COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Craig Godbout, Program Manager
Alternative Agricultural Water Transfer Methods Grant Program (ATM)
Water Supply Planning Section

DATE: November 2, 2017

AGENDA ITEM: 9(a&b)

Staff Recommendation/Action Items: ATM Grant Requests

9 (a): Applicant: Colorado Open Lands
Project Name: South Platte River ATM & Conservation Easement
Amount: $284,500

9 (b): Applicant: New Cache La Poudre Irrigation Company
Project Name: New Cache La Poudre Water Marketing Strategy
Amount: $214,957

If both of these requests are approved, they will constitute the 27th & 28th ATM Grant approved by the CWCB. Of the previous 26 projects, 10 are in-progress, and 15 have been completed or closed-out.

The current ATM balance is $1,042,498. If these two grants requests are approved and come under contract, the remaining balance will be $543,041.

Staff's review of the applications involves the following steps:

1) Applications are reviewed for completeness based on the information requirements, which are primarily outlined in the Criteria and Guidelines (C&G).
2) Applications are reviewed to verify that the water activity meets the eligibility requirements in the C&G.
3) Staff then prepares the Water Activity Summary Sheet which documents the outcome of the review process and contains staff's recommendations.

Staff concludes these ATM Grant applications are complete and the proposed activity meets the eligibility requirements in the C&G. The Water Activity Summary Sheet, ATM Grant Application, Statement of Work, Budget and Schedule are attached.

Staff recommendation:

Agenda Item 9(a):
Staff recommends approval of up to $284,500 from the Alternative Agricultural Water Transfer Methods Grant Program to help fund the "South Platte River ATM & Conservation Easement".

Agenda Item 9(b):
Staff recommends approval of up to $214,957 from the Alternative Agricultural Water Transfer Methods Grant Program to help fund the "New Cache La Poudre Water Marketing Strategy".

Alternative Agricultural Water Transfer Methods – Competitive Grant Program
Water Activity Summary Sheet
November 15-16, 2017
Agenda Item 9(a)

Applicant & Grantee:	Colorado Open Lands
Water Activity Name:	South Platte River ATM & Conservation Easement
Water Activity Purpose:	Pilot project to implement in the South Platte basin a permanent interruptible ATM water supply coupled with and encumbered by a conservation easement for a M&I provider while providing perpetual protection of irrigated lands.
Drainage Basin:	South Platte
Water Source:	Native South Platte basin water
Amount Requested:	$284,500
Matching Funds:	**$1,144,500** total cash match (Walton Family Foundation - $369,500; NRCS - $750,000; US Fish & Wildlife Service - $25,000)

Staff Recommendation
Staff recommends approval of up to $284,500 from the Alternative Agricultural Water Transfer Methods Program to help fund the "South Platte River ATM & Conservation Easement."

Water Activity Summary: Colorado Open Lands (COL) will lead the effort to prove the concept of implementing a permanent Alternative Agricultural Water Transfer Methods (ATM) water supply coupled with a conservation easement for an M&I provider located within the South Platte River basin. This project will implement an ATM pilot project providing for the perpetual protection of irrigated farm land and perpetual use and ownership of interruptible water supplies by a participating M&I water provider.

ATMs have been touted as a solution to keep irrigated agricultural lands productive,. However, some municipal providers contend that leasing water rights does not provide adequate certainty and may worry that for valuable senior water right, competing municipalities may purchase the water right at a higher price upon expiration of their lease. Conservation easements can provide the permanence and enforceability to give all parties comfort that a leasing structure can remain in place, but the water rights can never be separated from the property. Over the last year, COL has been working to draft due diligence guidelines and conservation easement language regarding water rights to accommodate for use water off the property, whether for municipal or environmental use. After significant conversations between COL and the Natural Resource Conservation Service (NRCS), NRCS is willing to consider federal funding for a pilot conservation easement that would utilize this new language and permit limited water leasing to municipalities. The focus of this particular project is a proposed conservation easement on a highly productive farm in eastern Weld County.

COL is requesting support from the CWCB to provide funding to couple the conservation easement with an ATM. Should the grant be awarded, the conservation easement on the farm will be an

example of private and public partners coming together to provide the stimulus for a new and innovative way to provide for the protection of critical farmland while providing flexibility to future generations to keep farmland productive and sustainable. The opportunity to lease water during dry years greatly contributes to the future viability of the farm while also ensuring that development pressures do not permanently remove the farm from production.

Discussion: Staff supports COL's effort based on: the need to execute additional alternative water transfer agreements; the involvement of NRCS; given the successful track record of the proposed consulting team assembled; and when successful this effort will further Colorado's Water Plan's Measurable Objectives and Critical Goals and Actions.

Issues/Additional Needs: No issues or additional needs have been identified.

CWCB Project Manager: Craig Godbout

COLORADO WATER CONSERVATION BOARD

ALERNATIVE AGRICULTURAL WATER TRANSFER METHODS COMPETITIVE GRANT PROGRAM

GRANT APPLICATION FORM

South Platte River ATM & Conservation Easement	South Platte River Basin
Program/Project Name	**River Basin Name**
$284,500	$1,144,500
Amount of Funds Requested	Amount of Matching Funds

Instructions: This application form must be submitted in electronic format (Microsoft Word or Original PDF). The application can be emailed or a disc can be mailed to the address at the end of the application form. The Alternative Agricultural Water Transfer Methods Competitive Grant Program, Criteria and Guidelines can be found at http://cwcb.state.co.us/LoansGrants/alternative-agricultural-water-transfer-methods-grants/Pages/main.aspx. **The criteria and guidelines must be reviewed and followed when completing this application**. You may attach additional sheets as necessary to fully answer any question, or to provide additional information that you feel would be helpful in evaluating this application. Include with your application a cover letter summarizing your request for a grant. If you have difficulty with any part of the application, contact Craig Godbout of the Water Supply Planning Section (Colorado Water Conservation Board) for assistance, at (303) 866-3441 x3210 or email at craig.godbout@state.co.us. Generally, the applicant is also the prospective owner and sponsor of the proposed program/project. If this is not the case, contact Craig before completing this application.

Alternative Agricultural Water Transfer Methods – Grant Application Form
October 2010

Part A. - Description of the Applicant(s) (Program/Project Sponsor);

1. Applicant Name(s): Colorado Open Lands

Mailing address: 1546 Cole Boulevard #200
Lakewood, CO 80401

Taxpayer ID#: 84-0866211 Email address: cfarmer@coloradoopenlands.or

Phone Numbers: Business: 970-829-1014
Home:
Fax:

2. Person to contact regarding this application if different from above:

Name: Carmen Farmer

Position/Title Conservation Project Manager

3. If the Contracting Entity is different then the Applicant, please describe the Contracting Entity here.

Not Applicable.

4. Provide a brief description of your organization. The applicant may be a public or private entity. Given the diverse range of potential applicants, not all of the following information may be relevant. Where applicable and relevant the description should include the following:

    a) Type of organization, official name, the year formed, and the statutes under which the entity was formed, a contact person and that person's position or title, address and phone number. For private entities, a copy of the Articles of Incorporation and By-laws should be appended to the application.

        Colorado Open Lands (COL) is a private, nonprofit, 50l(c)3 organization based in Lakewood, Colorado. Since our founding in 1981, COL has actively worked to protect the agricultural lifestyle and character of Colorado. COL works with willing landowners, communities, local governments, and non-governmental entities throughout the state to develop win-win conservation solutions that permanently protect the agricultural landscape while addressing the needs of landowners and communities. In our 34 years, we have protected over 260,500 acres of agricultural lands, along with the water rights necessary to keep these lands viable.

        Led by a full-time staff of fifteen and governed by a Board of Directors with wide ranging expertise, COL operates efficiently and effectively. COL's Board of Directors brings a wide range of expertise to our work that includes the financial, real estate, legal, public relations, economic, agricultural, and wildlife fields. Our staff has an equally wide range of expertise that spans fundraising, non-profit management, environmental education, community outreach and engagement, and event management, to geographic information systems (GIS), rangeland ecology, conservation easement negotiations and stewardship, ecosystem science and water rights law. Operating by consensus, our close-knit team brings strengths to each project that include excellent communication and negotiations skills, creativity, flexibility, and of course, a sense of humor.

        In 2008, COL became one of the first land trusts in the nation to receive accreditation by the Land Trust Accreditation Commission, an independent program of the Land Trust Alliance. Accreditation provides public recognition of standards for organization and operations that typify best practices. We are also certified by the State of Colorado to hold conservation easements and therefore must show adherence to certain operational and procedural standards of operational governance, as well as acquisition, monitoring, and enforcement of conservation easements.

        The contact for this application is Carmen Farmer, Conservation Project Manager for the Northern Front Range and Lower South Platte River. Her contact information is:

        Colorado Open Lands
        1546 Cole Boulevard #200
        Lakewood, CO 80401
        970-829-1014
        cfarmer@coloradoopenlands.org

    b) For waters suppliers, information regarding the number of customers, taps, service area, and current water usage, and future growth plans, water related facilities owned or used, funding/revenue sources (existing service charges, tap fees, share assessments, etc.), the number of members or shareholders and shares of stock outstanding or a description of other means of ownership.

Not applicable.

c) For other entities, background, organizational size, staffing and budget, and funding related to water that is relevant in determining whether the applicant has the ability to accomplish the program/project for which funding is sought.

Western Water Partnerships (WWP) will manage the ATM component of this project. WWP is a Colorado Public Benefit Corporation with the mission of preserving irrigated agricultural lands by facilitating water sharing agreements between farmers, ranchers, municipal water providers, land trust, open space departments and local governments. Using market-based approaches, WWP provides a vehicle for entities to help create a West where cities and farms/ranches coexist while supporting local agricultural production and sustainable communities. WWP will lead a highly qualified project team that has many decades of collective experience working on ATM projects issues. The anticipated project team is comprised of Western Water Partnerships (ATM Project Management), Brown & Caldwell (Engineering), TZA Water Engineers (Engineering), Harvey Economics (Economics/Finance), AgSkill, Inc. (Agronomy/Crop Consulting) and Vranesh and Raisch, LLP (Legal).[1] Most notably, WWP recently (August 2017) successfully implemented the Larimer County-Broomfield water agreement which allows Larimer County to conserve a working farm in perpetuity and Broomfield to bolster the water supply for its citizens without drying up a farm for its water. That project was supported by the CWCB and is Colorado's first perpetual agricultural-to-municipal Alternative Transfer Methods project. This project is similar in many regards to the Larimer County-Broomfield ATM project which should help ensure this project's success. Aside from the Larimer County-Broomfield ATM, WWP not only implemented a wide variety of CWCB grant funded projects. Members of our team collectively have likely conducted more ATM-related projects than any consultant team in Colorado.

d) A brief history of the Applicant(s).

See 4.a. above.

e) Please include any relevant Tabor issues relating to the funding request that may affect the Contracting Entity.

Colorado Open Lands does not have TABOR limits on revenue.

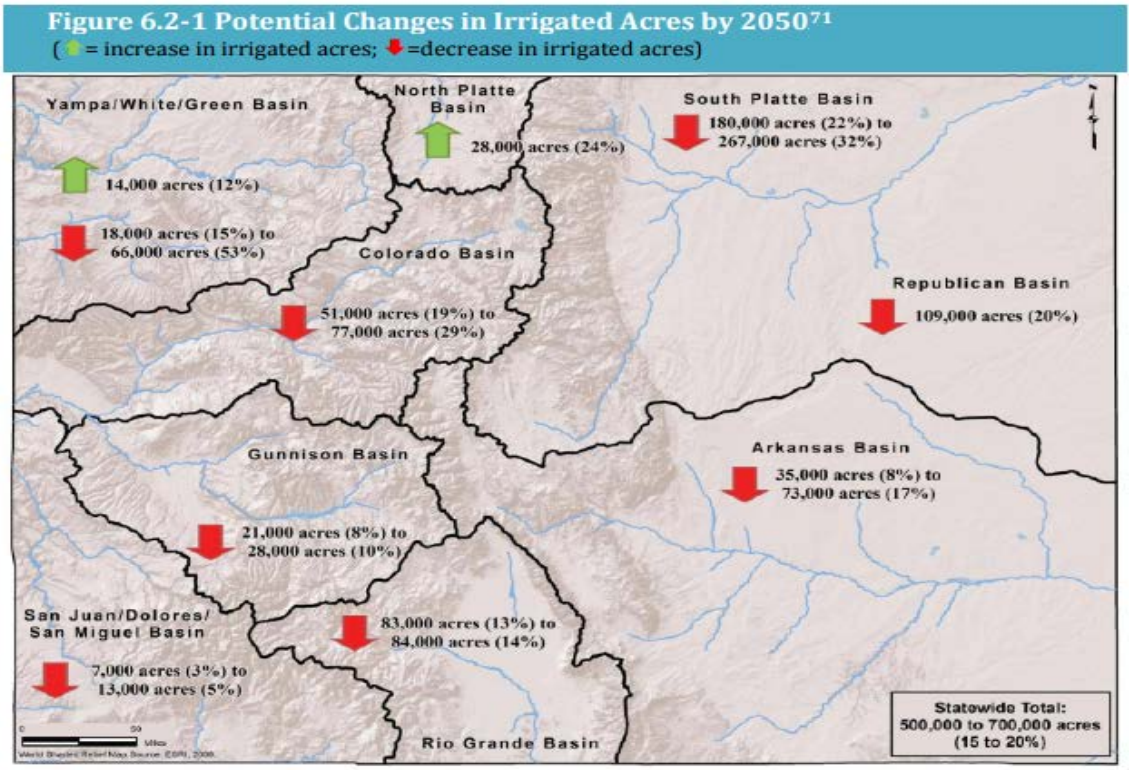
[1] Changes/additions to the project team may be required as work progresses to accommodate legal representation conflicts of interest that may develop. Such changes/additions would be noticed to CWCB staff and done in accordance with the requirements for any grant approval.

Part B. - Description of the Alternative Water Transfer Program/Project –

1. Purpose of the Program/Project

Please provide a summary of the proposed program/project, including a statement of what the program/project is intended to accomplish, the need for the program/project, the problems and opportunities to be addressed, the expectations of the applicant(s), and why the program/project is important to the applicant(s). The summary must include a description of the technical, institutional (i.e., how the program/project will be organized and operated), and legal elements that will and/or have been addressed by the applicant and proposed program/project. The summary should also discuss relevant project history, if applicable, and any other relevant issues.

Farms along the Front Range are facing ever increasing pressure from municipalities seeking out agricultural properties with water rights for conversion to municipal and industrial uses. This practice of "buying and drying" farms has consumed thousands of acres of farmland in the last 30 years, leaving barren and unproductive land with far reaching ramifications for soil erosion, water recharge into aquatic ecosystems, wildlife habitat, local agricultural economies and food security. The Colorado Water Plan includes the diagram below showing anticipated loss of irrigated acreage by river basin by the year 2050.



This scale of loss of irrigated farmland not only has the potential to radically shift rural economies and communities, but it drastically impacts many of the conservation values that many of us are working to

protect. Well managed, working agricultural lands also contribute to watershed health, and conservation of these private lands and their associated water rights is critical to the maintenance of many native species of Colorado wildlife. Working agricultural lands also help maintain the open spaces and scenic vistas that Coloradans (and tourists) know and love.

Alternative transfer mechanisms (ATMs) have been touted as a solution to keep productive lands in irrigated agriculture. However, some municipal providers contend that leasing water rights does not provide adequate certainty and they may worry that for valuable senior water rights, competing municipalities may purchase the water right at a higher price upon the expiration of their lease. Conservation easements can provide the permanence and enforceability to give all parties comfort that a leasing structure can remain in place, but the water rights can never be sold from the property. However, from a landowner perspective, their water rights are often their most valuable asset, one that they may be reluctant to place into a traditional conservation easement, which would eliminate their option to realize income from their water in the future.

COL believes that conservation easements have the potential to offer farmers and municipalities a third path *if the conservation community can learn to incorporate more flexibility into traditional easements.* Over the last year, COL has been working to draft due diligence guidelines and conservation easement language regarding water rights to accommodate for use of water off of the property, whether for municipal or environmental use. To date, funders of traditional conservation easements have been wary of this new approach. However, after significant conversations between COL and the Natural Resources Conservation Service (NRCS), NRCS is willing to consider federal funding for a pilot conservation easement that would utilize this new language and permit limited water leasing to municipalities. The focus of this particular project is a proposed conservation easement on a highly productive farm in eastern Weld County.

COL is requesting support from the CWCB to provide crucial funding to couple the conservation easement with an ATM. Should the grant be awarded, the conservation easement on the farm will be an unprecedented example of private and public partners coming together to provide the impetus for a new and innovative way to provide for the protection of critical farmland while providing flexibility to future generations to keep farmland productive and sustainable. In an industry where water is so imperative and subject to the unpredictable whims of nature, the option to lease the water on the property during dry years greatly contributes to the future viability of the farm while also ensuring that development pressures do not permanently remove the farm from production. In this particular context, permanently conserved lands in Weld County provide a solid foundation for the continued operation and sustainability of the agriculture industry as a whole in one of the most productive counties in the country.

Previous Studies

To the maximum extent possible, the results of any previous studies and investigation should be utilized and incorporated into the proposed program/project. The application for funding should include a brief summary of the results of previous studies and how they will be utilized.

As discussed in 4.c. above, the project team has extensive experience working on ATM issues and projects in Colorado and are well versed on the various ATM efforts, studies and investigations that have occurred to date. There are several key reports and efforts that have or will provide guidance to this project. As discussed in Section 4.c. above, the project team successfully implemented the Larimer County—Broomfield ATM project which is Colorado's first perpetual agricultural-municipal water agreement and provided many lessons regarding what M&I water providers are willing to consider as well as considerations of the agricultural producer/irrigator. In addition, the COL and WWP are developing a "Handbook for Land Trust and Open Space Programs" as part of a CWCB funded project: Agricultural

Land and Water Buffer Feasibility Analysis. The handbook provides key analysis and guidance on coupling conservation easements and ATMs. In addition, the project team will look to several other key documents throughout the project including:

- Colorado Water Plan
- South Platte Basin Implementation Plan
- Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update from 2012
- Development of Practical Alternative Agricultural Water Transfer Methods (Flex Market)
- Feasibility Study for the Northeast Colorado Water Cooperative

2. Study Area/Service Area Description

The study area/service area is generally the geographic area that is the subject of the proposed program/project (include both the source of supply and location and type of new use). The description should include the following items:

a) A narrative description of the study area/service area including: the county, the location of towns or cities, topography, and locations of major surface and ground water features.

The supply area of water rights for this project are within Water District 1 of Division 1 (South Platte River Basin). However, potential municipal and industrial end users of water are located throughout the South Platte Basin.

The specific source of the water rights, consists of a 390-acre farm and associated augmentation ponds located in Weld County, just west of Orchard on the north side of the South Platte River. Water for the farm is provided via a well located on the eastern portion of the property with the source being the South Platte River Alluvium. The water to be provided for the ATM is derived from an undivided individual interest in the water rights and augmentation described in the decree of the Water Court for Water Division No. 1 entered in Case No. 89CWD27 on April 30, 1996, which interest shall consist of 39.6% of the first 1,275 acre feet of recharge credits available under said augmentation plan, up to but not to exceed 505 acre feet in any year, hereinafter referred to as the Sublette Augmentation Plan.

The following undisputed water rights are associated with the farm:

- An undivided individual interest in the water rights and augmentation plan described (Sublette Augmentation Plan) in the decree of the Water Court for Water Division No. 1 entered in Case No. 89CWD27 on April 30, 1996, which interest shall consist of 39.6% of the first 1,275 acre feet of recharge credits available under said augmentation plan, up to but not to exceed 505 acre feet in any year, with all its appurtenances; and together with an interest in the following "Agreements" concerning the operation, maintenance, and use of water rights and augmentation plan: 1) "Agreement" dated March 4, 1994 which is unrecorded, between Sublette Land and Cattle Company and Walter Thomas Jones and John Edward Jones; 2) "Memorandum of Agreement" dated April 10, 1995 and recorded in the records of Morgan County, Colorado on April 17, 1995 in Book

880 at page 22;3) "Agreement" dated July 5, 1994 and recorded in the records of Weld County, Colorado on July 14, 1994 in Book 1450, F2047.

- All water rights and all wells and equipment used for the irrigation of said land including, but not limited to, Well No. 1, Permit No. 9393F, Priority Date August 4, 1965, adjudicated December 31, 1972, in Case No. W-2929 A-34 in the State of Colorado, at a pumping rate not to exceed 977 GPM to irrigate a maximum of 160 acres; also Well No. 2, Permit No. 9393F, Priority Date May 31, 1975, adjudicated December 31, 1972, in Case No. 89CW027 in the State of Colorado; and also adjudicated in Case No. 97CW169 in the State of Colorado, at a pumping rate not to exceed 1,184 GPM to irrigate a maximum of 180 acres.
- Three (3) units of Groundwater Appropriators of the South Platte River Basin, Inc. (GASP). (now defunct).

b) An area map showing each of the items above, as well as the locations of existing facilities, proposed project facilities and boundaries of lands involved in the proposed program/project.

See Exhibit "A" attached hereto.

c) Information regarding the irrigated lands that are involved in the program/project. This must include a tabulation of total irrigated acreage, description of cropping types, crop yields, and total average annual water diversions for existing agricultural lands.

The farm has a well that provides water for two center pivots and irrigates approximately 313.5 acres each year. In 2016, the farm produced 658 tons of hay and 23,000 bushels of corn.

d) Information regarding the location of the new water use(s) that will be served by transferred water including the estimated number of users/taps and/or uses served.

In Task 2 (Exploration of Municipal & Industrial Partners/Feasibility), the project team will explore interest from municipal and/or industrial partners in the water rights associated with the property. Once the team has an interested party(ies) willing to negotiate, we will begin the development of specific terms of the agreement including information regarding the location of the new water use(s) that will be served by transferred water including the estimated number of users/taps and/or uses served.

e) Socio-economic characteristics of the area such as population, employment and land use.

The socio-economic characteristics of the area primarily consist of small rural communities with agriculture (crop production, livestock, dairy, greenhouses, etc.) serving as the base for the local economies. Mid-sized municipalities such as Sterling and Ft. Morgan (which each have an approximate population of 12,000 to 13,000 residents) are located just downstream of the supply area. In addition, numerous smaller towns are located in Water District 1. Other commerce and industry exists within the project area, including but not limited to: coal fired and wind powered electricity generation, ethanol production, State of Colorado correctional facilities, and local construction. In addition, amenities and enhancements such as river and floodplain lands, wetlands, reservoirs, streams, recharge facilities and upland habitat within Weld, Morgan, Logan, Washington and Sedgwick counties provide multiple benefits and opportunities for hunting,

fishing, boating, camping, and wildlife viewing in addition to other environmental and recreational values.

3. Description of the Alternative Water Transfer Method

Please describe the type(s) of water transfers that will be examined/utilized (i.e., conceived transfer methods include, but are not limited to: 1) interruptible water supply agreements; 2) long-term agricultural land fallowing; 3) water banks; 4) reduced consumptive use through efficiency or cropping changes while maintaining historic return flows; and 5) purchase by end users with leaseback under defined conditions). In addition, please describe how the transferable consumptive use will be calculated and quantified, and how return flow patterns will be addressed/maintained.

In Task 1, Farmland Viability Analysis, COL and WWP will engage consultants, including an agronomist, water engineer and economist to analyze the ATM and develop scenarios on how the farm would operate during normal years, ATM years and recovery years. This consulting team would provide recommendations on farm/water management with a potential ATM in the form of a Farmland Viability Plan. This plan would also provide a determination of the type of ATM to be pursued (e.g. Interruptible water supply agreement, rotational fallowing, partial supply). Considering the source of water supply is up to 505 acre-feet of recharge credits in any given year, it is not envisioned that a historic consumptive use (HCU) analysis will be necessary. The engineer will develop strategies to ensure the continuation of return flow patterns are met.

Ultimately, the water rights will need to go through Water Court to add the new M&I User. It is possible that this project would utilize the Substitute Water Supply Plan statute or the CWCB's HB 13-1248 process. As we proceed through this task, the team will document any the process as well as any issues that arise in our final report to the CWCB.

It should be noted that no CWCB grant funds will be used for engineering and legal costs directly related to the water court application.

4. Program/Project Eligibility

Please describe how the proposed program/project meets each of the following eligibility requirements (please see Criteria and Guidelines for additional information regarding the alternative water transfer methods/strategies that qualify for funding). Note: If these requirements are addressed in other parts of the application you may simply reference the applicable section(s).

a) A description of how, if implemented, the proposed program/project will protect property and water rights.

The owner of the farm plans to convey a conservation easement to COL, preserving the property from future development in perpetuity, while enabling the agricultural production to continue. The water rights will be permanently encumbered by the conservation easement and restricted primarily for continued agricultural use and future viability and related conservation values on the property, provided however, the option to lease water will be reserved. Leasing rights include the right to enter into legally enforceable water leases, contracts, emergency water loans or similar agreements including, but not limited to: (A) an interruptible water supply agreement as authorized by C.R.S.

Section 37-92-309, up to three years in every rolling ten year period; (B) participation in a water conservation program not to exceed 5 out of every 10 years, pursuant to C.R.S. Section 37-92-305(3)(c); or (C) other transfers of water rights as authorized by law.

b) Identified group(s) of agricultural users that are or may be willing to transfer a portion of their water and identified entity(s), group(s) or area(s) where the transferred water could or would be put to the new use and a description of the new use.

The landowner/agricultural water rights subject to the ATM project are identified above in paragraph 2.a. The identification of the M&I partner(s) will be part of the project in Task 2 (Exploration of Municipal and Industrial Partners/Feasibility) where WWP and COL will explore interest from municipal and/or industrial partners in the water rights associated with the property. As part of these discussions, the feasibility and potential costs for implementing an alternative transfer mechanism will be investigated and gauged.

c) The program/project must at a minimum conceptually describe the technical, institutional, and legal elements of the water transfer. Grant monies may be used to address one or more of these elements. If grant monies are not requested for all three elements, the grant applicant must describe how the applicant has or intends to address the elements, which are not included in the grant request, through other efforts.

Through the implementation of this project, the team intends to develop a model and/or template for other similar ATM project sponsors to use. While each farm will have its unique attributes, including its water rights, this project will help to establish guidance for those wanting to replicate the approach. To ensure this, the applicant will provide a report detailing the financial, legal and technical considerations and lessons learned through this pilot project. The report will describe negotiations with a M&I provider, development of an interruptible water supply agreement, land preservation options, development of a farm and water management program, water right court and/or administrative processes and the financial analyses, tools and agreements.

d) If grant monies are proposed for use for legal assistance then the use of those funds shall be oriented toward advancing the knowledge of alternative agricultural water transfer methods and techniques; not for preparation of a specific water court case. The total requested funds for legal assistance shall not exceed 40 percent of the total grant request. In addition, grant monies proposed for use for legal assistance must be used to collaboratively address issues and concerns related to agricultural water transfer. Funds shall not be used to solely advance the cause of the project proponents.

Grant funds will not be used for the preparation of a specific water court case. The grant funds for legal services will be applied to the interruptible supply agreements, assistance with negotiating between the parties and helping to address issues and concerns that parties may have regarding these specific pilot projects and/or alternative water transfers.

e) A minimum of a 10 percent cash match of total project cost (past expenditures and “in kind” can not be counted toward the 10 percent match).

A minimum of 10 percent cash match of the total project cost is committed for this project. COL is only asking for approximately 20% of total project costs. The cash match exceeds 75% of total

project cost. See attached Budget.

5. Program/Project Evaluation Criteria

The following grant evaluation criteria will be used by the CWCB to evaluate and make recommendations to fund, partially fund or not fund a grant application. The criteria are aimed at advancing alternative transfer methods from the literature and studies to actual on the ground projects/programs that provide reliable water supply and sustain key elements of the agricultural area from which the water is transferred. The applicant should fully address and explain in detail in the application how, and the extent to which, the proposed project/program meets each of the criteria. However, it should be noted that the project does not have to meet all of the criteria to be eligible to receive funding and the criteria below are not listed in any order of importance or priority.

a. The proposed project/program builds upon the work of former alternative water transfer methods efforts and addresses key areas that have been identified. For more detailed information on this work, please refer to the draft report: *Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update*, November 2012.

   The report summarizes the past ATM funded projects and provides a list of findings and recommendations based on this work. Many of the studies that have been funded by the CWCB through the ATM program have identified several barriers to successful implementation. This project seeks to directly address three of the four major barriers to successful implementation of ATMs: permanency issues, high transaction costs associated and water rights administration uncertainties and water rights accounting questions associated with ATMs. By placing a conservation easement on the land and water rights (with the ability to lease the water for M&I uses during drought years), the project team believes the permanency issue is addressed. The high transaction costs associated with water court proceedings is a reality and we intend to include this cost in the price of the ATM water. Through this pilot and the farm/water management plans, and through the water court process, specific water rights administration and accounting questions will be addressed and a description will be included in the final report to the CWCB.

b. The proposed project addresses one or more key recommendation(s) in the report: *Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update*, November 2012.

   The *Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update* (Update) specifically recommends:

   - Continue to support demonstration/pilot projects to determine the feasibility of new concepts or techniques as needed.
   - The CWCB should continue its support of coupling conservation easements with interruptible supply agreements, which has the potential to provide a reliable source of water and preserve agricultural productivity in perpetuity. This strategy should be examined in more detail including an analysis of which lands and/or ditches are most amenable to this approach, the identification of funding partners (e.g., Great Outdoors Colorado, Colorado Department of Revenue/Tax Credits, etc.), and the terms of the conservation easement deeds and interruptible supply agreements (Section 1.3.1).

COL is working with the landowner to negotiate a conservation easement that preserves a highly productive farm with prime soils in perpetuity, while reserving the right to share water. Furthermore, this innovative project is happening in Weld County, the most productive agricultural County in the state, paving the way for the potential for future projects in this highly valuable agricultural area which is so dependent upon water for irrigation.

This project brings together funders which have traditionally funded conservation easements, but never water projects, with those which fund water projects and not conservation easements. Funding is already secured from the Natural Resources Conservation Service (NRCS) through their Agriculture Land Easement program to provide purchase money for the conservation easement. This NRCS funding is the first of its kind to provide federal funding for a conservation easement that would permit limited water leasing to municipalities. In the past, NRCS has always required as a condition of funding, that all of the water rights be restricted to their historical use in perpetuity, thus prohibiting any water-sharing. Recognizing the threat posed by water development to Colorado's most productive agricultural communities, NRCS has elected to waive this requirement. By doing significant outreach with state and regional NRCS staff throughout this project, COL will pave the way for future NRCS projects that reserve the right to share water.

Additional funding will also be supplied by U.S. Fish & Wildlife through the North American Wetlands Conservation Act (NAWCA). NAWCA grants help preserve waterfowl habitat, while supporting local economies and family farming.

COL is also working to secure private funding from the Walton Family Foundation, to assist with both funding for the conservation easement and the exploration of an ATM. Like CWCB, the Walton Family Foundation has expressed interest in funding an on-the-ground ATM project, resulting in usable and transferable information that could be used to inform and shape similar projects throughout the State. As a result, COL has requested $394,480 from the Walton Family Foundation.

Lastly, because a portion of the conservation easement value will be donated, the project will provide an opportunity to work with staff at the Colorado Division of Real Estate conservation easement tax credit program to help them better understand water-sharing in the context of conservation easements.

This pilot project specifically addresses the recommendation from the Update by coupling a conservation easement with an interruptible supply agreement. Furthermore, the inclusion of multiple funding partners, demonstrates the interest in seeing a project of this scope implemented. Ultimately, a tangible template for the implementation of future projects to the broader conservation community will be provided.

c. Preference will be given to projects that provide additional matching resources in the form of cash, past expenditures and in-kind contributions that are in addition to the required 10% cash match.

Total cash match for this grant is $1,144,500, which equals 79%, far exceeding the required 10% match.

d. The proposed project/program has the ability/potential to produce a reliable water supply that can be administered by the State of Colorado, Division of Water Resources.

While the team has not presupposed which legal mechanism will be utilized in changing the recharge credits for use by the municipal partner (e.g. water court, interruptible water supply statute, HB 1248--CWCB's pilot program, HB1128), it will be able to be administered by the Division of Water Resources. Once an ATM strategy has been identified by the team, the team will consult with Division One Engineer's Office.

e. The proposed project/program produces information that is transferable and transparent to other users and other areas of the state (i.e., would provide an example "template" or roadmap to others wishing to explore alternate transfer methods).

All of the information produced from this project would be transferable and transparent to other users and other areas of the state. The intent of this project is to demonstrate the feasibility of protecting agricultural land through the use of a conservation easement, while structuring the easement to permit an alternative transfer mechanism. For the first time, NRCS is funding a pilot conservation easement that allows the flexibility to share water for multiple uses. As the first of its kind, the hope is that the implementation of this project, with this specific funding, will open the door for future NRCS funded projects with an ATM component. The outcome will also benefit the land trust and open space community in Colorado, which has long shared template documents. The development of this ATM coupled with a conservation easement will allow COL and partners to "ground truth" the proposed due diligence process and conservation easement language outlined in the Handbook to the benefit of the entire conservation community.

f. The proposed project/program addresses key water needs identified in SWSI 2010 or as identified in a basin's needs assessment.

In the South Platte Basin Implementation Plan (April 17, 2015) developed jointly by the South Platte and the Metro Basin Roundtables, specific recommendations for the coupling of conservation easements with ATMs were included in Section 5.3.2. (Page 5.13).

"To leverage water sharing partnerships between municipal and agriculture water uses that have reduced impacts to agricultural economies, the following strategies should be implemented:

• Continuance of state funding for pilot projects for water sharing partnerships between cities and agriculture entities including alternative water transfer methods

• Reforming the water court process to encourage water sharing partnerships that continue to protect vested senior water rights

• Support of free market water sharing transaction methods without interference

• Support for agricultural conservation easements coupled with municipal water lease options

In addition to efforts made within the state of Colorado, national policies and programs could assist in limiting the buy and dry of agriculture. The state of Colorado should engage its Federal legislators to explore changes in Federal agricultural programs to help promote water sharing agreements between agricultural water users and municipalities."

This last recommendation is noteworthy as this project has secured funding from the NRCS through its Agriculture Land Easement program to provide purchase money for the conservation easement that would permit water leasing to municipalities. This is important as NRCS could be an important partner in ATMs in future projects in Colorado as they are the only funder, national or otherwise, that exclusively funds agricultural conservation easements.

Throughout the Colorado Water Plan, there are policy recommendations geared towards the promotion of conservation easements coupled with ATMs to allow for certainty and permanent preservation of agricultural lands. In Section 6.5.2., Agricultural Viability Actions and Strategies, Program to facilitate agricultural opportunities (Page 6-143), the IBCC recommends "that the State needs to provide additional education and assistance to farmers and ranchers to help realize more transactions that allow for ATMs, and to enable new Colorado farmers to successfully enter the agricultural industry. This assistance may include financial and other support for land links, land trusts, and conservation easements that protect working farmland and make irrigated land affordable for the next generation of farmers and ranchers. The program should include education on and assistance with the following:

- Deals, contracts, and other options for sharing agricultural water.
- Strategies to remain market competitive.
- Ways to achieve long-term certainty for both water lessors and lessees.
- ATMs that allow the farmer to continue owning the land.
- Opportunities to overcome entry barriers for young growers (in collaboration with such entities as Land Link, Farm Bureau's Young Farmer Group, and Colorado State University Extension).
- Perpetual agricultural agreements, such as conservation easements (such as those demonstrated by entities like the Lower Arkansas Valley Water Conservancy District).
- Other similar contractual agreements that allow for more long-term flexibility (an example is the purchase of water rights in the Arkansas Basin by Aurora Water).
- Funding opportunities for agricultural producers."

g. The proposed project/program advances the preservation of high value agricultural lands. Value can be viewed as: the value of crops produced, the value the agriculture provides to the local community, and the value the agricultural area provides for open space and wildlife habitat.

The proposed project advances the preservation of high value agricultural lands in the heart of the most productive agricultural county in Colorado. Per the 2012 Census of Agriculture, Weld County produced $1.9 billion in agricultural products sold, registering Weld County as the 9th highest producing County in the country.
The specific property's combination of excellent soils and reliable water make it ideal for production agriculture in a region well suited to support the ongoing operation of the property as a farm. The property's proximity to U.S. Highway 34 provides easy access to markets. Over 65% of the soils on the property contain soils classified as having Statewide Significance.

The property is located less than a quarter mile from the Lower South Platte River and just West of Jackson Lake, prime habitat for both local and migratory waterfowl. On the cornfields of the farm, once the harvest takes place, the stubble provides cover and foraging areas for white tailed deer, mule deer and waterfowl. The farm also provides prime upland habitat for a variety of species including pheasants, turkey and pronghorn.

h. The proposed project/program addresses water quality, or provides other environmental benefits to rivers, streams and wetlands.

The property's close proximity to the South Platte River enables the farm to provide important recharge water to the river through its irrigation practices. By conserving this farm and keeping the water in productive use on the farm in most years, the farmer is helping to insure a continued source of instream flow in the river, thus contributing to both the habitat on the farm as well as the habitat off site along and in the river.

i. The proposed project/program increases our understanding of and quantifies program/project costs. This could include: institutional, legal, technical costs, and third party impacts.

This project will provide valuable information on program/project costs including the legal and technical costs as well as third party impacts. As further described in the Statement of Work, there will be an economic analysis as part of the farm and water plan to determine the options for compensation to the farmer and/or continued farming with less water during the years the municipal water providers uses the water.

j. The proposed project/program does not adversely affect access to other sources of water (not subject to/participating in the program) where owners of these water rights may wish to pursue traditional transfer of their rights to other users.

This ATM project will utilize existing legal mechanisms to add M&I uses to the water right through Water Court and/or administrative approval via the State Engineer's Office using Substitute Water Supply Plans or Interruptible Water Supply Statute (C.R.S. 37-92-309). All of these tools incorporate protections to other water right holders to ensure no injury.

k. The proposed project/program provides a perpetual water supply for the new and/or alternate use and preserves agricultural production and/or helps sustain the area's economy from which the transfer is occurring.

By coupling a conservation easement with an ATM, the water agreement can be developed that provides a perpetual water supply to the M&I water provider and preserves the agricultural viability of the farm and contribution to the productivity of the area.

l. The quantity of water produced by the proposed project/program. Preference will be given to programs that can address larger water supply needs.

The project will provide up to 505 acre-feet of water available per year in ATM water supplies.

m. Applicants are encouraged to develop projects demonstrating participation and/or support from a diverse set of stakeholders and interests.

This project involves the agricultural producer, Colorado Open Lands, a M&I water provider, Natural Resources Conservation Service (NRCS), USFWS and the Walton Family Foundation.

6. Statement of Work

Provide the proposed statement of work. On the following page there is an example format for the statement of work. You can use the example format or your own format, provided that comparable information is included. The statement of work should outline by task how the proposed program/project will be accomplished. It is important that the statement of work detail the specific steps, activities/procedures that will be followed to accomplish each individual task and the overall program/project and the specific products/deliverables that will be accomplished. The statement of work must include but not be limited to: task description, key personnel, budget, schedule and deliverables and the final report/project documentation upon completion of the water activity.

The statement of work will form the basis for the contract between the Applicant and the State of Colorado. In short, the Applicant is agreeing to undertake the work for the compensation outlined in the statement of work and budget, and in return, the State of Colorado is receiving the deliverables/products specified. Please note that costs incurred prior to execution of a contract or purchase order are not subject to reimbursement.

Please provide a detailed statement of work using the following template. Additional sections or modifications may be included as necessary. Please define all acronyms. If a grant is awarded an independent statement of work document will be required with correct page numbers.

Statement of Work

WATER ACTIVITY NAME - South Platte River ATM & Conservation Easement

GRANT RECIPIENT – Colorado Open Lands

FUNDING SOURCE - The Alternative Agricultural Water Transfer Methods Competitive Grant Program

INTRODUCTION AND BACKGROUND
Provide a brief description of the project. (Please limit to no more than 200 words; this will be used to inform reviewers and the public about your proposal)

Colorado Open Lands and Western Water Partnerships are working with a landowner in Weld County to permanently conserve a farm through a conservation easement, while permitting limited water leasing to municipalities. This conservation easement will be an unprecedented example of private and public partners coming together to provide the impetus for a new and innovative way to provide for the protection of critical farmland while providing flexibility to future generations to keep farmland productive and sustainable. In an industry where water is so imperative and subject to the unpredictable whims of nature, the option to lease the water on the property during dry years greatly contributes to the future viability of the farm while also ensuring that development pressures do not permanently remove the farm from production. In this particular context, permanently conserved lands in Weld County provide a solid foundation for the continued operation and sustainability of the agriculture industry as a whole in one of the most productive counties in the country.

OBJECTIVES
List the objectives of the project

The objectives of this project consist of 2 primary components:

1. Completion of a conservation easement to preserve a valuable and productive farm in perpetuity.
2. Implementation of an Alternative Transfer Mechanism that would permit limited sharing of the water rights associated with the farm.

TASKS
Provide a detailed description of each task using the following format

TASK 1 – Farmland Viability Analysis

Description of Task
COL and WWP will engage consultants, including an agronomist, water engineer, attorney and economist to analyze the ATM and develop scenarios on how the farm would operate during normal years, ATM years and recovery years. This consulting team would provide recommendations on farm/water management with a potential ATM in the form of a Farmland Viability Plan. This plan would also provide a determination of the type of ATM to be pursued (e.g. Interruptible water supply agreement, rotational fallowing, partial supply).

Deliverable
Write-up on the Final Farmland Viability Analysis

TASK 2 – Exploration of Municipal and Industrial Partners/Feasibility

Description of Task
WWP and COL will explore interest from municipal and/or industrial partners in the water rights associated with the property. As part of these discussions, the feasibility and potential costs for implementing an alternative transfer mechanism will be investigated and gauged. Legal services including the review of the term sheet and development of a Letter of Intent will also be part of this task.

Deliverable
Letter of Intent from municipal or industrial partner expressing interest in negotiating a water sharing agreement with the farmer.

TASK 3 – Conservation Easement Development

Description of Task
COL will work with the landowner and NRCS to draft a conservation easement encumbering the property in perpetuity. The conservation easement will prohibit future non-agricultural development of the property, while permitting limited sharing of the water associated with the property. During certain periods (generally during dry years), the landowner will have the option to share water with a municipal or industrial user. However, the conservation easement will prohibit the permanent separation of the associated water rights from the property. Through funding from NRCS and a partial donation by the landowner, COL will ultimately acquire a conservation easement on the farm. COL will monitor the farm annually to ensure compliance with the terms of the conservation easement in perpetuity. This task will involve the following:

1. Negotiate terms of deed of conservation easement with property owner that provide flexibility for water-sharing.
2. Meet with NRCS to discuss farm operations plan and water-sharing; secure conservation easement language approval.
3. Review due diligence in advance of closing on conservation easement (Baseline Report, Appraisal, Phase I Environmental Report, Title Work, Geologist Report).
4. Complete conveyance of conservation easement from landowner to COL.

Deliverable
Recorded Conservation Easement.

TASK 4 – Farm & Water Operations Plan

Description of Task
A Farm and Water Operations Plan will be developed to inform strategies for maintaining the viability of the farm into the future. It will provide operational recommendations from a water supply and irrigation perspective so that combined farming sales revenues and water lease/sales revenues will sustain the operational costs of the farm in the long term. The plan will also provide recommendations for operations for multiple water supply

scenarios, including years with a full water supply and years that the municipality uses some of the water for off-farm uses pursuant to the ATM.
The plan should be used as a guide for the management of the water and land with the ATM water agreement. The intent of the plan is to provide guidance on how to maximize the use and management of the water and land in such a way that it benefits all parties and fulfills the multiple purposes for which the land and water were conserved.

Deliverable
Farm and Water Operations Plan

TASK 5 – Water Sharing Agreement

Description of Task
The purpose of this task is to work with the parties to develop a mutually acceptable water supply agreement or contract between the owner of the land and the M&I water provider. In this task, project team will negotiate with the participating M&I water provider to determine the specific terms of the water supply contract. All disciplines will offer their expertise to help bring this contract to fruition. This will include:

- Determine the trigger that implements the interruptible supply (i.e. 3 out of 10 years, snowpack conditions, water supply conditions, timing)
- Agreement on each party's costs (e.g. purchase price of water, water court costs)
- Delivery of water to the M&I provider
- Determination of (potential) payment to farmer or landowner during fallowing years, including weed control
- Water accounting responsibilities
- Other responsibilities assumed by the parties

Deliverable
Fully Executed Water Sharing Agreement

TASK 6 – Water Court/Change of Use/Administrative Action
(No CWCB Funds Used for this Task)

Description of Task
In Tasks 1 and 2, the project team will explore which type of ATM is most appropriate for this farm and the M&I partner. Once this is complete, the project team will determine how best to add the M&I water use to the water right and weigh the pros/cons of each legal tool available. Some of the legal mechanisms include a formal change in water court, substitute water supply plans, interruptible water supply agreement (CRS 37-92-309), Ag Protection Water Right Transfer Mechanism (HB16-1228) or CWCB's Ag Fallowing Leasing Pilot Program (HB13-1248).

Deliverable
Final water court decree or approval allowing M&I use of the water rights per the terms of the agreement.

Task 7- Project Management

Description of Task
This task involves the management of the project, including conducting team meetings, calls and grant management responsibilities including submitting regular progress reports and invoicing.

Deliverable
Regular progress reports and invoicing.

Task 8: Final report to the CWCB

Description of Task:
The purpose of this task is to compose a final report to the CWCB describing the implementation an ATM projects, including any legal, political, financial, or other obstacles that we encounter along the way, lessons learned, and also templates for agreements and road maps that other communities or conservation organizations could use to implement ATMs and accomplish irrigated farmland conservation.

Final Deliverable
One ATM project accompanied by a final report (electronic and hardcopies).

REPORTING AND FINAL DELIVERABLE
Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the statement of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

BUDGET

Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, $/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is required for the State's contracting and purchase order processes. Sample budget tables are provided below. Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

See Exhibit "B" attached hereto.

SCHEDULE

Provide a project schedule including key milestones for each task and the completion dates or time period from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these schedules are examples and will need to be adapted to fit each individual application.

See Exhibit "C" attached hereto.

PAYMENT

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. 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 the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to the public and help promote the development of alternative agricultural transfer methods.

Additional Information – If you would like to add any additional pertinent information please feel free to do so here.

The above statements are true to the best of my knowledge:

Signature of Applicant:
Carmen Farmer

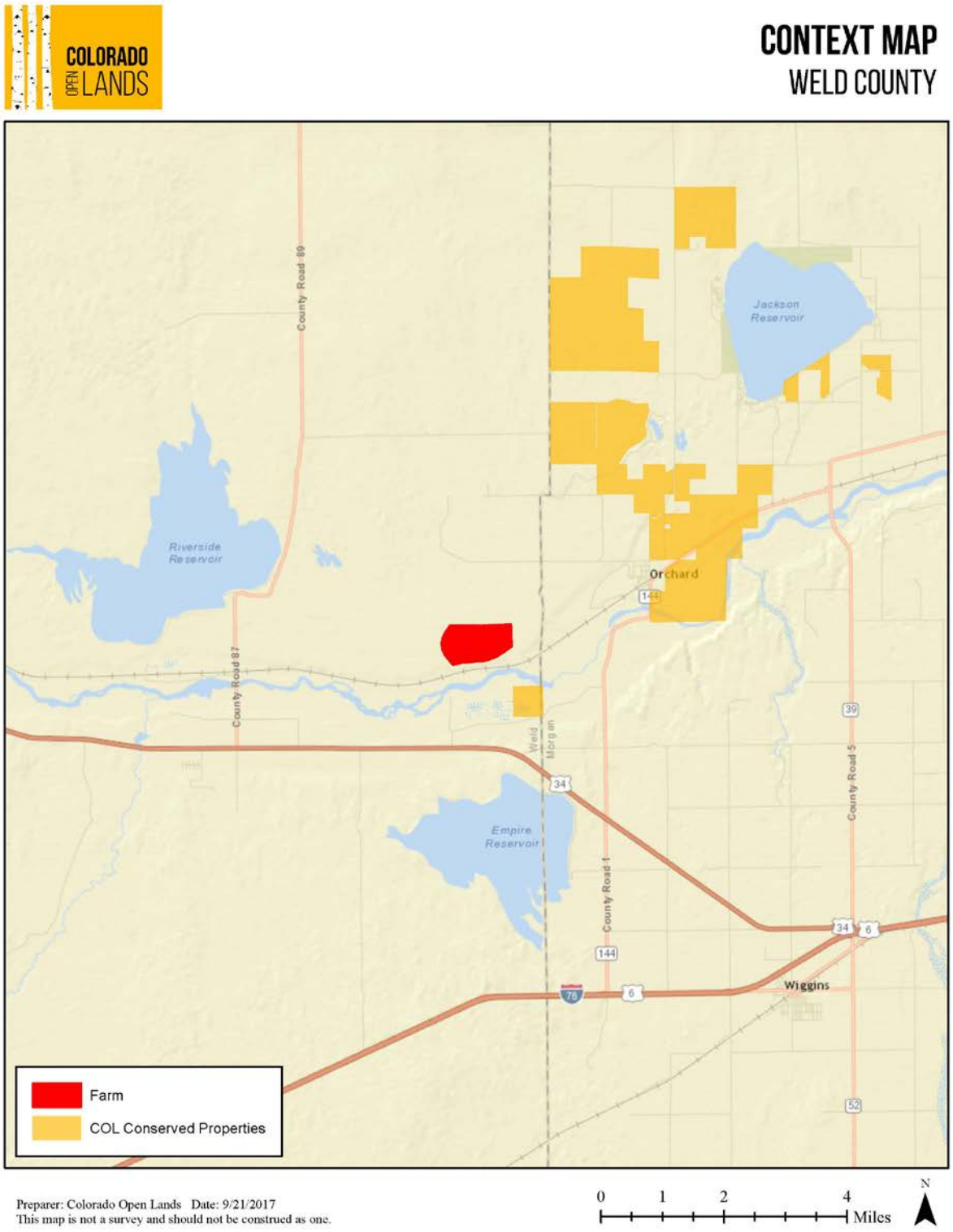
Print Applicant's Name:
Carmen Farmer, Conservation Project Manager

Project Title: South Platte River ATM & Conservation Easement

Return this application to:

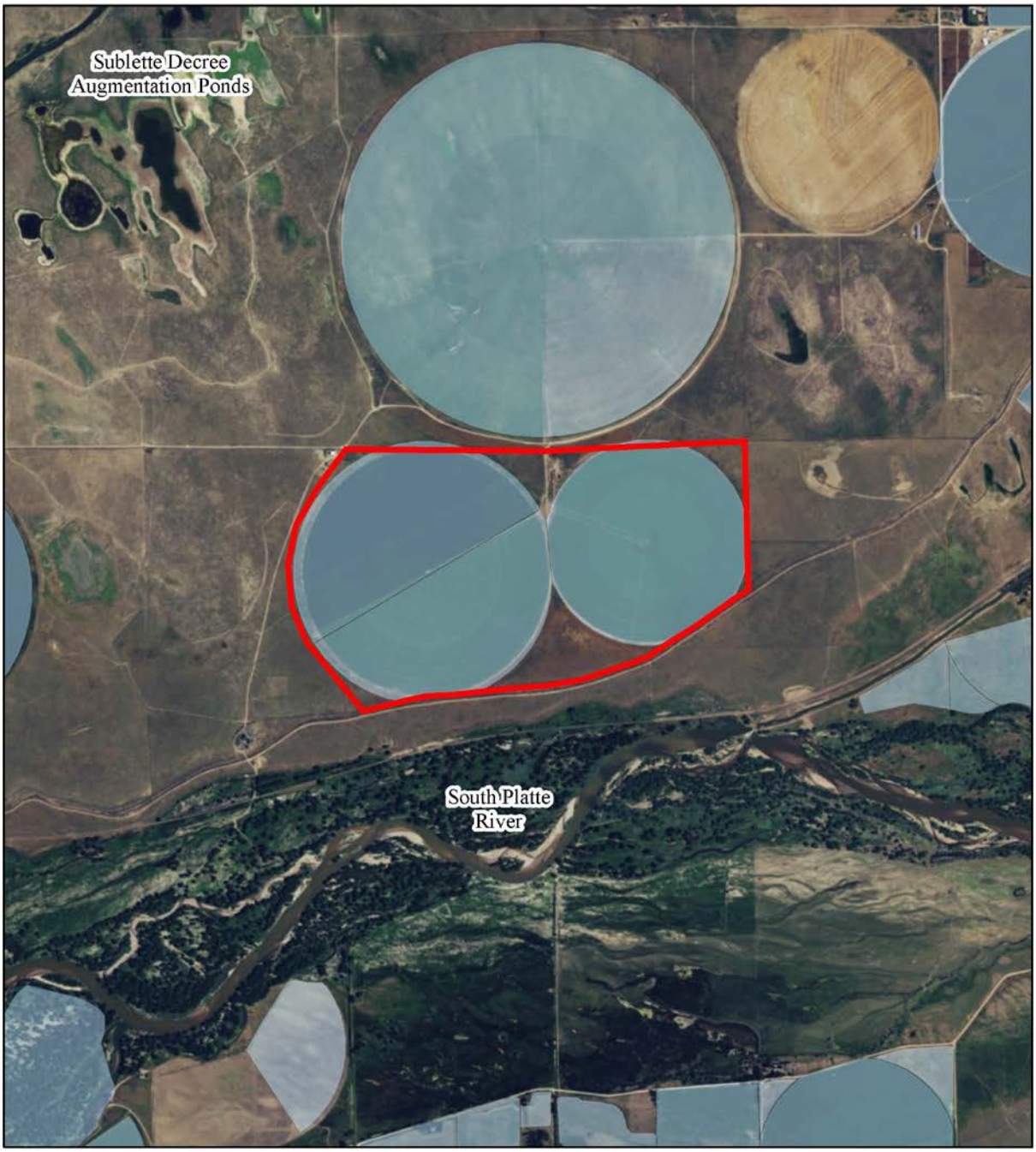
Mr. Craig Godbout
Colorado Water Conservation Board
Water Supply Planning Section
1313 Sherman St., Room 721
Denver, CO 80203
craig.godbout@state.co.us

EXHIBIT A – MAPS



COLORADO OPEN LANDS

IRRIGATED LANDS MAP
WELD COUNTY



Preparer: Colorado Open Lands Date: 9/21/2017 Data Source: CWCB
Public Access should not be inferred from this map. This map is not a survey and should not be construed as one.

0 0.1 0.2 0.4 Miles

N

Exhibit B – Budget

Last Updated: July 5, 2017

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Alternative Agricultural Water Transfer Methods Competitive Grant Program - Exhibit A
Budget and Schedule

Date: September 18, 2017
Name of Applicant: Colorado Open Lands
Name of Water Project: South Platte River ATM & Conservation Easement

Task No.	Task Description	Start Date[1]	End Date	Project Cost by Task	Match Funding Cash	CWCB Grant Request	Match Funding In-Kind	Total
1 - Farmland Viability Analysis	Analyze the ATM and develop scenarios on how the farm would operate during normal years, ATM years and recovery years. Provide recommendations on farm/watermanagement with ATM. Determination of the type of ATM to be pursued (e.g. interruptible water supply agreement, rotational fallowing, partial supply).	NTP	NTP + 8 mos	$ 28,000.00	$ 12,000.00	$ 16,000.00	$ -	$ 28,000.00
2 - Exploration of Municipal & Industrial Partners/Feasibility	Meet with potential Municipal & Industrial end users. Develop a draft report outlining the options.	NTP	NTP + 12 mos	$ 38,000.00	$ 17,000.00	$ 21,000.00	$ -	$ 38,000.00
3 - Conservation Easement Development	Draft & negotiate terms of conservation easement. Review by NRCS. Conduct due dilligence for conservation easement closing. Purchase Conservation Easement.	NTP	NTP + 8 mos	$ 1,210,000.00	$ 1,025,000.00	$ 175,000.00	$ 10,000.00	$ 1,210,000.00
4 - Farm & Water Operations Plan	Develop document to provide guidance for the farmer on operational options during ATM years and recovery years. Guidance may include water rights operations strategies, recommendations for specific farm improvements and cropping options for certain years.	NTP + 3 mos	NTP + 18 mos	$ 32,500.00	$ 15,500.00	$ 17,000.00	$ -	$ 32,500.00
5 - Water Sharing Agrement	Develop a Termsheet between Farmer & Municipal or Industrial User. Draft Water Sharing Agreement.	NTP + 3 mos	NTP + 18 mos	$ 40,000.00	$ -	$ 40,000.00		$ 40,000.00
Task 6 - Water Court/Change of Use	Add M&I Use to Water Right via Water Court and/or Administrative Approval	NTP + 8 mos	NTP + 38 mos	$ 75,000.00	$ 75,000.00	$ -		$ 75,000.00
7 - Project Management	Coordinate team efforts including meetings, calls and ensuring that project is on-task and on-schedule.	NTP	NTP + 38 mos	$ 5,000.00		$ 5,000.00		$ 5,000.00
8 - Final Report	Develop electronic and hardcopy versions of a final report detailing the process of developing the ATM project, lessons learned and recommendations for improvement.	NTP + 18 mos	NTP + 38 mos	$ 6,000.00		$ 6,000.00		$ 6,000.00
	Direct Costs (Mileage and Copies)			$ 4,500.00		$ 4,500.00		$ 4,500.00
			Total	$ 1,439,000.00	$ 1,144,500.00	$ 284,500.00	$ 10,000.00	$ 1,439,000.00
			Percentage		80%	20%	1%	100%

Project Personnel:	Project Manager (WWP)	Water Engineer--(Brown & Caldwell; TZA Engineering)	Agronomist (Ag Skill, Inc)	Economist (Harvey Economics)	Legal (Vranesh and Raisch)	Colorado Open Lands		Total Labor Costs	CWCB Grant Request
Hourly Rate:	$150	$175	$125	$225	$240	$0			
Task 1 - Farmland Viability Analysis	$8,000	$9,500	$3,500	$5,000	$2,000	$0		$28,000	$16,000
Task 2 - Exploration of M&I Partners/Feasibility	$12,000	$10,000	$1,500	$8,500	$6,000	$0		$38,000	$21,000
Task 3 - Conservation Easement Development	$0	$0	$0	$0	$0	$10,000		$10,000	$0
Task 4 - Farm & Water Operations Plan	$10,000	$15,500	$3,000	$3,500	$500	$0		$32,500	$17,000
Task 5 - Water Sharing Agreement	$8,000	$9,000	$1,000	$7,000	$15,000	$0		$40,000	$40,000
Task 6 - Water Court/Change of Use	$0	$25,000	$0	$0	$50,000	$0		$75,000	$0
Task 7 - Project Management	$5,000	$0		$0	$0	$0		$5,000	$5,000
Task 8 - Final Report	$2,000	$1,000	$1,000	$1,000	$1,000	$0		$6,000	$6,000
Total Hours:	300	400	80	111	310				
Total Labor Costs:	$45,000	$70,000	$10,000	$25,000	$74,500	$10,000		$234,500	
Direct Costs:									
Mileage								$ 3,000	$3,000
Copies (including final report)								$ 1,500	$1,500
Conservation Easement								$ 1,200,000	$ 175,000
Total Project Costs								$ 1,439,000	
Total CWCB Grant Request									$ 284,500

Exhibit "C" – Schedule

Task	Start Date	Finish Date
Task 1 - Farmland Viability Analysis	NTP	NTP + 6 mos
Task 2 - Exploration of M&I Partners/Feasibility	NTP	NTP + 12 mos
Task 3 - Conservation Easement Development	NTP	NTP + 8 mos
Task 4 - Farm & Water Operations Plan	NTP + 3 mos	NTP + 16 mos
Task 5 - Water Sharing Agreement	NTP + 3 mos	NTP + 16 mos
Task 6 - Water Court/Change of Use	NTP + 8 mos	NTP + 38 mos
Task 7 - Project Management	NTP	NTP + 38 mos
Task 8 - Final Report	NTP + 16 mos	NTP + 38 mos

Alternative Agricultural Water Transfer Methods – Competitive Grant Program
Water Activity Summary Sheet
November 15-16, 2017
Agenda Item 9(b)

Applicant & Grantee:	New Cache La Poudre Irrigation Company
Water Activity Name:	New Cache La Poudre Water Marketing Strategy
Water Activity Purpose:	Develop a framework and process to market the temporary use of cooperating shareholders water rights to third parties, including municipal water suppliers.
Drainage Basin:	South Platte
Water Source:	Native South Platte basin water
Amount Requested:	$214,957
Matching Funds:	**$195,013** total cash match (Ducks Unlimited $2,063; BOR WaterSmart $192,950)

Staff Recommendation
Staff recommends approval of up to $214,957 from the Alternative Agricultural Water Transfer Methods Program to help fund the "New Cache La Poudre Water Marketing Strategy."

Water Activity Summary: The New Cache team proposes to develop a framework and process whereby it will market the temporary use of cooperating shareholders water rights to third parties, including municipal water suppliers. The framework will include long-term operating, management, and monitoring rules, bylaws and contracts to execute temporary water trades to non-agricultural water users, without losing agricultural ownership and control of water rights. The exact scale of the proposed water marketing strategy will be determined during the project, but the project team has identified municipalities who could benefit from entering lease agreements with New Cache. The expectation is that this project will, within two years, have developed functioning water sharing agreements that will eventually lead to the sharing of water in the range of 1,000 to 2,000 acre-feet per year, and establish a strategy that will be adopted by others in the future.

Following nearly a decade of research and study on flexible water markets, there remains a dearth of actual water lease transactions/trades, despite the emphasis placed on "alternative transfer mechanisms" in the state water plan. Specificity is now needed to replace generalizations; actual transactions in place of theory. This project intends to fill the void, by not only building and implementing a water marketing strategy, and the underlying framework and legal structure, but also actually completing and implementing temporary water transfers, through New Cache la Poudre Irrigating Company (New Cache) ditch system and its water rights.

From New Cache's perspective, it wishes to develop this strategy to create more diversified income streams for its shareholders, who remain primarily agricultural producers. The team's overall goal is to utilize the existing New Cache ditch system, and its (willing) shareholder's water rights and existing legal mechanisms to provide temporary water supplies to meet non-agricultural water needs,

and in the process, sustaining agriculture while temporarily sharing water with municipalities, and other non-agricultural water users, supporting rural economic development, and helping wildlife habitat. The CWCB grant will be used to support outreach and partnership building with municipal and industrial stakeholders to educate and encourage participation in a water market strategy and use of available water market studies from Colorado and the western United States to structure a water market.

Discussion: Given the project team's background and experience with ATM's and related studies, CWCB staff expects this effort has a high probability of success. With that success, this effort will further Colorado's Water Plan's Measurable Objectives and Critical Goals and Actions with regard to ATMs.

Issues/Additional Needs: Staff will work cooperatively with the applicant's team to further refine the Budget to more directly align with the tasks identified in the Statement of Work, otherwise no issues or additional needs have been identified.

CWCB Project Manager: Craig Godbout

COLORADO WATER CONSERVATION BOARD

ALERNATIVE AGRICULTURAL WATER TRANSFER METHODS COMPETITIVE GRANT PROGRAM

GRANT APPLICATION FORM

New Cache La Poudre Water Marketing Strategy

Program/Project Name

River Basin Name

$214,957

Amount of Funds Requested

$195,013

Amount of Matching Funds

Instructions: This application form must be submitted in electronic format (Microsoft Word or Original PDF). The application can be emailed or a disc can be mailed to the address at the end of the application form. The Alternative Agricultural Water Transfer Methods Competitive Grant Program, Criteria and Guidelines can be found at http://cwcb.state.co.us/LoansGrants/alternative-agricultural-water-transfer-methods-grants/Pages/main.aspx. **The criteria and guidelines must be reviewed and followed when completing this application**. You may attach additional sheets as necessary to fully answer any question, or to provide additional information that you feel would be helpful in evaluating this application. Include with your application a cover letter summarizing your request for a grant. If you have difficulty with any part of the application, contact Craig Godbout of the Water Supply Planning Section (Colorado Water Conservation Board) for assistance, at (303) 866-3441 x3210 or email at craig.godbout@state.co.us.

Generally, the applicant is also the prospective owner and sponsor of the proposed program/project. If this is not the case, contact Craig before completing this application.

Alternative Agricultural Water Transfer Methods – Grant Application Form
October 2010

Part A. - Description of the Applicant(s) (Program/Project Sponsor);

1. Applicant Name(s): New Cache La Poudre Irrigating Company

Mailing address: 33040 Railroad Avenue
P.O. Box 104
Lucerne, CO 80646

Taxpayer ID#: 84-0279140 Email address: dale@newcache.com

Phone Numbers: Business: 970-352-0222
Home:
Fax:

2. Person to contact regarding this application if different from above:

Name: Greg Kernohan, Ducks Unlimited

Position/Title Director, Conservation Programs

3. If the Contracting Entity is different then the Applicant, please describe the Contracting Entity here.

4. *Provide a brief description of your organization. The applicant may be a public or private entity. Given the diverse range of potential applicants, not all the following information may be relevant. Where applicable and relevant the description should include the following:*

   a) *Type of organization, official name, the year formed, and the statutes under which the entity was formed, a contact person and that person's position or title, address and phone number. For private entities, a copy of the Articles of Incorporation and By-laws should be appended to the application.*

   The New Cache La Poudre Irrigating Company (New Cache) is one of the oldest mutual ditch companies on the Cache la Poudre River, a tributary to the South Platte River. Incorporated in 1898 pursuant to what is now C.R.S. 7-42-101 *et. seq*., the New Cache has water rights appropriations dating back to 1870 with priority rights starting at number 37 on the river. The contact person at New Cache is the general manager, Dale Trowbridge at the address and phone number provided on the application. The Articles of Incorporation and By-laws have been appended to the application.

   b) *For waters suppliers, information regarding the number of customers, taps, service area, and current water usage, and future growth plans, water related facilities owned or used, funding/revenue sources (existing service charges, tap fees, share assessments, etc.), the number of members or shareholders and shares of stock outstanding or a description of other means of ownership.*

   New Cache, in cooperation and coordination with its sister reservoir company (the Cache La Poudre Reservoir Company) as well as several lateral ditch companies (including The Cooke Irrigating Company and the Union Lateral Irrigating Company) delivers irrigation water to more than 32,000 acres of agricultural land north of the Cache La Poudre River and generally east of Fort Collins and North of Greeley for 330 shareholders. There are 2,499.69 outstanding shares of New Cache direct flow rights and 3,000 shares in the Cache La Poudre Reservoir Company.

   c) *For other entities, background, organizational size, staffing and budget, and funding related to water that is relevant in determining whether the applicant has the ability to accomplish the program/project for which funding is sought.*

   NA

   d) *A brief history of the Applicant(s).*
   The first organizational meeting of the Union Colony of Colorado occurred in New York City on December 23rd, 1869. Horace Greeley, then editor of the *New York Tribune* newspaper, was appointed chairman of that meeting. At that meeting the "Constitution and By-Laws of the Union Colony, No. 1" was adopted and Nathan C. Meeker appointed its first president. On April 13th, 1870, the Union Colony filed a certificate of organization under newly created law by Territorial legislature for the Union Colony of Colorado. That certificate of organization set forth a proposal for a series of four ditches from the Cache la Poudre and Big Thompson rivers. Minutes of the Union Colony in 1870 and 1871 reflect an eagerness to commence construction of the No. 2 and No. 3 canals.

   Construction of the No. 2 ditch commenced in the fall of 1879, and was completed by members of

the Union Colony employed for such work. Construction continued into the spring of 1871, and about 2,000 acres of crops were put into cultivation in the summer of 1871. After encountering financial difficulties in completing the No. 2 canal, and turning the expense therefore in part over to the farmers themselves under the ditch, two enlargements and an extension of the canal were completed in 1874 and 1877, bringing the total length of the canal to about 26 miles.

The contractual obligations to supply water to the early settlers in the Union Colony were assumed by the Cache la Poudre Irrigation Company in 1878 when the Union Colony turned operation and ownership of the Greeley Canal No. 2 over to the farmers under it, who incorporated as the "Cache la Poudre Irrigation Company" on January 25, 1878. In 1898, the company was incorporated perpetually as the "New" Cache La Poudre Irrigating Company. Since this time, the New Cache company has been managing irrigation deliveries for its shareholders, and has been proactive in responding to the unique and ever-changing water management and administration challenges of each generation. The potential dry-up of agricultural ground within the company's service area is one of the most daunting challenges facing the current generation, and the company continues to be proactive in identifying solutions.

e) Include any relevant Tabor issues relating to the funding request affecting the Contracting Entity.
None

Part B. - Description of the Alternative Water Transfer Program/Project –

1. *Purpose of the Program/Project*
   Please provide a summary of the proposed program/project, including a statement of what the program/project is intended to accomplish, the need for the program/project, the problems and opportunities to be addressed, the expectations of the applicant(s), and why the program/project is important to the applicant(s). The summary must include a description of the technical, institutional (i.e., how the program/project will be organized and operated), and legal elements that will and/or have been addressed by the applicant and proposed program/project. The summary should also discuss relevant project history, if applicable, and any other relevant issues.

   The New Cache, in association with our team, will develop a framework and process whereby it will market the temporary use of cooperating shareholders water rights to third parties, including municipal water suppliers. The framework will include long-term operating, management, and monitoring rules, bylaws and contracts to execute temporary water trades to non-agricultural water users, without losing agricultural ownership and control of water rights. The exact scale of our proposed water marketing strategy will be determined during the project, but the project team has identified municipalities who could benefit from entering lease agreements with New Cache. Our expectation is that this project will, within two years, have developed functioning water sharing agreements that will eventually lead to the sharing of water in the range of 1,000 to 2,000 acre-feet per year, and establish a strategy that will be adopted by others in the future.

   Our team including New Cache staff, Ducks Unlimited, and WestWater Research, along with New Cache's contract attorneys and engineers, who are knowledgeable about the New Cache system and water rights, are very experienced in studying water market structures and executing water trades and transactions. With a clear vision and an experienced team, funds from the Colorado Water Conservation Board will assure a successful project.

   Following nearly a decade of research and study on flexible water markets, there remains a void of actual water lease transactions/trades, despite the emphasis placed on "alternative transfer mechanisms" in the state water plan. Specificity is now needed to replace generalizations; actual transactions in place of theory. This project intends to fill the void, by not only building and implementing a water marketing strategy, and the underlying framework and legal structure, but also actually completing and implementing temporary water transfers, through New Cache la Poudre Irrigating Company (New Cache) ditch system and its water rights.

   From New Cache's perspective, it wishes to develop this strategy to create more diversified income streams for its shareholders, who remain primarily agricultural producers. The team's overall goal is to utilize the existing New Cache ditch system, and its (willing) shareholder's water rights and existing legal mechanisms to provide temporary water supplies to meet non-agricultural water needs, and in the process, sustaining agriculture while temporarily sharing water with municipalities, and other non-agricultural water users, supporting rural economic development, and helping wildlife habitat. The CWCB grant will be used to support outreach and partnership building with municipal and industrial stakeholders to educate and encourage participation in a water market strategy and use of available water market studies from Colorado and the western United States to structure a water market.

   Technical and legal elements of the proposed water marketing strategy will focus on water rights, and how to

accomplish a water lease using the existing direct flow, storage, and augmentation water rights held by New Cache. It might be necessary to file changes to these existing decrees, or file new decrees, to allow the water leasing activity to take place. Beyond the water rights, technical aspects of the project include analysis of wet-water conveyance and delivery to lease partners, and the development of decreed recharge and augmentation sites. Institutional elements of the proposed water marketing strategy include the potential formation of a separate company to operate the water lease, comprised of New Cache shareholders. The institutional aspects of the project will build upon the FLEX Market studies which were completed under previous ATM grant projects.

Previous Studies

To the maximum extent possible, the results of any previous studies and investigation should be utilized and incorporated into the proposed program/project. The application for funding should include a summary of the results of previous studies and how they will be utilized.

To address growing water shortages in Colorado, Ducks Unlimited (DU), Colorado State University, Colorado Water Conservation Board (CWCB), WestWater Research, and many others have been studying water marketing strategies for several years, including strategies that allow farmers to temporarily trade water to municipal and industrial entities while maintaining ownership of the water right in agriculture. In this way, flexible water leasing markets help sustain agriculture by permitting temporary transfers of water to municipal, industrial, and environmental water uses during times of shortage and allowing water to return to agricultural productivity when market demand is low. Our program will build on the tremendous volume of studies and the experience of established sale markets and water transfer policies to develop the first flexible water leasing market in Colorado's Northern Front Range.

FLEX Market Study

The CWCB previously funded a FLEX Market study under the ATM grant program. Through various meetings and then a final summit, the FLEX study team determined that willingness to pay depended on market structure, price point, and firm yield. The study concluded that farmers with irrigation water to supply markets wanted to own the asset, manage water and infrastructure, and manage the market. Surprisingly, municipalities agreed. If municipalities had access to a market capable of providing firm water yields at a reasonable price, then municipalities, in theory, would participate. However, farmers along the Front Range replied that they would seek between $500 and $1,000 per acre-foot to lease water and although agriculture would still own the water rights, expected shared (cost) responsibility with municipalities and industry for adjudicating water rights through water court and developing needed infrastructure. These potential lease terms are not seen as attractive to the municipal sector. It also needs to be noted that overwhelmingly 90% of participants identified transaction costs associated with water court as one of the biggest barriers to market development.

Agriculture User Survey

A similar survey of potential market participants was conducted by the Ag Water Network for Colorado Cattlemen's Association and the Colorado Ag Water Alliance (CAWA) in 2016, and revealed similar interest from the agricultural community to lease water. Overall, about 50% of respondents (n=249) from across the state including Weld County, were moderately to strongly interested in water lease agreements, especially in situations where the farmer's leasable water was derived from reduced deliveries to the farm and allowed the farmer to determine how to manage the farm under reduced water. Farmers interested in lease programs are not too concerned about how the leased water is used, but they are very concerned that changes in water management will not negatively impact wildlife habitat. For farmers interested in leasing opportunities, diversifying and increasing income is a driving factor. Farmers want to have alternative income choices to maximize their land and water assets. However, price point for leasing water is an important consideration. Like lease rates reported by WestWater, the Ag Water Network determined that 40% of respondents would lease water from between less than $100 per acre-foot to $500 per acre foot with only 20% of respondents seeking more than $500 per acre-foot. However, a considerable number (40%) didn't know what price would be appealing. Finally, the market structure is important to farmers. When asked, who should administer a water lease market, respondents overwhelmingly supported irrigation companies, individuals, or state agencies, with little support for private companies, trade associations, or farm cooperatives. When asked who they trust for advice, respondents supported attorneys/consultants, irrigation company, and agricultural organizations.

EDF Study on ATMs

A recent report was prepared by the Environmental Defense Fund (EDF) in conjunction with WestWater Research, on the financial perspective of municipal water providers as the buyer in an ATM type of transaction. The report concluded that flexible water marketing strategies could provide cost savings, or be cost competitive, with traditional buy and dry water acquisition approaches. The Town of Windsor was one of the case studies in the report, which is relevant to the New Cache delivery system and proposed market strategy. Although a more flexible water acquisition framework might make financial sense, the study recognized that municipalities place a premium on the certainty of having firm yield water supplies. The desire to fulfill the maximum expected water need during shortages, rather than acquire sufficient water to cover most needs, is an obstacle that will need to be overcome. The study recommends that efforts focus on encouraging and educating the market demand-side, consisting of municipalities, industrial water users, and environmental organizations, and to motivate parties through incentives and programs that reduce demand-side cost and uncertainty.

Project Team Experience in Developing ATMs

On Colorado's Front Range, WestWater has assisted clients in the acquisition of mutual ditch company shares and CBT units, and has provided extensive water rights valuation and asset management services. WestWater's experience with irrigated agriculture, M&I water uses, and environmental flows has enabled the firm to structure innovative water transfer agreements that provide mutual benefits to multiple sectors. New Cache is also experienced in executing successful water lease agreements, as evidenced by the fact that the company has leased sufficient water since 2013 to not have to issue assessments on its shareholders to operate and maintain the ditch system. Ducks Unlimited has conducted dozens of conservation-minded land and water transactions in Colorado and has a team of professionals experienced in unique and innovative transactions.

2. Study Area/Service Area Description

The study area/service area is generally the geographic area that is the subject of the proposed program/project (include both the source of supply and location and type of new use). The description should include the following items:

a) A narrative description of the study area/service area including: the county, the location of towns or cities, topography, and locations of major surface and ground water features.

New Cache is located very close to the fastest growing populations in Colorado and wishes to cooperate with municipalities to assure that their water needs are met without permanently removing water from agriculture. New Cache has begun to experience significant interest from municipalities to purchase company shares. Recent purchases of land for New Cache water rights by East Cherry Creek Valley Water and Sanitation District, Arapaho County Water and Wastewater Authority, and the City of Greeley indicate that the municipal "take over" already undergone by many other ditch and irrigating companies in the area is now targeting the New Cache system. In the past, permanent water right sales from New Cache shareholders to municipalities have largely been limited to units in the CBT Project. Municipalities now own more than 70% of the 310,000 CBT units, and at average transfer rates, individually-owned CBT units will likely be largely in municipal hands in the next decade.

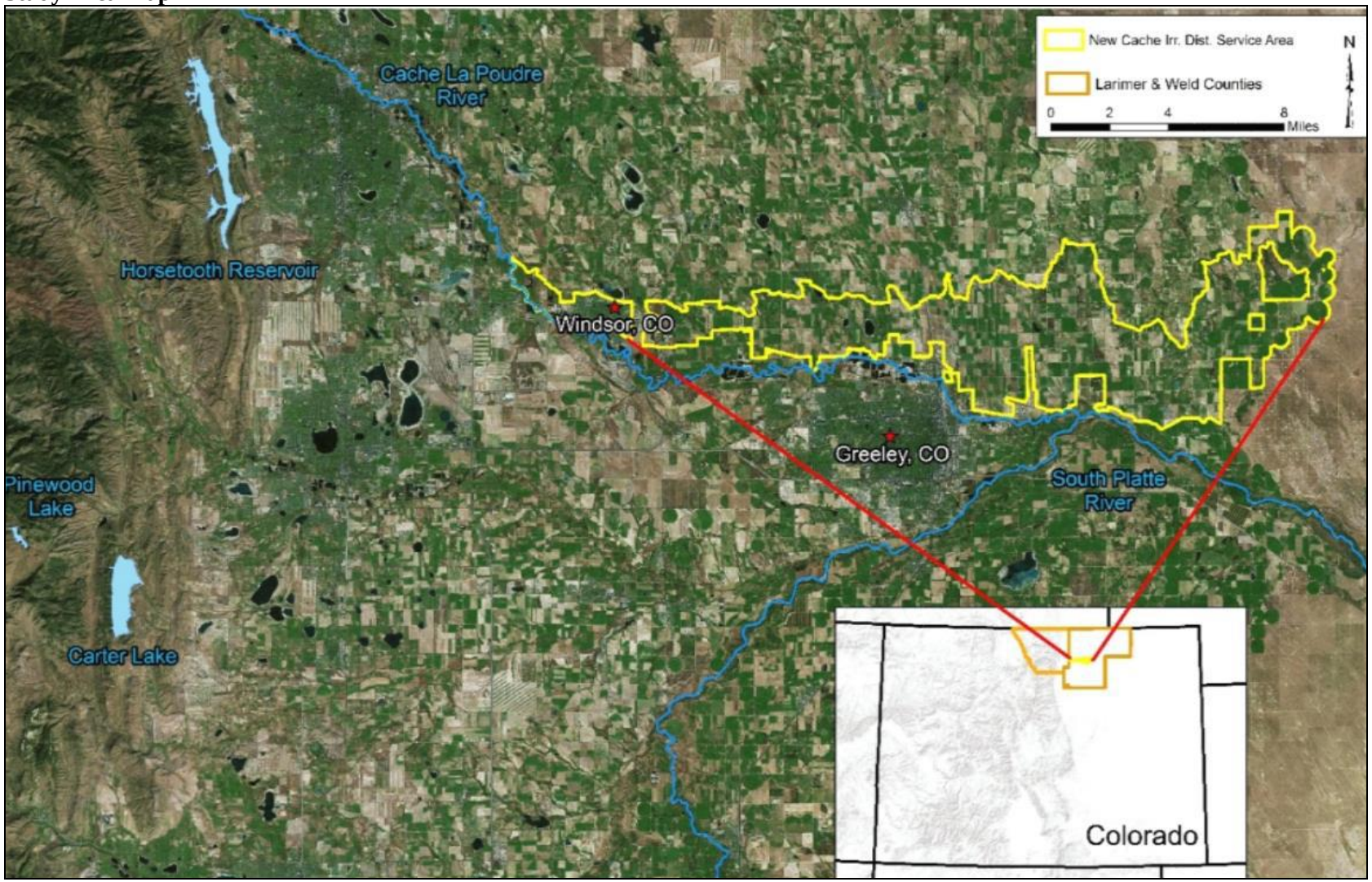
b) An area map showing each of the items above, as well as the locations of existing facilities, proposed project facilities and boundaries of lands involved in the proposed program/project.

See below

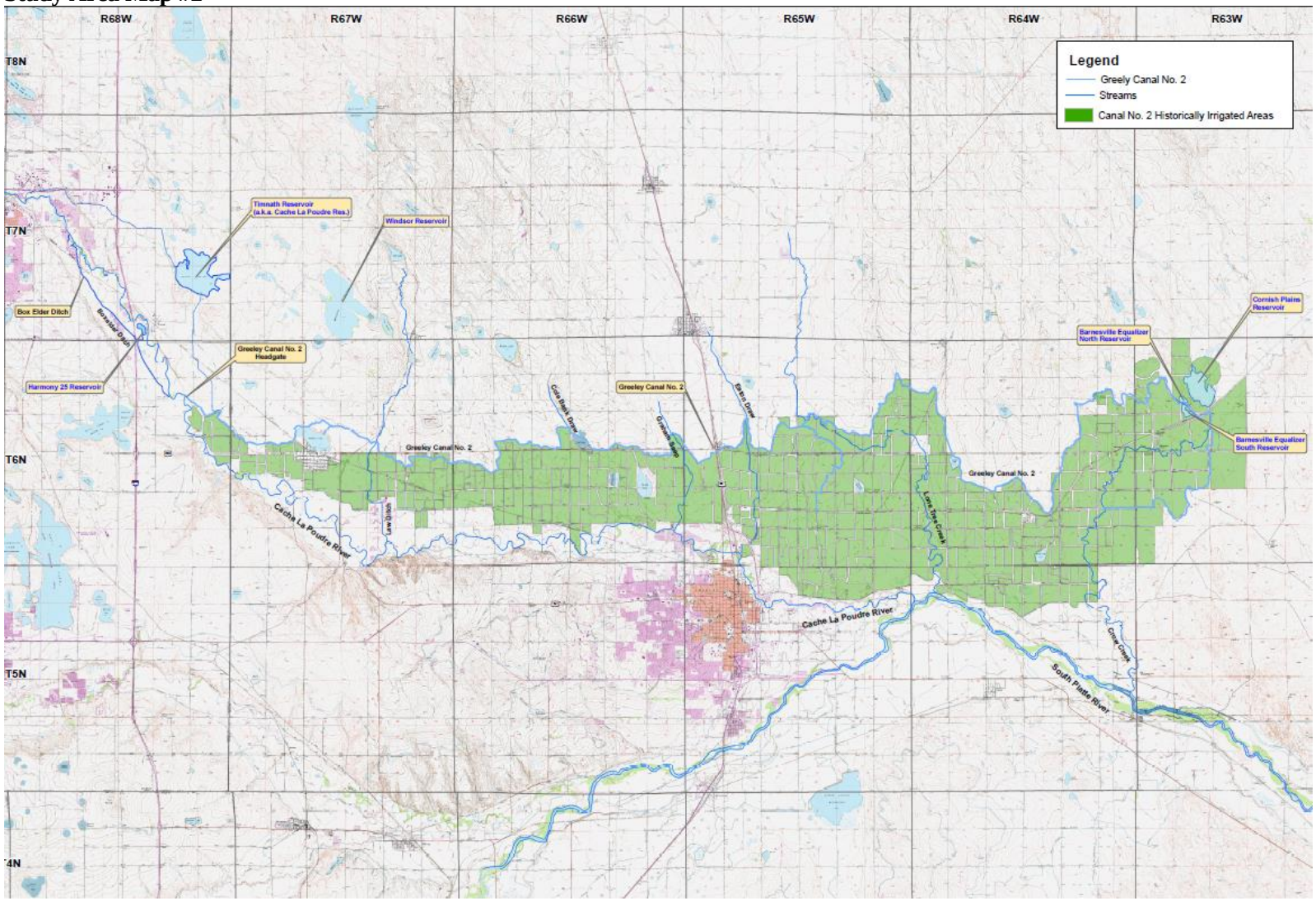
c) *Information regarding the irrigated lands that are involved in the program/project. This must include a tabulation of total irrigated acreage, description of cropping types, crop yields, and total average annual water diversions for existing agricultural lands.*

The New Cache is an authorized water provider in northern Colorado's Front Range responsible for delivering water for irrigation to more than 32,000 acres of agriculture for 330 shareholders. The primary crop is corn (approximately 18,000 acres), with sugar beets, dry beans, alfalfa, wheat, carrots, onions and other vegetables also grown. Several water sources are used to satisfy irrigation demands, as described previously. The New Cache operates the total 2,499.69 shares of New Cache direct flow rights and 3,000 shares in Timnath Reservoir for agricultural irrigation. New Cache operates the system based on daily water requests from individual farms and conducts deliveries utilizing multiple sources to best manage deliveries and reservoir operations. Individual farms are assessed deliveries against their share accounts for the various river and reservoir rights, although on a given day the actual water delivered may be from one or several different sources. Since 1950, combined water deliveries averaged 44,062 acre-feet annually or about 17.62 acre-feet per share average. An additional 16,685 acre-feet are delivered from Windsor, Timnath, and Fossil Creek reservoirs on average. Other New Cache water sources are not anticipated to be included as part of the marketing strategy, as they are mostly made up of CBT units that are quickly transferring to municipal ownership.

Study Area Map #1



Study Area Map #2



d) Information regarding the location of the new water use(s) that will be served by transferred water including the estimated number of users/taps and/or uses served.

The location of the New Cache system along with the established exchanges, storage facilities, and decreed recharge and augmentation plans provide a unique opportunity to market lease water supplies to non-agricultural water users in Northern Colorado. The project team has identified several buy-side entities that will likely be interested in, and benefit from, the proposed project. These include: Town of Windsor, Fort Collins-Loveland Water District, East Larimer County Water District, Town of Severance, City of Evans, City of Greeley, and North Weld Water County Water District, and Central Weld County Water District. Combined, these municipal entities have a projected additional water demand of over 23,000 acre-feet by the year 2030. Many (but not all) of these specific municipalities are participating in the Northern Integrated Supply Project (NISP) which would meet most of their projected water demands over the next several decades. But, NISP will likely not come online until 2030 and these rapidly-growing municipalities will need temporary supplies much sooner. Agricultural water leasing agreements, such as those proposed under the New Cache water marketing strategy, are sensible short-term solutions for many of these municipalities.

e) Socio-economic characteristics of the area such as population, employment and land use.

Urban population growth and associated development drives the anticipated water shortage gap. The population in Colorado is expected to double by 2050, adding between 3.5 and 5.5 million people (CWCB, 2015). Colorado's Front Range, established along the South Platte River, will experience most of the population increase, expecting between 2.3 and 3.1 million people by 2050. Specifically, the greatest growth will occur in Weld and Larimer counties, which expect a combined population growth of nearly 1.5 million people (HDR, 2015). According to a 2016 report by Weld County government using data from the State Demography Office and the U.S. Census, Weld Counties has an average per capita income of $38,664 (2014), which falls far below the State-wide average of $50,410. Irrigated agricultural lands account for fully 1/3 of Weld Counties land base with the vast remainder dedicated to ranching and dry land farming. In fact, Weld County is the premier ag producer by market value in the state with annual sales of $1.8 billion annually; nearly 25% of all State sales. Surprisingly, farming, fishing, and forestry only employs about 1.26% of the population.

3. Description of the Alternative Water Transfer Method

Please describe the type(s) of water transfers that will be examined/utilized (i.e., conceived transfer methods include, but are not limited to: 1) interruptible water supply agreements; 2) long-term agricultural land fallowing; 3) water banks; 4) reduced consumptive use through efficiency or cropping changes while maintaining historic return flows; and 5) purchase by end users with leaseback under defined conditions). In addition, please describe how the transferable consumptive use will be calculated and quantified, and how return flow patterns will be addressed/maintained.

Part of our marketing strategy will evaluate the best structure to facilitate water transfers, including the most appropriate transfer methods. Most ATM frameworks can be divided into two components: (1) an agricultural water supply component which determines how agricultural operations will be modified to provide water for transfer, and (2) a transfer component which describes the transfer mechanism or agreement structure. Although we may change direction, we expect that the transfer component will involve water leases structured as interruptible supply plans and substitute water supply plans, and including the potential change of a portion of the New Cache water rights to the new Colorado Water Protection Water Right to facilitate long-term flexible water trades. We will not likely use a "water bank" as defined in Colorado Statute due to the complex requirements to work through a water district to request the SEO to develop rules, but the outcome may look like a water bank. The agricultural component may include the use of temporary rotational fallowing, long-term following, and potentially increased irrigation efficiency. These agricultural methods have been expressed by shareholders as options for providing water.

Quantifying the transferable consumptive use is much easier with New Cache than many other ditch companies because New Cache completed a ditch-wide analysis in 2010. Most ditch and irrigation companies are reluctant to complete ditch-wide consumptive use analyses due to the high costs, as well as concerns that such an analysis may expose water rights to unnecessary scrutiny and risks. New Cache's ditch-wide analysis is a detailed, farm-by-farm analysis that allows New Cache to readily identify water rights available for the marketing project. The identified farms and appurtenant water rights will be analyzed for legal requirements and constraints and specific plans will be developed to avoid impacts to downstream water users. Obviously, having the consumptive use analysis completed is a huge time and cost savings. Any additional work required will be conducted by New Cache staff and consultants.

4. Program/Project Eligibility

Please describe how the proposed program/project meets each of the following eligibility requirements (please see Criteria and Guidelines for additional information regarding the alternative water transfer methods/strategies that qualify for funding). Note: If these requirements are addressed in other parts of the application you may simply reference the applicable section(s).

a) A description of how, if implemented, the proposed program/project will protect property and water rights.

A significant project element is dedicated to constructing the legal mechanisms for structuring a water marketplace including establishing the bylaws and rules for the governing body and water transfer agreements and contracts that will adhere to existing laws to facilitate trades.

b) Identified group(s) of agricultural users that are or may be willing to transfer a portion of their water

and identified entity(s), group(s) or area(s) where the transferred water could or would be put to the new use and a description of the new use.

This project was developed by and with the support of the New Cache governing board. Therefore, this application is evidence of a willingness to develop a water marketing strategy and transfer water from the agricultural sector. A general call to the New Cache shareholders asking for participation will be made and then further filtered based on both level of interest and transferable consumptive use considerations. On the demand side, the project team has identified a number of potential users of the water transferred through the water market strategy, but specific entities have not signed up to participate. These potential users are described previously in this application.

c) *The program/project must at a minimum conceptually describe the technical, institutional, and legal elements of the water transfer. Grant monies may be used to address one or more of these elements. If grant monies are not requested for all three elements, the grant applicant must describe how the applicant has or intends to address the elements, which are not included in the grant request, through other efforts.*

The third element of our scope of work directly addresses the technical, institutional, and legal requirements of transferring water. Specifically, the team will develop a written strategy document that describes the approach to establish a new water market. The documents will include:

- A draft implementation plan will be developed that describes water market operations, address long-term management and financial sustainability, the administrative structure, and institutional components, participants, water rights, and infrastructure needed, and transaction accounting.
- The entity responsible for managing the market will need to develop by-laws and rules governing water marketing activities.
- Specific contracts and agreements supporting water marketing development and transfers will be developed. The FLEX Market Model Study developed several templates to provide a foundation.
- New Cache will develop a transaction accounting system to monitor water marketing activities.
- Based on work conducted in Element 2, New Cache will determine which if any existing tools provide more reliability than a custom designed tracking system.

d) *If grant monies are proposed for use for legal assistance then the use of those funds shall be oriented toward advancing the knowledge of alternative agricultural water transfer methods and techniques; not for preparation of a specific water court case. The total requested funds for legal assistance shall not exceed 40 percent of the total grant request. In addition, grant monies proposed for use for legal assistance must be used to collaboratively address issues and concerns related to agricultural water transfer. Funds shall not be used to solely advance the cause of the project proponents.*

Attorney costs are budgeted to be about $65,750; about 17% of the total project cost. Our attorney, Dan Brown, will be responsible for drafting the documents mentioned in section (c).

e) *A minimum of a 10 percent cash match of total project cost (past expenditures and "in kind" can not be counted toward the 10 percent match).*

The project team is committing 48% in match with the clear majority coming from cash match and only about $2,063 as in-kind from DU indirect charges.

5. Program/Project Evaluation Criteria

The following grant evaluation criteria will be used by the CWCB to evaluate and make recommendations to fund, partially fund or not fund a grant application. The criteria are aimed at advancing alternative transfer methods from the literature and studies to actual on the ground projects/programs that provide reliable water supply and sustain key elements of the agricultural area from which the water is transferred. The applicant should fully address and explain in detail in the application how, and the extent to which, the proposed project/program meets each of the criteria. However, it should be noted that the project does not have to meet all the criteria to be eligible to receive funding and the criteria below are not listed in any order of important or priority.

a. The proposed project/program builds upon the work of former alternative water transfer methods efforts and addresses key areas that have been identified. For more detailed information on this work, please refer to the draft report: Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update, November 2012.

The proposed project builds on many former ATM efforts and addresses key areas to assure we successfully implement a water marketing strategy. Much has been learned about ATM's since the referenced 2012 ATM report. Several aspects of our scope of work rely on the 2015 CWCB-funded FLEX Water Market study, the 2016 Colorado Agriculture Water Alliance survey, the 2016 Environmental Defense Fund (EDF) report on Alternative Water Transfers in Colorado (2016), and the Colorado Water Plan and South Platte Basin Implementation Plan. A summary description of what these past studies and efforts have taught us is provided previously in Section B.1. The project team is committed to developing a water marketing strategy that is: financially viable to both buyer and seller and based on supported information, legally doable within Colorado water law (including more flexible arrangements that have become law since the 2012 ATM report), targeted at specific municipal and industrial water users, and supported by the agricultural water users.

b. The proposed project addresses one or more key recommendation(s) in the report: Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update, November 2012.

Again, we are referencing updated reports, which the proposed project directly adopts and addresses many key recommendations of the FLEX study and the EDF report:

1) *Focus on efforts to implement ATM's by starting on the demand side.* A significant task within the project is to focus on communicating, educating and influencing municipalities to consider short-term leases as part of their portfolio.

2) *The potential pool of ATM participants along the Front Range is somewhat limited.* By following the recommendations of the FLEX study and only engaging 3-5 participants, the potential for success is very high and as recommended by the EDF report, the number of participants is small enough that each of the municipalities could be analyzed for ATM water transfer potential.

3) *Water supply risk is believed to be a significant roadblock to municipal acceptance of ATM's.* To the extent possible, water leaders should educate the municipal water community about water leasing opportunities and support pilot projects where needed to begin to build greater comfort and an informed perspective on future water supply options. The Water Marketing Strategy spends a significant amount of time and effort educating municipal water providers as described in our communication and outreach strategy. In addition, the project team will work to minimize the water supply risks associated with the water marketing strategy, such that the municipal sector can rely upon the leases with comfort.

4) *As per the Colorado Water Plan, approximately 50,000 acre-feet of water will be provided through ATM's by 2050.* Although our project starts small as a proof of concept, once the water marketing strategy is in place, the potential to encourage participation and replicate the process with other irrigating companies could be expansive.

c. Preference will be given to projects that provide additional matching resources in the form of cash, past expenditures and in-kind contributions that are in addition to the required 10% cash match.

The project is providing a full 48% match with most match being secured through a grant provided by the BOR received by New Cache in September 2017.

d. The proposed project/program has the ability/potential to produce a reliable water supply that can be administered by the State of Colorado, Division of Water Resources.

The proposed project will adhere to all existing laws to produce a reliable water supply providing certainty in yield and availability to municipalities. New Cache currently owns and manages several sources of decreed water rights including irrigation, augmentation, and storage. Unlike many ATM concepts, infrastructure should not be a limiting factor in development of this water marketing strategy. In addition, the project team will seek to develop water transfer mechanisms with which the State Engineer is familiar.

e. The proposed project/program produces information that is transferable and transparent to other users and other areas of the state (i.e., would provide an example "template" or roadmap to others wishing to explore alternate transfer methods).

The information developed will be available to the public to further inform the legal, technical, and institutional structures of water markets and thereby provide a potential template for similar structures. Specifically, the water marketing strategy includes the development of an implementation plan, monitoring plan, and contract documents which can be referenced by other ATM efforts. The project will result in a final report to CWCB, which will also be available to the public.

f. The proposed project/program addresses key water needs identified in SWSI 2010 or as identified in a basin's needs assessment.

The proposed project exhibits many elements capable of directly addressing every priority of the South Platte Basin Implementation Plan, which are:

- *Develop or advance multi-purpose water supply projects:* The project works directly through several legal water mechanisms to provide leasable water for municipal, industrial, and environmental entities. Existing infrastructure including reservoir storage, recharge and augmentation, ditch conveyance.
- *Improve municipal and industrial water efficiency:* Ultimately, our efforts will work directly with municipalities to educate and influence their decisions to be more efficient in drought planning efforts; only leasing water in shortage periods instead of over-purchasing water rights to be sure all water demands are covered. If successful, we believe water rights purchased by municipalities could be cut by 50% and lease water could be needed only 30% of the time he time, leaving a significant portion of the irrigated lands in production well into the future.
- *Sustain irrigated agriculture:* As mentioned above, if we can save half of the landscape for irrigated agriculture and only 30% of those farms are needed for water leases during shortages, agriculture will be sustained to the greatest extent possible well into the future. This project alone will not achieve these goals, but it is an important step in that direction.
- *Protect and enhance the environment and water-based recreation:* By using existing laws that protect return flows and utilizing multi-purpose project approaches, such as DU has accomplished through recharge wetlands for augmentation, the environment is sufficiently protected and may be enhanced.
- *Promote education and outreach that emphasizes the South Platte Basin Implementation Plan priorities:*

Presentation Material and Media

As described in the background data, several studies have convened stakeholders to survey their understanding of water markets, to educate the public about potential, and gauge interest in further developing these programs. We believe the tremendous work has established a system whereby the project team can access stakeholders and better educate and increase enthusiasm for flexible water markets. Our team will develop presentations for several established venues such as conferences and meetings as well as conduct several one-on-one meetings with non-agricultural water lessees to encourage participation. We will publish articles regarding the project in local newspapers and publish an article in Ducks Unlimited's national magazine and other media outlets.

Municipal Outreach and Relationship Building

As identified in the West Water study recommendations, water markets require increased interest and participation from the demand side (non-agricultural lessees). A significant portion of the budget will focus on regularly meeting with identified municipalities and industries to communicate the advantages of flexible water marketing strategies and improve demand for water market solutions. Target participants currently include the Town of Windsor, and their many regionally important partner municipal and water conservancy districts of the Northern Integrated Supply Project. Through one-on-one meetings and presentations to the NISP participants we will seek to build trusting relationships that lead to successful partnerships and programs. As such, New Cache will work with Ducks Unlimited to organize and facilitate quarterly meetings. Meetings will include a mix of presentations to senior management and field staff managing municipal water portfolios and providing tours of the New Cache system.

South Platte Basin Roundtable

Fortunately, stakeholders from around Colorado's Northern Front Range have been involved with several forums where water marketing strategies have been discussed and funded. One of the most effective water stakeholder forums is the South Platte Basin Roundtable. The basin roundtables were created through Colorado Water for the 21st Century Act to assist the CWCB in thinking through water supply needs in relation to growth and development. The roundtables bring more than 300 citizens from across the state into broad-based, collaborative water management discussions. Legislatively designated, each roundtable membership consists of a representative from each county and a municipality from each county, a member from each water conservation and conservancy district, two legislative appointees, and 10 at large members representing national environmental organizations, agriculture, industry.

The South Platte Basin Roundtable is populated by 56 members from around the region that are directly impacted by this marketing strategy. In fact, three team members are committee members on the roundtable. By far, the South Platte Roundtable is the most efficient way to access the water policy and development stakeholders across the basin. Our team will organize and facilitate regular semi-annual presentations to the roundtable and consider incorporating volunteers to contribute to technical documents on a bi-monthly basis. The roundtable regularly convenes subcommittees to assist with water shortage related strategic planning.

Colorado Ag Water Alliance
We will also present to CAWA at their annual Ag Water Summit and encourage feedback and participation through the South Platte Basin Roundtable.

Colorado Water Congress
Finally, we will pursue opportunities to present to the Colorado Water Congress at their annual summer conference and annual convention. The Colorado Water Congress is the leading voice for initiating and advancing programs for the conservation, development, administration, and protection of water resources in Colorado. Many members are attorneys and engineers that are relied upon to provide dependable advice to potential water marketing participants. Project team members are all members of the Water Congress.

g. The proposed project/program advances the preservation of high value agricultural lands. Value can be viewed as: the value of crops produced, the value the agriculture provides to the local community, and the value the agricultural area provides for open space and wildlife habitat.

It is our goal to use the New Cache ditch system, reservoirs, water rights and existing legal mechanisms to provide temporary water to non-agricultural needs through a strategy that sustains agriculture while sharing water with municipalities, supports rural economic development, and helps wildlife habitat.

h. The proposed project/program addresses water quality, or provides other environmental benefits to rivers, streams and wetlands.

Although not a direct benefit of the program, sustaining agriculture on the landscape will maintain the numerous benefits to the environment. As has been documented, the South Platte was a dry river much of the time until irrigated agriculture increased return flows to the river, which in turn spurred incredible

economic development around recreation and the environment. There could be additional benefits from developing wetlands for recharge as additional recharge facilities. New Cache has 43 decreed and unconstructed facilities that could provide augmentation credits to partially support the market. Wetlands have been well documented for mitigating nutrients such as reducing total nitrogen by 35% and phosphorus by 50% or more. Although anecdotal, accounting for improved water quality is increasingly important.

i. The proposed project/program increases our understanding of and quantifies program/project costs. This could include: institutional, legal, technical costs, and third-party impacts.

We are tackling all the proposed issues to have an executable understanding of institutional, technical, and legal mechanisms to effectively trade water through ATM's. We are also spending significant time quantifying water demand needs for participating municipalities and industries and should be able to report on the cost to develop the water marketing strategy at a larger scale than just the proposed project.

j. The proposed project/program does not adversely affect access to other sources of water (not subject to/participating in the program) where owners of these water rights may wish to pursue traditional transfer of their rights to other users.

The proposed project will in no way limit or adversely affect access to water or impede on shareholders wishing to pursue other avenues for optimizing their water rights. Our goal is to increase the value of shareholders assets by providing an additional option for maximizing their rights.

k. The proposed project/program provides a perpetual water supply for the new and/or alternate use and preserves agricultural production and/or helps sustain the area's economy from which the transfer is occurring.

If successful, the enterprise will establish a functional marketplace capable of providing water in perpetuity. Of course, the entire effort is striving to sustain the area's economy through sustained agriculture and potentially increased recreation through improved and increased wetlands on the landscape. The project team will work to develop and then market a long-term lease water supply to municipal and industrial water users.

l. The quantity of water produced by the proposed project/program. Preference will be given to programs that can address larger water supply needs.

There is inherent uncertainty in the volume of water that will actually be contracted through lease agreements, and this uncertainty lies in the ability to secure relationships with municipal and industrial water users. The project team is committed to developing 1,000 to 2,000 acre-feet annually of new ATM water transfers. Based on our initial analyses, this estimated annual volume represents the low end of the projected municipal water supply needs in the coming decade. We also know through conversations with oil and gas enterprises that water lease needs are already much higher and could be a significant, short-term market.

m. Applicants are encouraged to develop projects demonstrating participation and/or support from a diverse set of stakeholders and interests.

As stated, we are working with a diverse team including a dedicated water provider (New Cache) and our attorney and engineers, Ducks Unlimited, and a noted water market engineer and economist (WestWater). We plan to conduct significant outreach to municipalities and industries as well as present the project through numerous avenues.

6. Statement of Work

The statement of work will form the basis for the contract between the Applicant and the State of Colorado. In short, the Applicant is agreeing to undertake the work for the compensation outlined in the statement of work and budget, and in return, the State of Colorado is receiving the deliverables/products specified. Please note that costs incurred prior to execution of a contract or purchase order are not subject to reimbursement.

Please provide a detailed statement of work using the following template. Additional sections or modifications may be included as necessary. Please define all acronyms. If a grant is awarded an independent statement of work document will be required with correct page numbers.

See below

Statement of Work

WATER ACTIVITY NAME - New Cache la Poudre Water Marketing Strategy

GRANT RECIPIENT – New Cache la Poudre Irrigating Company

FUNDING SOURCE - Alternative Transfer Methods (ATM) Grant

MATCHING SOURCE – Bureau of Reclamation Water Marketing Strategy Grant, Ducks Unlimited

INTRODUCTION AND BACKGROUND

This project intends to build and implement a water marketing strategy through the New Cache la Poudre Irrigating Company (New Cache) ditch system which will provide wet-water leases through flexible market frameworks. The New Cache is an authorized water provider in northern Colorado's Front Range responsible for delivering water for irrigation to more than 32,000 acres of agriculture for 330 shareholders. The primary crop is corn. New Cache wishes to develop a water marketing strategy as a new business plan that may diversify income streams for its shareholders, who remain primarily agricultural producers. It is our goal to use the New Cache ditch system, reservoirs, water rights and existing legal mechanisms to provide temporary water to non-agricultural needs through a strategy that sustains agriculture while sharing water with municipalities, supports rural economic development, and helps wildlife habitat. The project specifically will support outreach and partnership building with municipal and industrial stakeholders to educate and encourage participation in a water market strategy and use of available water market studies from Colorado and the western United States to structure a water market strategy. Our goal is to have a structure that includes long-term operating, management, and monitoring rules and bylaws and contracts that will be used to execute trades.

ELEMENTS

1. Increase Outreach and Partnership Building to Municipalities and Industry
2. Scoping and Planning – Financial, Social, Hydrological, and Environmental Analysis
3. Develop Water Marketing Strategy – Technical, Institutional, and Legal Framework

TASKS
Provide a detailed description of each task using the following format

TASK 1 – Work Plan

Description of Task
New Cache will work with Ducks Unlimited to develop a work plan that specifies how the three project elements will be performed, along with a detailed work schedule, responsibilities of the recipient and other stakeholders.

Method/Procedure
Ducks Unlimited will convene the team members to develop a detailed work plan with a kick-off meeting in January 2018. The goal will be to develop a detailed work schedule, outline roles and responsibilities, and review the timeframe.

Deliverable
A draft work plan will be submitted to CWCB.

TASK 2 – Communication and Outreach Plan

Description of Task
As part of the Project work plan, the recipient will develop a communication and outreach plan that explains how shareholders and other stakeholders and the public as appropriate, will be involved in the planning process, including input on the drafting of the water marketing strategy and providing feedback to the recipient and any Project partners.

Method/Procedure
As part of the work plan above, a detailed communication and outreach plan will be drafted to direct our efforts in informing New Cache shareholders, presentations to municipal and industrial lessees, and the public as well as methods for submitting comments to the plan.

Deliverable
A written communication plan submitted as part of the Work Plan to CWCB.

TASK 3 – Outreach and Partnership Building

Description of Task
We will use the body of information included in the cited documents to educate and remind stakeholders of the looming threats to irrigated agriculture caused by growth and development and use the information, including responses to surveys, and other relevant information to develop grassroots support for engagement in water marketing strategies.

Methods
Presentation Material and Media
As described in the background data, several studies have convened stakeholders to survey their understanding of water markets, to educate the public about potential, and gauge interest in further developing these programs. We believe the tremendous work has established a system whereby the project team can access stakeholders and better educate and increase enthusiasm for flexible water markets. Our team will develop presentations for several established venues such as conferences and meetings as well as conduct several one-on-one meetings with non-agricultural water lessees to encourage participation. We will publish articles regarding the project in local newspapers and publish an article in Ducks Unlimited's national magazine and other media outlets**.**

Municipal Outreach and Relationship Building

As identified in the West Water study recommendations, water markets require increased interest and participation from the demand side (non-agricultural lessees). A significant portion of the budget will focus on regularly meeting with identified municipalities and industries to communicate the advantages of flexible water marketing strategies and improve demand for water market solutions. Target participants currently include the Town of Windsor, and their many regionally important partner municipal and water conservancy districts of the Northern Integrated Supply Project. Through one-on-one meetings and presentations to the NISP participants we will seek to build trusting relationships that lead to successful partnerships and programs. As such, New Cache will work with Ducks Unlimited to organize and facilitate quarterly meetings. Meetings will include a mix of presentations to senior management and field staff managing municipal water portfolios and providing tours of the New Cache system.

South Platte Basin Roundtable
Fortunately, stakeholders from around Colorado's Northern Front Range have been involved with several forums where water marketing strategies have been discussed and funded. One of the most effective water stakeholder forums is the South Platte Basin Roundtable. The South Platte Basin Roundtable is populated by 56 members from around the region that are directly impacted by this marketing strategy. In fact, three team members are committee members on the roundtable. By far, the South Platte Roundtable is the most efficient way to access the water policy and development stakeholders across the basin. Our team will organize and facilitate regular semi-annual presentations to the roundtable and consider incorporating volunteers to contribute to technical documents on a bi-monthly basis. The roundtable regularly convenes subcommittees to assist with water shortage related strategic planning.

Colorado Ag Water Alliance
We will also present to CAWA at their annual Ag Water Summit and encourage feedback and participation through the South Platte Basin Roundtable.

Colorado Water Congress
Finally, we will pursue opportunities to present to the Colorado Water Congress at their annual summer conference and annual convention. The Colorado Water Congress is the leading voice for initiating and advancing programs for the conservation, development, administration, and protection of water resources in Colorado. Many members are attorneys and engineers that are relied upon to provide dependable advice to potential water marketing participants. Project team members are all members of the Water Congress.

Deliverable
Ducks Unlimited will provide updates and findings from communication and outreach efforts as part of the semi-annual and final reports.

Task 4 – Scoping and Planning

Description of Task
This task includes studies and analysis to support water marketing strategy development.

Method
Financial or Economic Analysis
The WestWater report presents a thorough examination of the Town of Windsor's water needs through 2045 and offers sound economic justifications for pursuing several water acquisition

strategies. However, the report also identifies a pool of municipalities with the potential to be candidates for water marketing strategies due to their water supply positions and their possible use of temporary water supplies. Through Element 1, Outreach and Partnership Building, the project team will identify a subset of additional market participants and further analyze the water supply and demand positions of these select municipalities for water marketing potential. The project team will also evaluate non-municipal opportunities, such as water for the oil and gas development within the New Cache service area, as well as environmental flow markets.

Team member, WestWater Research, brings significant experience developing water market strategies and will be an asset in developing the best framework for operating a New Cache water marketing project. The WestWater report provides significant summaries of water transfer and marketing efforts from within Colorado and across the western United States. As such, the project should enjoy some cost savings by utilizing an experienced team member and building on past work efforts. Additionally, several water marketing support tools have been developed in Colorado to help facilitate and track transactions including software, databases, registries, dashboards, and others. WestWater will investigate these tools to help identify any resources that may increase efficiency and transparency of the market. WestWater will provide a section of the final technical report summarizing different marketing approaches.

Analyzing Water Rights Issues or Legal Requirements
Team member Dan Brown has been New Cache's water attorney for nearly 20 years and is very familiar with New Cache water right holdings and is uniquely capable of analyzing water rights mechanisms for transferring water and the legal constraints on existing water rights. Mr. Brown will assist the team in evaluating time and place of use requirements, title conflicts, and other constraints.

Quantifying Water Rights
Most ditch and irrigation companies are reluctant to complete ditch-wide consumptive use analysis due to the high costs, as well as concerns that such an analysis may expose water rights to unnecessary scrutiny and risks. In this regard, New Cache is an unusual and fortunate exception because New Cache completed a ditch-wide consumptive use analysis in 2010. The ditch-wide analysis is a detailed, farm-by-farm analysis that allows New Cache to readily identify water rights available for the marketing project. The identified farms and appurtenant water rights will be analyzed for legal requirements and constraints and specific plans will be developed to avoid impacts to downstream water users. Obviously, having the consumptive use analysis completed is a huge time and cost savings. Any additional work required will be conducted by New Cache staff and consultants.

PESTELI Analysis
An important component of alleviating concerns over new product or program development and policies are to conduct an analysis of the product or program's impact on political factors, economic influences, social trends, technological innovations, environmental factors, legislative requirements, and industrial factors (PESTELI). This analysis can be conducted under a simple framework to facilitate an understanding of the wider business environment that encourages the development of external and strategic thinking. The analysis can help New Cache anticipate future business threats and act to avoid or minimize their impact as well as help identify business opportunities. In this case, New Cache will analyze the potential impact of water marketing strategies. Ducks Unlimited can lead discussions with stakeholder groups, likely the South Platte Basin Roundtable, to complete the PESTELI analysis.

Hydrologic and Engineering Studies
As water rights for the planned lease market are identified, New Cache water engineers, White Sands Engineering, will investigate the use of existing infrastructure and new infrastructure requirements and the hydrologic impacts of water marketing. Additionally, New Cache has more than 43 recharge sites decreed for augmentation. Ducks Unlimited, an expert in designing and developing recharge sites, will investigate sites to identify which sites may be priority for development in implementation phases. There will be no field activities conducted that would trigger environmental and cultural resources compliance.

Deliverable
Ducks Unlimited will provide updates of findings through semi-annual and final report.

Task 5 – Development of a Water Marketing Strategy

Description
Based on the results of Elements 1 and 2, the team will develop a written strategy document that describes the approach to establish a new water market.

Methods
Implementation Plan
A draft implementation plan will be developed that describes water market operations, address long-term management and financial sustainability, the administrative structure, and institutional components, participants, water rights, and infrastructure needed, and transaction accounting.

Rules and by-laws
The entity responsible for managing the market will need to develop by-laws and rules governing water marketing activities.

Contracts and Agreements
Specific contracts and agreements supporting water marketing development and transfers will be developed. The FLEX Market Model Study developed several templates to provide a foundation.

Monitoring Plan
New Cache will develop a transaction accounting system to monitor water marketing activities.

Water Marketing Support Tools
Based on work conducted in Task 2, New Cache will determine which if any existing tools provide more reliability than a custom designed tracking system.

Deliverable
Ducks Unlimited will provide updates through semi-annual reports and final report.

REPORTING AND FINAL DELIVERABLE
Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks

identified in the statement of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Final Technical Report
Ducks Unlimited will develop a final technical report as required by the FOA that summarizes all work and provides findings and conclusions of the project results and benefits. The report will include descriptions of all planning and outreach activities, lessons learned, and any other findings and conclusions. We will also include any outstanding issues to be resolved before the market can be implemented and steps to resolve.

SCHEDULE
Provide a project schedule including key milestones for each task and the completion dates or time from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these schedules are examples and will need to be adapted to fit each individual application.

Task	Sub-Task	Months from date of Contract																							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1. Work Plan	Work Plan	■	■																						
	Comm. Plan	■	■																						
2. Outreach and Partnership Buildling	Materials and Media			■	■	■																			
	Municipal Outreach				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
	Roundtable Meetings				■						■						■						■		
	Ag Water Alliance										■	■										■	■		
	Colorado Water Congress						■				■						■						■		
3. Scoping and Planning	Financial/Economic Analysis				■	■	■	■	■	■	■	■	■												
	Water Market Approaches				■	■	■	■	■	■	■	■	■												
	Water Rights Research				■	■	■	■	■	■	■	■	■												
	Quantifying Water Rights				■	■	■	■	■	■	■	■	■												
	PESTELI Analysis										■	■	■	■	■	■	■								
	Hydrologic Studies				■	■	■	■	■	■	■	■	■												
4. Implementation	Implementation Plan																■	■	■	■	■				
	Rules Development																■	■	■	■	■				
	Contracts																■	■	■	■	■				
	Monitoring Plan																■	■	■	■	■				
	Marketing Tools																■	■	■	■	■				
5. Final Report	Final Technical Report																				■	■	■		■

BUDGET
Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, $/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is required for the State's contracting and purchase order processes. Sample budget tables are provided below.

Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

Total Grant and Match Summary

	CWCB Grant	Match	Total
Personnel	$ 208,000	$ 185,993	$ 393,993
Direct Expense	$ 6,957	$ 9,020	$ 15,977
Total	$ 214,957	$ 195,013	$ 409,970
Total Grant	**$ 214,957**		
Match %	**48%**		

Grant and Match Funding Sources

Funding Sources	**Amount**
Non-Federal Entities	
1. CWCB	$ 214,957
2. Ducks Unlimited	$ 2,063
Non-Federal Subtotal	$ 217,020
Other Federal Entities	
1. BOR WaterSMART	$ 192,950
Other Federal Subtotal	$ -
Requested CWCB GRANT	**$ 214,957**

Personnel Costs

Budget Proposal - Personnel									
		Personnel Costs							
		New Cache		Ducks Unlimited		WestWater			White Sands
	Unit	Manager	Attorney	Director	Hydologist	Engineer	Associate	Analyst	Engineer
Hourly Rate	$/hr.	$ 120	$ 250	$ 200	$ 179	$ 200	$ 220	$ 100	$ 200
Task 1 - Work Plan Development and Approval	Hours	20	4	63	8	8	0	0	8
Task 2 - Communication and Outreach Plan	Hours	12	4	23	8	12	0	0	4
SUBTOTAL	$	$ 3,840	$ 2,000	$17,200	$ 2,864	$ 4,000	$ -	$ -	$ 2,400
Task 3 - Outreach and Partnership Buildling									
Task 1 - Presentation Materials and Media	Hours	8	8	40	24	32	0	0	4
Task 2 -Municipal Meetings	Hours	64	30	128		60	0	0	24
Task 3 - South Platte Basin Roundtable Meeting	Hours	10	0	15	15	8	0	0	8
Task 4 - CAWA Presentations	Hours	0	8	16	8	8	0	0	0
Task 5 - Water Congress Presentations	Hours	8	5	8	4	8	0	0	0
SUBTOTAL	$	$ 10,800	$ 12,750	$41,400	$ 9,129	$ 23,200	$ -	$ -	$ 7,200
Task 4 - Scoping and Planning									
Task 1 - Financial/Economic Analysis	Hours	16	8	4	2	40	24	120	24
Task 2- Water Market Approaches/Tools	Hours	16	5	4	0	24	16	40	8
Task 3 - Legal Water Rights Issues	Hours	20	30	4	0	0	0	0	16
Task 4- Quantifying Water Rights	Hours	60	0	4	4	8	0	0	50
Task 5 - PESTELI Analysis	Hours	16	0	24	8	4	0	0	8
Task 6 - Hydologic and Engineering Studies	Hours	60	0	8	40	4	0	0	62
SUBTOTAL	$	$ 22,560	$ 10,750	$ 9,600	$ 9,666	$ 16,000	$ 8,800	$ 16,000	$ 33,600
Task 5 - Water Market Strategy Development (Funding Group II)									
Task 1 - Implementation Plan	Hours	40	40	8	0	16	4	0	16
Task 2 - Rules and By-laws	Hours	40	20	4	0	4	0	0	12
Task 3 - Contracts and Agreements	Hours	40	75	8	0	4	0	0	16
Task 4 - Monitoring Plan	Hours	40	10	4	0	24	0	0	32
Task 5 - Water Marketing Support Tools	Hours	40	0	4	0	24	0	0	8
SUBTOTAL	$	$ 24,000	$ 36,250	$ 5,600	$ -	$ 14,400	$ 880	$ -	$ 16,800
Semi-annual and Final Reports	Hours	24	16	48	16	24	8	16	24
SUBTOTAL	$	$ 2,880	$ 4,000	$ 9,600	$ 2,864	$ 4,800	$ 1,760	$ 1,600	$ 4,800
CATEGORICAL DIRECT PERSONNEL COST	**$**	**$ 64,080**	**$ 65,750**	**$83,400**	**$ 24,523**	**$ 62,400**	**$ 11,440**	**$ 17,600**	**$ 64,800**
CWCB Grant		**$ 208,000**							
Applicant Match		**$ 185,993**							

Direct Costs

Budget Proposal - Direct Expenses							
	Expense	Travel	Equipment	Supplies/Materials	Contracts	Meeting Expenses	Conference Fees
	Unit	$/mile	Lump Sum	Lump Sum	Lump Sum	Lump Sum	Lump Sum
	Charge	0.535					
Task 1- Work Plan Development and Approval		$ 54	$ -	$ -	$ -	$ -	$ -
Task 2 - Communication and Outreach Plan		$ 31	$ -	$ -	$ -	$ -	$ -
SUBTOTAL		$ 84	$ -	$ -	$ -	$ -	$ -
Task 3 - Outreach and Partnership Buildling							
Task 1 - Presentation Materials and Media		$ 80	$ -	$ 2,000	$ -	$ 500	$ -
Task 2 -Municipal Meetings		$ 1,883	$ -	$ -	$ -	$ -	$ -
Task 3 - South Platte Basin Roundtable Meeting		$ 128	$ -	$ -	$ -	$ -	$ -
Task 4 - CAWA Presentations		$ 171	$ -	$ -	$ -	$ -	$ 2,000
Task 5 - Water Congress Presentations		$ 257	$ -	$ -	$ -	$ -	$ 5,000
SUBTOTAL ($)		$ 2,520	$ -	$ 2,000	$ -	$ 500	$ 7,000
Task 4 - Scoping and Planning							
Task 1 - Financial/Economic Analysis		$ 27	$ -	$ -	$ -	$ -	$ -
Task 2- Water Market Approaches/Tools		$ 27	$ -	$ -	$ -	$ -	$ -
Task 3 - Legal Water Rights Issues		$ 27	$ -	$ -	$ -	$ -	$ -
Task 4- Quantifying Water Rights		$ 27	$ -	$ -	$ -	$ -	$ -
Task 5 - PESTELI Analysis		$ 128	$ -	200	500	500	$ -
Task 6 - Hydologic and Engineering Studies		$ 27	$ -	$ -	$ -	$ -	$ -
SUBTOTAL		$ 262	$ -	$ 200	$ 500	$ 500	$ -
Task 5 - Water Market Strategy Development (Funding Group II)							
Task 1 - Implementation Plan		$ 54	$ -	$ -	$ -	$ -	$ -
Task 2 - Rules and By-laws		$ 54	$ -	$ -	$ -	$ -	$ -
Task 3 - Contracts and Agreements		$ 54	$ -	$ -	$ -	$ -	$ -
Task 4 - Monitoring Plan		$ 54	$ -	$ -	$ -	$ -	$ -
Task 5 - Water Marketing Support Tools		$ 54	$ -	$ -	$ -	$ -	$ -
SUBTOTAL		$ 268	$ -	$ -	$ -	$ -	$ -
Semi-annual and Final Reports		$ 80	$ -	$ -	$ -	$ -	$ -
SUBTOTAL		$ 80	$ -	$ -	$ -	$ -	$ -
PROJECT TOTAL DIRECT COST		$ 3,214	$ -	$ 2,200	$ 500	$ 1,000	$ 7,000
Indirect Rate Charges							
Ducks Unlimited (provided as match)	14.83%	$ 477	$ -	$ 326	$ 74	$ 148	$ 1,038
Direct Expenses Total Cost by Category		**$ 3,691**	**$ -**	**$ 2,526**	**$ 574**	**$ 1,148**	**$ 8,038**
CWCB Grant Funds (50%)		**$ 1,607**	**$ -**	**$ 1,100**	**$ 250**	**$ 500**	**$ 3,500**
Applicant Match		**$ 1,607**	**$ -**	**$ 1,100**	**$ 250**	**$ 500**	**$ 3,500**
DU Match (Indirect Rate 14.83% on all charges)		**$ 477**	**$ -**	**$ 326**	**$ 74**	**$ 148**	**$ 1,038**

PAYMENT

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. 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 because of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to the public and help promote the development of alternative agricultural transfer methods.

Additional Information – If you would like to add any additional pertinent information please feel free to do so here.

The above statements are true to the best of my knowledge:

Signature of Applicant:

Print Applicant's Name: Dale Trowbridge
Project Title: New Cache La Poudre Water Marketing Strategy
Date: October 6, 2017

Return this application to:

Mr. Craig Godbout
Colorado Water Conservation Board
Water Supply Planning Section
1313 Sherman St., Room 721
Denver, CO 80203
craig.godbout@state.co.us