Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
July 20-21, 2016
Agenda Item 16(d)

Applicant & Fiscal Agent:	Marcot Park Ditch and Reservoir Company
Water Activity Name:	Marcot Dam Outlet Repair
Water Activity Purpose:	Agricultural
County:	Delta
Drainage Basin:	Gunnison
Water Source:	Marcot Creek
Amount Requested/Source of Funds:	$49,649 Gunnison Basin Account $49,649 Total Basin Account request
Matching Funds:	Applicant Match: $37,461 = 43% of the total project cost of $87,110 (refer to *Funding Summary/Matching Funds* section below)

Staff Recommendation:

Staff recommends approval of up to $49,649 from the Gunnison Basin Account to help fund the project titled: Marcot Dam Outlet Repair.

Water Activity Summary: WSRA funds, if approved, will help fund the project titled: Marcot Dam Outlet Repair. Marcot Park Ditch and Reservoir Company (MPDRC) has embarked on a long-term effort to upgrade the aging earth-compacted Marcot Dam located on the Grand Mesa. In addition to the maintenance requirements indicated by periodic inspection by Colorado Dam Safety, MPDRC is aggressively working to minimize seepage from the reservoir, improve the dam crest, and improve placement or rip-rap. Photo and video examination of the outlet piping during dam inspections revealed however, that the priority should be shifted to rehabilitation of the outlet piping.

The dam's outlet, installed in 1955, is a 20-inch OD steel with ¼ inch wall thickness, bituminous coating within and on the pipe's outer surface. MPDRC, in cooperation with Colorado Dam Safety, has monitored the condition of the pipe via videos and photographic means. Concerns were cited in an inspection report by the Colorado Dam Safety Engineer dated July 16th, 2012, after a video inspection of the outlet pipe. In the summer of 2015, MPDRC engaged an engineering firm (DOWL, LLC) to examine the outlet, the historical data, and determine the best course of action for repair.

The conclusion of the DOWL investigation was that the Marcot outlet is a very good candidate for Cured- in-Place-Pipe (CIPP), a composite liner permanently emplaced by a thermo-curing process inside the host pipe. The report was accompanied by engineering calculations intended for submission to the Colorado Dam Safety Dept. In addition, DOWL submitted an Engineer's Estimate of Probable Cost. All these were delivered to MPDRC on September 15, 2015 for a cost of'$5240.00. This amount was paid from a previous WSRA study grant in the amount of $ 10,000.00.

Following receipt of the engineering findings, MPDRC met with personnel from Colorado Dam Safety on September 18, 2015 and submitted plans, calculations, the Engineering report and an application to apply a CIPP repair to the Marcot Reservoir outlet. MPDRC then contacted qualified contractors for bids to perform the CIPP repair, a copy of which is included in the appendix.

Discussion: This project meets the measurable objectives and action items in the Gunnison Basin Implementation Plan, including the rehabilitation of existing reservoirs on the Grand Mesa.

This project also meets additional critical actions identified in the Critical Action Plan (Chapter 10) of Colorado's Water Plan:

- **D3:** Provide grants, loans, and technical support to update and improve Colorado's aging agricultural infrastructure, especially where improvements provide multiple benefits.
- **E2:** Prioritize grants and loans to support the implementation of BIP-identified multipurpose projects and methods, taking into consideration locally identified geographic and seasonal gaps.

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

Threshold and Evaluation Criteria: The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria: n/a

Funding Summary/Matching Funds:

Funding Source	Cash	In-kind	Total
MPDRC	$37,461	n/a	$37,461
Subtotal Matching Funds	$37,461	$0	$37,461
WSRA Gunnison Basin Account	$49,649	n/a	$49,649
Total Project Costs	**$87,110**		**$87,110**

CWCB Project Manager: Brent Newman

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: 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.

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.

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.

The Gunnison Basin Roundtable
501 Palmer Street
Delta, CO 81416

June 14, 2016

Mr. Brent Newman
Water Supply Management Section
COLORADO WATER CONSERVATION BOARD
1313 Sherman St., Room 718
Denver, CO 80203

Re: WSRA Grant Request: Marcot Park Ditch and Reservoir Company – Marcot Dam Outlet Repair

Dear Mr. Newman:

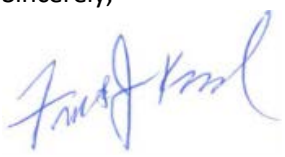
This letter is presented to advise you that the grant application submitted by the Marcot Park and Reservoir Company for $49,649 from Basin Account funds from the Water Supply Reserve Account for the Marcot Dam Outlet Repair project was reviewed by the Gunnison Basin Roundtable and its Project Screening Committee and was approved by a unanimous vote of the Gunnison Basin Roundtable during our meeting on June 6, 2016.

This water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes. The requirements/language from the statute is provided in Part 3 of the Criteria and Guidelines.

This activity benefits water use on the Grand Mesa through the renovation and improvement of an existing dam and reservoir.

Thank you for your help in processing this WSRA grant request.

Sincerely,



Frank J. Kugel
Vice Chair

cc: Hugh Sanburg (e-mail)
Tom Alvey (e-mail)
Craig Godbout (e-mail)

COLORADO
DEPARTMENT OF NATURAL RESOURCES

COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Today's Date: April 21st, 2016

Marcot Dam Outlet Repair

Name of Water Activity/Project

Marcot Park Ditch and Reservoir Co.

Name of Applicant

Gunnison

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

Amount from Statewide Account:	$0
Amount from Basin Account(s):	$49,649
Total WSRA Funds Requested:	$49,649

FEIN: 46-2062341

Application Content

Required Exhibits

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

Appendices – Reference Material

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

Instructions

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

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

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

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf. In addition, the applicant should also refer to the Supplemental Scoring Matrix applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests .

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:

Craig Godbout - WSRA Application
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203
Craig.godbout@state.co.us

If you have questions or need additional assistance, please contact Craig Godbout at: 303-866-3441 x3210 or craig.godbout@state.co.us.

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

1. Applicant Name(s): Marcot Park Ditch and Reservoir Co.

Mailing address: 15631 Bull Mesa Rd.
Cedaredge, CO 81413

FEIN #: 46-2062341

Primary Contact: Milan R. Armstrong Position/Title: Pres

Email: - Milan.armstrong@gmail.com

Phone Numbers: Cell: 970) 234-7683 Office:

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.

[x] Private Incorporated – mutual ditch companies, homeowners associations, corporations.

[ ] Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.

[ ] Non-governmental organizations – broadly defined as any organization that is not part of the government.

3. Provide a brief description of your organization Company was incorporated in 1946 as a non-profit Corporation. There are 21 stockholders using water stored in the reservoir for agricultural purposes on about 250 acres of farmland in Delta County for a wide variety of irrigated crops. In addition, the reservoir stores water for Town of Orchard City's domestic water supply. The Company holds a valid easement from US Forest Service to operate the reservoir and maintain it via a maintenance agreement with US Forest Service dated July,2009.

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

Not Applicable

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

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

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

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

TABOR does not apply to private companies.

Part II. - Description of the Water Activity/Project

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

X	Nonconsumptive (Environmental or Recreational)
X	Agricultural
	Municipal/Industrial
	Needs Assessment
	Education
x	Other Explain: Town of Orchard City, domestic

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

Recreational: Nearby campsites are convenient for fishing in Marcot, creek, and nearby reservoirs.

Agricultural: Marcot reservoir supplies irrigation water to about 250 acres of farmland in the Surface Creek area.

Domestic: Town of Orchard City has water rights to appropriately 2% of the Marcot reservoir capacity.

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

	Study	X	Implementation

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

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

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

Latitude: 39.034827 Longitude: -107.809213

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.

Marcot Ditch and Reservoir Co. ("Company") is upgrading its 60-yr old reservoir, Marcot Reservoir, which, because of its position in the chain of flow and storage on Grand Mesa is an important mid-altitude, high capacity reservoir. Located at 9600-ft. Elevation it is geographically located in a high water yield basin.

The dam's outlet, installed in 1955, is a 20-inch OD steel with 1/4-inch wall thickness, bituminous coating within and on the outer surface. The Company, in cooperation with CO Dam Safety, has monitored the condition of the pipe via photo and video means. Concerns were cited in an inspection report by the CO Dam Safety Engineer dated July 16, 2012 after a video inspection of the outlet. In the summer of 2015 the Company engaged an engineering firm (DOWL, LLC) to examine the the outlet, the historical data, and determine the best course of action for repair.

Findings by DOWL confirm that Marcot outlet is a....."very good candidate for rehabilitation using a CURED-IN-PLACE-PIPE (CIPP) liner". Accordingly, appropriate calculations were made to confirm the efficacy of the method and submitted to Colorado Dam Safety for review and approval. It appears at this point that the CIPP technology would provide an affordable, durable, and modest repair that could extend the life of the dam another 50 years.

The proposed project will be undertaken in the following steps:

A. USFS approval for move-on by contractor will be obtained (in accordance with Maintenance agreement.)

B. Site preparations including pipe access and pads for equipment,

C. Pumps on site to divert water away from working area,

D. Clean outlet pipe from inlet gate to discharge, remove debris to designated area, hold for disposal,

E. Inspect pipe to assure proper removal of scale, debris, and unwanted deposits,

F. Repeat "D and E" above until pipe is properly prepared,

G. Install CIPP liner, re-inspect, correct any deficiencies,

H. Inspection by Colorado Dam Safety, sign off approval,

I. Clean up work site area and restore any disturbed surfaces.

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]

If this repair is not completed in a timely manner, it may be necessary to breach the reservoir dam to install a new outlet pipe at considerable expense. A no-fill order would deprive the drainage of almost 500 a/f of needed water storage.

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

Pending Roundtable review

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

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

This project will protect water stored in Marcot Reservoir for the Town of Orchard City. The Town fully endorses this project.

d) Matching Requirement: For requests from the **Statewide Fund**, the applicants will be required to demonstrate a **25 percent** (or greater) match of the total grant request from the other sources, including by not limited to Basin Funds. A minimum match of 5% of the total grant amount shall be from Basin funds. A minimum match of 5% of the total grant amount must come from the applicant or 3rd party sources. 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 contract or purchase order between the applicant and the State of Colorado is executed. 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)

Applicant spent $20,000 in the fall of 2014 to reduce seepage in the SW area of the reservoir, and is prepared to budget expenditures to carry out this part of the overall rehabilitation. However, the outlet repair dictates a shift in priorities since the failure of the outlet would undoubtedly necessitate that the dam be breached. The Company intends to continue its financial commitment for the rehabilitation of the reservoir.

SEE EXHIBIT A

[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.

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. The applicant should also refer to the Supplemental Scoring Matrix applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests. 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.

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

Please attach additional pages as necessary.

This project has been designated by the WSRA committee as a Tier 1 Project.

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.

Adjudicated Date	Appropriation Date	Amount, AF	
1937-05-28	1895-08---01	132	H-5
1937-05-28	1902-07—15	354	H-15

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

No permits are required. However, the maintenance agreement with the US Forest Service requires notification when and for what use intended equipment is transported to the dam. The Company will observe all components of the agreement and will assure that proper clean-up and remediation (if necessary) is completed.

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.

STATEMENT OF WORK 04-21-2016 BY MARCOT PARK DITCH AND RESERVOIR CO.

Background:

In cooperation with Colorado Dam Safety, the condition of the outlet pipe has been monitored via photographs and video cameras. After the July 16, 2012 Dam Safety inspection, the engineer cited concerns about the overall condition of the outlet piping. The pipe is 20" OD steel, ¼" wall thickness with bituminous coating inside and outside. The inner lining has deteriorated, leaving the steel exposed. Indications are that corrosion, scaling, and rusting is taking place which could lead to failure. Cured-in-place-pipe (CIPP) has been selected by the Company's engineer as the best course of action for repair. Accordingly the necessary calculations and data have been submitted to Colorado Dam Safety for review and approval.

Objective:

CIPP has been shown to be advantageous in that it complements the host pipe strength even if the host pipe is weakened. The objective is to obtain the maximum effect of both strength and long life with the installation of CIPP.

Benefits:

The Company has taken a proactive position with respect to repairs of the Marcot Reservoir, ie, installation of rip-rap, identifying and repairing seepage, and this project has pulled ahead in priority since failure of the outlet could result in the loss of the reservoir (and all the recent repairs) entirely. Therefore, the benefit to the community to have the Marcot as viable water storage is a considerable asset.

SCHEDULE OF WORK/COSTS

(SEE EXHIBIT A)

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 10 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and help promote the development of a common technical platform.

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

Print Applicant's Name: Milan R. Armstrong, President Marcot Park Ditch and Reservoir Co

Milan Armstrong PRESIDENT

Project Title: Marcot Dam Outlet Repair

Date:September 29, 2015

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

Craig Godbout – WSRA Application
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203
303-866-3441, ext. 3210 (office)
303-547-8061 (cell)
craig.godbout@state.co.us

Exhibit A

Statement of Work

Date: May 1st, 2015

WATER ACTIVITY NAME -Marcot Dam Outlet Repair

GRANT RECIPIENT –Marcot Park Ditch and Reservoir Company

FUNDING SOURCE -Gunnison Basin

INTRODUCTION AND BACKGROUND

Marcot Park Ditch and Reservoir Company (MPDRC) has embarked on a long-term effort to upgrade the aging earth-compacted Marcot Dam located on the Grand Mesa. In addition to the maintenance requirements indicated by periodic inspection by Colorado Dam Safety, MPDRC is aggressively working to minimize seepage from the reservoir, improve the dam crest, and improve placement of rip-rap. Photo and video examination of the outlet piping during dam inspections revealed however, that the priority should be shifted to rehabilitation of the outlet piping.

The dam's outlet, installed in 1955 is a 20-inch OD steel with ¼-inch wall thickness, bituminous coating within and on the pipe's outer surface. MPDRC, in cooperation with Colorado Dam Safety, has monitored the condition of the pipe via videos and photographic means. Concerns were cited in an inspection report by the Colorado Dam Safety Engineer dated July 16th, 2012, after a video inspection of the outlet pipe. In the summer of 2015, MPDRC engaged an engineering firm (DOWL, LLC) to examine the outlet, the historical data, and determine the best course of action for repair.

ENGINEERING

The conclusion of the DOWL investigation was that the Marcot outlet is a very good candidate for Cured-in-Place-Pipe (CIPP), a composite liner permanently em placed by a therm o-curing process inside the host pipe. The report was accompanied by engineering calculations intended for submission to the Colorado Dam Safety Dept. In addition, DOWL submitted an Engineer's Estimate of Probable Cost. All these were delivered to MPDRC on September 15th, 2015 for a cost of $5240.00. This amount was paid from a previous WSRA study grant in the amount of $10,000.00.

All deliverables described above, along with a copy of the application to State of Colorado Dam Safety are included in the appendix to the application.

ACTION TAKEN

Following receipt of the engineering findings, MPDRC met with personnel from Colorado Dam Safety on September 18th, 2015 and submitted plans, calculations, the Engineering report and an application to apply a CIPP repair to the Marcot Reservoir outlet. MPDRC then contacted qualified contractors for bids to perform the CIPP repair, a copy of which is included in the appendix.

GRANT FOR CIPP INSTALLATION

The following table denotes the elements of the proposed installation, the costs, and the time line:

SCHEDULE OF WORK AND COSTS

TASK	COST	COMPLETED BY	WSRA	MPDRC
1. Gather data, prepare Grant application, evaluate bids	$0	September, 2016		$0
2. *Site preparations: equipment rental, earth movers in for pad at work site, water pumps for continuous 24hr pumping for duration, on-site assistance and transportation.	$12,000	September, 2016		$12,000
3. Contractor mobilization	$12,000	September, 2016	$7,999	$4001
4. Liaison with agencies, contractors, volunteers	$1800	September, 2016		$1800
5. CIPP installation	$41,650	September, 2016	$41,650	
6. Engineering oversight	$4760	September, 2016		$4760
7. Schedule inspections	$400	September, 2016		$400
8. Clean-up, site restoration	$4000	September, 2016		$4000
9. Contingency	$10,000	September, 2016		$10,000
10. Insurance	$500	September, 2016		$500
Totals	**$87,110**		**$49,649**	**$37,461**

WSRA funds	$49,649	57%	
MPDRC funds	$37,461	43%	
Totals	**$87,110**	**100%**	

MPDRC received bids from two contractors aware of site conditions and limitations.

All appropriate insurance coverage will be in force before project work begins, expenses incurred by MPDRC.

*Requires coordination with Grand Mesa Water Users Association to ensure reservoir is drained and ready for pumping and water mitigation at outlet gate valve.

FINANCIAL ANALYSIS

In 1955, the shareholders of Greenback Grave and Marcot Park Reservoirs executed an Agreement whereby Greenback Grave conveyed its water rights and easements to Marcot Park Reservoir for consideration of Marcot Park Reservoir storing and providing 48 acre-feet of water to the Greenback shareholders on a first charge basis and made available at all times during the irrigation season. Further, Marcot Park shareholders agreed to maintain the reservoir at their own expense and with "no assessment charges or costs of any kind to [Greenback] and further to provide all necessary labor for storage and distribution of said water at the outlet of said reservoir." Marcot agreed that "there shall be no charge incurred or liability upon [Greenback] for any enlargement or any construction to said reservoir, repair, replacement or rebuilding".

As a result of the Colorado Water Court ruling, Marcot Park Reservoir is allowed to store 460.35 acre-feet of water. The first 48 acre-feet are reserved for the shareholders of Greenback Grave and MPDRC shareholders are entitled to the remaining 412.35 acre-feet.

Over the past eight years, shareholders of MPDRC have through assessments, financed the ongoing rehabilitation efforts at Marcot Dam and Reservoir. These activities include:

A. Add rip-rap on Dam slope	(2008)	$1400
B. Grade crest of dam	(2010)	$600
C. Rework/repair gauge rod, gate valve	(2011)	$850
D. Identify, correct area of seepage in Southwest flank of reservoir.	(2014)	$19,300
E. Continue with upper seepage repairs	(2015)	$1438
	Total	**$23,588**

Yearly assessments to MPDRC shareholders have raised over the years depending upon the nature and severity of repairs. For the past eight years the financial load to shareholders for special assessments has averaged averaged $23,588 divided by 8 years, or $2950 per year. For the 100 shares outstanding this is about $30 per share, or $2950 divided by 412a/f, = $7.00 per a/f. Regular assessments amounted to $11.00 a/f for a total shareholder cost of $18 a/f.

If the outlet pipe repair is borne entirely by MPDRC the cost would jump to approximately $72.00a/f, a four-fold increase which would necessitate a special assessment of $296 per share as a consequence.

MPDRC requests WSRA funding to offset the financial burden and to assure the continuity of valuable water storage.

APPENDIX 1

A. DOWL ENGINEERING REPORT

B. SPECIFICATIONS FOR CIPP

C. APPLICATION TO CO DAM SAFETY

Marcot Dam Outlet Repair

Project Design Report

Water Division IV Water District 40
DAMID: 400407

Delta County, Colorado

September, 2015

Prepared For:

Marcot Park Ditch & Reservoir Co., Owner

15627 Bull Mesa Rd.

Cedaredge, CO 81413

Prepared By:

DOWL, LLC
222 South Park Avenue
Montrose, CO 81401

Marcot Dam Outlet Repair

WATER DIVISION #4, WATER DISTRICT #40
DAM ID: 400407
CONSTRUCTION FILE NUMBER

DELTA COUNTY, COLORADO

TABLE OF CONTENTS

Design Report for Cured-In-Place-Pipe Liner

1. **Introduction:** The Marcot Park Dam is currently owned and operated by the Marcot Park Ditch and Reservoir Company, of Cedaredge. The dam is located in Section 5, Township 12 S, Range 93 W, of the Sixth Principle Meridian on land managed by the U.S. Forest Service in the Grand Mesa National Forest. Based on the current inventory, the structure is categorized as a Small, High Hazard dam in accordance with the State of Colorado, Rules and Regulations for Dam Safety and Dam Construction, dated January 1, 2007.

   The existing outlet pipe is a 20" OD steel pipe with 1/4" wall thickness installed in 1955 according to information contained in Division of Water Resources files. The steel pipe was inserted in a 30" x 30" concrete conduit extending 45' upstream of the axis of the dam according to as-built drawings for the 1955 enlargement. The specification also state the embankment height was increased 12 feet, resulting in a total embankment height of 37.5 feet to the pipe invert resulting in a normal water depth of 32.5 feet above the pipe invert at centerline, assuming 5' of freeboard. The length of the outlet conduit is approximately 170 feet as described by the as-built plans for the 1955 enlargement. The purpose of the outlet repairs, described herein, are being undertaken to address concerns regarding the remaining service life of the existing steel pipe. Concerns were cited in an inspection report by the State Dam Safety Engineer dated July 16, 2012 after a video inspection of the pipe's interior.

   The video shows the pipe is rusty where the original bituminous coating is missing, but is circular in shape throughout with no sags or holes. Several joints are corroded and coated with what appears to be calcium deposits, perhaps due to water infiltration. The pipe does not exhibit any signs of structural weakness, significant distortion, or collapse based on the video inspection. As a result of the findings, the pipe appears to be a very good candidate for rehabilitation using a Cured-In-Place-Pipe (CIPP) liner.

2. **CIPP Process:** The CIPP liner process involves pressurized inversion of a resin impregnated felt tube into the existing pipe and heated internally until cured. The design of the liner thickness, manufacture of the liner tube, installation, and curing is governed by ASTM F1216. The thickness of the liner tube is based, in part, on the condition of the existing pipe. Depth of cover and water depth are primary factors in determining the required thickness. Computation of the liner wall thickness and the discharge rating curve for the lined pipe is provided in Appendix A.

3. **Conclusion:** Based on the results of computations, the appropriate minimum wall thickness for the CIPP should be 0.34 in. (8.6 mm) for a partially deteriorated condition of the existing pipe based on internal water pressure. The computations for a fully deteriorated condition yielded a wall thickness of 0.46 in. (11.7 mm). While the ASTM design standard suggests a minimum value of 250,000 for the modulus of elasticity, the use of 400,000 psi value for enhanced resin is well supported by actual laboratory tests performed on cured samples with results provided as an attachment to the report. The additional strength provided for the fully deteriorated condition would not appear warranted based on the existing physical appearance of the pipe shown in the video inspection. No signs of structural weakness are evident, the existing pipe has a circular shape throughout, no sags in the invert evidenced by the water flow, no lateral displacements are apparent, walls of the pipe are intact throughout. The conditions observed would indicate the existing conduit has sufficiently accommodated all internal and external loading since installed 60 years ago.

   In conclusion, the partially deteriorated condition is an appropriate design criteria for the rehabilitation of the existing pipe and fully satisfy concerns expressed by the State Dam Safety Engineer.

Appendix A

CIPP Design Computations
and
Discharge Rating Curve

CIPP Thickness Computations

The principle reference for determining the minimum wall thickness for the CIPP liner to be installed is ASTM F1216. The equations in there entirety, along with parameter definitions, are contained in the Appendix of the ASTM standard. Pertinent information is summarized here for reference.

The equations used to compute the required minimum wall thickness are for the following two assumed conditions of the existing pipe:

- For a partially deteriorated condition
- For a fully deteriorated condition

Although the video inspection of the existing pipe's interior shows no outward signs of structural weakness in the cross-section, the remaining strength of the pipe wall of the existing steel pipe is not known. Therefore, the required minimum wall thickness was computed for both conditions of deterioration to show relative differences in the two requirements.

The following is a summary of the computations and assumptions used for the two conditions:

Partially Deteriorated Condition

$$P = \frac{2KE_L}{(1-\nu^2)} \times \frac{1}{(SDR-1)^3} \times \frac{C}{N}$$

$$C = \left(\left[1-\frac{q}{100}\right] \Big/ \left[1+\frac{q}{100}\right]^2\right)^3$$

Where:

K	=	7.0	Enhancement factor of the soil
E_L	=	400,000 psi	Long-term modulus of elasticity (50% reduction for Enhanced Resin)
<	=	0.3	Poisson's ratio
t	=	0.34 in	Assumed thickness of CIPP
D	=	19.5 in	Mean diameter of existing pipe
SDR	=	57.35	Standard Dimension Ratio - t/D
q	=	2.0	% Percent ovality assumed
C	=	0.84	Ovality reduction factor

Where:

H_w	=	32.5 ft	Height of water above top of pipe
P_a	=	14.08 psi	Actual groundwater load
P	=	14.37 psi	Allowable groundwater load (psi) for assumed t

t = 0.34 in. (8.6 mm) OK

Fully Deteriorated Condition

Where:

$$q_t = \frac{C}{N}\left[32 R_w B' E'_s (E_L I / D^3)\right]^{1/2}$$

H_w	=	32.5 ft	Height of water above pipe
H	=	35.0 ft	Height of soil above top of pipe
R_w	=	0.71	Water buoyancy factor $= 1 - 0.33(H_w / H)$ (0.67 minimum)
w	=	120 lb/ft^3	Soil density
W_s	=	0.0	psi Live load
B'	=	0.76	Coefficient of elastic support $= 1/(1 + 4e^{-0.065H})$
t	=	0.46 in	Assumed thickness of CIPP
I	=	0.0092 in^4/in	Moment of inertia of CIPP
C	=	0.84	Ovality reduction factor
N	=	2.0	Factor of safety
E'_s	=	1000.0	Modulus of soil reaction
E_L	=	400,000 psi	Long-term modulus of elasticity (50% reduction for Enhanced Resin)
D	=	19.5 in	Mean inside diameter of original pipe
q_a	=	34.30 psi	Actual external load $= 0.433H_w + wHR_w / 144 + W_s$
q_t	=	34.67 psi	Allowable external load for assumed t

t = 0.46 in. (12.2 mm) OK

From "Design of S .blication, 3rd Edition, 1987

Physical properties of outlet after lining
ID= 18.82 in. = 1.57 ft.

$A = \frac{\pi d^2}{4} = \frac{\pi(1.57)^2}{4} =$ 1.93 sq. ft.

L= 170 ft.
Manning's n= 0.01

Head losses

1) Trashrack — Assumed: $a_n = 16.74$ $a_g = 18.75$

$$K_T = 1.45 - 0.45\frac{a_n}{a_g} - \left(\frac{a_n}{a_g}\right)^2$$

$K_T = 0.23$

2) Entrance & Gate — From Table 10.1, p.458 - Ave C= 0.82 for condition (c)

$$K_e = \frac{1}{C^2} - 1 = \frac{1}{(0.82)^2} - 1$$

$K_e = 0.49$

3) Elbow — Assume 70° miter bend, for relative $\frac{R_b}{D} = 0.5$

$K_b = 0.9$ From Figure 10-12(A) $K_b = 1.0$ for 90° bend
From Figure 10-12(B) Factor = 0.9 for 70° bend

4) Friction

$$K_f = \frac{185n^2L}{d^{4/3}} = \frac{185(0.01)^2(170)}{(1.57)^{4/3}}$$

$K_f = 1.73$

5) Exit

$K_x = 1.0$ For free discharge

Total Head Loss

$K_T = K_T + K_e + K_b + K_f + K_x = 0.23 + 0.49 + 0.9 + 1.73 + 1.0$
$K_T = 4.34$

Discharge Equation

$$Q = a\sqrt{\frac{2gH_T}{K_T}} = (1.93)\sqrt{\frac{(64.4)H_T}{(4.35)}} = 7.44\sqrt{H_T}$$

The following table provides the computed discharge for each foot of depth based on the above equation.

Outlet Discharge Rating Curve

H_T feet	Q cfs
1	7.44
2	10.52
3	12.88
4	14.87
5	16.63
6	18.22
7	19.68
8	21.04
9	22.31
10	23.52
11	24.67
12	25.76
13	26.82
14	27.83
15	28.80
16	29.75
17	30.66
18	31.55
19	32.42
20	33.26
21	34.08
22	34.88
23	35.67
24	36.43
25	37.19
26	37.92
27	38.64

mall Dams" USBR Publication, 3rd Edition

Outlet Discharge Computation

MICROBAC®

August 22, 2014

Christian Brown
Layne Inliner (CO)
7915 Cherrywood Loop
Kiowa, CO 80117

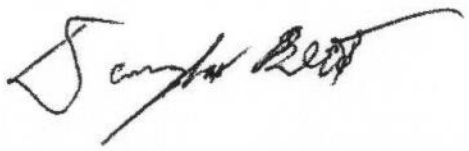
Dear Christian Brown,

Microbac Laboratories, Inc. Hauser Division completed work order 1408308 on 8/22/14. Please find the final report on the following pages. Thank you for choosing Microbac Laboratories for your testing needs.

It is our preference to send all reports and invoices electronically when available. If you need any contact information updated or additional contacts added, please communicate your needs to our administrative staff at (720)406-4800 or hauserlabs@microbac.com.

To provide feedback concerning our services, please contact our Quality Department or Trevor Boyce, President of Microbac Laboratories, at trevor.boyce@microbac.com.

Sincerely,



Doug Bert
Mechanical Department Manager
Microbac Laboratories, Inc. Hauser Division

TEST REPORT

CLIENT: Layne InLiner
7915 Cherrywood Loop
Kiowa, CO 80117

Attention: Christian Brown

SAMPLES: Five samples of cured in place plastic pipe (CIPP) material were submitted and identified by the client as shown below.

Manhole Number
3.21 to CH3.2
CH6 to CH5
CH5 to CH4
CH3 to C6
CH4 to CH3

The samples were received on August 13, 2014.

TESTING:

1. Thickness measurements were made on the samples in accordance with ASTM D5813-04(12) at eight locations on each sample.

2. Flexural Properties testing per ASTM D790-10, Procedure A was conducted on the samples. The specimens were prepared in accordance with ASTM D5813-04(12). The specimens were tested using a sixteen to one span-to-depth ratio. All specimens were conditioned in accordance with ASTM D618-13, Procedure A prior to testing.

RESULTS: The test results are presented in Tables 1 and 2. Flexural properties test results include flexural strength at flexural yield (at or prior to reaching 5% strain), and tangent flexural modulus. Specimen dimensions, span length, and testing speed for flexural properties testing are presented in Table 3.

DATA REVIEWED AND
REPORT WRITTEN BY:

Douglas Bert
Department Manager

REPORT REVIEWED BY:

John Hindman
Engineer II

TABLE 1
DETAILED THICKNESS MEASUREMENTS

Sample ID:	3.21 to CH3.2	
Location	inches	mm
1	0.264	6.71
2	0.227	5.77
3	0.187	4.75
4	0.193	4.90
5	0.214	5.44
6	0.261	6.63
7	0.276	7.01
8	0.274	6.96
Average:	0.237	6.02
Std Dev:	0.036	0.92

Sample ID:	CH6 to CH5	
Location	inches	mm
1	0.211	5.36
2	0.204	5.18
3	0.196	4.98
4	0.192	4.88
5	0.192	4.88
6	0.191	4.85
7	0.194	4.93
8	0.206	5.23
Average:	0.198	5.04
Std Dev:	0.008	0.19

Sample ID:	CH5 to CH4	
Location	inches	mm
1	0.190	4.83
2	0.196	4.98
3	0.205	5.21
4	0.207	5.26
5	0.202	5.13
6	0.187	4.75
7	0.193	4.90
8	0.198	5.03
Average:	0.197	5.01
Std Dev:	0.007	0.18

Sample ID:	CH3 to C6	
Location	inches	mm
1	0.241	6.12
2	0.200	5.08
3	0.177	4.50
4	0.202	5.13
5	0.216	5.49
6	0.264	6.71
7	0.269	6.83
8	0.251	6.38
Average:	0.228	5.78
Std Dev:	0.034	0.85

Sample ID:	CH4 to CH3	
Location	inches	mm
1	0.228	5.79
2	0.218	5.54
3	0.197	5.00
4	0.184	4.67
5	0.213	5.41
6	0.249	6.32
7	0.259	6.58
8	0.241	6.12
Average:	0.224	5.68
Std Dev:	0.026	0.65

TABLE 2
FLEXURAL PROPERTIES TEST RESULTS

Specimen Number	Flexural Yield Strength	Strain @ Flexural Yield Strength	Flexural Modulus (Tangent)
	psi	%	psi
3.21 to CH3.2			
1	5,330	5.0	475,000
2	5,550	5.0	452,000
3	5,230	4.6	462,000
4	5,400	5.0	445,000
5	5,620	4.9	425,000
Average	5,430	4.9	452,000
Std. Dev.	150	0.2	17,000
CH6 to CH5			
1	8,330	4.1	563,000
2	7,750	2.9	560,000
3	7,960	3.7	569,000
4	8,100	4.4	552,000
5	8,120	3.5	579,000
Average	8,050	3.7	565,000
Std. Dev.	200	0.6	9,000
CH5 to CH4			
1	7,850	4.3	566,000
2	7,350	4.1	560,000
3	8,090	4.9	569,000
4	8,290	4.9	565,000
5	7,790	4.5	558,000
Average	7,880	4.5	564,000
Std. Dev.	330	0.4	4,000

TABLE 2 CONTINUED
FLEXURAL PROPERTIES TEST RESULTS

Specimen Number	Flexural Yield Strength	Strain @ Flexural Yield Strength	Flexural Modulus (Tangent)
	psi	%	psi
CH3 to C6			
1	5,770	3.4	509,000
2	5,910	5.0	426,000
3	5,900	5.0	510,000
4	5,560	5.0	496,000
5	5,790	4.4	487,000
Average	5,780	4.6	486,000
Std. Dev.	130	0.7	32,000
CH4 to CH3			
1	6,390	2.9	554,000
2	6,760	5.0	563,000
3	6,490	4.6	551,000
4	6,480	4.9	554,000
5	5,120	4.5	393,000
Average	6,250	4.4	523,000
Std. Dev.	590	0.9	67,000

TABLE 3
DETAILS OF FLEXURAL PROPERTIES TESTING

Specimen Number	Width	Thickness
	in	in
3.21 to CH3.2		
1	0.483	0.271
2	0.487	0.244
3	0.493	0.228
4	0.485	0.267
5	0.475	0.258
Span Length (inches)		4.06
Speed of Testing (inches per Minute)		0.10
CH6 to CH5		
1	0.483	0.211
2	0.481	0.212
3	0.481	0.212
4	0.480	0.213
5	0.484	0.210
Span Length (inches)		3.39
Speed of Testing (inches per Minute)		0.09
CH5 to CH4		
1	0.481	0.215
2	0.480	0.219
3	0.481	0.216
4	0.481	0.214
5	0.485	0.212
Span Length (inches)		3.44
Speed of Testing (inches per Minute)		0.09

TABLE 3 CONTINUED
DETAILS OF FLEXURAL PROPERTIES TESTING

Specimen Number	Width	Thickness
	in	in
CH3 to C6		
1	0.487	0.256
2	0.485	0.237
3	0.488	0.252
4	0.490	0.245
5	0.491	0.227
Span Length (inches)		3.89
Speed of Testing (inches per Minute)		0.10
CH4 to CH3		
1	0.489	0.239
2	0.481	0.253
3	0.485	0.231
4	0.487	0.247
5	0.487	0.247
Span Length (inches)		3.89
Speed of Testing (inches per Minute)		0.10

PIPELINE

Proposal

Pipeline Inspection Services
"Rebuilding our worlds infrastructure one city at a time"

PO Box 3023, Nampa, ID 83653
Phone 208-941-9424 Fax 208-465-4413
pipelineinspections@hotmail.com

DATE: MARCH 14, 2016

TO: Norman J. Aufderheide, P.E.
Senior Project Manager

DOWL
WWW.DOWL.COM
INSPIRATION • INNOVATION • INTEGRITY

(970) 497-8801 ▪ (800) 865-9847 (fax)
222 South Park Avenue
Montrose, Colorado 81401

SALESPERSON	JOB	PAYMENT TERMS	BID DATE
Scott Wendling	170' of 20" Grand Junction	Due on receipt	N/A

QTY	DESCRIPTION	UNIT PRICE	LINE TOTAL
170'	Install approximately 170' of 20" x 9mm CIPP Liner in an existing damn outlet.	$245.00	$41,650.00
1	CIPP Crew Mobilization	$12,000.00	$12,000.00
	Note: Exclusions to this proposal are Traffic Control, Bypass pumping of any kind, and restoration of ground disturbed.		
		TOTAL	$53,650.00

Specifications:

- **Pipeline Inspections Services Inc.** shall perform all work along city, county, and state highways in a manner that conforms to federal, state, and local regulations and safety practices. **Owner** will be required to arrange for, set up, and tear down all traffic control on state and federal highways at no cost to **Pipeline Inspection Services Inc.** If **Pipeline Inspections Services Inc.** is required to wait for traffic control to be set up or moved, **Owner** will be billed the time at an hourly rate.
- During the video portion, **Pipeline Inspection Services Inc.** will set up on one to inspect a section, if an obstruction prohibits inspection of the entire section, **Pipeline Inspection Services Inc.** will then set up on the other end of the section, if it is still not possible to complete the section, and the problem is beyond **Pipeline Inspection Services Inc.** control. **Owner** will then be billed for the entire section. If **Pipeline Inspection**

Services Inc. has to wait for **Owner** to perform cleaning and vacuuming of a section prior to, during, or after an inspection, **Owner** will be billed the time at an hourly rate.

- **Pipeline Inspections Services Inc.** shall perform all cleaning and vacuuming services at the hourly rate listed. This shall include all time normally used in the completion of this type of project (i.e. cleaning, vacuuming, dumping, getting water).
- **Pipeline Inspections Services Inc.** will provide 1 copy of the DVD or DVD's and 1 copy of the computer generated report at time on inspection. Additional copies can be obtained for a fee of $250.00 each.
- **Owner** is responsible for providing maps or drawings of the sewer system to be cleaned and inspected prior to the mobilization of the crew to the job site.
- **Owner** is responsible for notifying all residents of the cleaning and inspection activities' and the possibility of sewer blow back into their home. Should an event like this take place Owner shall be responsible for any damage done to the home.
- **Owner** shall be responsible for any collapsed lines due to cleaning operations and shall assist in the extraction of Pipeline's equipment if needed. (i.e. backhoe to dig up camera)
- Manholes that are inaccessible and require extra work (i.e. locating, exposing, pulling hose, backyards, pastures, etc.) will be charged an hourly rate of $380.00 on top of the linear foot price to complete the work.
- In the event that Pipeline's crews have cleaned a section of pipe or line segment (i.e. manhole to manhole) more than 4 times (i.e. completely passed through with cleaning nozzle from manhole to manhole is one pass) Pipeline will switch to an hourly rate of $225.00 by which the customer will be expected to pay in addition to the original quote or quoted per foot price to complete the work.
- **Owner** shall be responsible for ensuring there is a clear area to the job location which is of sufficient size to accommodate the required personnel and equipment. Owner shall clear, expose, and mark all lids, covers or openings for **Pipeline Inspections Services Inc.** If **Pipeline Inspection Services Inc.** is required to locate and/or clear any manholes or wait while "Owner" crews do, it shall be considered as extra work and will be billed at the hourly rate of $250.00 per/hour.
- **Owner** is responsible to provide a fire hydrant within close proximity (1/2 Mile) to the work. **Owner** shall provide a dump site for all debris removed during cleaning. All cost associated with disposal of debris shall be paid by the **Owner**. Disposal shall be in accordance with all applicable federal, state, and local regulations, if any.
- Standby time will be assessed if **Pipeline Inspections Services Inc.** crews arrive on-site and we are unable to perform the scheduled work in a timely manner.
- This proposal shall be automatically cancelled if not accepted within 30 days.

Proposal prepared by: - Scott Wendling Vice-President _____

To accept this proposal, sign here and return: _____

All mobilization and associated costs are included in the prices above. We are PACP Certified NAASCO Members.