COLORADO
DEPARTMENT OF NATURAL RESOURCES

COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

CONEJOS RIVER SYSTEM CONFLUENCE MANAGEMENT PROJECT

Name of Water Activity/Project

CONEJOS WATER CONSERVANCY DISTRICT

Name of Applicant

Rio Grande Basin

Approving Basin Roundtable(s)
(If multiple basins specify amounts in parentheses.)

Amount from Statewide Account: $280,000

Amount from Basin Account(s): $15,000

Total WSRA Funds Requested: $295,000

Application Content

Required Exhibits

A. Statement of Work, Budget, and Schedule
B. Project Map
C. As Needed (i.e. letters of support, photos, maps, etc.)

Appendices – Reference Material

1. Program Information
2. Insurance Requirements
3. WSRA Standard Contract Information (Required for Projects Over $100,000)
4. W-9 Form (Required for All Projects Prior to Contracting)

Instructions

To receive funding from the Water Supply Reserve Account (WSRA), a proposed water activity must be approved by the local Basin Roundtable **AND** the Colorado Water Conservation Board (CWCB). The process for Basin Roundtable consideration and approval is outlined in materials in Appendix 1.

Once approved by the local Basin Roundtable, the applicant should submit this application **with a detailed statement of work including budget and schedule as Exhibit A** to CWCB staff by the application deadline.

WSRA applications are due with the roundtable letter of support 60 calendar days prior to the bi-monthly Board meeting at which it will be considered. Board meetings are held in January, March, May, July, September, and November. Meeting details, including scheduled dates, agendas, etc. are posted on the CWCB website at: http://cwcb.state.co.us Applications to the WSRA Basin Account are considered at every board meeting, while applications to the WSRA Statewide Account are only considered at the March and September board meetings.

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf

The application, statement of work, budget, and schedule **must be submitted in electronic format** (Microsoft Word or text-enabled PDF are preferred) and can be emailed or mailed on a disk to:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or gregory.johnson@state.co.us.

Part I. - Description of the Applicant (Project Sponsor or Owner);

1.	Applicant Name(s):	Conejos Water Conservancy District		
	Mailing address:	Nathan Coombs, Manager P. O. Box 550 Manassa, CO 81141		
	Taxpayer ID#:	XH-84-0776076		
	Primary Contact:	Nathan Coombs	Position/Title:	Manager
	Email:	cwcd1971@hotmail.com		
	Phone Numbers:	Cell:	Office:	719-843-5261
	Alternate Contact:	Nicole Langley	Position/Title:	Administrative Coordinator
	Email:	nicole@nvlangley.net		
	Phone Numbers:	Cell: 719-588-4109	Office:	719-588-4109

2. Eligible entities for WSRA funds include the following. What type of entity is the Applicant?

	Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
X	Public (Districts) – authorities, Title 32/special districts, (conservancy, conservation, and irrigation districts), and water activity enterprises.
	Private Incorporated – mutual ditch companies, homeowners associations, corporations.
	Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
	Non-governmental organizations – broadly defined as any organization that is not part of the government.

3. Provide a brief description of your organization

The Conejos Water Conservancy District (CWCD or the District) is a public, quasi-governmental entity, eligible under SB 06-179 to apply, in this proposal, for funds for the required structural water projects to improve the water management capabilities of three diversions within the District on the area of the Conejos River (the Conejos) commonly known as "The Confluence." The District's boundaries include about 100,000 acres, of which 86,000 acres are capable of being irrigated. An additional 8,000 acres that are not within the boundaries of the District are also irrigated by the Conejos and its tributaries. CWCD is that portion of the *San Luis Valley Project Colorado* designated by the Bureau of Reclamation in 1928 and formed in September 1940 under the *Water Conservancy Act of 1938* codified at 37-45-101. The CWCD formed an Enterprise when Platoro Reservoir, a U.S. Bureau of Reclamation project, became available for the CWCD's operation and control, after Colorado's Rio Grande Compact debt was satisfied in 1985.

4. If the Contracting Entity is different than the Applicant (Project Sponsor or Owner) please describe the Contracting Entity here.

(Same)

5. Successful applicants will have to execute a contract with the CWCB prior to beginning work on the portion of the project funded by the WSRA grant. In order to expedite the contracting process the CWCB has established a standard contract with provisions the applicant must adhere to. A link to this standard contract is included in Appendix 3. Please review this contract and check the appropriate box.

[x] The Applicant will be able to contract with the CWCB using the Standard Contract

[ ] The Applicant has reviewed the standard contract and has some questions/issues/concerns. Please be aware that any deviation from the standard contract could result in a significant delay between grant approval and the funds being available.

6. The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.

The Conejos Water Conservancy District is exempt from Tabor regulations per the passing of Referendum B in a Conejos County election held November 6, 2007 in which voters granted the District its exemption.

Part II. - Description of the Water Activity/Project

1. What is the primary purpose of this grant application? (Please check only one)

	Nonconsumptive (Environmental or Recreational)
X	Agricultural
	Municipal/Industrial
	Needs Assessment
	Education
	Other Explain:

2. If you feel this project addresses multiple purposes please explain.

The goal of this project is to efficiently divert and to accurately track and deliver ordered reservoir water to water users on the Sanford Canal, the Ephraim Ditch, and the East Bend Ditch, extending the District's "Whole River Strategy" for efficient water management to the approximately 8,000 additional acres which are served by those diversions. Multiple benefits will replace and improve the original designed function of diversion structures on three major irrigation ditches in the area of the Confluence; greatly reduce the uncertainty of curtailments to water users in the District; equitably distribute available water resources; improve drought protection through more efficient water management; increase augmentation and contribute to the restoration of the Basin's aquifers; enhance the function of the Conejos system flood plain; and extend the District's ongoing Whole River Strategy to locate, quantify, and better manage the flows of the Conejos. By quantifying and better managing flows of this complex reach of the river, this project directly contributes to improving DWR's ability to meet Colorado's obligations to the Rio Grande Compact, avoiding overpayment to the Compact and potentially reducing dependence on groundwater pumping.

3. Is this project primarily a study or implementation of a water activity/project? (Please check only one)

	Study	X	Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

	New Storage Created (acre-feet)
	New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)
	Existing Storage Preserved or Enhanced (acre-feet)
	Length of Stream Restored or Protected (linear feet)
	Length of Pipe/Canal Built or Improved (linear feet)
	Efficiency Savings (acre-feet/year OR dollars/year – **circle one**)
	Area of Restored or Preserved Habitat (acres)
	Other -- Explain: Avoid overpaying Rio Grande Compact

4. To help us map WSRA projects please include a map (Exhibit B) and provide the general coordinates below:

   Latitude: 37°11’13.34" N Longitude: 105°53'36.22" W

5. Please provide an overview/summary of the proposed water activity (no more than one page). Include a description of the overall water activity and specifically what the WSRA funding will be used for. A full **Statement of Work** with a detailed budget and schedule is required as **Exhibit A** of this application.

(next page)

The Conejos Water Conservancy District (CWCD or the District) plays a critical role in the management of flows on the Conejos River and its tributaries, ensuring that sufficient quantities of water are available to meet agricultural needs within the District and to satisfy Colorado's obligation to the Rio Grande Compact. For the past few years, driven by water scarcity in an already arid area and by the impacts and the consequences of rising temperatures and extended drought, the District has taken a proactive approach to water management. A major focus has been to reduce dependence on groundwater pumping by implementing measures that directly improve the management and delivery of water. In project after project, CWCD has worked to gain a better understanding of the natural flow of the Conejos River; improved the efficiency and stability of its diversions for irrigation; developed real-time water management data through automation and telemetry; and studied the effects of ground-water withdrawals on return flows from irrigated areas.

Within the District's approximately 86,000 acres of land capable of irrigation, many water users are just north of the Colorado - New Mexico border in an area known as The Confluence, where the Main Stem and the North Branch of the Conejos converge with the San Antonio River. In this complex region, irrigators in and below The Confluence hold the last line of defense for the Colorado Department of Water Resources (DWR), which administers the Rio Grande Compact. To meet the Compact's requirements, the District implements curtailments and manages storage in Platoro Reservoir according to DWR's best estimates of river flows and on its forecasts of expected flows. Errors in those forecasts often trigger premature or excessive curtailment of irrigators on the Conejos, at great cost to the economy, the environment, and agriculture. By developing real-time data through automation and telemetry, CWCD is establishing the technical infrastructure to bring some of the oldest water rights in Colorado into the 21st Century, using what it calls its "Whole River System."

In response to requests from the Ephraim Ditch Company, the Sanford Canal Company, and the East Bend Ditch Company, this project extends the District's whole-river strategy to (1) improve, replace, or install new diversion structures on critical reaches of the Conejos River; (2) extend the growing network of electronic gauging stations and automated control gates within the District, and (3) gain precise knowledge about water flows in this complex region by installing additional web-based telemetry to these three ditch systems. Grant and loan funds will be used to construct concrete core and diversion structures at the Sanford, Ephraim, and East Bend canal diversions; to equip the three diversions with weirs and automated control gates; and to quantify and communicate those flows to the District through a web-based system of telemetry.

Flow data from the remote gauges will be transmitted every minute to pods, or group measurement sites, each having a Gateway receiver and cell modem. The pods calculate average stage height and measured flow every 15 minutes and transmit that data to the District and, by internet password, to DWR. The Sanford, Ephraim, and East Bend water users are preparing their control gates for remote operation through telemetry and exploring ways to integrate their water management practices with those of other ditches on the Conejos River System. This project adds another three ditches and almost 10,000 acres of irrigated land to the system, following similar work recently completed at the Headsmill, North Branch, Manassa, and Romero diversions. Since these diversions are the biggest and most highly used gates off the river, serving the most acres and the greatest number of water users, the diurnal effect will have the most impact, creating high returns on this water management investment. Since there are multiple priorities that come to each gate, changes will be made, but once these systems are in place the fluctuations of the river will not affect the decreed amount that should be going through the gates. In areas of the District which have been completed, the system provides near-real-time data, allowing the District to check out situations as they occur and to make adjustments. DWR commissioners can verify at a glance that the flows are correct, saving time and cutting down on transportation; and irrigators, more reliably able to get their water when in priority, will significantly reduce their dependence on groundwater pumping. Curtailment decisions by DWR will henceforth be based on data from this part of the Rio Grande Basin watershed at a level of accuracy which has never been possible before.

Part III. – Threshold and Evaluation Criteria

1. Describe how the water activity meets these **Threshold Criteria.** (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)

   a) The water activity is consistent with Section 37-75-102 Colorado Revised Statutes.[1]

   (1) This project supports Colorado's current system of allocating water within Colorado by extending to the Confluence a system-wide remote monitoring system to more accurately account for the use of water within the District. It therefore improves and does not supersede, abrogate, or otherwise impair Colorado's existing water rights adjudication system. Nothing in this proposal suggests repealing or in any manner amending the State's system. By eliminating a great degree of guesswork in managing the District's water, this provides an efficient and equitable system for affirming and supporting the State Constitution's recognition of water rights as a private usufructuary property right. By gathering and reporting data, this project does not restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law.

   (2) This project improves the ability of DWR to more accurately quantify water flows in the Conejos system, thereby protecting the contractual and property rights of water users as recognized by the State constitution and related statutes. By implementing this project, the District in no way diminishes, impairs, or causes any injury to any property or contractual right in the allocation or use of water, nor does it impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law, but in effect supports and strengthens the State's hand in equitably apportioning and regulating the flows in the Conejos River system.

[1] 37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the state constitution's recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law. (2) The General Assembly affirms the protections for contractual and property rights recognized by the contract and takings protections under the state constitution and related statutes. This article shall not be implemented in any way that would diminish, impair, or cause injury to any property or contractual right created by intergovernmental agreements, contracts, stipulations among parties to water cases, terms and conditions in water decrees, or any other similar document related to the allocation or use of water. This article shall not be construed to supersede, abrogate, or cause injury to vested water rights or decreed conditional water rights. The General Assembly affirms that this article does not impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law.

b) The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT) and the application includes a description of the results of the BRTs evaluation and approval of the activity. At a minimum, the description must include the level of agreement reached by the roundtable, including any minority opinion(s) if there was not general agreement for the activity. The description must also include reasons why general agreement was not reached (if it was not), including who opposed the activity and why they opposed it. Note- If this information is included in the letter from the roundtable chair simply reference that letter.

This information is included in the accompanying letter from the Chairman of the Rio Grande Basin Roundtable.

c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.[2] The Basin Roundtable Chairs shall include in their approval letters for particular WSRA grant applications a description of how the water activity will assist in meeting the water supply needs identified in the basin roundtable's consumptive and/or non-consumptive needs assessments.

This information is included in the accompanying letter from the Chairman of the Rio Grande Basin Roundtable.

d) Matching Requirement: <u>For requests from the **Statewide Fund**</u>, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. Sources of matching funds include but are not limited to Basin Funds, in-kind services, funding from other sources, and/or direct cash match. Past expenditures directly related to the project may be considered as matching funds if the expenditures occurred within 9 months of the date the application was submitted to the CWCB. Please describe the source(s) of matching funds. (NOTE: These matching funds should also be reflected in your Detailed Budget in **Exhibit A** of this application).

(next page)

[2] 37-75-104 (2)(c). Using data and information from the Statewide Water Supply Initiative and other appropriate sources and in cooperation with the on-going Statewide Water Supply Initiative, develop a basin-wide consumptive and nonconsumptive water supply needs assessment, conduct an analysis of available unappropriated waters within the basin, and propose projects or methods, both structural and nonstructural, for meeting those needs and utilizing those unappropriated waters where appropriate. Basin Roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the Interbasin Compact Committee and other basin roundtables for analysis and consideration after the General Assembly has approved the Interbasin Compact Charter.

As evidenced in the overall 3-diversion Budget in Exhibit A, each ditch company is participating to the maximum level of its capability, and all three have been directly involved in the planning and preparation for this project. The three ditch companies together are contributing matching funds of $21,000 and will provide additional on-site supervision and assistance once the project gets underway. Of this amount, Josh Watters of the East Bend Ditch Company, a respected contractor for dams and river structures throughout the Conejos system, is donating $15,000 of rock for the East Bend project. To balance that commitment, the Ephraim and Sanford ditches are each taking out loans for $100,000, thus reducing the grant request by $200,000. The Conservancy District Manager is contributing $5,000 each for the Ephraim and Sanford Loan Feasibility studies and is funding telecommunications infrastructure for all three projects in the amount of $11,045, for total District matching funds of $21,043. NRCS Engineering match is $45,000 for a total project match of $87,043. This equals 31% of the Statewide request, 29% of the total grant amount, and 15% of the Total Project amount. The Basin portion of the grant is $15,000, a rounded amount which satisfies CWCB's requirement of 5% of the total grant amount.

2. For Applications that include a request for funds from the **Statewide Account**, describe how the water activity/project meets all applicable **Evaluation Criteria.** (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines and repeated below.) Projects will be assessed on how well they meet the Evaluation Criteria. **Please attach additional pages as necessary.**

Evaluation Criteria – the following criteria will be utilized to further evaluate the merits of the water activity proposed for funding from the Statewide Account. In evaluation of proposed water activities, preference will be given to projects that meet one or more criteria from each of the three "tiers" or categories. Each "tier" is grouped in level of importance. For instance, projects that meet Tier 1 criteria will outweigh projects that only meet Tier 3 criteria. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

Tier 1: Promoting Collaboration/Cooperation and Meeting Water Management Goals and Identified Water Needs

a. The water activity addresses multiple needs or issues, including consumptive and/or non-consumptive needs, or the needs and issues of multiple interests or multiple basins. This can be demonstrated by obtaining letters of support from other basin roundtables (in addition to an approval letter from the sponsoring basin).

The goal of this project is to accurately track and deliver ordered reservoir water to water users on any reach on the system. Multiple issues addressed include the following: greatly reduce the uncertainty of curtailments to water users in the District; equitably distribute available water resources; improve drought protection through more efficient water management; reduce dependence on well pumping; balance and increase return flows, and thus contribute to the restoration of the Basin's aquifers; enhance the function of the Conejos system flood plain; and create a management system which improves and facilitates DWR's ability to more accurately meet Colorado's obligations to the Rio Grande Compact without unduly curtailing irrigators and without overpaying the Compact.

b. The number and types of entities represented in the application and the degree to which the activity will promote cooperation and collaboration among traditional consumptive water interests and/or non-consumptive interests, and if applicable, the degree to which the water activity is effective in addressing intrabasin or interbasin needs or issues.

The District is working with Trout Unlimited (TU) to incorporate fish ladders, fish screens, and other measures to protect fish, riparian habitat and water quality. A report published in 2002 by Trout Unlimited, entitled *A Dry Legacy – The Challenge for Colorado's Rivers,* blames diminished stream flows and degraded fish habitat on antiquated water management systems and practices which "have not evolved to address the state's rapid growth and [its] ever-expanding impacts on rivers and streams." The report follows a study by the University of Colorado Natural Resources Law Center, which concluded that unfettered demand for water in the state due to continued growth along the Front Range and on the Western Slope "will exceed currently available water supplies" – a conclusion which now, twelve years later, has become common knowledge.

TU has developed a series of strategies to help alleviate the problem, with many of these suggestions mirroring the benefits of this project or potentially being fairly simple to incorporate into the District's Whole River System approach for efficient water management. These include:

- Enforce the state's ban against wasting water
- Ensure wise and efficient water use – as the duty of every water user
- Employ agricultural (and municipal) strategies to "stretch" existing water supplies
- Invest in better stream monitoring to enhance healthy flows in streams
- Provide expanded information on stream health

TU has offered to assist with fish entrainment issues, providing specifications to incorporate fish ladders into the core structures and adapting fish screens for use in automated gates. Partnering with TU suggests that future opportunities for fishing and recreation can perhaps evolve with landowners in the future, while the District focuses on its primary mission of serving agricultural water users.

With the support of land owners, municipalities, recreation and tourism interests, and in collaboration with the Conejos River System Water Users Association, the District's goals for improving water management efficiency go hand-in-hand with reducing ecological impacts and improving the overall health of the Conejos River.

In collaboration with water users on three ditch systems, measuring weirs will be installed and equipped with telemetry and gates will be automated, integrating water management on the Ephraim, Sanford, and East Bend ditches. This project adds about 10,000 acres of irrigated land to the web-based telemetry system of the District's Gauging Stations Project, collectively joining them into a common management system with the Headsmill, North Branch, and Manassa diversions far upriver on the Conejos.

The District and Division 3 of DWR continue to learn from these innovations, gaining experience with the integrated system, and communicating many lessons learned locally to the wider community as well as to the members of the Rio Grande Basin Roundtable.

What has emerged is a bottom-up learning process, a shared participation in this growing body of knowledge and, for the District, increased Basin-wide buy-in for a cohesive management strategy which aims to improve the stability of the District's water supply -- for everyone. Water users need assurances that their District can help them anticipate the effects of drought and hopefully mitigate the threats to this region's agricultural lifestyle and economy.

With the worst drought in recorded history, it becomes more difficult to forecast stream flows. While computer models are being created to develop groundwater rules and regulations, CWCD is working with real-time data,

developing an important record of how its water behaves; gaining an edge on uncertainty; and building resilience against the prospects of a very dry future. The impact of convenient communication technology, contrary to original expectations, appears to have encouraged the open sharing of farmer-to-farmer knowledge. There seems to be a growing awareness that we're all in this together.

c. The water activity helps implement projects and processes identified as helping meet Colorado's future water needs, and/or addresses the gap areas between available water supply and future need as identified in SWSI or a roundtable's basin-wide water needs assessment.

As the Rio Grande Basin Water Plan begins to take shape, this project and the District's whole-river strategy becomes a model of SWSI-inspired and forward-looking water management efficiency. Technology and communication are helping today's irrigators finally gain some ground on the painful effects of mistaken curtailments, as DWR improves the accurately of its stream flow forecasts. With this system, Colorado benefits by keeping as much water as possible in the State, sending only what is required to our downstream Rio Grande Compact partners. This project implements projects and processes which help meet Colorado's future water needs because it will:

1. Equalize the distribution of irrigation water based on empirical real-time data;
2. Maximize sustainable beneficial use of existing water supplies;
3. Gain a better understanding of the whole-river functioning of the Conejos River system;
4. Support DWR's efforts to minimize forecasting errors and the effect of those errors on water users; and
5. Help streamline Colorado's compliance with its obligations under the Rio Grande Compact.

Since 2007, CWCB has funded numerous projects in the Conejos watershed, with a major recent focus being the District's Gauging Stations Project. By granting this funding request, CWCB expands the accomplishments of those projects to another 10,000 acres, thus helping the Rio Grande Basin to achieve major breakthroughs in water management efficiency, collaboration, and connectivity in this region of the San Luis Valley. The two tables at the end of this section illustrate how these projects address the gap areas between available water supply and future need as identified in SWSI, and how they assist in meeting the goals of the Rio Grande Basin's water needs assessment.

Tier 2: Facilitating Water Activity Implementation

d. Funding from this Account will reduce the uncertainty that the water activity will be implemented. For this criterion the applicant should discuss how receiving funding from the Account will make a significant difference in the implementation of the water activity (i.e., how will receiving funding enable the water activity to move forward or the inability obtaining funding elsewhere).

The Sanford, Ephraim, and East Bend ditch companies had each individually approached the District for assistance with their diversions off the Conejos. Each of them had the same problem -- their members cannot access the water they are entitled to. It was clear that none of the three small companies had the financial or administrative resources to design, engineer, construct and fund the concrete cores and diversion structures they required. For this reason, the District stepped in to provide technical and administrative assistance. By functioning as the fiscal and administrative sponsor of these three water projects, the District is able to meet the eligibility criteria and contracting requirements for this project.

Each of the three ditch companies has made significant financial commitments to this project. Josh Watters, of the East Bend Ditch Company, is known in this region for excellent dam construction and work on river

structures, and he is providing rock and labor to the East Bend project. Stockholders of the Sanford Canal Company and of the Ephraim Ditch Company have voted in favor of their respective ditch companies taking out a CWCB loan of $100,000, thus reducing the grant requirement by $200,000 from the original estimate of what would have been required. This provides a total combined grant/loan package of $497,000, with the award of both the Grant and the Loan being essential to the completion of this project.

Considering the current CWCB loans which the Conejos Water Conservancy District has in place, the Board of the District is not willing to increase its own debt load on behalf of any individual ditch nor would it do so for this three-ditch project. For this reason, the District's assistance is practical and administrative, providing much-needed organizational muscle, expertise, and technology, but relying entirely on each ditch company to hold its own financially.

By combining these projects into a single project, the District achieves major financial savings for each project and is able to extend its Whole River Strategy to the Ephraim, Sanford, and East Bend ditches – adding the benefits of efficient water management to another 10,000 acres.

Without the funds requested in this proposal, this project would not be possible because none of the three ditches has the financial capability to implement this project on its own. Loan Feasibility studies for the Sanford and Ephraim projects establish very manageable loan terms, with a very favorable cost/benefit component in each case. The WSRA grant funds requested in this proposal are essential, presenting the only viable solution for the Ephraim Ditch Company, the Sanford Canal Company, and the East Bend Ditch.

e. The amount of matching funds provided by the applicant via direct contributions, demonstrable in-kind contributions, and/or other sources demonstrates a significant & appropriate commitment to the project.

Matching funds from all three ditch companies equals $21,000, together with NRCS engineering of $45,000 and a contribution of $10,000 by the District to assist Ephraim and Sanford complete their respective loan feasibility studies and an additional $11,043 to establish the telecommunications infrastructure which brings an additional 10,000 acres into the District's Whole River Strategy. All together, matching funds of $87,043 over the two year timeline of this project represents a unified and appropriate commitment to this project, as described above and in the attached budget, thus satisfying CWCB's grant/loan funding objectives and meeting Water Supply Reserve Account guidelines.

Tier 3: The Water Activity Addresses Other Issues of Statewide Value and Maximizes Benefits

f. The water activity helps sustain agriculture & open space, or meets environmental or recreational needs.

This project, serving almost 10,000 acres of irrigated land, primarily helps sustain agriculture. Century old cores and dams have washed away. Hand built-wooden headgates and weirs sit high and dry or are falling apart, with farmers frequently unable to access their water. Gravel bars pushed up in the river during low water are washed away when the river rises, causing further instability, sedimentation, and downstream bank erosion, while thousands of cfs rush by, overpaying the Compact. Water quality and channel stability on the Conejos are being negatively impacted by the ditches' resorting to the age-old methods of piling rocks, trees, cinder blocks, and whatever debris they can in order to divert their water. High maintenance, human safety, floodplain function, and downstream recreational assets are threatened unless these problems are addressed.

As described above, the District is working with Trout Unlimited to incorporate fish ladders, fish screens, and other measures to protect fish habitat and water quality. This water activity directly improves riverbank stability and assists in maintaining the function of the floodplain, thereby helping to sustain agriculture, improving the health of riparian areas, and protecting the excellent fishing and recreational uses for which the Conejos is famous.

g. The water activity assists in the administration of compact-entitled waters or addresses problems related to compact entitled waters and compact compliance and the degree to which the activity promotes maximum utilization of state waters.

The water users on each of the three ditch systems are only a few diversions upstream from the Colorado - New Mexico border. Water wasted here is water which potentially leaves Colorado forever. This project provides the infrastructure and the technology required to significantly improve water management efficiencies for the Main Stem and the North Branch of the Conejos and for the San Antonio River. Problems addressed in this project relate directly to the known and persistent over-payment to the Rio Grande Compact – caused in great part by the complexity of three major streams converging in one place (see Google Earth photo on the cover); by the complete deterioration of 100-year-old physical structures; and by the historical inability to know where our water is and to efficiently monitor and control its flows in the region of The Confluence. By combining the resources of three small ditch companies, and by bringing them into the District's Whole River Strategy, this water activity directly assists in the administration of Compact-entitled waters; it cures many problems related to Compact compliance; and it significantly improves and promotes maximum utilization of Colorado's waters.

h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.

As the District has learned from Trout Unlimited (see attached letter), the cutthroat trout is the most diverse trout species in North America, covering the broadest range of any stream-dwelling trout in the Western Hemisphere. In our region, rugged topography and dry times have led to their isolation, giving rise to fourteen recognized subspecies, four of which have evolved here in Colorado. By working with TU, the District's Whole River Strategy complements and assists TU's work to recover threatened and endangered cutthroat trout in the Conejos River system.

i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.

This project provides a level of accuracy in stream flow management that has never been achieved in the Rio Grande Basin before. Upgraded structures plus automation and telemetry, combined with a new level of cooperation between separate ditch companies, provides a high level of benefit to Colorado. Curtailments in the District are a necessary method to meet Colorado's commitment to the Rio Grande Compact, but premature or unnecessary curtailments create a real loss to the District, calculated at approximately $13,000 ***per day***, based on the current value of water. This project, as part of the District's Whole River Strategy, represents a significant breakthrough in the accurate management of flows in the complex Confluence area of the Conejos system. The amount of funds requested thus provides a high level of benefit to Colorado by improving the management of these Compact-entitled waters; by significantly reducing groundwater pumping; and by assisting DWR and the District to more accurately establish curtailments on the Conejos system. Most importantly, this project directly helps to prevent overpayment to the Rio Grande Compact.

j. The water activity is complementary to or assists in the implementation of other CWCB programs.

As water users in the Rio Grande Basin work to establish Subdistricts, a major objective is to establish an effective balance between surface water and groundwater management in order to restore the Rio Grande Basin's aquifer to a sustainable level. Reducing groundwater pumping remains a major Basin objective. The District is working throughout the entire Conejos system to discourage excessive well pumping, which each of the ditches in this project must do, by necessity, when they cannot get their water.

The following two charts illustrate how the District's Whole River Strategy and previous District projects funded by CWCB have supported Basin and Statewide goals. These charts demonstrate the context of this project and show how it extends and complements the implementation of other Basin and CWCB programs and initiatives.

INNOVATIONS, PRACTICES, AND APPLIED TECHNOLOGIES

Rio Grande Basin & Statewide Priorities / CWCD Whole River Strategy	Surface Water Management	Municipal & Domestic	Groundwater Aquifer-Reduce pumping	"New" Water
Gauging Stations				
Automated Gates				
Flumes				
Support Priorities				
River Stabilization				
Rio Grande Compact				
Augmentation – Storage – Platoro				
Trujillo Meadows Reservoir - ATMs				
Subdistrict Plan				
Transducers				
Pipeline				
Telemetry and Communication				

Since 2007, CWCB has funded numerous projects on the Conejos system, with the District's focus being to extend the benefits of state-of-the-art water management strategies throughout the system and to all water users. By granting this funding request, CWCB expands the accomplishments of those projects, helping the Rio Grande Basin to achieve major breakthroughs in water management efficiency, collaboration, and connectivity in this region of the San Luis Valley.

Rio Grande Basin & Statewide Priorities / CWCD Obligation/Commitments	Sustainable Water Management	Rio Grande Compact Obligation	Storage & Reservoir Upgrades	Agriculture - M&I Gap & Water Supply	Groundwater Reduce pumping	River Corridor Protection & Stabilization	Support Recreation, fishery	Water Quality Riparian wildlife
Platoro Reservoir upgrades								
San Antonio River – El Codo Diversion								
Conejos River & N. Branch Stabilization								
Manassa L & I Water Conservation & Mgmt								
Romero-Guadalupe Channel Rectification								
Conejos River System Gauging Stations								
Mogote/Romero Flows, Conejos Effects								
TMR - ATMs Increase Supplies Ag, Munic, Env.								
Manassa Pipeline Project								
Ephraim, Sanford, East Bend								

Part IV. – Required Supporting Material

1. **Water Rights, Availability, and Sustainability** – This information is needed to assess the viability of the water project or activity. Please provide a description of the water supply source to be utilized, or the water body to be affected by, the water activity. This should include a description of applicable water rights, and water rights issues, and the name/location of water bodies affected by the water activity.

   Platoro Reservoir is located on the mainstem of the Conejos River and serves a large part of the irrigated lands within the District. The Conejos rises at the Continental Divide in the San Juan Mountains and flows through Platoro Reservoir, continuing through Conejos County until it reaches the Rio Grande, 2 miles north of the settlement of Los Sauces. The Conejos River has an annual average flow of 200,000 acre feet. Nearly 40% of Colorado's Rio Grande Compact obligation is met by the Conejos River, a tributary to the upper Rio Grande. The Rio Grande Compact requires an average of 45% of the Conejos' upper index, including transportation losses in getting the flow to Los Sauces and to the Conejos' lower gauge. There are 42 ditch companies on the main and north channels of the Conejos. Water stored in Platoro Reservoir (Project water) is allocated to lands within the District based on acreage. The Ephraim, Sanford, and East Bend Ditches all divert from the Conejos River.

   The District includes other water users on the San Antonio River, a tributary to the Conejos River. Agricultural irrigators on the San Antonio River within the District are entitled to a pro-rata share of project water in Platoro reservoir. The Rio De Los Pinos is a tributary to the San Antonio River and is the second largest river in the system.

   Water supply sources involved in or affected by this water activity include the storage facility of Platoro Reservoir and the Conejos River tributary to the Rio Grande. Water bodies affected by the water activity include surface water rights in priority on the Sanford, Ephraim, and East Bend ditches, recharge to the aquifers, return flows, and water-use efficiency issues for the few irrigators on the six diversions between the East Bend and the Colorado/New Mexico Border. The efficiencies achieved in the overall Conejos System will be positively reflected in improved management of Compact waters, the more accurate forecasts made by DWR, the water savings accomplished by not overpaying the Compact, and the relief to irrigators by reducing premature or un-necessary curtailments.

   This project enables the District to improve water management efficiencies, establishing the infrastructure to more accurately identify and quantify flows and losses within the system.

   A description of each ditch system, together with information on water rights and priorities is included with this proposal, including maps, photos, and more detailed explanations of each ditch's relationship to the Main Stem and/or the North Branch of the Conejos and to the San Antonio River.

2. **Please provide a brief narrative of any related studies or permitting issues**.

   There are no permitting issues of any significance, and no related studies pertain to this Project. This Project is strongly influenced, however, by the tremendous progress achieved by the use of measuring weirs and telemetry by the District.

3. Statement of Work, Detailed Budget, and Project Schedule

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**. All WSRA funds are disbursed on a reimbursement basis after review invoices and appropriate backup material.

Please provide a detailed statement of work using the template in Exhibit A. Additional sections or modifications may be included as necessary. Please define all acronyms and include page numbers.

(next page)

Exhibit A
Statement of Work

WATER ACTIVITY NAME - Conejos River System Confluence Management Project

GRANT RECIPIENT – Conejos Water Conservancy District

FUNDING SOURCE – Water Supply Reserve Account:
Statewide Funds: $280,000 Basin Funds: $15,000
CWCB Water Projects Loan Program $202,000 (including loan fee)

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)

The Conejos Water Conservancy District (the District) is responsible for managing flows on the Conejos River and its tributaries; ensuring that sufficient quantities of water are available to meet agricultural needs within the District; and working with the Division of Water Resources to meet Colorado's obligation to the Rio Grande Compact. By applying state-of-the-art strategies over the past few years, the District has gained a better understanding of the natural flow of the Conejos River, improving the efficiency and stability of its diversions for irrigation; developing real-time water management data through automation and telemetry; and studying the effects of ground-water withdrawals on return flows from irrigated areas. This project extends the District's Whole River Strategy to an additional 10,000 acres of irrigated lands, assisting three ditch companies, at their request, to achieve what they could not do individually: (1) improve, replace, or install new diversion structures on critical reaches of the Conejos River; (2) extend the growing network of electronic gauging stations and automated control gates within the District, and (3) gain precise knowledge about water flows in the complex region known as The Confluence, where the Main Stem and the North Branch of the Conejos merge with the San Antonio River.

OBJECTIVES
List the objectives of the project

The objectives are to significantly reduce reliance on groundwater pumping; improve the ability to deliver water in priority; develop accurate real-time data on flows of the Conejos; and greatly improve the District's accuracy and efficiency in meeting Colorado's obligation to the Rio Grande Compact.

TASKS

TASK 1 – Finalize Engineering

Description of Task: Natural Resources Conservation Service (NRCS) will complete engineering tasks for the Ephraim, Sanford, and East Bend ditch companies.

Method/Procedure: According to NRCS policies and procedures

Deliverable: Details of each diversion project will be fully developed.

TASK 2 – East Bend – Concrete core/diversion with sluice & turnout

Description of Task: Remove old structures. Form and pour new concrete

Method/Procedure: As per accepted NRCS practices and design requirements

Deliverable: New concrete core and diversion structure

TASK 3 – East Bend – 1 Radial Gate

Description of Task: Replace old headgate.

Method/Procedure: Remove the old gate and structure, install new gate and operators, and prepare for automation and telemetry.

Deliverable: The new gate and operators will be installed.

TASK 4 – East bend – Automation

Description of Task: Install measurement and operating hardware and software

Method/Procedure: According to AMCI/Dynotek specifications

Deliverable: Automated radial gate

TASK 5 –East Bend – Bentway Weirs

Description of Task: Place rock according to survey/engineering of NRCS

Method/Procedure: Lock and install keystones and weir structures

Deliverable: Four Bentway weirs

TASK 6 – Sanford – Concrete Core and Diversion Structure

Description of Task: Remove old structures. Form and pour new concrete

Method/Procedure: As per accepted NRCS practices and design requirements

Deliverable: New concrete core and diversion structure

TASK 7 – Sanford – One Radial gate and 1 steel slide gate

Description of Task: Replace old headgate, install operators, and prepare for automation and telemetry.

Method/Procedure: Remove the old structure, place the forms and rebar, and complete the concrete headgate structure.

Deliverable: The new gate and operators will be installed.

TASK 8 – Sanford – Automation

Description of Task: Install automated diversion gate

Method/Procedure: As per AMCI/Dynotek's specification

Deliverable: Automated diversion gate

TASK 9 – Sanford – 4 Stilling Wells & 4 Parshall Flumes

Description of Task: Construct and install four Parshall flumes and stilling wells

Method/Procedure: Install measurement and telemetry and connect to District's system

Deliverable: New live data reading capability at four sites within the Sanford system

TASK 10 – Sanford – Gateway & Telemetry

Description of Task – Install gauging stations, per the attached Schedule.

Method/Procedure – Contractor will install pre-assembled stilling wells according to Dynotek/AMCI's mapping for the nodes, following specifications and adjusting for water levels at each site. Dynotek/AMCi ("D/A") will install remote node water stage measurement systems at each gauging station site. D/A will install standalone float measurement box and relaying data radio transceiver with antenna at each site, mount the hardware for the float box and radio, and calibrate to acceptable accuracy at each site.

Deliverable – Individual nodes will come online as they are completed, with entire networked system being solar powered.

TASK 11 – Ephraim – Concrete core/diversion with sluice & turnout

Description of Task: Remove old structures. Form and pour new concrete

Method/Procedure: As per accepted NRCS practices and design requirements

Deliverable: New concrete core and diversion structure

TASK 12 – Ephraim – One radial gate & two slide gates

Description of Task: Replace old headgate, install operators, and prepare for automation and telemetry.

Method/Procedure: Remove the old structure, place the forms and rebar, and complete the concrete headgate structure.

Deliverable: The new gate and operators will be installed.

TASK 13 – Ephraim - Automation

Description of Task: Install automated diversion gate

Method/Procedure: As per AMCI/Dynotek's specification

Deliverable: Automated diversion gate

TASK 14 – Ephraim – 5 flumes and stilling wells

Description of Task: Construct and install five Parshall flumes and stilling wells

Method/Procedure: Install measurement and telemetry and connect to District's system

Deliverable: New live data reading capability at five sites within the Ephraim system

TASK 15 – Ephraim – Gateway & telemetry

Description of Task – Install gauging stations, per the attached Schedule.

Method/Procedure – Contractor will install pre-assembled stilling wells according to Dynotek/AMCI's mapping for the nodes, following specifications and adjusting for water levels at each site. Dynotek/AMCi ("D/A") will install remote node water stage measurement systems at each gauging station site. D/A will install standalone float measurement box and relaying data radio transceiver with antenna at each site, mount the hardware for the float box and radio, and calibrate to acceptable accuracy at each site.

Deliverable – Individual nodes will come online as they are completed, with entire networked system

being solar powered.

TASK 16 – Administration & Reports

Description of Task: Administration, coordination, and reporting.

Method/Procedure: For each project, provide administrative coordination, telephone support, benchmark tracking, meeting facilitation and record keeping, troubleshooting for logistics support, bookkeeping, invoicing, and CWCB reporting. Maintain a monthly reporting system for the District and submit to CWCB a progress report every 6 months, beginning from the date of the executed contract and Notice to Proceed. 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.

Deliverable: At completion of the project, 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.

-- end of Scope of Work --

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.

	THREE DIVERSIONS - CONFLUENCE MANAGEMENT BUDGET					
	APPLICANT	POTENTIAL	IN KIND	MATCHING		TOTAL	TOTAL
	LOAN	WSRA GRANT	NRCS	DISTRICT	APPLICANT	COSTS	PROJECT
Admin Ephraim		$ 10,000			$ 2,000	$ 12,000	
Admin Sanford		$ 10,000			$ 2,000	$ 12,000	
Admin East Bend		$ 10,000			$ 2,000	$ 12,000	
Construction Ephraim	$ 100,000	$ 64,000				$ 164,000	
Construction Sanford	$ 100,000	$ 76,000				$ 176,000	
Construction East Bend		$ 125,000			$ 15,000	$ 140,000	
Engineering Ephraim			$ 15,000			$ 15,000	
Engineering Sanford			$ 15,000			$ 15,000	
Engineering East Bend			$ 15,000			$ 15,000	
CWCB Loan Fees X 2	$ 2,000					$ 2,000	
Feasibility Studies X2				$ 10,000		$ 10,000	
Telecom Ephraim				$ 5,478		$ 5,478	
Telecom Sanford				$ 4,565		$ 4,565	
Telecom East Bend				$ 1,000		$ 1,000	
TOTALS	$ 202,000	$ 295,000	$ 45,000	$ 21,043	$ 21,000	$ 584,043	
TOTAL PROJECT COSTS	Grant & Loan = $497,000		Total Matching & In-Kind = $87,043				$ 584,043

WSRA Basin Funds	$ 15,000
WSRA Statewide Funds	$ 280,000

Details for each diversion follow:

SANFORD CANAL COMPANY BUDGET

Concrete core & diversion	$ 75,000
1 radial gate	$ 20,000
Automation for 1 gate	$ 25,000
Slide gate steel structure	$ 5,000
4 stilling wells @$1,000	$ 4,000
4 Parshall flumes @ $7,000	$ 28,000
4 sites, measurement & Telemetry	$ 12,000
1 Gateway node	$ 7,000
Construction Subtotal	**$176,000**
Feasibility Study	$ 5,000
NRCS Engineering	$ 15,000
Administration	$ 12,000
District Telecom Match	$ 4,565
Loan Origination Fee	$ 1,000
TOTAL PROJECT COST	**$213,565**

	SANFORD CANAL COMPANY						
	APPLICANT	POTENTIAL	IN KIND	MATCHING		TOTAL	TOTAL
	LOAN	WSRA GRANT	NRCS	DISTRICT	APPLICANT	COSTS	PROJET
Admin		$ 10,000			$ 2,000	$ 12,000	
Construction	$ 100,000	$ 76,000				$ 176,000	
Engineering			$ 15,000			$ 15,000	
CWCB Loan Fee	$ 1,000					$ 1,000	
Feasibility Study				$ 5,000		$ 5,000	
Telecommunications				$ 4,565		$ 4,565	
TOTALS	$ 101,000	$ 86,000	$ 15,000	$ 9,565	$ 2,000	$ 213,565	
TOTAL PROJECT COSTS	Grant & Loan = $187,000		Total Matching & In-Kind = $26,565				$ 213,565
WSRA Basin Funds		$ 4,300					
WSRA Statewide Funds		$ 81,700					

EPHRAIM DITCH COMPANY BUDGET

Concrete core & diversion	$ 67,000
2 Slide gates	$ 10,000
1 Automated gate	$ 25,000
5 flumes @ $7,000	$ 35,000
5 stilling wells @ $1,000	$ 5,000
5 sites, measurement & telemetry	$ 15,000
1 Gateway node	$ 7,000
Construction Subtotal	**$164,000**
Feasibility Study	$ 5,000
NRCS Engineering	$ 15,000
Administration	$ 12,000
District Telecom Match	$ 5,478
Loan Origination Fee	$ 1,000
TOTAL PROJECT COST	**$202,478**

	EPHRAIM DITCH COMPANY						
	APPLICANT	POTENTIAL	IN KIND	MATCHING		TOTAL	TOTAL
	LOAN	WSRA GRANT	NRCS	DISTRICT	APPLICANT	COSTS	PROJET
Admin		$ 10,000			$ 2,000	$ 12,000	
Construction	$ 100,000	$ 64,000				$ 164,000	
Engineering			$ 15,000			$ 15,000	
CWCB Loan Fee	$ 1,000					$ 1,000	
Feasibility Study				$ 5,000		$ 5,000	
Telecommunications				$ 5,478		$ 5,478	
TOTALS	$ 101,000	$ 74,000	$ 15,000	$ 10,478	$ 2,000	$ 202,478	
TOTAL PROJECT COSTS	Grant & Loan = $175,000		Total Matching & In-Kind = $32,478				$ 202,478
WSRA Basin Funds		$ 3,700					
WSRA Statewide Funds		$ 70,300					

EAST BEND DITCH BUDGET

Concrete core & diversion	$ 75,000
1 radial gate	$ 20,000
Automate 1 gate	$ 25,000
Bentway Weirs	$ 20,000
Construction Subtotal	**$140,000**
NRCS Engineering	$ 15,000
Administration	$ 12,000
District Telecomm Match	$ 1,000
TOTAL PROJECT COST	**$168,000**

EAST BEND DITCH COMPANY

	APPLICANT LOAN	POTENTIAL WSRA GRANT	IN KIND NRCS	MATCHING DISTRICT	MATCHING APPLICANT	TOTAL COSTS	TOTAL PROJET
Admin		$ 10,000			$ 2,000	$ 12,000	
Construction		$ 125,000			15,000	$ 140,000	
Engineering			$ 15,000			$ 15,000	
Telecommunications				$ 1,000		$ 1,000	
TOTALS		$ 135,000	$ 15,000	$ 1,000	$ 17,000	$ 168,000	
TOTAL PROJECT COSTS	Grant = $135,000		Total Matching & In-Kind = $33,000			$ -	$ 168,000

WSRA Basin Funds	$ 6,750
WSRA Statewide Funds	$ 128,250

SCHEDULE

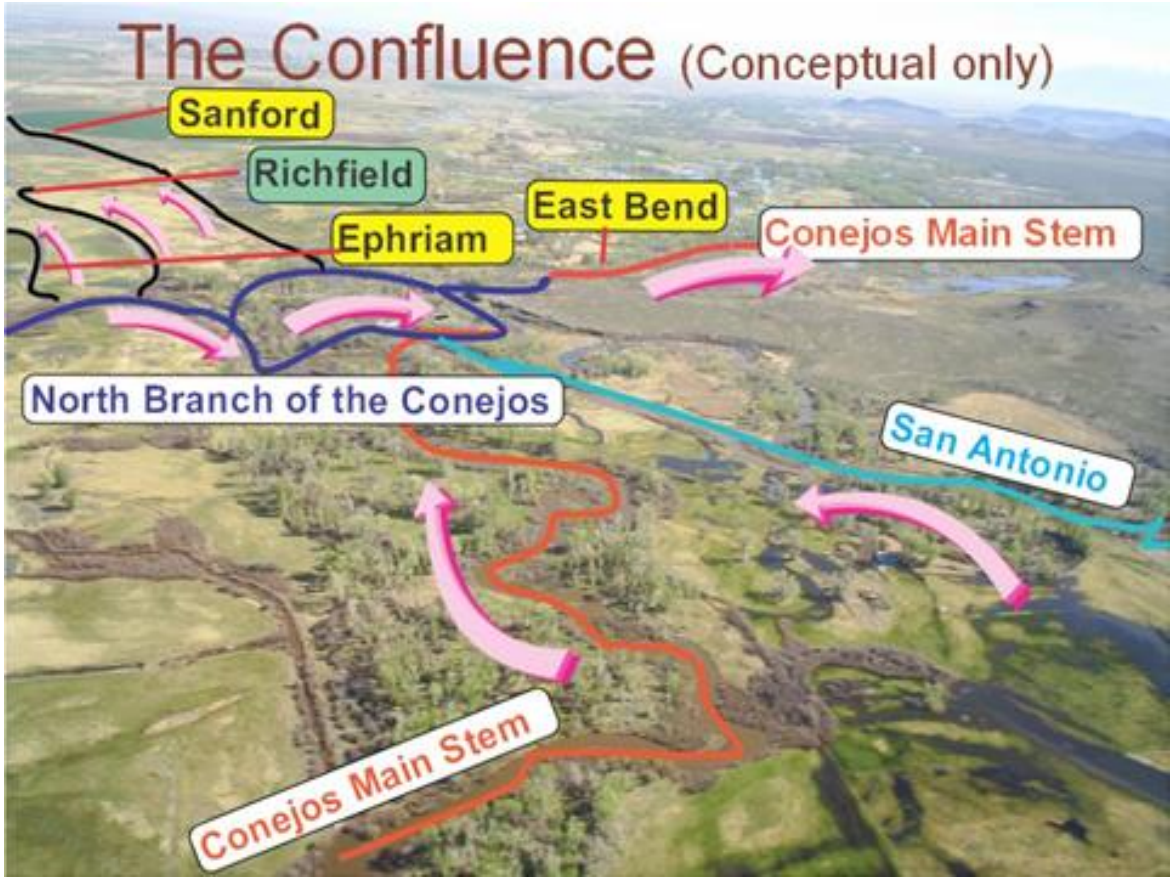
Provide a project schedule including key milestones for each task and the completion dates or time period from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these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

(next page)

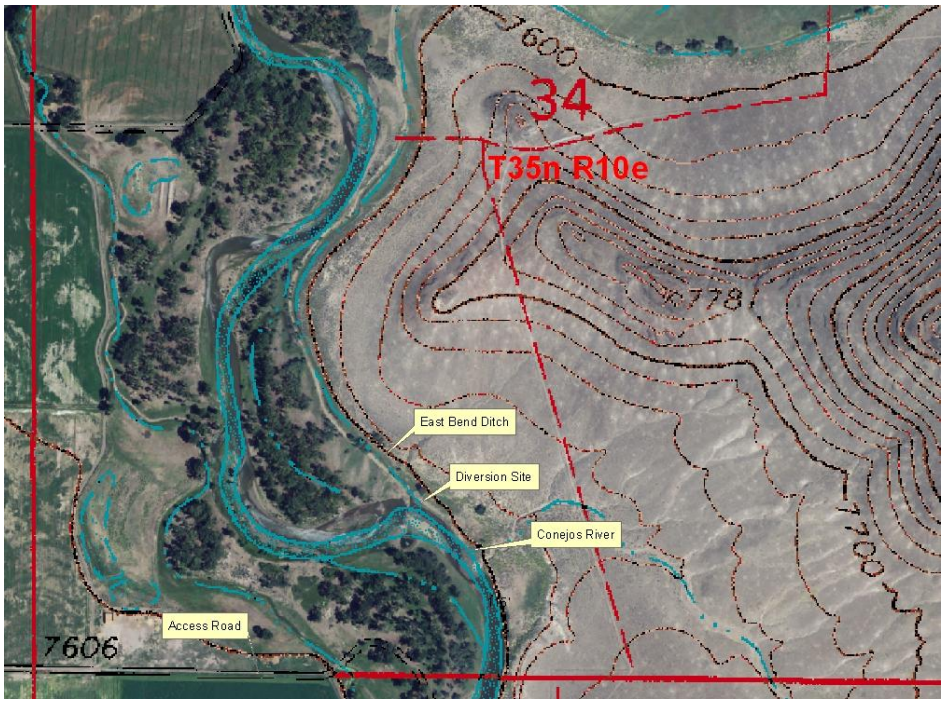
TIMELINE -- NTP May, 2014 Start date June, 2014

NTP plus Month #	Jun-Jul	Aug-Sep	Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Nov	Dec-Jan	Feb-Mar	Apr-May
Engineering NRCS												
Sanford												
Concrete core and diversion structure												
One radial gate. 1 steel slide gates.												
Automation												
4 stilling wells. 4 Parshall flumes.												
Gateway & telemetry												
Ephraim												
Concrete core/diversion with sluice & turnout												
1 radial gate. 2 slide gates												
Automation												
5 flumes & stilling wells												
Gateway & telemetry												
East Bend												
Concrete core/diversion with sluice & turnout												
1 radial gate												
Automation												
Bentway weirs												
Administration/Reports												
East Bend												
Sanford												
Ephraim												

CONEJOS RIVER DIVERSIONS
Continuing a Whole-River Strategy



EAST BEND DITCH COMPANY



After the East Bend there are only eight more diversion before the confluence of the Conejos and the Rio Grande. Efficiencies achieved at this diversion are critical.Since these acres are located below the Confluence, they benefit to some degree during low flows.

Farming at the East Bend Ditch includes the following:

280 AC - V-Heart irrigated meadow
250 AC - Reynolds ranch irrigated meadow
260 AC - Watters ranch irrigated land
300 AC – Watters Ranch - irrigated meadow

The East Bend portion of this project will improve the function of the Conejos River in the farming area directly upstream from the Los Sauces Gauge. The old gate and structure will be removed and a new gate and operators will be installed, automated, and networked into the District's telemetry system. Josh Watters, an experienced river-restoration contractor, will assist the project and is donating the rock to improve streambank stability. Issues identified at this diversion include aging, hazardous, and inefficient diversion structures; high sediment load; and difficulties diverting, with the frequent inability of some irrigators to receive their water in priority.

EPHRAIM DITCH COMPANY

The Ephraim Ditch starts right at the Confluence and is entitled to water either from the North Branch or from the Main Stem of the Conejos. The problem is that currently they can only get water from the Main Stem. Farms use both flood and sprinkler irrigation, with most parcels irrigated with ground water. The emphasis of this project is to reduce dependence on groundwater pumping. With 56 priority, if they could get their water in priority they would not have to depend so much on pumping. This is a unique system in that five company-owned wells pump into the communal system's ditches, so the water can go anywhere it is needed within the system. The Ephraim headgate condition is as follows:

The entire gate structure slopes toward the river at about a 10^{o} angle and needs to be leveled. The flume is an old wood one that is unusable and it needs to be completely replaced. It has a single slide gate. The existing stem and hand wheel are bent and need to be replaced.

The frame top rail is of 3" x 5" L-stock and will need to be substantially reinforced, with some welding work required.

The frame uprights are of 2.5"x2.5" L-stock and they may need reinforcement in order to support the weight of the actuator. Dimensions of the gate are 69" wide and 60" height. Possibly trenchable back to flume site.

SANFORD DITCH COMPANY

The Sanford Ditch, with priorities 104 and 172, starts just below where the Conejos and the San Antonio meet. They have three communal wells that are owned by the ditch company. Like other ditches in the Confluence area, the wells pump into the entire communal system. Using flood and sprinkler irrigation, the parcels are irrigated with both ground and surface water.

The Sanford headgate has a double-sided gate arrangement, with measurements as follows:

Top of frame to top of gate = 68”
Gate width = 46”
Gates made from ¼” steel plate
Gate height = 61”
Top of concrete frame width = 10”
Concrete frame height = 10.5”

The existing flume is in useable shape.

In this location solar exposure is adequate and cellular coverage is good. There is a good path available to the trench flow sensor.

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 Basin Roundtables and the general public and help promote the development of a common technical platform.

Appendix 1
Reference Information

The following information is available via the internet. The reference information provides additional detail and background information.

- Water Supply Reserve Account main webpage:
  - http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/main.aspx
- Water Supply Reserve Account – Basin Fund Application Details:
  - http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/BasinWaterSupplyReserveAccountGrants.aspx
- Water Supply Reserve Account – Statewide Fund Application Details:
  - http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/StatewideWaterSupplyReserveAccountGrants.aspx
- Colorado Water Conservation Board main website:
  - http://cwcb.state.co.us/
- Interbasin Compact Committee and Basin Roundtables:
  - http://cwcb.state.co.us/about-us/about-the-ibcc-brts/Pages/main.aspx/Templates/BasinHome.aspx
- House Bill 05-1177 – (Also known as the Water for the 21st Century Act):
  - http://cwcbweblink.state.co.us/DocView.aspx?id=105662&searchhandle=28318
- House Bill 06-1400 – (Adopted the Interbasin Compact Committee Charter):
  - http://cwcbweblink.state.co.us/DocView.aspx?id=21291&searchhandle=12911
- Senate Bill 06-179 – (Created the Water Supply Reserve Account):
  - http://cwcbweblink.state.co.us/DocView.aspx?id=21379&searchhandle=12911
- Statewide Water Supply Initiative 2010:
  - http://cwcb.state.co.us/water-management/water-supply-planning/Pages/SWSI2010.aspx

Appendix 2
Insurance Requirements

NOTE: The following insurance requirements taken from the standard contract apply to WSRA projects that exceed $25,000 in accordance with the policies of the State Controller's Office. Proof of insurance as stated below is necessary prior to the execution of a contract.

13. INSURANCE

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

A. Grantee

i. Public Entities

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

ii. Non-Public Entities

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

B. Sub-Grantees

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

i. Worker's Compensation

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

ii. General Liability

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

iii. Automobile Liability

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

iv. Additional Insured

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

v. Primacy of Coverage

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

vi. Cancellation

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

vii. Subrogation Waiver

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

C. Certificates

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

Appendix 3
Water Supply Reserve Account Standard Contract Information

NOTE: The standard contract is required for WSRA projects that exceed $100,000. (Projects under this amount will normally be funded through a purchase order process.) Applicants are encouraged to review the standard contract to understand the terms and conditions required by the State in the event a WSRA grant is awarded. Significant changes to the standard contract require approval of the State Controller's Office and often prolong the contracting process.

It should also be noted that grant funds to be used for the purchase of real property (e.g. water rights, land, conservation easements, etc.) will require additional review and approval. In such cases applicants should expect the grant contracting process to take approximately 3 to 6 months from the date of CWCB approval.

The standard contract is available here under the header "Additional Resources" on the right side: http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/BasinWaterSupplyReserveAccountGrants.aspx

Appendix 4
W-9 Form

NOTE: A completed W-9 form is required for all WSRA projects prior execution of a contract or purchase order. Please submit this form with the completed application.

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.

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 Basin Roundtables and the general public and help promote the development of a common technical platform.

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

Signature of Applicant:

Print Applicant's Name: Nathan Coombs

Project Title: CONEJOS RIVER SYSTEM CONFLUENCE MANAGEMENT PROJECT

Return an electronic version (hardcopy may also be submitted) of this application to:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us