



# COLORADO WATER CONSERVATION BOARD



## WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Missouri Heights - Mountain Meadow Irrigation Company

### Name of Water Activity/Project

Missouri Heights - Mountain Meadow Irrigation Company Ditch  
Lining

### Name of Applicant

Colorado River Basin

Amount from Statewide Account:

0

Amount from Basin Account(s):

\$50,000.00

Total WSRA Funds Requested:

\$50,000.00

### Approving Basin Roundtable(s)

*(If multiple basins specify amounts in parentheses.)*

## Application Content

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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

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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 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](mailto: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](mailto:gregory.johnson@state.co.us).

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

1.	Applicant Name(s):	Missouri Heights - Mountain Meadow Irrigation Company		
	Mailing address:	P O Box 548 Carbondale CO 81623		
	Taxpayer ID#:	84-1519128		
	Primary Contact:	Leslie G Lewis (Gay)	Position/Title:	Treasure
	Email:	someday@sopris.net		
	Phone Numbers:	Cell:	Office:	970 963 3653
	Alternate Contact:	Felix Tornare	Position/Title:	Vice President
	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.

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3. Provide a brief description of your organization

The Missouri Heights - Mountain Meadow Irrigation Company is an incorporated ditch company in the State of Colorado. The Company has an elected board of directors that manage the day-to-day business and operation of the ditch. The Ditch has a hired “ditch walker” to manage flows of water to the users of the ditch and to do some maintenance work. The Company provides water to 54 users each owning shares in the Company.

The Company diverts up to 50 CFS of water out of Cattle Creek that flows in open ditch to Spring Park Reservoir. From the Reservoir water is delivered to users mostly through open earthen ditches.

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

The ditch company will sign contracts and will hire a construction company to install the ditch lining.

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. None - not a taxing entity.

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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 lined section will conserve water by reducing seepage, thus extending the irrigation season for this pre 1922 water right.

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)

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:

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

Latitude:

39° 26 ' 2 . 90 " N

Longitude:

107° 5 ' 20 . 68 " 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.

This project lies in the Roaring Fork Valley in the southwestern portion of Eagle County and the eastern portion of Garfield County, Colorado. The Missouri Heights - Mountain Meadow Irrigation Company operates the Missouri Heights Mountain Meadow Irrigation Company Ditch for the benefit of the shareholders by providing irrigation water from the Spring Park Reservoir.

The beginning portion of the earthen ditch below the Reservoir loses as much as 30% of the water in the ditch due to seepage through the course and rocky soils. The Missouri Heights - Mountain Meadow Irrigation Company wants to install a lining or pipeline to make a permanent fix of this section. Proposed work will take place in the fall and winter of 2013 while the ditch is not in use.

The proposal is to line with a new plastic product called "Smart Ditch" or to pipe the 3500 ft. seeping canal. The lining or pipeline will prevent water loss due to ditch seepage.

The project consists of a concrete water control structure, about 3500 feet of a new product called "Smart Ditch" or 60 Inch plastic pipe and related rock protection of both the pipe and structure.

Without controlling seepage from the ditch water loss will continue until the ditch is lined or piped.

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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.<sup>1</sup>

The proposed project does not conflict with State water law and appropriation system. The project is following the Company's water rights.

- 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.

This application will be completed once evaluation and approval is given by the Colorado River Basin Roundtable.

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<sup>1</sup> 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.<sup>2</sup> 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.

To be determined at Colorado River Basin Roundtable meeting.

- 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 CWCBC. 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)

See Exhibit A for budget and Funding sources.

### **If all Grants are approved at requested amounts**

#### **Sources of Funding**

Ditch Company funds	\$100,000.00
USDA - NRCS Environmental Quality Incentive Program	\$100,000.00 est./guess
Colorado River Water Conservation District - Grant Program	\$100,000.00
Colorado River Water Roundtable Funds	\$ 50,000.00
Colorado Water Conservation Board Revolving Loan	\$200,000.00
<b>Total</b>	<b>\$550,000.00</b>

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<sup>2</sup> 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

The applicant is not applying for Statewide account funds.

- 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.

The applicant is not applying for Statewide account funds.

### Tier 2: Facilitating Water Activity Implementation

The applicant is not applying for Statewide account funds.

- 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

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The applicant is not applying for Statewide account funds.

- 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.

Continued: Explanation of how the water activity/project meets all applicable **Evaluation Criteria**.

**Please attach additional pages as necessary.**

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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.

#### Hydrology and Water Rights

Water for the Missouri Heights - Mountain Meadow Irrigation Company ditch is supplied by a direct diversion from Cattle Creek delivered through an open ditch to Spring Park Reservoir. The water is withdrawn from the reservoir as needed by the shareholders.

Water Rights are 13 CFS with an appropriation date of May 31, 1902 and a second right for 40 cfs with an appropriation date of December 28, 1911.

The Ditch is usually turned on in the first two weeks of May and runs until about the first of October.

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

Attached to this application is a feasibility study prepared by Natural Resources Conservation Service (NRCS).

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### 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.

## **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:

Felix Tornare

Project Title:

Missouri Heights Ditol 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](mailto:gregory.johnson@state.co.us)

**Exhibit A**  
**Statement of Work**

**WATER ACTIVITY NAME - Missouri Heights - Mountain Meadow Irrigation Company**

**Ditch Lining Project**

**GRANT RECIPIENT – Missouri Heights - Mountain Meadow Irrigation Company**

**FUNDING SOURCE - Colorado River Basin Roundtable Account**

**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)

This project lies in the Roaring Fork Valley in the southwestern portion of Eagle County and the eastern portion of Garfield County, Colorado. The Missouri Heights - Mountain Meadow Irrigation Company operates the Missouri Heights Mountain Meadow Irrigation Company Ditch for the benefit of the shareholders by providing irrigation water from the Spring Park Reservoir.

The beginning portion of the earthen ditch below the Reservoir loses as much as 30% of the water in the ditch due to seepage through the course and rocky soils. The Missouri Heights - Mountain Meadow Irrigation Company wants to install a lining or pipeline to make a permanent fix of this section.

Proposed work will take place in the fall and winter of 2013 while the ditch is not in use.

The proposal is to line with a new plastic product called “Smart Ditch” or to pipe the 3500 ft. seeping canal. The lining or pipeline will prevent water loss due to ditch seepage.

The project consists of a concrete water control structure, about 3500 feet of a new product called “Smart Ditch” or 60 Inch plastic pipe and related rock protection of both the pipe and structure.

Without controlling seepage from the ditch water loss will continue until the ditch is lined or piped.

**OBJECTIVES**

List the objectives of the project

Reduce Water loss due to seepage and by hydrophytic vegetation.

Reduce annual maintenance work and costs

Increase the efficiency of the delivery system

**TASKS**

Provide a detailed description of each task using the following format

**TASK 1 – Installation of the Ditch Lining and associated inlet structure.**

### Description of Task

It is the goal of the Ditch Company to complete this project in the Fall of 2013 and Spring of 2014, before irrigation water is turned on.

Complete grading and shaping of ditch, install lining material and complete finish grading and reclamation work.

Concrete inlet work will be completed at the same time as lining material is installed.

### Method/Procedure

A construction company will be contracted to complete all work.

### Deliverable

Complete 3500 feet of ditch lining.

## **TASK 2 – [Name]**

Description of Task

Method/Procedure

Deliverable

**REPEAT FOR TASK 3, TASK 4, TAKE 5, ETC.**

### **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.

### Irrigation Ditch Lining Project - Cost Estimate

Estimated Budget:

Mobilization	\$5,000.00
Earthwork	\$10,000.00
Concrete inlet Structure 5 CY	\$10,000.00
Open Ditch liner (Smart Ditch) 3500 ft	\$370,000.00
Install Liner	\$95,000.00
Rock Rip Rap	\$10,000.00
10% engineering and contingencies permits	\$50,000.00

Total \$550,000.00

Total Costs				
	Labor	Other Direct Costs	Matching Funds (If Applicable)	Total Project Costs
Task 1 - (Specify name of task)				
Task 2 -				
In-Kind Contributions				
Total Costs:				

### Example Titles

Example Project Personnel: Hourly Rate:	Project Manager	Project Engineer	Geologist	Scientist	Graphics/ Designer	Clerical		Total Costs
Task 1 -								
Task 2 -								
Total Hours:								
Cost:								

Other Direct Costs						
Item:	Copies	Materials	Equipment/ Supplies	Mileage		Total

Units: Unit Cost:	No.			Miles		
Task 1 -						
Task 2 -						
Total Units:						
Total Cost:						

In-Kind Contributions (If Applicable)				
Project Personnel: Hourly Rate:				Total
Task 1 -				
Task 2 -				
Total Hours:				
Total Cost:				

## 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.

Example 1

Task	Start Date	Finish Date
1	Upon NTP	NTP + 90 days
2	Upon NTP	NTP + 180 days
3	Upon NTP	NTP + 180 days
4	Upon NTP	12/31/11
5	NTP + 60 days	12/31/11
6	NTP + 60 days	12/31/11
7	NTP + 60 days	12/31/11

NTP = Notice to Proceed

Example 2

Task	First 6 Months						Second 6 Months					
	1/10 – 3/10			4/10 – 6/10			7/10 – 9/10			10/10 - 12/10		
A – Economic Analysis												
B – Storage Analysis												
C – TA for Ditch Cos												
D – Injury Analysis												
Final Reports												

## 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 21<sup>st</sup> 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>

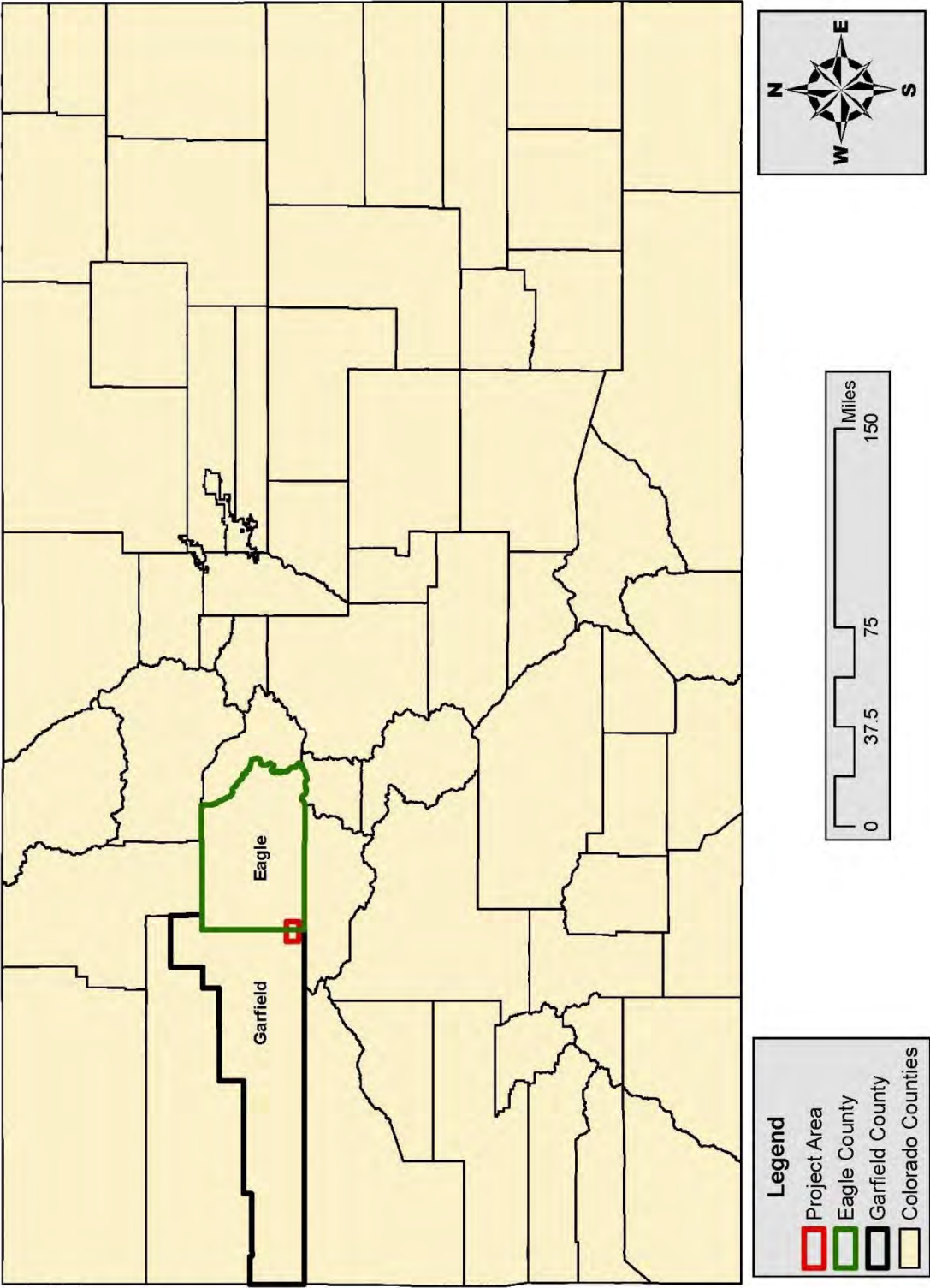
## **Appendix 4**

### **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.

**Exhibit B**  
**General Location Map**

**Missouri Heights-Mountain Meadow**  
**Location Map**



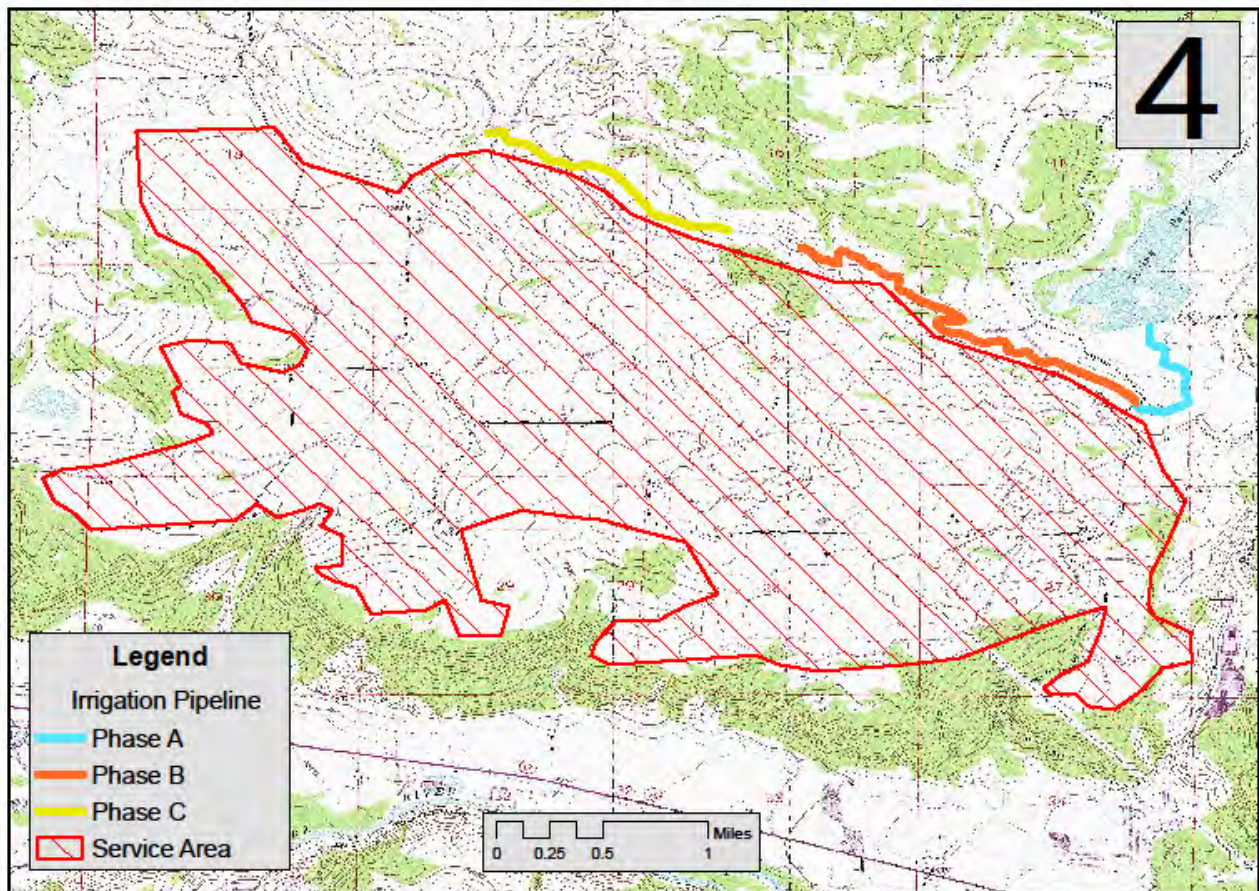
Detailed Location Map

Missouri Heights-Mountain Meadow  
Phase A



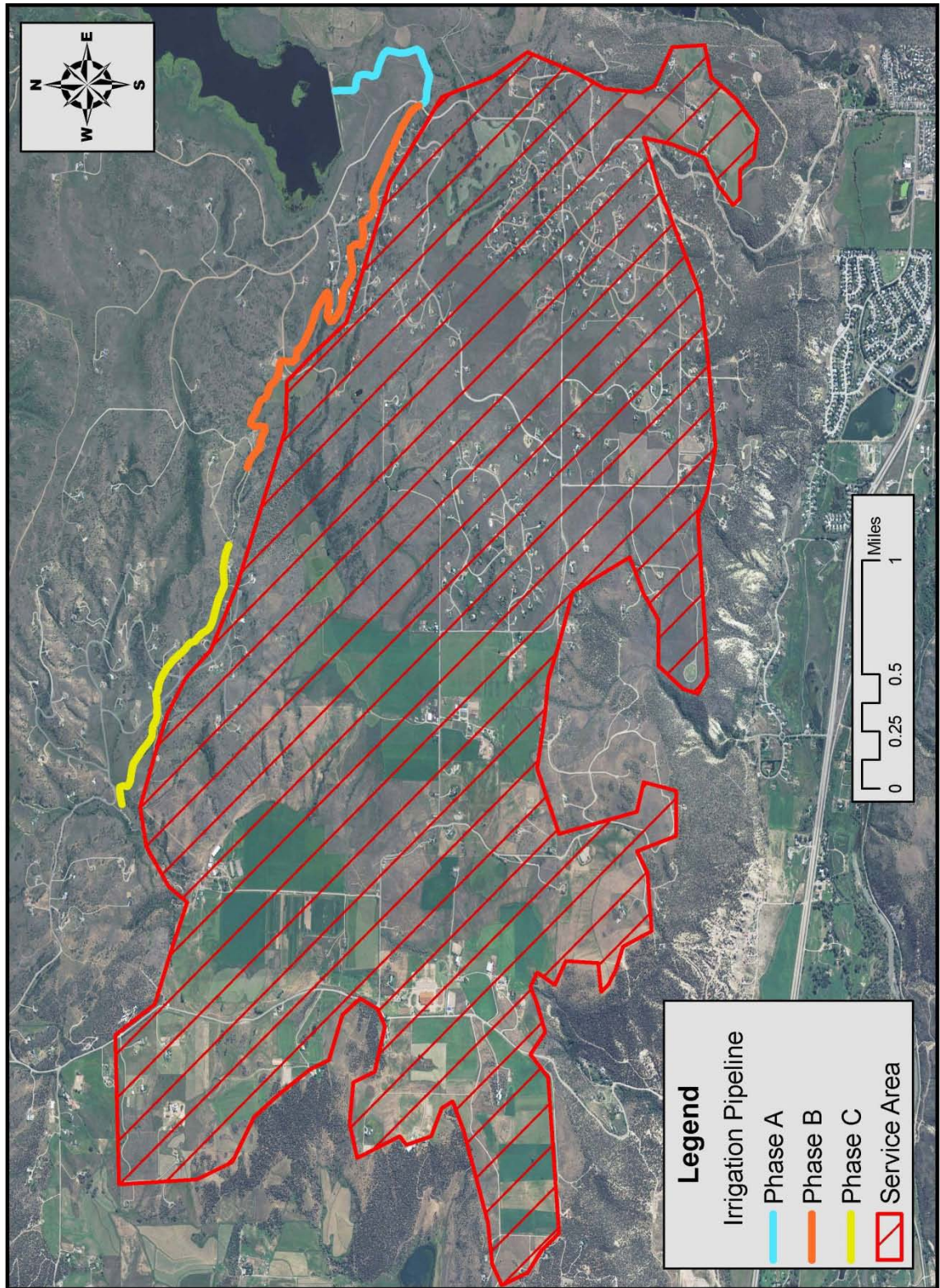
## Topography Map of Project Area

### Missouri Heights-Mountain Meadow Service Area Map



Missouri Heights-Mountain Meadow  
Service Area Map

Service Area Map



## **Exhibit C Photos**

### **Spring Park Reservoir**



## Photos of Existing Ditch

**Stilling Basin for Reservoir Outlet  
and Beginning of Ditch to be Lined**



Spring Park Reservoir Outlet Control  
Structure and Water Storage for  
Missouri Heights Ditch Company



Typical Irrigated Field Under  
Missouri Heights Ditch Company



**Ditch Section to Be Lined**



**Attachment**  
**Feasibility Study**  
**Missouri Heights - Mountain Meadow Irrigation Company**  
**Ditch Lining Project**

**Introduction (Need for the Project)**

This project lies in the Roaring Fork Valley in the southwestern portion of Eagle County and the eastern portion of Garfield County, Colorado. The Missouri Heights - Mountain Meadow Irrigation Company operates the Missouri Heights Mountain Meadow Irrigation Company Ditch for the benefit of the shareholders by providing irrigation water from the Spring Park Reservoir. The beginning portion of the earthen ditch below the Reservoir loses as much as 30% of the water in the ditch due to seepage through the course and rocky soils. The Missouri Heights - Mountain Meadow Irrigation Company wants to install a lining or pipeline to make a permanent fix of this section. Proposed work will take place in the fall and winter of 2013 while the ditch is not in use.

The proposal is to line with a new plastic product called "Smart Ditch" or to pipe the 3500 ft. seeping canal. The lining or pipeline will prevent water loss due to ditch seepage.

The project consists of a concrete water control structure, about 3500 feet of a new product called "Smart Ditch" or 60 Inch plastic pipe and related rock protection of both the pipe and structure.

Without controlling seepage from the ditch water loss will continue until the ditch is lined or piped.

**Project Sponsor**

The Missouri Heights - Mountain Meadow Irrigation Company is an incorporated ditch company in the State of Colorado. The Company has an elected board of directors that manage the day-to-day business and operation of the ditch. The Ditch has a hired "ditch walker" to manage flows of water to the users of the ditch and to do some maintenance work. The Missouri Heights - Mountain Meadow Irrigation Company articles of incorporation and by-laws are included in Appendix A.

**Project Service Area and Facilities**

This project and service area lies in the Roaring Fork Valley in the southwestern portion of Eagle County and the eastern portion of Garfield County, Colorado. The Ditch Company has approximately 6 miles of distribution ditch starting at the outlet of the Spring Park Reservoir. The

area is known locally as Missouri Heights and is located north and east of Carbondale, Colorado and directly north of El Jebel, Colorado.

The ditch company serves 54 users including private landowners and homeowners' associations. The users are approximately 65% to 75% agricultural. The Missouri Heights - Mountain Meadow Irrigation Company provides water to irrigate about 2000 acres of land. Irrigated acreage within the service area is primarily used for cattle ranching, hobby farms, nursery trees, sod production, and to grow hay and forage crops. The hay crop is used as cattle and horse feed, or is sold.

Missouri Heights and all of Garfield County, has rapid population growth and development. This growth puts demands on the water in the Roaring Fork River for agriculture irrigation, recreation, municipal and industrial uses. The Missouri Heights - Mountain Meadow Irrigation Company has increased in the number of shareholders of 14 in 1968 to 36 in 1989 and currently has 54 shareholders. In addition to the increased pressure on the Ditch and its quantity of water, the Reservoir has seen increased use by bird watching and hunting over the last 20 years.

The area is greatly influenced by recreation, tourism and increased population, creating major changes in agriculture uses of the land and water. The water resources are having additional demands from domestic uses and industrial uses because of this growth.

### **Hydrology and Water Rights**

Water for the Missouri Heights - Mountain Meadow Irrigation Company ditch is supplied by a direct diversion from Cattle Creek delivered through an open ditch to Spring Park Reservoir. The water is withdrawn from the reservoir as needed by the shareholders.

Water Rights are 13 CFS with an appropriation date of May 31, 1902 and a second right for 40 cfs with an appropriation date of December 28, 1911.

The Ditch is usually turned on in the first two weeks of May and runs until about the first of October.

### **Project Description and Alternatives**

The purpose of this project is to provide a means for the Missouri Heights Mountain Meadow - Irrigation Company to continue providing irrigation water to shareholders while minimizing water loss and maintaining the operation of the existing delivery system. Three alternatives were considered:

1. The no-action alternative.
2. Install Ditch Liner and structures in the first 3500ft of ditch

3. Piping the ditch with 60 inch diameter plastic pipe for the first 3500 feet.

**Alternative No. 1** was considered unacceptable since it means the Missouri Heights - Mountain Meadow Irrigation Company will continue to lose water due to seepage.

**Alternative No. 2** was selected, since it is considered to be the least costly reliable approach.

**Alternative No. 3** this alternative is not feasible because there is not enough head to flow water through the pipe without backing water into the piping and structure of the reservoir embankment.

**The selected alternative, Alternative No. 2**, involves purchase and installation of 3500 ft. of a new product which uses plastic interlocking peaces to line the ditch. Design has been completed by the suppliers of the product called Smart Ditch. This also includes needed concrete and other structural needs and rock riprap designed by the Garfield County Office of the Natural Resources Conservation Service (NRCS). NRCS is preparing any additional engineering designs and cost estimates for the project. Conceptual plans as prepared by the NRCS and Smart Ditch are attached in the back pocket of this study.

The estimated cost of the completed project is \$550,000. The cost breakdown is summarized in Table 1. The NRCS Preliminary Design report and detailed cost estimate are included in Appendix D.

**Table 1. Missouri Heights - Mountain Meadow Irrigation Company  
Irrigation Ditch Lining Project - Cost Estimate**

Estimated Budget:

Mobilization	\$5,000.00
Earthwork	\$10,000.00
Concrete inlet Structure 5 CY	\$10,000.00
Open Ditch liner (Smart Ditch) 3500 ft	\$370,000.00
Install Liner	\$95,000.00
Rock Rip Rap	\$10,000.00
10% engineering and contingencies permits	\$50,000.00
Total	\$550,000.00

### **Implementation Schedule**

The NRCS is expected to complete the final design by mid-October 2013. Construction is expected to begin November 2013 and to be completed by May 2014.

## Permitting

All easements and rights of way have been arranged. The Company expects to be exempt from 404 permitting by statutory exemption, 33 CFR Section 323.4(a) 3. This will be confirmed with the Army Corps of Engineers.

## Financial Analysis

The Missouri Heights - Mountain Meadow Irrigation Company will be the lead for the financing, design, and construction of the project and will be the entity entering into contracts and agreements with the various entities for the services provided by each.

Entities that are, or may be, involved in the design, construction, and financing of the project include:

1. Missouri Heights - Mountain Meadow Irrigation Company; financing and project management.
2. Natural Resources Conservation Service (NRCS); design, and construction.
3. Colorado Water Conservation Board (CWCB); financing and construction,

Several entities will be involved in financing the estimated total project cost of \$550,000. The Missouri Heights - Mountain Meadow Irrigation Company is applying for a loan from the CWCB in maximum amount of \$450,000.00, to accommodate the 100% Company cost share. The actual or estimated amounts by entity are given in Table 2.

**Table 2. Sources of Funding  
(actual as of 1-31-2013)**

Funding Sources:

Ditch Company funds	\$100,000.00
Colorado Water Conservation Board Revolving Loan	\$450,000.00
Total	\$550,000.00

The Missouri Heights - Mountain Meadow Irrigation Company will cover any costs that exceed the estimated project cost.

The Missouri Heights - Mountain Meadow Irrigation Company is requesting \$450,000.00 loan for 30-year from the CWCB. The standard agricultural lending rate would be 4%, resulting in annual payments of \$24,458. To this would be added \$2,446 per year for the first 10 years to fund the emergency reserve account, for a total annual cost of \$26,903. **estimated**

Table 3 is a summary of the financial aspects of the project. Annual assessments are \$4.00 per share. With project future assessments will be \$6.50 to \$7.00 per share.

\*\*The increase in annual assessments is to be determined.

**Table 3. Financial Summary**

Project Cost	\$550,000
Loan Amount (75% of Project Cost)	\$438,000
CWCB Loan Payment Amount, including 10% loan reserve	\$15,903
Number of Shareholders	54
Number of Shares of Stock	10,000
Current Assessment per Share	\$4.00
Future Assessment per Share	**see above
Annual Project Cost per acre-foot (Average annual diversions: 4,480 acre-feet)	

Since all other funding for the project is in the form of grants, the Company would have no other debt service on this project. Operation and maintenance costs are expected to decrease with the new diversion structure, and can be accommodated by the Company's existing budget.

### **Potential Funding**

The Ditch Company will be applying for additional grants to assist in the funding of this project. Some of the sources of fund to be applied for are:

USDA - NRCS      Environmental Quality Incentive Program  
Colorado River Water Conservation District - Grant Program  
Colorado River Water Roundtable Funds

A Grant has been requested through the Colorado River Water Conservation District. This grant is requesting \$100,000.00 but result of the request will not be known until late April, 2013.

The Ditch Company members have signed up for the Environmental Quality Incentive Program through the Natural Resources Conservation Service, USDA. The amount of funding and the results of contract approval will be determined by NRCS later in the year.

Colorado River Water Roundtable Funds are being requested. We are requesting \$50,000.00.

Funds received will vary from requested amount because of program limits as actual funds are approved.

**If all Grants were approved at requested amounts**

**Sources of Funding**

Ditch Company funds	\$100,000.00
USDA - NRCS Environmental Quality Incentive Program	\$100,000.00 est./guess
Colorado River Water Conservation District - Grant Program	\$100,000.00
Colorado River Water Roundtable Funds	\$ 50,000.00
Colorado Water Conservation Board Revolving Loan	\$200,000.00
<b>Total</b>	<b>\$550,000.00</b>

**Credit worthiness:** Missouri Heights - Mountain Meadow Irrigation Company has no existing debt. Table 4 shows the Financial Ratios for the Missouri Heights Mountain Meadow - Irrigation Company and indicates average to strong ability to repay with the project in place.

The Missouri Heights - Mountain Meadow Irrigation Company operates on assessments of the water users. For many years the Ditch Company has kept the assessments as low as possible as many of the users are just getting by. A major project like this could cause the failure of the ditch company and leave the water unused if loans and grants are not obtained.

**Table 4. Financial Ratios**

<b><i>Financial Ratio</i></b>	<b><i>Without the project</i></b>	<b><i>With the project</i></b>
Operating Ratio (revenue/expense)		
Debit Service Coverage Ratio (revenues-expenses)/debt service		
Cash Reserves to Current Expense		
Annual Cost per acre-foot (15,000 acre-feet diverted.)		

Annual income at \$4.00 per share plus \$100 per account is \$55,300. Expenses run an average of \$40,000 per year.

**Alternative financing considerations:** The Missouri Heights - Mountain Meadow Irrigation Company has investigated alternative financing sources. They have obtained an in-kind grant from the NRCS for engineering design and construction inspection.

**Collateral:** As security for the CWCB loan the Missouri Heights Mountain Meadow Irrigation Company Ditch Company can pledge assessment income, water rights and the project itself.

**Economic Analysis**

The economic benefit of the project is considerable. The Mount Sopris Conservation District estimates the value of property affected to be \$30.7 million (3071 ac.X \$10,000.00), within the 3,071-acre service area. The short-term value of potential damage to this property in the event the Missouri Heights Mountain Meadow Irrigation Company pipeline is continued loss of 30% of the water. The loss in land value is unknown and may be incalculable.

### **Social and Physical Impacts**

This project lies in the Roaring Fork Valley in the southwestern portion of Eagle County and the eastern portion of Garfield County, Colorado. The Ditch is approximately 6 miles long, starting at the outlet of the Spring Park Reservoir. The area is known locally as Missouri Heights and is located north and east of Carbondale, Colorado and directly north of El Jebel, Colorado. Additional demands on irrigation infrastructure and water resources is being increase because of recreation and tourism, changes in agriculture uses of the land and increased population.

The project will have no significant *social impacts*, since it will assure the continued operation of a currently existing irrigation system. The project will have minor physical impacts, once construction is complete. The new lining will be in the same location as the existing open ditch.

The Missouri Heights - Mountain Meadow Irrigation Company is experiencing changes in Agriculture use of water. The Agricultural use is changing to smaller land owners growing hay and pasture, some nursery and tree farms and conventional agriculture crops.

### **Conclusions**

1. The Missouri Heights - Mountain Meadow Irrigation Company is an incorporated entity in the State of Colorado with the ability to enter into a contract with the CWCB for the purpose of obtaining a Construction Fund loan.
2. Rights-of Way easements are adequate for the construction of this project.
3. The project would provide for the continued delivery of irrigation water to shareholders.
4. The total estimated cost of the project is \$550,000.00 and this will be financed, in part, by in-house financing, in-kind services, and various grants that are being applied for. The Missouri Heights - Mountain Meadow Irrigation Company is applying for a \$450,000 loan from the CWCB Construction Fund for the amount not covered by other grants.
5. Missouri Heights - Mountain Meadow Irrigation Company is eligible for a loan from the CWCB Emergency Infrastructure Repair Account because the project is necessary to avoid unreasonable risk of injury or damage to human health or well-being or to property or crops, and because the emergency condition is not the result of negligence in the operation or maintenance of the infrastructure.
6. The project is technically and financially feasible.