WATER CONSERVATION BOARD
1313 SHERMAN STREET, ROOM 721
DENVER, CO 80203

Buyer: MAGGIE VAN CLEEF
Phone Number: 303-866-3292
Agency Contact: STEVEN SHULL
Phone Number: 303 866 3441

DATE: 03-26-09

IMPORTANT
The PO# and Line # must appear on all invoices, packing slips, cartons and correspondence

ACC: 03-25-09

PURCHASE ORDER
STATE OF COLORADO

P.O. # OE PDA 09000000083 **Page#** 01

State Award #

BID #

FEIN 846000545 0 **Phone:** - -
Vendor Contact:
Purchase Requisition #:

VENDOR
COLORADO STATE UNIVERSITY
6003 CAMPUS DELIVERY
555 SOUTH HOWES STREET
FORT COLLINS CO 80523-8003

Invoice in Triplicate To:
DIVISION OF WATER CONSERVATION
1313 SHERMAN STREET, ROOM 721
DENVER, CO 80203

Payment will be made by this agency

Ship To:
DIVISION OF WATER CONSERVATION
1313 SHERMAN STREET, ROOM 721
DENVER, CO 80203

INSTRUCTIONS TO VENDOR:
1. If for any reason, delivery of this order is delayed beyond the delivery/installation date shown, please notify the agency contact named at the top left. (Right of cancellation is reserved in instances in which timely delivery is not made.)
2. All chemicals, equipment and materials must conform to the standards required by OSHA.
3. NOTE: Additional terms and conditions on reverse side.

Delivery/Installation Date: 10-31-12
F.O.B. DESTINATION STATE PAYS NO FREIGHT

SPECIAL INSTRUCTIONS:

LINE ITEM	COMMODITY/ITEM CODE	UNIT OF MEASUREMENT	QUANTITY	UNIT COST	TOTAL ITEM COST
001	91843000000				$80,349.00

AG WATER TRANSFER-CSU WILL DEMONSTRATE HOW LAND FALLOWING IN THE ARKANSAS RIVER VALLEY, PER EXHIBIT A SCOPE OF WORK.

DOCUMENT TOTAL = $80,349.00

THIS PO IS ISSUED IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS
This PO is effective on the date signed by the authorized individual.
EPSPO PAA

FOR THE STATE OF COLORADO
Authorized Signature
for MVC

3/26/09
Date

DP-01 (R-02/06)

Purchase Order Terms and Conditions

1. Offer/Acceptance. If this purchase order ("PO") refers to vendor's bid or proposal, this PO is an ACCEPTANCE of vendor's OFFER TO SELL in accordance with the terms and conditions of the "solicitation" identified in vendor's bid or proposal. The solicitation includes an RFP, IFB, or any other form of order by buyer. If a bid or proposal is not referenced, this PO is an OFFER TO BUY, subject to vendor's acceptance, demonstrated by vendor's performance or written acceptance of this PO. Any COUNTER-OFFER TO SELL automatically CANCELS this PO, unless a change order is issued by buyer accepting a counter-offer. This PO shall supersede and control over any vendor form(s) or part(s) thereof included in or attached to any bid, proposal, offer, acknowledgment, or otherwise, in the event of inconsistencies or contradictions, regardless of any statement to the contrary in such form(s) or parts thereof. **2. Safety Information.** All chemicals, equipment and materials proposed and/or used in the performance of this PO shall conform to the requirements of the Occupational Safety and Health Act of 1970. Vendor shall furnish all Material Safety Data Sheets (MSDS) for any regulated chemicals, equipment or hazardous materials at the time of delivery.

3. Changes. Vendor shall furnish products and/or services strictly in accordance with the specifications and price set forth for each item. This PO shall not be modified, superseded or otherwise altered, except in writing signed by purchasing agent and accepted by vendor. Each shipment received or service performed shall comply with the terms of this PO, notwithstanding invoice terms or acts of vendor to the contrary, unless this PO has been modified, superseded or otherwise altered in accordance with this section.

4. Delivery. Unless otherwise specified in the solicitation or this PO, delivery shall be FOB destination. Buyer is relying on the promised delivery date, installation, and/or service performance set forth in vendor's bid or proposal as material and basic to buyer's acceptance. If vendor fails to deliver or perform as and when promised, buyer, in its sole discretion, may cancel its order, or any part thereof, without prejudice to its other rights, return all or part of any shipment so made, and charge vendor with any loss or expense sustained as a result of such failure to deliver or perform as promised. Time is of the essence.

5. Intellectual Property. Any software, research, reports, studies, data, photographs, negatives or other documents, drawings or materials (collectively "materials") delivered by vendor in performance of its obligations under this PO shall be the exclusive property of buyer. Ownership rights shall include, but not be limited to, the right to copy, publish, display, transfer, prepare derivative works, or otherwise use the materials. Vendor shall comply with all applicable Cyber Security Policies of the State of Colorado (the "State"), or buyer, as applicable, and all confidentiality and non-disclosure agreements, security controls, and reporting requirements.

6. Quality. Buyer shall be the sole judge in determining "equals" with regard to quality, price and performance. All products delivered shall be newly manufactured and the current model, unless otherwise specified.

7. Warranties. All provisions and remedies of the Colorado Uniform Commercial Code, CRS, Title 4 ("CUCC"), relating to implied and/or express warranties are incorporated herein, in addition to any warranties contained in this PO or the specifications.

8. Inspection and Acceptance. Final acceptance is contingent upon completion of all applicable inspection procedures. If products or services fail to meet any inspection requirements, buyer may exercise all of its rights, including those provided in the CUCC. Buyer shall have the right to inspect services provided under this PO at all reasonable times and places. "Services" as used in this section includes services performed or tangible material produced or delivered in the performance of services. If any of the services do not conform to PO requirements, buyer may require vendor to perform the services again in conformity with PO requirements, without additional payment. When defects in the quality or quantity of service cannot be corrected by re-performance, buyer may **(a)** require vendor to take necessary action to ensure that future performance conforms to PO requirements and **(b)** equitably reduce the payment due vendor to reflect the reduced value of the services performed. These remedies do not limit the remedies otherwise available in this PO, at law, or in equity.

9. Cash Discount. The cash discount period will start from the later of the date of receipt of acceptable invoice, or from date of receipt of acceptable products/services at the specified destination by an authorized buyer representative.

10. Taxes. Buyer and the State are exempt from all federal excise taxes under Chapter 32 of the Internal Revenue Code [No. 84-730123K] and from all State and local government sales and use taxes [CRS, Title 39, Article 26, Parts I and II]. Such exemptions apply when materials are purchased for the benefit of State, except that in certain political subdivisions (e.g., City of Denver) vendor may be required to pay sales or use taxes even though the ultimate product or service is provided to buyer. Buyer shall not reimburse such sales or use taxes.

11. Payment. Buyer shall pay vendor for all amounts due within 45 days after receipt of products or services and a correct notice of amount due. Interest on the unpaid balance shall begin to accrue on the 46th day at the rate set forth in CRS §24-30-202(24) until paid in full. Interest shall not accrue if a good faith dispute exists as to buyer's obligation to pay all or a portion of the amount due. Vendor shall invoice buyer separately for interest on delinquent amounts due, referencing the delinquent payment, number of day's interest to be paid, and applicable interest rate.

12. Vendor Offset. [*Not Applicable to Inter-governmental POs*] Under 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 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.

13. Assignment and Successors. Vendor shall not assign rights or delegate duties under this PO, or subcontract any part of the performance required under this PO, without the express, written consent of buyer. This PO shall inure to the benefit of and be binding upon vendor and buyer and their respective successors and assigns. Assignment of accounts receivable may be made only upon written notice furnished to buyer.

14. Indemnification. If any article sold or delivered under this PO is covered by a patent, copyright, trademark, or application therefore, vendor shall indemnify and hold harmless buyer from any and all loss, liability, cost, expenses and legal fees incurred on account of any claims, legal actions or judgments arising out of manufacture, sale or use of such article in violation or infringement of rights under such patent, copyright, trademark or application. If this PO is for services, vendor shall indemnify, save, and hold harmless buyer, its employees and agents, against any and all claims, damages, liability and court awards including costs, expenses, and attorney fees and related expenses, incurred as a result of any act or omission by vendor, or its employees, agents, subcontractors or assignees, arising out of or in connection with performance of services under this PO.

15. Independent Contractor. Vendor shall perform its duties hereunder as an independent contractor and not as an employee. Neither vendor nor any agent or employee of vendor shall be deemed to be an agent or employee of buyer. Vendor and its employees and agents are not entitled to unemployment insurance or workers compensation benefits through buyer and buyer shall not pay for or otherwise provide such coverage for vendor or any of its agents or employees. Unemployment insurance benefits will be available to vendor and its employees and agents only if coverage is made available by vendor or a third party. Vendor shall pay when due all applicable employment, income, and local head taxes incurred pursuant to this PO. Vendor shall not have authorization, express or implied, to bind buyer to any agreement, liability or understanding, except as expressly set forth herein. Vendor 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 buyer, and **(c)** be solely responsible for its acts and those of its employees and agents.

16. Communication. All communication concerning administration of this PO, prepared by vendor for buyer's use, shall be furnished solely to purchasing agent.

17. Compliance. Vendor 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.

18. Insurance. Vendor shall obtain, and maintain, at all times during the term of this PO, insurance as specified in the solicitation, and provide proof of such coverage as requested by purchasing agent.

19. Termination Prior to Shipment. If vendor has not accepted this PO in writing, buyer may cancel this PO by written or oral notice to vendor prior to shipment of goods or commencement of services.

20. Termination for Cause. (a) If vendor refuses or fails to timely and properly perform any of its obligations under this PO with such diligence as will ensure its completion within the time specified herein, buyer may notify vendor in writing of non-performance and, if not corrected by vendor within the time specified in the notice, terminate vendor's right to proceed with the PO or such part thereof as to which there has been delay or a failure. Vendor shall continue performance of this PO to the extent not terminated and be liable for excess costs incurred by buyer in procuring similar goods or services elsewhere. Payment for completed services performed and accepted shall be at the price set forth in this PO. **(b)** Buyer may withhold amounts due to vendor as buyer deems necessary to reimburse buyer for excess costs incurred in curing, completing or procuring similar goods and services.**(c)** If after rejection, revocation, or other termination of vendor's right to proceed under the CUCC or this clause, buyer determines for any reason that vendor was not in default or the delay was excusable, the rights and obligations of buyer and vendor shall be the same as if the notice of termination had been issued pursuant to termination under §21.

21. Termination in Public Interest. Buyer is entering into this PO for the purpose of carrying out the public policy of the State, as determined by its Governor, General Assembly, and Courts. If this PO ceases to further the public policy of the State, buyer, in its sole discretion, may terminate this PO in whole or in part and such termination shall not be deemed to be a breach of buyer's obligations hereunder. This section shall not apply to a termination for vendor's breach, which shall be governed by §20. Buyer shall give written notice of termination to vendor specifying the part of the PO terminated and when termination becomes effective. Upon receipt of notice of termination, vendor shall not incur further obligations except as necessary to mitigate costs of performance. For services or specially manufactured goods, buyer shall pay **(a)** reasonable settlement expenses, **(b)** the PO price or rate for supplies and services delivered and accepted, **(c)** reasonable costs of performance on unaccepted supplies and services, and **(d)** a reasonable profit for the unaccepted work. For existing goods, buyer shall pay **(e)** reasonable settlement expenses, **(f)** the PO price for goods delivered and accepted, **(g)** reasonable costs incurred in preparation for delivery of the undelivered goods, and **(h)** a reasonable profit for the preparatory work. Buyer's termination liability under this section shall not exceed the total PO price plus a reasonable cost for settlement expenses. Vendor shall submit a termination proposal and reasonable supporting documentation, and cost and pricing data as required by CRS §24-106-101, upon request of buyer.

22. PO Approval. This PO shall not be valid unless it is executed by purchasing agent. Buyer shall not be responsible or liable for products or services delivered or performed prior to proper execution hereof.

23. Fund Availability. Financial obligations of buyer payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted and otherwise made available. If this PO is funded in whole or in part with federal funds, this PO is subject to and contingent upon the continuing availability of federal funds for the purposes hereof. Buyer represents that it has set aside sufficient funds to make payment for goods delivered in a single installment, in accordance with the terms of this PO.

24. Choice of Law. State laws, rules and regulations shall be applied in the interpretation, execution, and enforcement of this PO. The CUCC shall govern this PO in the case of goods unless otherwise agreed in this PO. Any provision included or incorporated herein by reference which conflicts with such laws, rules, and regulations is null and void. Any provision incorporated herein by reference which purports to negate this or any other provision in this PO 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. Unless otherwise specified in the solicitation or this PO, venue for any judicial or administrative action arising out of or in connection with this PO shall be in Denver, Colorado. Vendor shall exhaust administrative remedies in CRS §24-109-106, prior to commencing any judicial action against buyer.

25. Public Contracts for Services. [***Not Applicable to offer, issuance, or sale of securities, investment advisory services, fund management services, sponsored projects, intergovernmental POs, or information technology services or products and services***] Vendor certifies, warrants, and agrees that it does not knowingly employ or contract with an illegal alien who will perform work under this PO and will confirm the employment eligibility of all employees who are newly hired for employment in the United States to perform work under this PO, through participation in the E-Verify Program or the Department program established pursuant to CRS §8-17.5-102(5)(c), Vendor shall not knowingly employ or contract with an illegal alien to perform work under this PO or enter into a contract or PO with a subcontractor that fails to certify to vendor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this PO. Vendor shall **(a)** not use E-Verify Program or Department program procedures to undertake pre-employment screening of job applicants during performance of this PO, **(b)** notify subcontractor and buyer within three days if vendor has actual knowledge that subcontractor is employing or contracting with an illegal alien for work under this PO, **(c)** terminate the subcontract if subcontractor does not stop employing or contracting with the illegal alien within three days of receiving notice, and **(d)** 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 vendor participates in the Department program, vendor shall deliver to the buyer a written, notarized affirmation that vendor has examined the legal work status of such employee, and shall comply with all of the other requirements of the Department program. If vendor fails to comply with any requirement of this provision or CRS §8-17.5-101 et seq., buyer may terminate this PO for breach and, if so terminated, vendor shall be liable for damages.

26. Public Contracts with Natural Persons. Vendor, 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 a form of identification required by CRS §24-76.5-103 prior to the date vendor delivers goods or begins performing services under terms of the PO.

Department of Personnel & Administration
TECHNICAL GUIDANCE
SOLE SOURCE CONTRACTS AND CAMPAIGN CONTRIBUTIONS
SOLE SOURCE GOVERNMENT CONTRACTS
AS DEFINED IN COLORADO CONSTITUTION ARTICLE XXVIII

This provision applies only to sole source government contracts and does not apply to any contract which used a public and competitive bidding process in which the State agency or institution of higher education solicited at least three bids prior to awarding the contract. Contractor certifies, warrants, and agrees that it has complied and will comply with Colorado Constitution Article XXVIII, including but not necessarily limited to the following prohibitions and obligations:

1. If during the term of the contract, contractor holds sole source government contracts with the State of Colorado and any of its political subdivisions cumulatively totaling more than $100,000 in a calendar year, then for the duration of this contract and for two years after, contractor will not make, cause to be made, or induce by any means a contribution, directly or indirectly, on behalf of contractor or contractor's immediate family member(s) for the benefit of any political party or for the benefit of any candidate any elected office of the State or any of its political subdivisions; and

2. Contractor represents that contractor has not previously made or caused to be made, and will not in the future make or cause to be made, any contribution intended to promote or influence the result of a ballot issue election related to the subject matter of this contract; and

3. Contractor will satisfy contractor's obligations to promptly report to the Colorado Department of Personnel & Administration information included in the Government Contract Summary and the Contract Holder Information, regarding this contract and any other sole source government contracts to which contractor is a party; and

4. Contractor understands that any breach of this section or of Contractor's responsibilities under Colorado Constitution Article XXVIII may result in either contractual or constitutionally mandated penalties and remedies; and

5. A Contractor that intentionally violates Colorado Constitution Article XXVIII, Section 15 or 17(2), shall be ineligible to hold any sole source government contract, or public employment with the state or any of its political subdivisions for three years; and

6. By execution of this contract, Contractor hereby confirms it is qualified and eligible under such provisions to enter into this contract.

For purposes of this clause, the term "contractor" shall include persons that control ten percent or more shares or interest in contractor, as well as contractor's officers, directors, and trustees. The term "immediate family member" shall include a spouse, child, spouse's child, son-in-law, daughter-in-law, parent, sibling, grandparent, grandchild, stepbrother, stepsister, stepparent, parent-in-law, brother-in-law, sister-in-law, aunt, niece, nephew, guardian, or domestic partner.

More information and to report to the Sole Source Government Contract Summary and Contract Holder Information see this website: http://www.colorado.gov/dpa/dfp/sco/contracts.htm.

March 10, 2009

Exhibit A
Scope of Work
The Effect of Land Fallowing and Water Rights Leasing on Corn Yield, Nutrient Needs and Economics in the Lower Arkansas River Valley of Colorado

Task 1. ***Establishment of Demonstration Farms.*** Select two demonstration farms, with one being on the Rocky Ford High Line Canal and the other on Holbrook Canal. Next, section off an 8 ac. sub-field at each farm, to be planted to corn according to recommended practices for optimum yields and returns in the Arkansas Valley. The 8 ac. sub-fields will be further divided into 2 ac. replicates for planting and rotational fallowing as outlined in Table 1 (see below).

Table 1. Scheduling of cropping activities at Arkansas Valley demonstration areas (16 acres total).

	Year 1† (12 ac. fallow)	Year 2 (8 ac. fallow)	Year 3 (4 ac. fallow)	Year 4 (0 ac. fallow)
Site 1	Corn	Corn	Corn	Corn
Site 2	Corn	Corn	Corn	Corn
Site 1	Fallow	Corn	Corn	Corn
Site 2	Fallow	Corn	Corn	Corn
Site 1	Fallow	Fallow	Corn	Corn
Site 2	Fallow	Fallow	Corn	Corn
Site 1	Fallow	Fallow	Fallow	Corn
Site 2	Fallow	Fallow	Fallow	Corn

† "Year 1" will be the 2008-2009 cropping season, followed by Year 2 in 2009-2010, and so on.

Methods: Coordinate with the Lower Arkansas Valley Water Conservancy District to select long-term demonstration farms. Develop system for recording practices and costs for field operations. Plant 2 acre replicates in accordance with rotational fallowing legislation (Colorado House Bill 03-1334, Colorado House Bill 06-1124).

Deliverables: Establishment of long-term demonstration farms in the Arkansas Valley. Signage and visitor stations will be built in order to allow neighboring farmers to gather information on progress.
Personnel: *M. Bartolo, P.E. Cabot, J. Valliant, student hourly, Lower Arkansas Valley Water Cons. District*

Task 2. ***Fallowed Land Maintenance Practices and Benefits***. Document the management and associated costs necessary to maintain fallowed fields during Year 1, Year 2, and Year 3. Practices may include preventing weed infestation and protecting soils from excessive erosion. Arrange for water transfers and lease agreements in coordination with Super Ditch Company. Monitor water transfer logistic aspects and associated net value to demonstration farms.

Methods: Perform operations as necessary to prevent weed infestation and erosion. Compensate farmers adequately for herbicide ($13/ac) and weed mowing ($8/ac) in accordance with enterprise budget from local studies (Valliant, 2008). Compensate participating farms for crop loss due to fallowing, assuming 200 bu/ac at $6/bu. If possible, arrange leasing for water rights (or simulate lease arrangement, based on local market value for water shares).

Deliverables: Maintenance handbook (or fact sheet) for fallowed land maintenance published through CSU
Extension; recorded information and local enterprise budgets for rotational fallowing
Personnel: *P.E. Cabot, J. Valliant, J. Tranel*

Task 3. *Returning Fallowed Land to Irrigated Production*. Determine nutrient needs and costs necessary in Year 2, Year 3, and Year 4 to return fallowed lands to levels of production comparable to 2, 3, and 4 years of continuous corn. Measure yields and productivity from fields returned to production in Years 2, 3, and 4 in comparison with fields continuously farmed.

Methods: Use best management practices for Colorado corn (Bauder and Waskom, 2003). Compensate farmers for re-disking land and seed bed preparation after fallow period ($20/ac).

Deliverables: Update to fact sheets for fallowed land maintenance published through CSU Extension; information on end-costs of fallowing to be used in calculating value of water lease arrangement.
Personnel: *P.E. Cabot, J. Tranel, J. Valliant*

Task 4. *Evaluate Soil Nitrate and Salinity Patterns*. Determine the effect of fallowing on the movement of nitrates and salts in the soil profile. Soil sample analyses will compare the movement of nitrates, salts and selenium under production corn land and fallowed land to a depth of 24 inches.

Methods: Take and analyze soil samples in Year 1 to determine baseline nutrient levels in each of the planted and fallowed areas. Continue to take and analyze soil samples in subsequent years in order to monitor soil nutrient accumulations or deficits, and salinity and selenium patters in soil profile. Composite soil samples will be collected annually at depths of 0-8, 8-16 and 16-24 inches. On each 2 acre replicate, 3 samples will be obtained, such that 9 samples are collected every 2 acres, thus yielding 36 samples per site. The total number of samples obtained annually will therefore be 72. Standard methods for nitrate and salinity/selenium will be utilized (Sparks, 1996) and performed by a certified soil testing lab (approximately $30/analysis).

Deliverables: Knowledge of fallowing (e.g., non-irrigation) impacts on soil fitness characteristics; enterprise budgetary effects of fallowing on nutrient requirements for when fields are brought back to production; professional paper or local fact sheet on nutrient management for managing land during water leases.
Personnel: *M. Bartolo, P.E. Cabot, J. Valliant, Certified Soil Testing Laboratory (CSU)*

Task 5. *Extension Outreach Programming and Education.* Provide information on the results from the demonstrations through field days, workshops and published reports. Also, make information from the study available to the public through news releases and on University and related websites. Compile and analyze the results of the study and publish a bulletin containing the information, conclusions and recommendations for proper practices when fallowing land from corn production for 1, 2 or 3 years. It is expected that this project will receive state-wide attention; therefore, a portion of the budget is devoted to developing high-quality materials (e.g., color plots, photo layouts, etc.) to provide outreach via Internet and Podcasting.

Method: Educate extension agents in the Valley and other basins regarding rotational fallowing leases; present results at domestic conferences and Extension programming activities throughout the Arkansas River Basin; prepare final report and project documentation annually to update CWCB project activity.

Deliverables: Informational events (e.g., field days) at the Arkansas Valley Research Center and throughout the Valley and state; prepare one professional paper for submission to Journal of American Water Resources Association; one presentation on rotational fallowing to a professional society (e.g., American Society of Agricultural Engineers)

Personnel: *P.E. Cabot, J. Valliant, County Extension Staff*

Table 2 (revised). Milestone Schedule for Rotational Fallowing Project

	YEAR 1	YEAR 2	YEAR 3	YEAR 4
	2009	2010	2011	2010
TASK and OBJECTIVES	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	JFMAMJ
TASK 1: ***Establishment of Demonstration Farms***	X			
Coordination with LAVWCD (water leasing structure)	X			
Development of record-keeping system	X			
Sectioning and planting (two 12 ac. fields each with 2 ac. replicates)	X			
Baseline soil samples (nutrients, salinity)	X			
TASK 2: ***Fallowed Land Maintenance Practices and Benefits***	X			
Weed removal and spraying	X			
Enterprise budgets for maintenance	X			
Maintenance and Rot. Fallowing Extension Fact Sheet	X			
TASK 3: ***Returning Fallowed Land to Irrigated Production***	X			
Planting non-fallowed reps. (Y1 = 4 ac, Y2 = 6 ac, Y3 = 8 ac, Y4 = 12 ac)	X			
Harvest non-fallowed reps. (Y1 = 4 ac, Y2 = 6 ac, Y3 = 8 ac, Y4 = 12 ac)	X			
Enterprise budgets for re-farming fallowed lands	X			
Fact Sheets and Workshops on re-farming fallowed land	X			
TASK 4: ***Evaluate Soil Nitrate and Salinity Patterns***	X			
Annual soil sampling and testing	X			
Cross-field comparisons between fallowed and farmed replicates	X			
TASK 5: ***Extension Outreach Programming and Education***	X			
Annual field days	X			
Rotational Fallowing Workshop	X			
Professional Paper (not funded through CWCB)	X			
Professional Conference (national level; not funded through CWCB)	X			
Annual reporting to CWCB, City of Aurora, and LAVWCD	X			
Final Report to CWCB, City of Aurora, and LAVWCD	X			

The Effect of Land Fallowing and Water Rights Leasing on Corn Yield, Nutrient Needs and Economics in the Lower Arkansas River Valley of Colorado

BUDGET NARRATIVE (Colorado Water Conservation Board) - REVISED

A. Personnel Salaries.

• James Valliant. Co-Principal Investigator (PI).
Year 1 0.75 mo. @ $5,500/mo = $4,125
Year 2 0.75 mo. @ $5,720/mo = $4,290
Year 3 0.75 mo. @ $5,948/mo = $4,462
Year 4 0.75 mo. = $ 0
• Jeff Tranel. Extension Specialist. Agriculture and Business Management
Year 1 0.20 mo. @ $5,508/mo = $1,102
Year 2 0.20 mo. @ $5,728/mo = $1,146
Year 3 0.20 mo. @ $5,957/mo = $1,191
Year 4 0.25 mo. = $ 0
• Non-student hourly. Field Technician (Arkansas Valley Research Center).
Year 1 200 hr. @ $10.00/hr = $2,000
Year 2 160 hr. @ $10.40/hr = $1,664
Year 3 160 hr. @ $11.07/hr = $1,731
Year 4 200 hr. = $ 0

Total Amount Requested (Personnel Salaries) = $ 21,711

B. Fringe Benefits.

• James Valliant. Co-Principal Investigator (PI).
Year 1 0.75 mo. @ $5,500/mo @24.4% = $1,006
Year 2 0.75 mo. @ $5,720/mo @24.4% = $1,046
Year 3 0.75 mo. @ $5,948/mo @25.8% = $1,151
Year 4 0.75 mo. = $ 0
• Jeff Tranel. Extension Specialist. Agriculture and Business Management
Year 1 0.20 mo. @ $5,508/mo @24.4% = $ 269
Year 2 0.20 mo. @ $5,728/mo @24.4% = $ 280
Year 3 0.20 mo. @ $5,957/mo @25.8% = $ 307
Year 4 0.25 mo. = $ 0
• Non-student hourly. Field Technician (Arkansas Valley Research Center).
Year 1 200 hr. @ $10.00/hr @14.8% = $ 296
Year 2 160 hr. @ $10.40/hr @15.8% = $ 263
Year 3 160 hr. @ $11.07/hr @16.8% = $ 298
Year 4 200 hr. = $ 0

Total Amount Requested (Fringe Benefits) = $ 4,916

C. TOTAL Salaries and Fringe = $ 26,627

D. Domestic Travel.

• Project prep meetings in Rocky Ford, CO traveling from Pueblo, CO (Perry Cabot)
3 trips/yr @ 3 yrs @106 miles @$0.53/mi @4% inflation = $ 499
• Site visits to Cheraw, CO traveling from Pueblo, CO (Perry Cabot)
3 trips/yr @ 3 yrs @110 mil @$0.53/mi @4% inflation = $ 546
• Site visits to Fowler, CO traveling from Pueblo, CO (Perry Cabot)
3 trips/yr @ 3 yrs @95 mil @$0.53/mi @4% inflation = $ 471
• Project prep meetings in Pueblo, CO traveling from Ordway, CO (Jim Valliant)
3 trips/yr @ 3 yrs @106 miles @$0.53/mi @4% inflation = $ 175
• Site visits to Cheraw, CO traveling from Ordway, CO (Jim Valliant)
3 trips/yr @ 3 yrs @40 miles @$0.53/mi @4% inflation = $ 197
• Site visits to Fowler, CO traveling from Ordway, CO (Jim Valliant)
3 trips/yr @ 3 yrs @40 miles @$0.53/mi @4% inflation = $ 197
• Two Professional society conferences in Domestic United States (Perry Cabot)
Domestic flight airfare (2 flights @ $400/flight) = $ 800
Hotel room (6 days $100/ea) = $ 600
Travel (Pueblo to Colorado Springs 160 miles rt @ $0.53/mi) = $ 84
Airport parking (6 days @ $10/day) = $ 60
• Extension programming in Arkansas Valley Basin (Perry Cabot, Jim Valliant)
$100/yr @ 4% inflation = $ 312
***Total Amount Requested (Travel)* = $ 2,397**

E. Materials and Supplies.

[See Appendix A-1 rev]
***Total Amount Requested (Materials and Supplies)* = $ 28,878**

F. Equipment

***Total Amount Requested (Equipment)* = $0**

G. Construction.

***Total Amount Requested (Construction)* = $0**

H. Publication Costs/Page Charges.

One professional paper to *Journal of Am. Wat. Res. Assn.*
(10 pages @ $112.5/pg) in Year 4 = $ 0
***Total Amount Requested (Publication Costs/Page Charges)* = $ 0**

I. Student and Participant Assistance.
***Total Amount Requested (Student and Participant Assistance)* = $0**

J. Other Direct Costs.
Annual soil sample analysis (72 samples @$25 ea @ 4% inflation) = $ 5,400
Workshop costs (room rental, handouts for participants, etc.) = $ 467
***Total Amount Requested (Other direct costs)* = $ 5,876**
TOTAL Direct Costs. = $ 63,769

K. F&A/Indirect Costs (Facilities and Administrative).
• Total Direct Costs @ 26 percent (26%) **= $ 16,580**
TOTAL Amount of Funds Requested. = $ 80,349

Appendix A-1 (rev) (Materials and Supplies) – updated March 10, 2009

Colorado Water Conservation Board

		Year 1		Year 2		Year 3		Year 4		
Item Description	Price	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	TOTAL
Experimental Design and Implementation			$0	0	$0	0	$0	0	$0	$0
- Y1 herbicide (12 ac @ $13/ac)	$156.00	1	$156	0	$0	0	$0	0	$0	$156
- Y2 herbicide (8 ac @ $13/ac)	$104.00	0	$0	1	$108	0	$0	0	$0	$108
- Y3 herbicide (4 ac @ $13/ac)	$52.00	0	$0	0	$0	1	$56	0	$0	$56
			$0	0	$0	0	$0	0	$0	$0
- Y1 mow weeds (12 ac @ $8/ac)	$96.00	1	$96	0	$0	0	$0	0	$0	$96
- Y2 mow weeds (8 ac @ $8/ac)	$64.00	0	$0	1	$67	0	$0	0	$0	$67
- Y3 mow weeds (4 ac @ $8/ac)	$32.00	0	$0	0	$0	1	$35	0	$0	$35
			$0	0	$0	0	$0	0	$0	$0
- Y1 disking (12 ac @ $20/ac)	$240.00	1	$240	0	$0	0	$0	0	$0	$240
- Y2 disking (8 ac @ $20/ac)	$160.00	0	$0	1	$166	0	$0	0	$0	$166
- Y3 disking (4 ac @ $20/ac)	$80.00	0	$0	0	$0	1	$87	0	$0	$87
Crop Payments (compensation)			$0		$0	0	$0	0	$0	$0
- Y1 corn (12 ac @200 bu/ac @$4.70/bu)	$11,280.00	1	$11,280	0	$0	0	$0	0	$0	$11,280
- Y2 corn (8 ac @200 bu/ac @$6.00/bu)		0	$0	1	$9,600	0	$0	0	$0	$9,600
- Y3 corn (4 ac @200 bu/ac @$6.00/bu)		0	$0	0	$0	1	$4,800	0	$0	$4,800
			$0	0	$0	0	$0	0	$0	$0
Experimental Materials			$0	0	$0	0	$0	0	$0	$0
- sampling bags, piping, flow msmt.	$750.00	1	$750	0.75	$585	0.5	$406	0	$0	$1,741
			$0	0	$0	0	$0	0	$0	$0
Extension Program Supplies (Year 3)										
- binders, CDs, "Fact Sheet" reproduce		0	$0	0	$0	1	$446	0	$0	$446
TOTAL			$12,522		$10,526		$5,830		$0	$28,878

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 CWCB in hard copy and electronic format as part of the project documentation.

From: Doherty, Todd
To: Vigil, Dori
Subject: RE: Alternative Agricultural Water Transfer Methods Project - Colorado State University
Date: Monday, September 24, 2012 1:41:29 PM

Great, thanks!

From: Vigil, Dori
Sent: Monday, September 24, 2012 1:38 PM
To: Doherty, Todd
Subject: RE: Alternative Agricultural Water Transfer Methods Project - Colorado State University

Todd,

I will process the extension request.

Dori Vigil
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 200
Denver CO 80203
(303) 866-3441 x3250
dori.vigil@state.co.us

From: Doherty, Todd
Sent: Friday, September 21, 2012 9:35 AM
To: Vigil, Dori
Cc: Carsten,Chris; Douras,Catherine; Barrera,Laura; Morrissey,Marilyn; Cabot,Perry
Subject: RE: Alternative Agricultural Water Transfer Methods Project - Colorado State University

Dori,
Would you please request a one-year extension for the project described below?

Thank you,
Todd

Todd Doherty, Program Manager
Water Supply Planning Section
Colorado Water Conservation Board (CWCB)
1580 Logan Street, Suite 200
Denver, CO 80203
Phone: (303) 866-3441 x3210
Fax: (303) 861-4272
todd.doherty@state.co.us
www.cwcb.state.co.us

From: Cabot,Perry [mailto:Perry.Cabot@colostate.edu]
Sent: Thursday, September 20, 2012 4:14 PM
To: Doherty, Todd
Cc: Carsten,Chris; Douras,Catherine; Barrera,Laura; Morrissey,Marilyn
Subject: Alternative Agricultural Water Transfer Methods Project - Colorado State University

Hello Todd: (This is my follow-up on the request for a no-cost extension on my CWCB-ATM Project)

My project entitled "The Effect of Land Fallowing and Water Rights Leasing on Corn Yield, Nutrient Needs and Economics in the Lower Arkansas River Valley of Colorado" was granted $80,349 from CWCB in 2009. I'm pleased to say that we're accomplishing the work we set out to do, and I've been able to build an extra deliverable into the project also (that being, an "EZ" version of the AgLET Tool). I'm also pleased to note that the project still has $4,262.27 in the account (which includes $879.55 of indirect costs).

I spoke to you at the Arkansas Basin Roundtable about getting a no-cost extension on the project so that I can conclude the project as I had originally intended. As you may recall, this project was originally designed to be a 4-year project, but we were given 3 years of funding.

There is no need for additional funding, as the remaining funds will be enough to conclude the project. However, as the project is nearing its date of completion (10/31/2012), I need to get Colorado State University on the same page as CWCB, as far as this no-cost extension goes.

ACTION: Our Office of Sponsored Programs would like to know the process for your approval of the extension. Could you please "REPLY ALL" to this e-mail and provide us any guidelines to get this process started? I would like to request a 1-year no-cost extension.

Best regards,

Perry

Dr. Perry E. Cabot
Office: (719) 549-0245
Cell: (719) 334-2558
Colorado Water Institute and CSU Extension