

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
November 19-20, 2013
Agenda Item 22(a)

Applicant: Upper Arkansas Water Conservancy District

Water Activity Name: Helena Diversion Structure/BV Boat Chute Improvement Project – Phase 2

Water Activity Purpose: Agricultural

County: Chaffee

Drainage Basin: Arkansas

Water Source: Arkansas River

Amount Requested: \$43,125

Source of Funds: \$43,125 Arkansas Basin Account

Matching Funds: \$10,000 (19%) cash Helena Water Rights holders
Total Project Costs = \$51,125

Staff Recommendation
Staff recommends approval of up to \$43,125 from the Arkansas Basin Account to assist in the funding of the Helena Diversion Structure/BV Boat Chute Implementation Project – Phase 2.

Water Activity Summary: The Helena Diversion Structure at Buena Vista is owned and operated by the Colorado Department of Corrections, Mr. and Mrs. Cogan, Moltz and Diamond. WSRA funds will be expended on the replacement and improvement of a ditch channel and bypass structure of the Helena Ditch Structure. More specifically the tasks to be performed include: removal of existing structures; construction and installation of concrete channel and bypass structure; installation of control gate; installation of rock armoring erosion protection; and engineering inspection and final review.

Studies conducted during Phase I of this project revealed the need for additional improvements to the Helena Ditch Structure. Phase I focused on improvements within the stream on the diversion structure and replacement of the head gate. The study showed that there were additional needs to update and replace the concrete structure behind the headgate and to improve the bypass structure. Phase 2 of this project is focused on the replacement and improvement of the ditch channel and bypass of the Helena Ditch Structure.

Phase 2 will enhance the overall engineering soundness of the structures and optimize delivery efficiency of water. The improvements of all these structures will create an integrated system that increases boater safety, improves fisheries and enhances the availability, efficiency and sustainability of water for irrigation. Staff supports multi-objective diversion reconstruction projects of which this phase is a component.

Discussion:

The CWCB has supported the evolution of this project through the approval of two previous WSRA Grant requests. In 2008 a WSRA Grant in the amount of \$57,955 was used to conduct a preliminary engineering study in the upper Arkansas River Valley on four existing diversions structures. The study developed preliminary designs and cost estimates to support future design/build activities. The Helena Diversion was included in this study. CWCB then approved an additional \$325,000 in 2011 to accomplish the next phase of the project consisting of more detailed engineering and construction of the new diversion dam and headgate at the Helena Ditch Structure.

Issues/Additional Needs:

No issues or additional needs have been identified.

Funding Overview/Matching Funds

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WSRA Arkansas Basin Account	\$43,125	n/a	\$41,125
Helena Water Rights holders	<u>\$10,000</u>	<u>\$0</u>	<u>\$10,000</u>
Total Project Costs	\$53,125	\$0	\$53,125

Staff Recommendation:

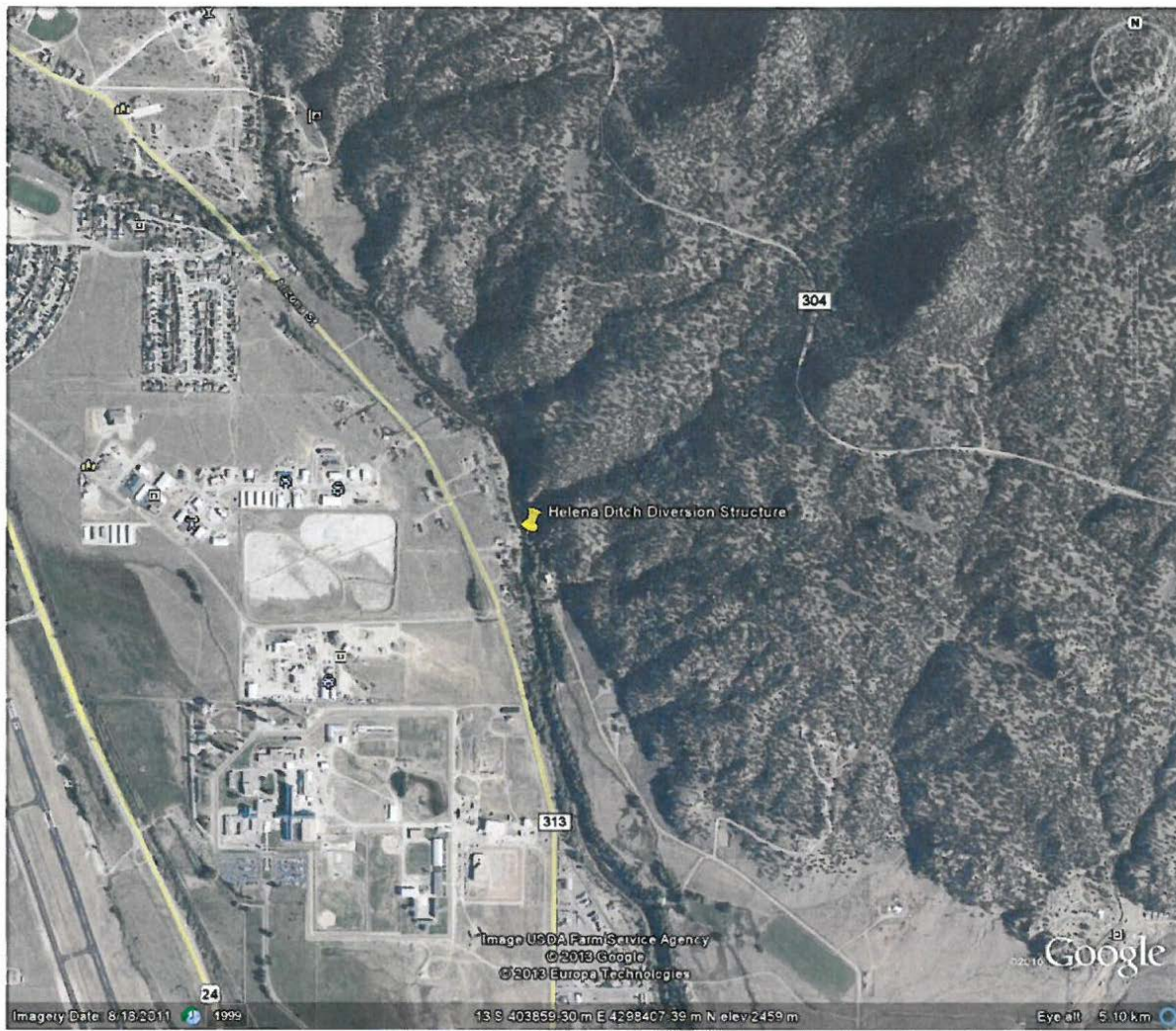
Staff recommends approval of up to \$43,125 from the Arkansas Basin Account to assist in the funding of the Helena Diversion Structure/BV Boat Chute Implementation Project – Phase 2.

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 will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: 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 scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. 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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Project Map:





October 10, 2013

Ms. Rebecca Mitchell

Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 600
Denver, Colorado 80203

Re: Helena Ditch Diversion, Phase 2

Dear Ms. Mitchell:

Under separate cover you will receive a WSRA grant application for the Helena Ditch Diversion, Phase 2. At the October 9, 2013, meeting of the Arkansas Basin Roundtable Needs Assessment Committee, we approved by consensus this application for \$43,125 in Basin Funds.

I understand this grant request will be heard at the November, 2013 CWCB meeting. Please do not hesitate to contact me if you have any questions.

Sincerely,

Gary Barber
Chair

c: Executive Committee, Ark Roundtable
Elise Bergsten



COLORADO WATER CONSERVATION BOARD



WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Helena Diversion Structure/BV Boat Chute Improvement Project
Arkansas River Basin Phase 2

Name of Water Activity/Project

Upper Arkansas Water Conservancy District

Name of Applicant

Arkansas Basin
Roundtable

Amount from Statewide Account:

\$0

Amount from Basin Account(s):

\$43,125

Total WSRA Funds Requested:

\$43,125

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

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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)

Water Supply Reserve Account – Application Form

Revised December 2011

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 (CWCBC). 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 CWCBC 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 CWCBC 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.

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

1.	Applicant Name(s):	Upper Arkansas Water Conservancy District		
	Mailing address:	P.O. Box 1090 339 East Highway 50 Salida, CO 81201		
	Taxpayer ID#:	84-0817067		
	Primary Contact:	Ralph L. Scanga, Jr.	Position/Title:	General Manager
	Email:	manager@uawcd.com		
	Phone Numbers:	Cell: 719-207-1157	Office:	719-539-5425
	Alternate Contact:		Position/Title:	
	Email:			
	Phone Numbers:	Cell:	Office:	

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.
- ☒ 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.

Water Supply Reserve Account – Application Form

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3. Provide a brief description of your organization

The Upper Arkansas Water Conservancy District (UAWCD) was formed in 1979 pursuant to C.R.S. 37-45-102 and case number 79CV30. The district is a quasi-municipality created to conserve water resources and to provide the greatest beneficial use of water in the Upper Arkansas River Basin by construction as defined in C.R.S. 37-45-103(10): dams, reservoirs, canals, conduits, pipelines, tunnels, and all works, facilities, improvements, and property necessary or convenient for supplying water for domestic, irrigation, power, milling, manufacturing, mining, metallurgical, and all other beneficial uses. About 7,000 District customers use water for irrigation (38% of use); municipal storage (25%); and domestic and commercial augmentation (18%). Its service area covers over 2 million high mountain acres in Chaffee, Fremont, Custer and parts of Saguache and El Paso Counties.

A brief history of the applicant

In 1979, the Upper Arkansas Water Conservancy District (UAWCD) was created. In 1982, it assumed control of three high mountain reservoirs in Chaffee County. Since assuming control of the reservoirs, UAWCD has provided storage for two growing municipalities on the South Arkansas River: Salida and Poncha Springs.

From 1980-2000, UAWCD pioneered conjunctive ground water and surface water management, filing the first-ever blanket water augmentation plan for all of Chaffee and part of Fremont County. It acquired storage at two reservoirs tributary to the Arkansas River. It acquired water rights to meet increased demand for augmentation due to promulgation in 1996 of *Amended Rules and Regulations Governing the Diversion and Use of Tributary Ground Water in the Arkansas River Basin*. The Arkansas River Basin is fully-appropriated.

By the early-2000s, population escalated. Double-digit population growth increased municipal demands, intensifying the need for reservoir storage. By utilizing Pueblo Reservoir and Twin Lakes water in conjunction with its tributary storage, UAWCD increased water use efficiency and met municipal demand. To meet growing municipal and augmentation demand, UAWCD expanded the geographic extent of its blanket augmentation plans into eastern Fremont and Custer Counties. As part of its approval, the State Engineer mandated that UAWCD install remote continuous recording instrumentation at most of its reservoirs and certain stream locations.

In the late-2000s, UAWCD built 22 high mountain telemetry water data collection platforms. To do so, it leveraged federal Bureau of Reclamation funds of ~\$285,000 and state funds of ~\$285,000. The project was twice selected as a nationwide success story. More than 500,000 down-basin residents are affected by available supplies of Upper Arkansas River water. Data is managed with Colorado Division of Water Resources software so records for administration/augmentation agree. See <http://www.dwr.state.co.us/SurfaceWater/> and http://www.uawcd.com/water_resources.php

In the early 2010s, UAWCD implemented its ~\$400,000 US Geological Survey (USGS) water balance study to quantify both surface water and ground water and characterize the interaction between them in the Upper Arkansas River Basin. UAWCD leveraged federal USGS funds of ~\$135,000 and state funds of ~\$180,000. Study results will enhance the basin-wide decision-making framework for water users including municipalities, irrigators, and recreationists.

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

N/A

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.

☒ 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 District is able to receive the grant funding requested herein during its fiscal year 2013 – 2014 without triggering any issues related to TABOR limitations.

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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)

☒ Agricultural

☐ Municipal/Industrial

☐ Needs Assessment

☐ Education

☐ Other

Explain:

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

The nonconsumptive component is recreational and environmental. The ditch headgate diversion structure is an integrated system that involves the headgate wall and side gate, delivery channel, and bypass structure. Phase 2 will enhance the overall engineering soundness and vastly improve boater safety and fish habitat.

The Agricultural component is delivery of water to the Helena Ditch. Phase 2 will improve the delivery efficiency and availability of water for irrigation. It will also provide sustainability of this water for future irrigation purposes.

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

☐ Study

☒ 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)

66 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: Head gate/concrete channel & by-pass diversion structure

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

Latitude: 38° 6' 40.6"

Longitude: -106° 49' 48.7"

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.

This grant application is to continue an existing engineering and construction project on the Helena Diversion Structure in the Arkansas River at Buena Vista. Improvements to this structure will be beneficial in many ways. Construction will improve the delivery efficiency, availability and sustainability of water for irrigation to water right owners as well as integrating further boater safety and improved fishery.

Studies for Phase 1 of this project uncovered the need for additional improvements to the Helena Ditch structure. Phase 1 focused on improvements within the stream on the diversion structure and replacement of the head gate. The study showed that there were additional needs to update and replace the concrete structure behind the head gate and to improve the bypass structure. Phase 2 of this project is focused on the replacement and improvement of the ditch channel and bypass of the Helena Ditch Structure.

Continuing this project into a Phase 2 will vastly improve all aspects of this project. Phase 2 will enhance the overall engineering soundness of the structures and give much needed improvements to the ditch channel itself. The ditch channel is old and the concrete is cracking and splitting in areas. There is also a need to widen the ditch and the bypass structures to allow for the potential of future water availability. Improvements to this structure will optimize delivery efficiency of water and provide sustainability for future uses.

Phase 2 will greatly impact the overall completeness of the original project. The replacement and updating of the existing structure will allow engineers to fully accomplish a complete restoration of the Helena Diversion, Boat Chute, Head Gate, Ditch and Bypass. The improvements of all of these structures will create an integrated system that will increase boater safety, improve fishery and enhance the availability, efficiency and sustainability of water for irrigation.

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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

This project will not affect existing water rights. All investigations will be undertaken in cooperation with the signatories to the Arkansas River Voluntary Flow Agreement, an accord that assists in sustaining the recreational economy of the upper Arkansas River Valley.

- 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.

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.

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- 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.
- 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. 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)

The matching funds for the proposed water project are being matched by Helena Ditch water right owners in the amount of \$10,000.

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/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).
- 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.
- 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.

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).
- 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.

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.
- 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.
- h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.
- i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.
- j. The water activity is complimentary to or assists in the implementation of other CWCB programs.

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Continued: Explanation of how the water activity/project meets all applicable **Evaluation Criteria**.
Please attach additional pages as necessary.

N/A

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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.

The Arkansas River, from the confluence with the Lake Fork to Pueblo State Park

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

This grant application is for Phase Two of the Helena Diversion Structure/ BV Boat Chute Improvement Project Arkansas River Basin.

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.

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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

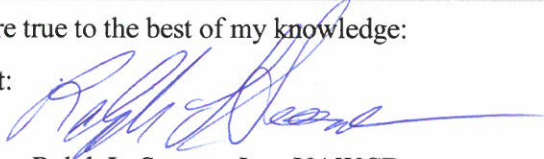
Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for 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: Ralph L. Scanga, Jr. – UAWCD

Project Title: Helena Diversion Structure / BV Chute Improvement Project Arkansas River Phase 2

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

EXHIBIT A

Statement of Work
Budget & Schedule

Exhibit A
Statement of Work

**WATER ACTIVITY NAME – Helena Diversion Structure/ BV Boat Chute Improvement
Project Arkansas River Basin Phase 2**

GRANT RECIPIENT – Upper Arkansas Water Conservancy District

FUNDING SOURCE – Basin Account

INTRODUCTION AND BACKGROUND

This grant application is to continue an existing engineering and construction project on the Helena Diversion Structure in the Arkansas River at Buena Vista. Improvements to this structure will be beneficial in many ways. Construction will improve the delivery efficiency, availability and sustainability of water for irrigation to water right owners as well as integrating further boater safety and improved fishery.

The Phase 2 portion of the Helena Ditch Headgate involves the addition of a concrete ditch channel and flow bypass structure to the Arkansas River. The ditch headgate diversion structure is an integrated system that involves the headgate wall and side gate, delivery channel, and bypass structure. Phase 1 of the project will construct the headgate wall. Phase 2 will complete the replacement of the existing bypass structure and with the Phase 1 improvements allow the system to regulate water right flow amounts in to the ditch while at the same bypassing excess flows that are experienced during river water level fluctuations.

OBJECTIVES

The objectives of Phase 2 of the study are to:

- Construct a new concrete channel and bypass structure that will improve the availability and sustainability of water right flow amounts.
- Improve the system's ability to regulate flow amounts while at the same time bypassing excess flows that are experienced at water flow fluctuations.
- Improve boater safety and fish habitat by fully restoring all structures associated with this integrated system.
- Improve future habitat by installing rock armoring erosion protection
- Improving the overall engineering soundness of the structures

TASKS

- Task1: Removal of Existing Structures
- Task 2: Construction and Installation of Concrete Channel and Bypass Structure
- Task 3: Installation of Control Gate
- Task 4: Installation of Rock Armoring Erosion Protection
- Task 5: Engineering and Inspection
- (Please refer to Exhibit C for construction details)

TASK 1 – Removal of Existing Structures

Description of Task

The purpose of this task is to remove the existing diversion channel and bypass structures. The removal of these structures will allow for a new concrete channel and bypass structure to be installed.

Method/Procedure

The contractor will remove all structures with approved construction techniques and equipment.

Deliverable

Complete removal of the existing channel and bypass structure to allow for future installment of new channel and bypass structures.

TASK 2 – Construction and Installation of New Concrete Channel and Bypass Structure

Description of Task

The purpose of this task is to construct and install a 45-feet of 8-foot wide concrete channel and bypass structure to be connected to the headgate wall.

Method/Procedure

The contractor will furnish a concrete cast in place channel and bypass structure. The structures will be made with cold weather concreting and will be tied into the existing wall.

Deliverable

Complete construction and installation of the concrete channel and bypass structure. The channel will be 8 feet wide and 4 feet deep. The new ditch invert flow line will be lowered 3 inches and the bypass structure will be widened.

TASK 3- Installation of Control Gate

Description of Task

The purpose of this task is to furnish and install a 6-foot wide by 4-foot tall regulating control gate.

Method/Procedure

Contractor will install control gate

Deliverable

An installed 6 foot wide and 4 feet tall regulating control gate.

TASK 4- Installation of Rock Armoring Erosion Protection

Description of Task

The purpose of this task is to furnish and install Un-grouted Rock below the bypass structure for erosion protection.

Method/Procedure

Contractor will use approved equipment and techniques to fill the area under the bypass structure with un-grouted rock.

Deliverable

The final product will be a new un-grouted rock armoring erosion protection area.

Task 5- Engineering and Inspection

Description of Task

The purpose of this task is to have a licensed professional Engineer one site for two inspections as well as a final review.

Method/ Procedure

Higher a licensed professional Engineer and request 2 inspections and a final review

Deliverable

The Engineer will approve all new structures and will ensure that they are structurally sound and meet all requirements of the project.

Helena Ditch Structure Improvement Project Phase 2 Budget

Construction Costs				
TASK	Quantity	Unit	Unit Price	Total
Task 1: Removal of Existing Structures	1	LS	\$1,083.46	\$1,083.46
Task 2: Construction and Installation of Concrete Channel and Bypass Structure	1	LS	\$25,859.70	\$25,859.70
Task 3: Installation of Control Gate	1	EA	\$8,907.80	\$8,907.80
Task 4: Installation of Rock Armoring Erosion Protection	56	CY	\$74.09	\$4,149.04
Construction Subtotal				\$40,000

Engineering Costs				
TASK	Quantity	Unit	Unit Price	Total
Task 5: Engineering and Inspection	125	Hours	\$105.00	\$10,000
Subtotal				Engineering \$13,125

Estimated Engineering and Construction Total	\$53,125
--	----------

Helena Ditch Structure Improvement Project Phase 2 Schedule

TASK	Start Date	Finish Date
Task 1: Removal of Existing Structures	Upon NTP	NTP + 15days
Task 2: Construction and Installation of Concrete Channel and Bypass Structure	Upon NTP	NTP + 30 days
Task 3: Installation of Control Gate	Upon NTP	NTP + 30 days
Task 4: Installation of Rock Armoring Erosion Protection	Upon NTP	NTP + 45 days
Task 6: Engineering and Inspection	Upon NTP	NTP + 45 days

EXHIBIT B

Project Maps

Exhibit B

Maps

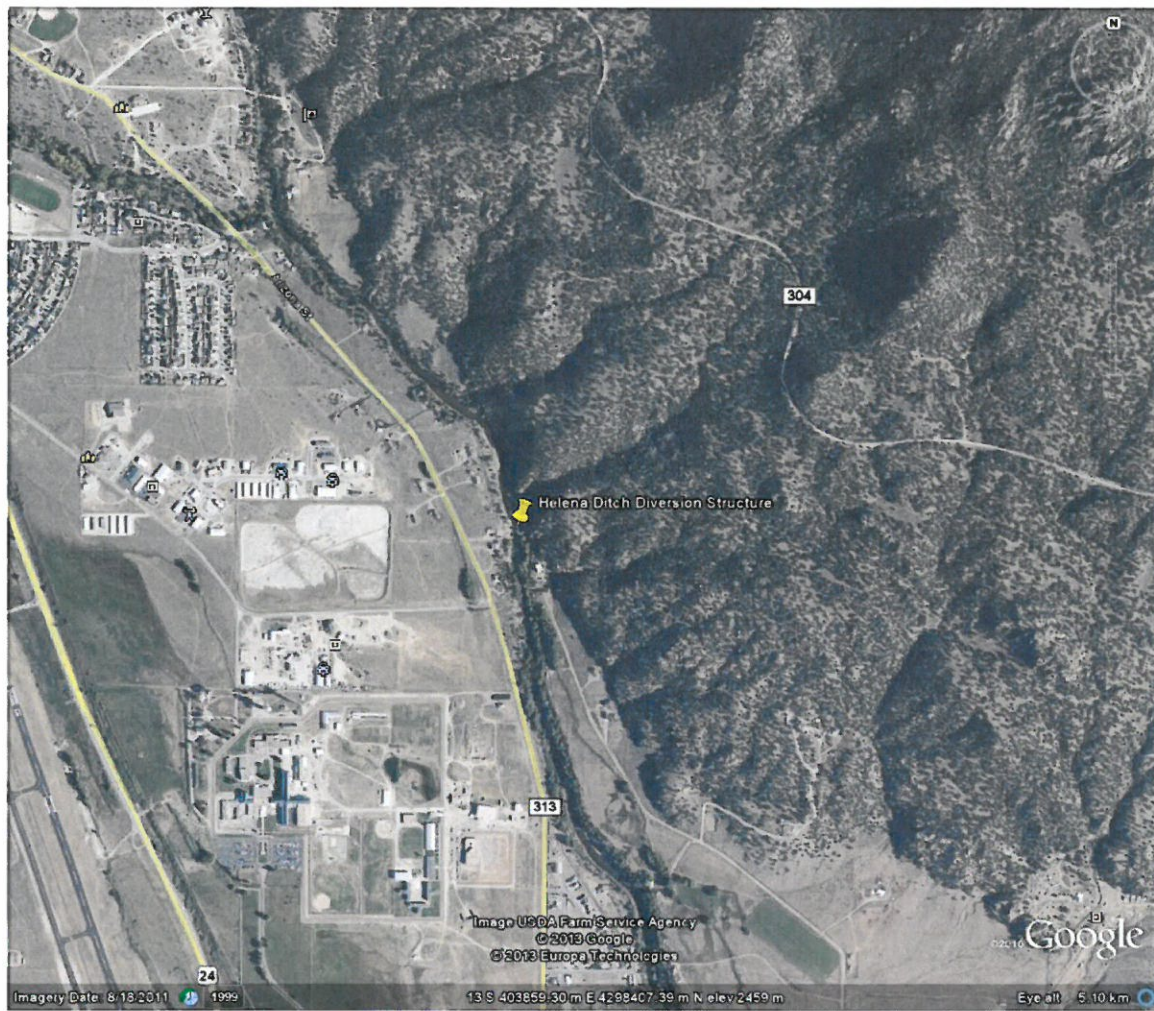


Exhibit B

Maps



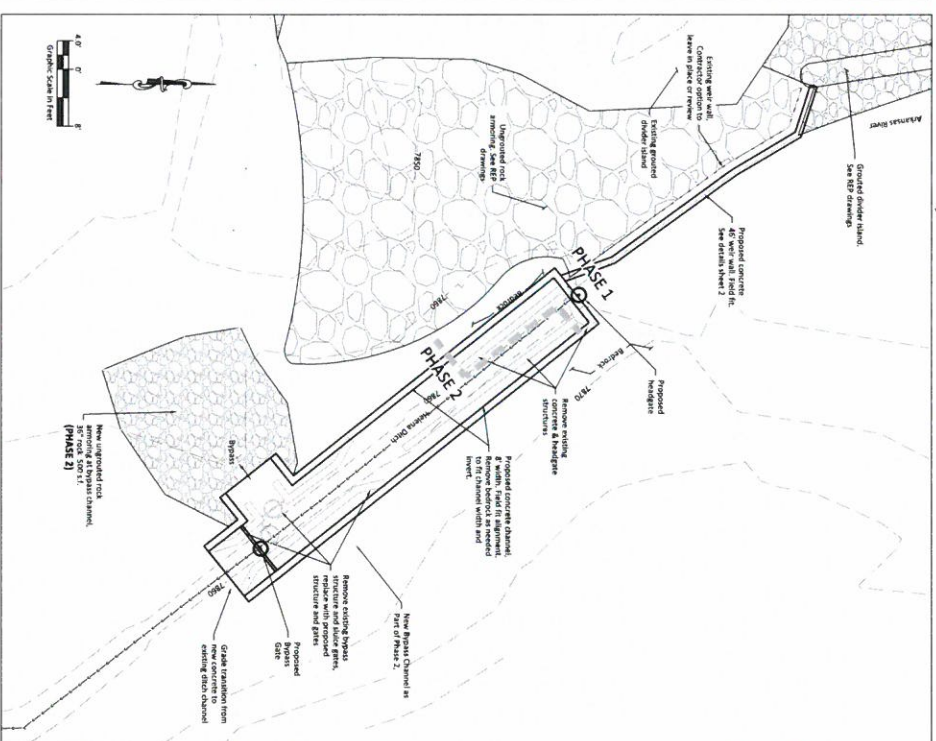
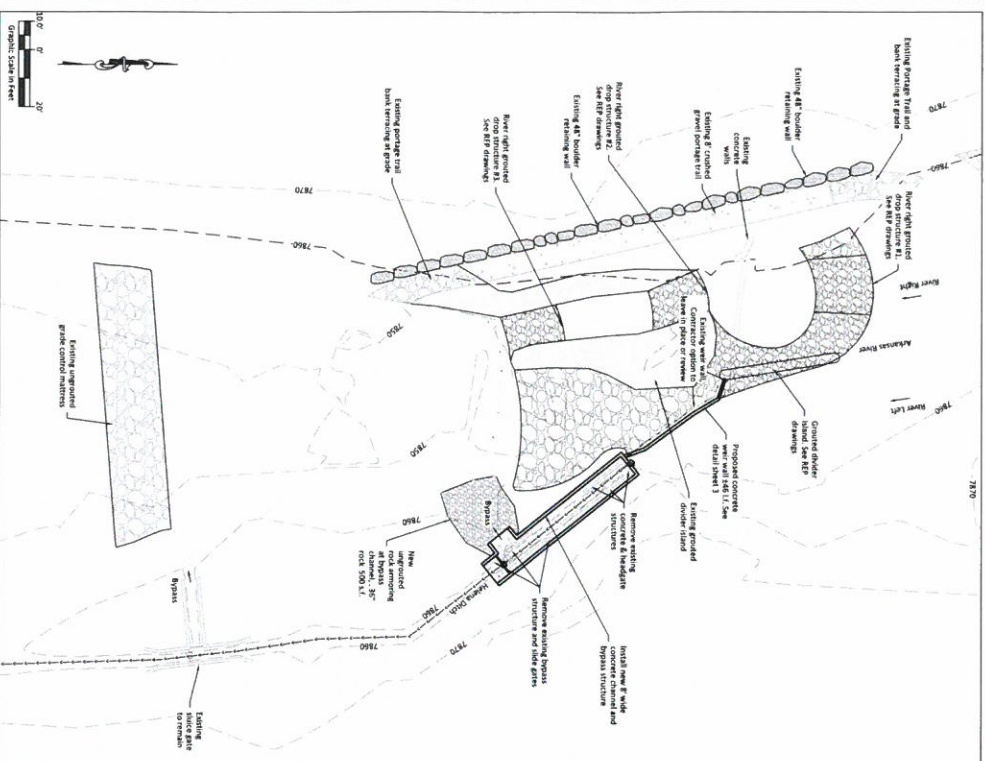
EXHIBIT C
PROJECT DESIGN
DRAWINGS
PROJECT OVERVIEW & CROSS
SECTIONS

Arkansas Headwaters Recreation Area
Upper Arkansas Water Conservancy District
Helena Ditch Users

**COLORADO
RIVER**
ESTABLISHED
1944

P.O. BOX 1301
RIFLE, COLORADO 81650
PHONE: 970-825-4933
FAX: 970-825-4564
PROJECT MANAGER:
CHRISTOPHER MANERA P.E. #30679

- ## GENERAL NOTES
1. Match existing elevations for improvements.
 2. The elevations on the plan are not approximate. The contractor is to document the profile elevations prior to the start of construction.
 3. Paved if the proposed work, diversion channel box structure, and headgate locations based on the existing site conditions and per the engineer's approval.
 4. This design is a subset of the Helena District Diversion Structure Improvement Project by Diversion Engineering and Planning (DEP).



This Person Has Valid Current Lateral Revenue Income And Has/Hasn't				Original Paying Organization			
No	Description	By Date	Approved	Date	By Date	Approved	Date
A	Compensation paid at Phase 1 & Phase 2	CM	4/30/13		WME	CM	7/11
A					CM	4/3/20	
A					Approved		
A					CM		
A					Class Approved	-	-



**COLORADO
RIVER
ENGINEERING**
INCORPORATED

Upper Arkansas Water Conservancy
339 East Rainbow Blvd.
Salida, CO 81201
PO Box 1391
Rt#4, CO 81650
Tel: (719) 625-4833

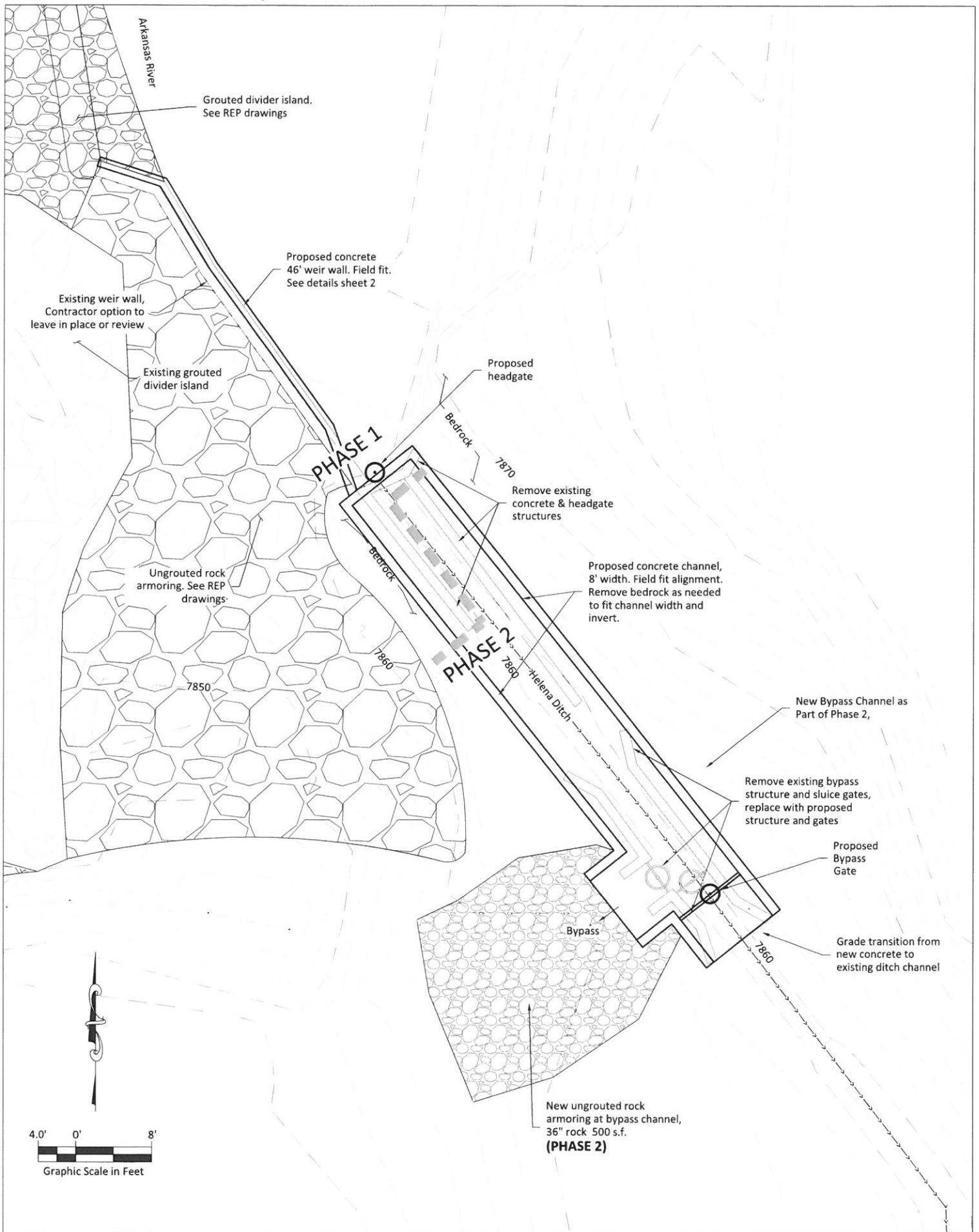
Helena Ditch Diversion
Plan View

9

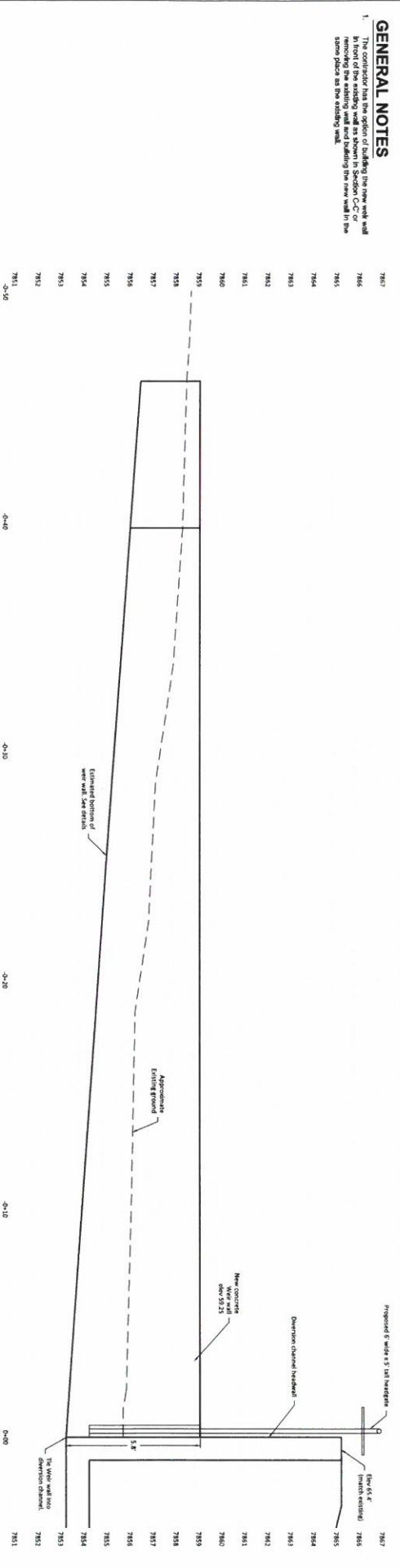
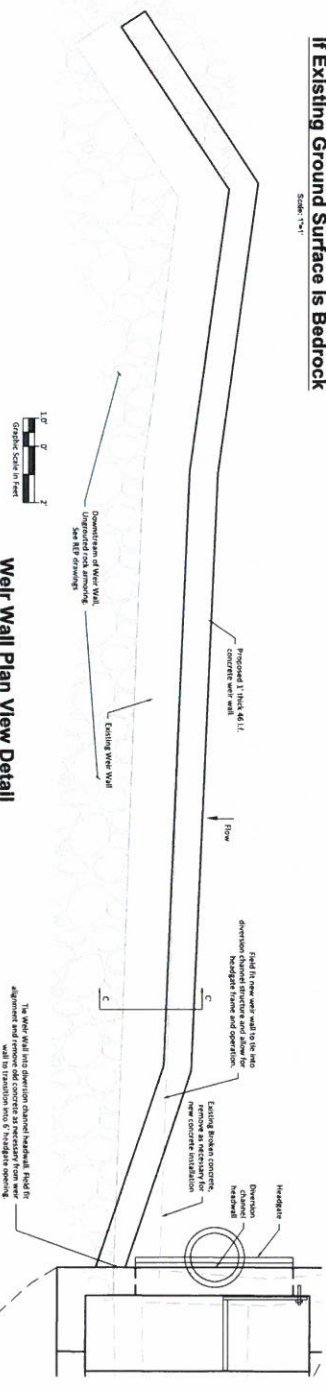
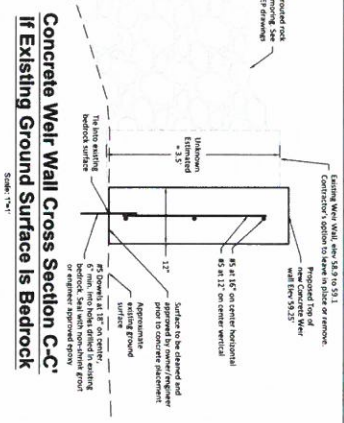
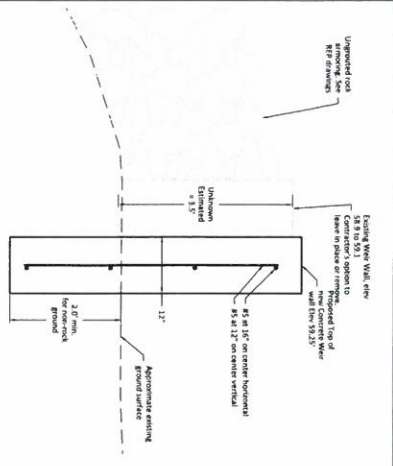
PROJECT OVERVIEW

Helena Ditch Diversion Structure

10/7/13



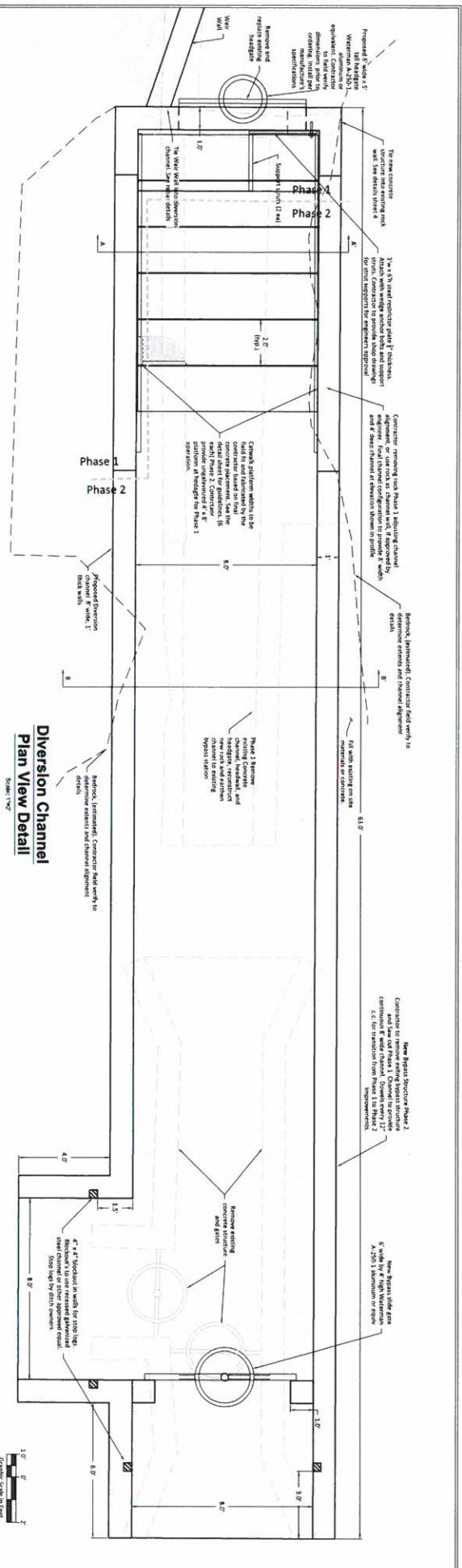
Helena Ditch Diversion Structure



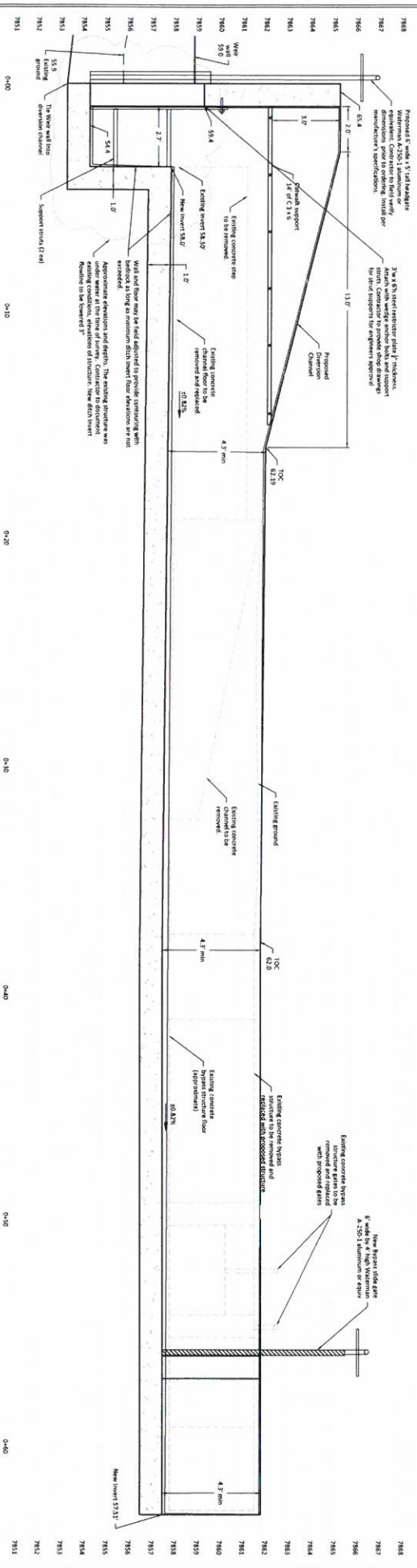
GENERAL NOTES

1. The contractor has the option of building the new weir wall in front of the existing wall as shown in Section C-C' or removing the existing wall and building the new wall in the same place as the existing wall.

This Drawing Was Prepared Pursuant to the Following			
No.	Description	By	Date
1	Prepared plan of Profile View	CM	10/7/13
2	Prepared plan of Profile View	CM	10/7/13
3	Prepared plan of Profile View	CM	10/7/13
4	Prepared plan of Profile View	CM	10/7/13
5	Prepared plan of Profile View	CM	10/7/13
6	Prepared plan of Profile View	CM	10/7/13
7	Prepared plan of Profile View	CM	10/7/13
8	Prepared plan of Profile View	CM	10/7/13
9	Prepared plan of Profile View	CM	10/7/13
10	Prepared plan of Profile View	CM	10/7/13



[Diversion Channel](#)
[Plan View Detail](#)



Diversion Channel
Profile View Detail

[illegible]

These drawings have been prepared for the client identified on the design sheet titleblock. Unless these drawings bear a signed engineers seal, they may be used only at our firms sole risk.

CONJUGATED POLYMER

**COLORADO
RIVER**
ENGINEERING
INCORPORATED

PO Box 1301
Rifle, CO 81650
Tel 970-625-4933

Upper Arkansas Water Conservancy District
330 East Rainbow Blvd.
Salida, CO 81201

**Helena Ditch Diversion
Structure Plan and Profile**

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