 1.3.

Hydraulic Modeling

Hydraulic modeling can be used to determine flood elevations in adjacent/connected wetlands under various flow regimes. Consultant will investigate whether an existing hydraulic model has been developed by the Federal Emergency Management Agency (FEMA) for unincorporated Bent County. Preliminary research and inquiries indicates that Flood Insurance Rate Maps (FIRMs) exist for Bent County, but the existence of a Flood Insurance Study (FIS) and consequently a hydraulic model (a HEC-2 OR HEC-RAS model) has not been determined. If a model exists and if the model cross sections extend to the wetlands being investigated, Consultant would run the model under various flows and identify those flows necessary to sustain the wetlands. Criteria required to sustain the wetlands include depth and duration of saturation during a portion of the growing season. This method assumes that the Arkansas River and the John Martin Wetlands being investigated are hydraulically connected.

Correlation between Upstream Gage and Wetland Water Level

Consultant will utilize the upstream Las Animas gage data to develop a correlation between river stage and water surface elevation in the wetlands. This method would require regular (daily) sampling, primarily during the growing season and other critical diversion seasons, of several points in the various wetlands. Consultant would perform site reconnaissance visit in which wetland sampling points would be identified and subsequently would train stakeholders (potentially Las Animas High School team or other interested stakeholders) to collect the needed data. This method assumes that stakeholders can be identified to perform the sampling, that stakeholder samplers have GPS equipment with sub-meter accuracy and that the wetlands are hydraulically connected to the river. This method recognizes that there is likely to be some lag in response between change in elevation in the river and in the wetlands.

Wetland Net Water Requirements Modeling

The Consultant will model the change in water table at the wetland site using DRAINMOD based on the procedures developed by Zhonghua Jia and Wan Luo for their study *Modeling Net Water Requirements for Wetlands in Semi-Arid Regions (Agricultural Water Management, June 2005)*. This effort will lead to a water quantity necessary to produce wet conditions for sustaining wetlands. The Consultant assumes that the following data will be available for the John Martin wetlands site:

- Depth to impermeable layer
- Pressure head and soil water content
- Water table depth, volume drained, and upward flux
- Green-Ampt infiltration parameters
- ET correction factors

Should none of these or equivalent methods be available, the consultant will not be able to complete this task. The consultant will notify the subcommittee and CWCB that the funds associated with this subtask and indicated in the budget will not be spent.

Task 3.3 Neenoshe Needs Quantification

Consultant assumes the following regarding the Neenoshe Reservoir Needs Quantification:

- Quantification estimates will be based on physical conditions of the reservoir (flow levels) as they relate to habitat type for piping plover and least tern
- Analysis will not take into account water quality issues in the reservoir
- Analysis assumes that stage change in the reservoir can be estimated from available GIS information and historic water management records

The Consultant will combine the contours developed from the DEM/NED, the historic water level data, and wildlife species habitat data in GIS to identify water levels that will provide sufficient water for fish resources without significantly impacting wildlife species habitat. These water levels will be developed to include seasonal issues (e.g. bird nesting) and water year type. Three seasons will be considered: nesting, birds present but not nesting, and birds not present. Three water years types will be considered: dry, normal, and wet.

Task 3.4 Recommendations

The Consultant will prepare a set of water level and or flow recommendations for John Martin and Neenoshe Reservoirs based on the quantification results. These recommendations will be summarized in a technical memorandum, and will include how to maintain or improve levels, and what incremental impacts of decreased water available for identified habitats would be.

Deliverables

Consultant will prepare databases, process the data, and conduct needs quantifications for both John Martin and Neenoshe Reservoir, including seasonal and water year type variations and associated water level ranges. The end result of Task 3 will be data contained in Excel spreadsheets, GIS shape files, quantification results, and a technical memorandum which will include methods, results, and recommendations.

Task 4 John Martin and Neenoshe Reservoirs Nonconsumptive Needs Assessment Study Documentation

Task 4.1 Develop Draft Report

A draft report to document study activities and results will be developed from the Task 1 and 2 technical memorandum and the results of Task 3.

Task 4.2 Develop Final Report

The draft report developed as part of Task 4.1 will be finalized based upon QA/QC review and stakeholder comments gathered during task 1.3.

Task 4.3 Develop Final Presentation

A PowerPoint presentation will be developed based upon the final report for use in the Arkansas Basin Roundtable, stakeholder meetings, other meetings as necessary.

Section 2 Key Personnel

Relevant project experience for the key personnel proposed for the Arkansas River Basin John Martin Wetlands and Neenoshe Reservoir Nonconsumptive Needs Quantification are discussed in this section.

Arkansas Basin Roundtable and Nonconsumptive Use Needs Assessment Subcommittee – Project oversight and Facilitation

The NCNA Subcommittee will hold primary responsibility for the oversight and progress of this project. The Subcommittee and Chair will meet or otherwise communicate on a regular basis with the Project Manager to ensure timely compliance with the Scope and schedule. The Subcommittee will review drafts of the Report, and report regularly to the Basin Roundtable as a whole, including a presentation of the final results.

Nicole Rowan, P.E. –Project Management

Ms. Rowan has over 15 years of water resources engineering experience and is a senior project manager who focuses on water supply, watershed management, and natural resources projects. She was the project manager for the Statewide Water Supply Initiative (SWSI) and is the project manager for CDM's current contract with the Colorado Water Conservation Board to provide technical support to the Interbasin Project Compact process.

Ted Johnson, P.E. – Hydrology and Hydraulics

Mr. Johnson has more than 20 years of experience in environmental engineering, specializing in the planning, design and construction of storm drainage, flood control, channel stability, and ecologic enhancement of stormwater and river systems. Mr. Johnson also has developed expertise in regulatory coordination including Clean Water Act, Endangered Species Act, NEPA and CEQA requirements; the use of GIS in analyses of project criteria and requirements; hydrology and hydraulics analyses; sediment transport and scour and deposition analyses; erosion control BMPs; and, habitat analyses.

Tricia Reed – Biology

Ms. Reed is an environmental scientist with over eight years experience in the natural resources field. Her work has focused on regulatory compliance; field surveys and research; and literature research, analysis, and synthesis. She is also skilled in experimental design and implementation, database development, presentations, and classroom and field instruction.

Larry Schwartz – Wetland Science

Dr. Schwartz is a certified Professional Wetland Scientist (PWS) and an environmental scientist with more than 23 years of experience addressing a wide range of environmental

issues. His technical expertise is in wetland systems ecology, wetland treatment system design, and ecosystem restoration. He has a diverse background in the regulation of water resources, wetland design and permitting, mitigation and ecosystem restoration projects, and in addressing biological and water quality issues.

Tim Cox, Ph.D., P.E. – Hydrologic Modeling

Dr. Cox has a diverse background in water supply planning and water quality management planning. He has broad skills in applying mathematical programming, water quality models, and water supply allocation models in addressing western water resources issues. Dr. Cox has used the CDSS model in examining water allocation and environmental flow need as part of the SWSI project.

Section 3 Budget and In-kind Services

A detailed breakdown of the estimated labor and other direct costs for the proposed project is presented in the following pages.

In-kind services, totaling \$41,250.00 will be provided for preparation of a river restoration plan for 44 miles of Fountain Creek including land use mapping for the entire stretch. The goals of the restoration plan include:

- Improve watershed health by reducing erosion, sedimentation and flooding and improving water quality
- Create stable riparian and ecosystems to attract and support native wildlife and vegetation
- Sustain productive agricultural lands along corridor
- Lay-out trail from Colorado Springs to Pueblo with recreational and educational opportunities
- Gain public and private support through partnerships to facilitate implementation and future funding

The river restoration plan will include approximately 44 miles of Fountain Creek. The reach extends from the southern city limits of Colorado Springs south to the confluence with the Arkansas River in Pueblo. Plans will be prepared for the entire reach that reflects the engineering techniques used to restore Fountain Creek. Quantities of wetlands, wildlife habitats, stream bank stabilization, and flood water side detention will be estimated.

Current land use mapping for the entire 44 mile reach. Proposed future land use for approximately 8 miles of the reach will also be developed. These 8 miles include four demonstration projects that will be developed and planned to reflect the future land use adjacent to the creek. These 8 miles will be studied in greater detail, including public involvement. This effort will provide make land use assumptions for the future of the entire 44 mile reach. Quantities of land use type will be provided to assist with the non-consumptive use needs assessment.

In addition to the Fountain Creek restoration plan, in-kind services in the form of technical support to the project will be provided by Colorado Division of Wildlife and Audubon Colorado. Both organizations have committed 20 hours of staff time to participate in the project for an estimate of \$2,000 in services. Letters committing to this level of effort are

attached to this scope of work. Also, the Arkansas Valley Audubon Society has committed \$1,000 in cash funds for the project. This is reflected in the project budget.

Section 4 Project Schedule

The proposed project schedule is presented on the following page. It is anticipated that the project will be completed within 12 months.

FUNCTION: DOCID: PO PDA C150457 12/18/09 12:01:22 PM
 STATUS: REJCT BATID: ORG: 001-001 OF 001
 H- PURCHASE ORDER INPUT FORM

PO DATE: 12 18 09 ACCTG PRD: BUDGET FY: 10
 ACTION: E PO TYPE: 1 COMMENTS:
 VENDOR: 481298144 NAME: LOWER ARKANSAS VALLEY WATR CNS
 I/G IND: SELLER FUND: SELLER AGENCY:
 CALCULATED DOC TOTAL: 148,075.00 DOC TOTAL: 148,075.00
 LN REF RQ SUB APR SUB T
 NO AGY / NUMBER / LN FND AGY ORG ORG CDE PGM FUNC OBJ OBJ GBL JOB/PROJ X

 RPTC FEE CD UNITS DESCRIPTION AMOUNT I/D P/F

 01- 01 424 PDA ARKA H2B 5781 A457
 J.MARTIN WTLNDS NCNQ 148,075.00
 02- PDA
 03- PDA

A--*HP03-DOCUMENT ERRORS DETECTED 01-A037E-INVALID GRANT BUDGET LINE
 01-PUAPE-MISSING GRANT BUDGET LINE 01-HFL6E-GVAL ENTRY MISSING