



WATER SUPPLY RESERVE ACCOUNT
GRANT APPLICATION FORM



Data Logger and Telemetry Installation Project, South Platte River Basin

Name of Water Activity/Project

Approving Basin Roundtable

\$46,000

Amount from Statewide Account

Total Amount of Funds Requested

Amount from Basin Account

x

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1. Reference Information
2. Insurance Requirements (Projects Over \$25,000)
3. WSRA Standard Contract (Projects Over \$100,000)
4. W-9 Form (Required for All Projects)

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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/approval is outlined in Attachment 1.

Once approved by the local Basin Roundtable, the applicant should submit this application, a detailed statement of work, detailed project budget, and project schedule to the CWCB staff by the application deadline.

The application deadlines are:

- Basin Account – 60 calendar days prior to the bi-monthly Board meeting
- Statewide Account – 60 calendar days prior to the September Board meeting

Board Meeting Dates	Basin Account Deadlines	Statewide Account Deadlines
July 20-21, 2010	May 21, 2010	n/a
September 21-22	July 23, 2010	July 23, 2010
November 16-17	September 17, 2010	n/a
January 2011	60 days prior	n/a
March 2011	60 days prior	n/a
May 2011	60 days prior	n/a
July 2011	60 days prior	n/a
September 2011	60 days prior	60 days prior

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: <http://cwcb.state.co.us/IWMD>.

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:

Mr. Todd Doherty
Colorado Water Conservation Board
Water Supply Planning Section
WSRA Application
1580 Logan Street, Suite 200
Denver, CO 80203
Todd.Doherty@state.co.us

If you have questions or need additional assistance, please contact Todd Doherty of the Water Supply Planning Section at 303-866-3441 x3210 or todd.doherty@state.co.us.

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

1.	Applicant Name(s):	Northern Colorado Water Conservancy District Lower South Platte Water Conservancy District Colorado Division of Water Resources		
	Mailing address:	Northern Colorado Water Conservancy District 220 Water Avenue Berthoud, CO 80513		
	Taxpayer ID#:	84-6000204	Email address:	aberryman@ncwcd.org
	Phone Numbers: Business:	(970) 532-7700		
	Home:			
	Fax	(970) 532-0942		

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

Name:	Alan Berryman
Position/Title	Assistant General Manager

3. Eligible entities that may apply for grants from the WSRA include the following. What type of entity is the Applicant?

<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	Public (Districts) – special, water and sanitation, conservancy, conservation, irrigation, or water activity enterprises.
<input type="checkbox"/>	Private Incorporated – mutual ditch companies, homeowners associations, corporations.
<input type="checkbox"/>	Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
<input type="checkbox"/>	Non-governmental organizations – broadly defined as any organization that is not part of the government.

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4. Provide a brief description of your organization

The Contracting Agency for this project will be Northern Colorado Water Conservancy District ("Northern Water"). Northern Water is a public agency created in 1937 that provides water for agricultural, municipal, domestic and industrial uses in northern Colorado. Northern Water encompasses approximately 1.6 million acres in portions of Boulder, Larimer, Weld, Broomfield, Morgan, Logan, Washington, and Sedgwick counties. Northern Water is the local agency that has contracted with the United States to operate the Colorado-Big Thompson ("C-BT") Project, which stores water from the Colorado River headwaters in a series of reservoirs on Colorado's West Slope and transports that water to Northern Water's service area on the East Slope. The C-BT Project annually delivers an average of over 210,000 acre feet of water to northeastern Colorado for agricultural, municipal, domestic, and industrial uses. It provides supplemental water to some 30 cities and towns, and the water is used to help irrigate approximately 693,000 acres of northeastern Colorado farmland.

The Lower South Platte Water Conservancy District (LSPWCD) (co-applicant) is a public agency created in 1964. LSPWCD encompasses approximately 406,000 acres in portions of Morgan, Washington, Logan and Sedgwick counties. LSPWCD owns recharge water rights and provides well augmentation for 63 wells in Sedgwick County. LSPWCD also provides well accounting, soil moisture monitoring, recharge coring, and other technical services its constituents.

The Colorado Division of Water Resources (DWR) (co-applicant) is a state agency in the Department of Natural Resources. Division 1 encompasses the South Platte, Republican, and Laramie drainages within the state, approximately the northeast quarter of the state. Among other responsibilities, Division 1 has been given the responsibility for administration of water rights in these basins under the prior appropriation doctrine. This doctrine can be found in the State constitution along with statutes. The key statutes under which administration authority has been given to DWR may be found in Article 80 and Article 92.

For this application, the co-applicants are also acting on behalf of various users along the mainstem of the South Platte and its northern tributaries. As described further in the application, the water users would be the primary beneficiaries of the project installations resulting from the grant funds.

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

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6. 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 copy of this standard contract is included in Attachment 3. Please review this contract and check the appropriate box.

☒ 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.

7. 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.

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Part B. - Description of the Water Activity

1. Name of the Water Activity/Project:

Data Logger and Telemetry Installation Project, South Platte River Basin

2. What is the purpose of this grant application? (Please check all that apply.)

☐

Environmental compliance and feasibility study

☐

Technical Assistance regarding permitting, feasibility studies, and environmental compliance

☐

Studies or analysis of structural, nonstructural, consumptive, nonconsumptive water needs, projects

Study or Analysis of:

☐

Structural project or activity

☐

Nonstructural project or activity

☐

Consumptive project or activity

☐

Nonconsumptive project or activity

☒

Structural and/ or nonstructural water project or activity

3. 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.

This project would allow installation of stage discharge data loggers and cell phone modems on diversion structures and return flow augmentation structures to provide real time flow information. In addition, the project will allow the installation of combined meter/data loggers on wells close to the river that are pumped as ditch alternate points or to recharge during free river periods or when there are available credits in the river. The well meters have data loggers built in and can be paired with telemetry at some point in the future once the most cost effective option is determined.

The principal focus will be on structures on the Big Thompson drainage, District 4, and the main stem of the South Platte downstream of Kersey and upstream of the state line, District 1 and 64. Data loggers and telemetry has already been set up on most major diversion structures along the South Platte and tributaries within the District boundaries of LSPWCD and Northern Water in a cooperative program between Northern Water, LSPWCD, and DWR. Support for previous installations have come from the entities included in the application along with Colorado Water Conservation Board (CWCB), the South Platte Roundtable, and the Saint Vrain and Left Hand Water Conservancy District. The South Platte Roundtable previously approved a funding request for 48,800 for data loggers and cell phone telemetry. All of the equipment secured with this funding have been installed and are in successful operation.

The only cost associated with this grant will be to purchase equipment. As in-kind service, purchased equipment will be installed in coordination with the various ditch companies by DWR, LSPWCD and/or Northern Water representatives. In addition, these agencies will set up necessary networking to transfer, store and present the information on the Internet.

Data loggers and telemetry allow for continuous information for users and water administrators concerning flows. Even users not directly benefiting from obtaining equipment on their diversions will be benefited because these users will have real time information concerning other diversions.

Data loggers also eliminate the workload of ditch users and water commissioners to break down charts. The data loggers allow near real time accounting to occur for augmentation of wells and diversions. This is extremely critical in the case of augmentation as real time information is necessary to determine recharge and direct flow credits to assure there is not an injury to senior water rights.

The project provides an excellent complement to the State's existing diversion and stream gage satellite program and is also complimentary to the work being done for the Colorado Decision Support System in obtaining better data concerning river flows and diversions.

In summary, maximizing the use of existing supplies within the basin for decreed purposes with existing infrastructure is the first step in meeting the future needs of users along the South Platte. The increase in diversion and stream flow data on the web has improved administration because users and DWR staff are immediately aware of any problems associated with diversion quantities. Extending the near real time network helps assure there is not waste and allows all augmentation credits to be accounted for in near real time. It also provides transparency concerning administration and helps assure all users are "on a level playing field".

Part C. – 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.)

The proposed grant is for governmental entities for a structural project in accordance with Part 2 of the Criteria and Guidelines.

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

The proposed grant would positively enhance the current system of allocating water within the state. The grant would not affect any contractual agreement between parties or in any other way be inconsistent with Section 37-75-102 Colorado Revised Statutes.

- 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 BRT's 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.

See attached letter from roundtable chair.

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.

- c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.² Specifically describe how the water activity either furthers the Roundtable's basin-wide water needs assessment or meets a consumptive or non-consumptive water supply need identified in the Roundtable's working needs assessment.

The proposed grant meets the provisions of 37-92-104 (2). Specifically, the grant will allow for better administration of water by broadening the existing network of near real-time flow information to all water users within the basin. Individual entities will be enabled to better monitor and manage their water rights and diversion operations by having data loggers and telemetry purchased with grant funds.

- d) **Matching Requirement:** For requests from the Statewide Fund, the applicants is required to demonstrate a 20 percent (or greater) match of the request from the Statewide Account. 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 Part D of this application)

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.

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2. For Applications that include a request for funds from the Statewide Account, describe how the water activity meets the **Evaluation Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)

Part D. – 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 the name/location of water bodies affected by the water activity.

The source of supply for the particular structures is the South Platte River and its tributaries from the north end of Denver to the state line. This encompasses Water District 1, 2, and 64. The tributaries to be included on the project include the Cache la Poudre, Big Thompson, Saint Vrain and Boulder Creek - District 3 through 6 respectively. Most of the subject area except for a portion on the south end of the South Platte is included in the Northern Water boundaries. The lower end of the subject area from approximately Fort Morgan to the state line is also included in the LSPWCD boundaries.

The South Platte and its tributaries are all over-appropriated which means the demand for water along the South Platte often exceeds the supply requiring water commissioners to curtail some water right holders in accordance with the prior appropriation system.

2. Please provide a brief narrative of any related or relevant previous studies.

Northern Water in coordination with DWR, LSPWCD, and individual ditch companies has completed a study to determine how best to provide near real time information on diversions. In the study, Northern Water, DWR and LSPWCD tested a combination of data collecting devices and telemetry options to determine which combination worked best. As a result of this work and operational experience Division 1 staff, Northern Water, and LSPWCD have determined that stage discharge data loggers along with cell phone modems provide the best alternative at this time to provide real time flow information needed for effective water administration and operation by ditch companies.

The installation of data loggers and telemetry in District 1, 2, 3, 4, 5, 6 and 64 has been a huge success. The installation of data loggers has been the only way to handle the explosion of data requirements associated with construction of several hundred new recharge facilities. With the information from data loggers, both users and DWR staff have been able to turn around recharge within a matter of days allowing for users to obtain credit for recharge accretions

immediately when appropriate. The increase in diversion and stream flow data on the web has improved administration because users and DWR staff are immediately aware of any problems associated with diversion quantities. It also has improved trust between users by providing real time information and confirmation that all users are operating in accordance with their water rights.

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.

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 - Data Logger and Telemetry Installation Project,
South Platte River Basin

GRANT RECIPIENT –

Northern Colorado Water Conservancy District
Lower South Platte Water Conservancy District
Colorado Division of Water Resources

FUNDING SOURCE – South Platte Roundtable Basin Account

INTRODUCTION AND BACKGROUND

This project would allow installation of stage discharge data loggers and cell phone modems on diversion structures and return flow augmentation structures to provide real time flow information. In addition, the project will allow the installation of combined meter/data loggers on wells close to the river that are pumped to recharge during free river periods or when there are available credits in the river. The well meters have data loggers built in and can be paired with telemetry at some point in the future once the most cost effective option is determined.

OBJECTIVES

Data loggers and telemetry allow for continuous information for users and administrative staff concerning flows. The project will provide an excellent complement to the State's existing diversion and stream gage satellite program and is also complimentary to the work being done for the Colorado Decision Support System in obtaining better data concerning river flows and diversions.

The principal focus will be on structures on the Big Thompson drainage, District 4, and the main stem of the South Platte downstream of Kersey and upstream of the state line, District 1 and 64. Data loggers and telemetry has already been set up on most major diversion structures along the South Platte and tributaries within the District boundaries of LSPWCD and Northern Water in a cooperative program between Northern Water, LSPWCD, and DWR.

TASKS

Task 1 - Site Identification

Make final identification of the sites to install data loggers and cell phone modems. Presently, the following sites have been selected for installation of the equipment based on identification by Water Commissioners.

District 1: (data logger only)

- Rothe Recharge well (0109884) - NW1/4, NE1/4 Sec. 1, T4N, R60W
- Rothe recharge well (0109887) - NW1/4, NE1/4 Sec. 1, T4N, R60W
- Sublette recharge well - NW1/4, NW1/4 Sec. 23, T4N, R61W

District 64: (data logger only)

- Toyne recharge well - SE1/4, SE1/4, Sec. 28, T11N, R47W
- McCormick recharge well - NW1/4, NW1/4, Sec. 20, T11N, R46W
- Manuello APOD Well - JB Brush Ditch - NW1/4, NW1/4, Sec. 28, T9N, R51W
- Desoto APOD well - JB Brush Ditch - SW1/4, NE1/4, Sec. 30, T9N R51W
- Condon Recharge well #1 - SE1/4, SE1/4, Sec. 16, T10N, R49W
- Condon Recharge well #2 - SW1/4, SW1/4, Sec. 15, T10N, R49W
- Condon Recharge well #3 - SE1/4, SW1/4, Sec. 15, T10N, R49W

District 4 (data logger and cell phone modem telemetry equipment)

- Evanstown Ditch
- Mariano Exchange
- Beeline Ditch
- Osborne Caywood Ditch
- Blower Ditch
- Culver Ditch
- Eagle Ditch
- Rockwell Ditch
- Miner and Longan Ditch
- Boyd lake Release

The location of a few of these sites may be subject to change based on final coordination with the various users and priority of installations. All funds will be used to purchase equipment.

Task 2 - Equipment Purchase

Purchase of necessary equipment will be completed by Northern Water. Equipment is the only cost associated with this grant application. As described in the list above, cell phone modem and associated equipment will be purchased for each site and data loggers will be purchased at sites which presently do not already have them installed.

Task 3 - Installation

The purchased equipment will be installed in coordination with the various ditch companies by DWR, LSPWCD and/or Northern Water representatives. There will be no costs associated with installation of the equipment as these costs will be absorbed by the agencies.

Task 4 - Data Transmission

The equipment that is installed will transmit information either directly or indirectly to the LSPWCD office and/or the Northern Water office and then linked with DWR stream flow website. The information will be displayed on DWR's stream flow website and may also be displayed at LSPWCD and Northern Water's websites. The costs associated with the data transmittal, saving and display will be absorbed into the program for each of the various agencies.

Budget

Equipment is the only cost associated with this grant application. All other costs will be absorbed by the co-applicants.

Item	Unit Cost	Units	Total Cost
Surface Diversions Data Loggers	1400	10	\$14000
Cell Phone Modem Telemetry (for surface diversion data loggers)	1200	10	\$12000
Well Meters/Data Loggers	2000	10	\$20000
Total Cost			\$46000

This cost does not include shelters and stilling wells which should be already at each site.

Schedule

Task 1: Final Site Selection: 6-30-2010
Task 2: Equipment Purchase Completion: 11-30-2010
Task 3: Completion of Installation of Equipment: 5-30-2011
Task 4 and 5: Data Transmittal and Display Completion: 8-31-2011

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.

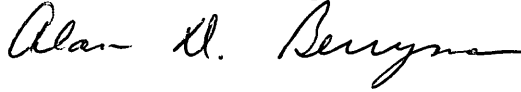
PAYMENT

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.

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

Signature of Applicant:



Print Applicant's Name: Alan D. Berryman

Project Title: Data Logger and Telemetry Installation Project, South Platte River Basin

Return this application to:

Mr. Todd Doherty
Intrastate Water Management and Development Section
COLORADO WATER CONSERVATION BOARD
1580 Logan Street, Suite 200
Denver, CO 80203

To submit applications by Email, send to: todd.doherty@state.co.us