Morrison Consolidated Ditch Company (MCDC)

Morrison Ditch Heading Wall and Parshall Flume

Southwest Basin Roundtable Evaluation Questionnaire

- 1. The greatest benefit of this project is the accurate and controlled measuring and delivering of irrigation water to the 168 Shareholders of the Morrison Ditch. The Morrison Ditch carries approximately 100 cfs of water to 8200 acres of land. This will ensure uninterrupted carriage of irrigation water for agricultural crops, livestock, and grazing lands. This project will also replace aging infrastructure that is over 60 years old.
- 2. The steps required to complete the replacement of the heading wall are to: 1.) Remove the existing 8 foot by 25 foot concrete wall and two 36 inch headgates and two 36 inch by 30 foot outlet pipes. 2.) Replace with a new concrete heading wall of the same dimensions, add a 3 foot by 10 inch footer, and tie the wall into the existing rock and concrete wall upstream. 3.) Installation within the new wall will be two new 48 inch headgates and two new 48 inch by 30 foot ADS outlet pipes. 4.) New outlet wing walls will be added to the replaced concrete wall.

The steps for completion of the Parshall Flume are to: 1.) Remove the current steel/concrete flume that can measure 120 cfs of water. 2.) Replace it with a new concrete flume to carry 150 cfs of water. 3.) The new flume will be constructed with inlet, outlet, and cut-off wing walls to eliminate potential erosion.

There are no permits needed as the Morrison Ditch has a prescriptive easement by Colorado State Law. All funds acquired will be used specifically for this project as detailed on Exhibit B – Budget and Schedule.

- 3. The Morrison Ditch issued an invitation to four local contractors to bid the scope of work. This process ensured a quality outcome for the best estimate for the cost of the construction. Two bids were returned to the Morrison Ditch. The Morrison Ditch believes the project can be built with this funding. No further studies will be needed.
- 4. The Morrison Ditch proposes to provide matching funds from its maintenance budget and a reserve CD that has been earmarked for matching funds. These funds come from the shareholders' yearly assessments and currently the Morrison Ditch has budgeted for this large cost.
- 5. The Morrison Ditch has not considered an alternate plan. This infrastructure system has worked well for many years. Due to aging, the structures need replaced.
- 6. The project has been discussed at the last two annual shareholder's meetings. The Board of Directors have also discussed this as a priority of the Ditch Company several times. There is unanimous support for upgrading these Morrison Ditch structures.
- 7. There has been no opposition to the project.
- 8. This project will protect the natural environment and help keep erosion under control.
- 9. There is no impact of this project on other stream or river decrees. Both structures are in the prescriptive easement of the Ditch Company and will be replaced in the same location. See attached maps and pictures.

- 10. This project does not relate to a Stream Management Plan.
- 11. This project does not fall under local land use planning.
- 12. This project does not depend on a conversion of an agricultural water rights.
- 13. This project will continue to support our agricultural water users by providing irrigation to agricultural crops, livestock, and grazing lands.
- 14. This project will optimize existing water rights and existing infrastructure. This is the main point of diversion for all the water delivered by the Morrison Ditch.
- 15. The Morrison Ditch does not anticipate any future funding of additional components of this project. The lifespan of the new infrastructure should be well over 60 years.
- 16. There is no education component for this project



https://cwcb.colorado.gov/

	Colorado Water Conservation Board			
January Carlotte parliabetioned	Water Supply Reserve Fund			
	Exhibit A - Statement of Work			
Date:	March 23, 2024			
Water Activity Name:	Morrison Ditch Heading Wall and Parshall Flume			
Grant Recipient:	Morrison Consolidated Ditch Company			
Funding Source:	Southwest Basin Roundtable (WSRF)			

Water Activity Overview: (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).

The Morrison Consolidated Ditch Company proposes to install a new concrete heading wall with two new 48 inch headgates, two new 48 inch by 30 foot ADS outlet pipes, and new concrete outlet wing walls. This heading structure will be tied into the current sidewall that contains the spillway back to the Pine River.

The Morrison Consolidated Ditch Company proposes to install a new concrete Parshall Flume with concrete inlet and outlet wing walls large enough to accommodate 150 cfs (cubit feet per second) of water.

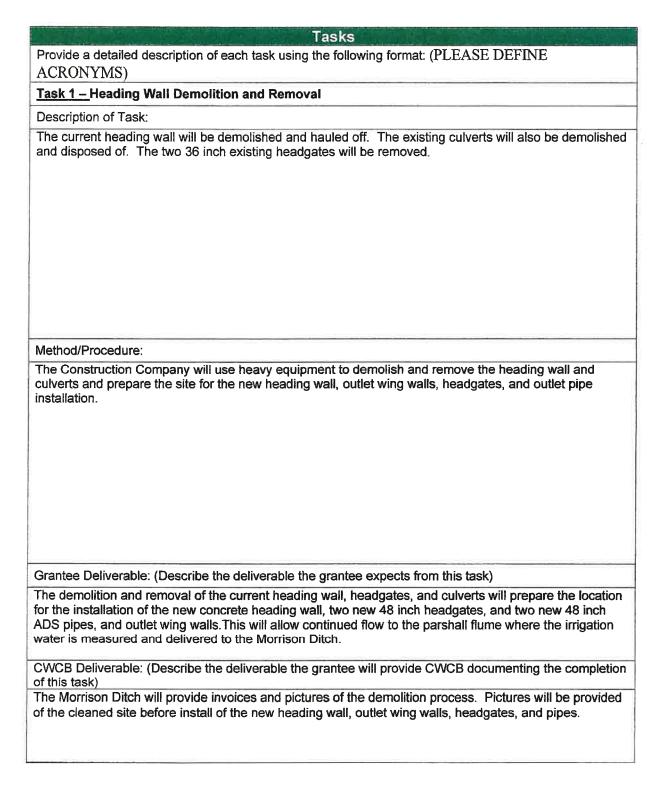
The two structures being replaced are estimated to be over 60 years old and are beginning to break down and leak around and underneath of the structures.

After new structure installation, both sites will be cleaned up and made ready to reseed.

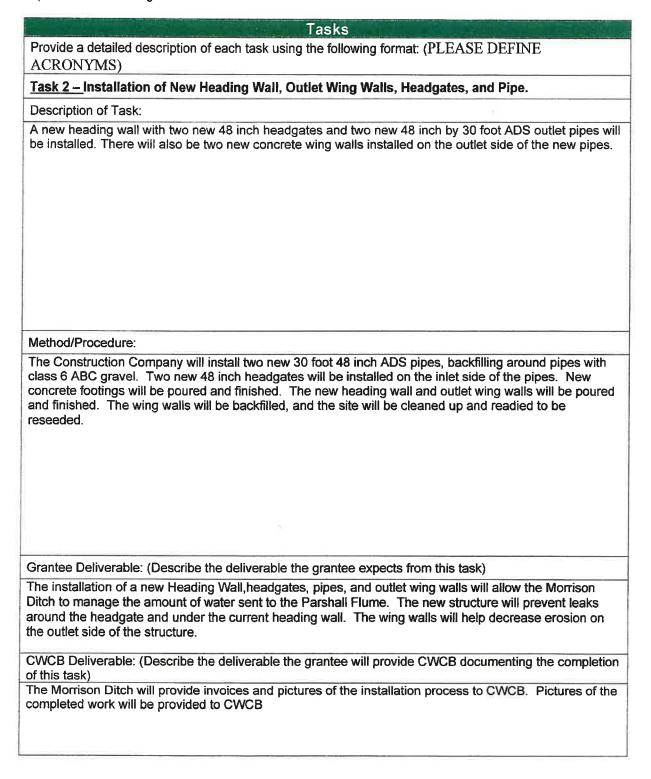
Objectives: (List the objectives of the project. (PLEASE DEFINE ACRONYMS).

The objective of this project is to replace aging infrastructure to allow uninterrupted and reliable carriage of irrigation water to the shareholders of the Morrison Consolidated Ditch Company for the next 60 plus years.











Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<u>Task 3 – Parshall Flume Demolition and Removal</u>
Description of Task:
The current Pashall Flume will be demolished and removed,
Method/Procedure:
The Construction Company use heavy equipment to demolish and remove the current pashall flume.
The condition company use nearly equipment to demonstrate and remove the current parious name.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
The removal of the current parshall flume will allow for a clean slate to install the new concrete Parshall Flume, apron, and wing walls.
Tidine, apron, and wing waits.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion
of this task)
The Morrison Ditch will provide invoices and pictures of the demolition of the current parshall flume to CWCB. Pictures of the completed work will be provided to CWCB
STADE. I lotation of the deliphoton work will be provided to ovvob
Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE
ACRONYMS)



https://cwcb.colorado.gov/

Tasks Task 4 Installation of New Parshall Flume and Wing Walls Description of Task: A new Parshall Flume with apron and inlet/outlet wing walls will be installed. This new parshall flume will be large enough to measure 150 cfs (cubit feet per second) of water. Method/Procedure: The Construction Company will pour and finish a new concrete footer. New concrete inlet and outlet wing walls will be poured and finished. If needed, a new concrete apron with turndown will be poured and finished. Lastly, a new concrete parshall flume will be poured and finished. Any backfill work will be completed. Construction site will be cleaned and readied for reseeding. Grantee Deliverable: (Describe the deliverable the grantee expects from this task) The installation of the new concrete Parshall Flume will ensure accurate measurement of irrigation water delivered to the Morrison Ditch Shareholders. Accurate measurements will also provide records of usage. CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion The Morrison Ditch will provide invoices and pictures of the installation of the new parshall flume. Pictures will be provided of the finished work.

Repeat for Task 3, Task 4, Task 5, etc.

Tasks

Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)



Tasks Tasks
<u>Task 5 –</u> Grant Administration
Description of Task:
The Morrison Ditch Company's bookkeeper will collect all records needed to process and send to CWCB for payment.
Method/Procedure:
The Morrison Ditch Company bookkeeper will work with the Board of Directors and the Construction Company to collect and track all invoices of cost, pictures of progress, and final reports.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
The grant will be administered by the bookkeeper of the Morrison Consolidated Ditch Company as required by the CWCB. Payment requests and tracking of funds will be recorded and provided to the Board of Directors for oversight.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
The bookkeeper will provide all necessary requirements to fulfill the Morrison Consolidated Ditch Company's role in the grant process.



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Budget and Schedule

Exhibit B - Budget and Schedule: This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format. A separate excel formatted Budget is required for engineering costs to include rate and unit costs.

Reporting Requirements

Progress Reports: The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status 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. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

Final Report: At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

The CWCB will pay the last 10% of the entire water activity budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

Performance Requirements

Performance measures for this contract shall include the following:

- (a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit B. Per Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.
- (b) Accountability: Per the Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per the Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.
- (c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.
- (d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.



COLORADO

Colorado Water Conservation Board Department of Natural Resources

Colorado Water Conservation Board

Water Supply Reserve Fund EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs

Date: March 23, 2024

Water Activity Name: Morrison Ditch Heading Wall and Parshall Flume

Grantee Name: Morrison Consolidated Ditch Company

Task No. (1)	Description	Start Date ⁽²⁾	End Date	Matching Funds (cash & in-kind) ⁽³⁾	WSRF	Total
Tæk No.(1)	Heading Wall Demolition and Removal	Fall 2024	Spring 2025	\$1,638.75	\$4,916.25	\$6,555
<u>Task No.(2)</u>	Installation of New Heading Wall, Headgates, and Pipes	Fall 2024	Spring 2025	\$25,752,25	\$57.256.75	\$83,000
Task No.(3)	Parshall Flume Domolition and Removal	Fall 2024	Spring 2025	\$1.725.00	\$5.175.00	\$6.900
Task No.(4)	Installation of new Parshall Flume and Wing Walls	Fall 2024	Spring 2025	\$6.874.00	\$20.622.00	\$27.496
Task No.(5)	Grant Administration	Fall 2024	Spring 2025	\$375.00	\$1,125.00	\$1,500
						\$0
	15% was added to estimates for possible increase of cost since project won't be started until fall of 2024	ease of cost since proj	ect won't be starter	d until fall of 2024		\$0
						\$0
						\$0
	The second secon					\$0
						\$0
						\$0
						\$0
			Total	\$36,365	\$89,095	\$125,460

1) The single task that include costs for Grant Administration must provide a labor breakdown (see Indirect Costs tab below) where the total WSRF Grant contribution towards that task does not exceed 15% of the total WSRF Grant amount.

2) Start Date for funding under \$50K - ~ 45 Days from Director Approval; Start Date for funding over \$50K - ~90 Days from Board Approval.

• Reimbursement eligibility commences upon the grantee's receipt of a Notice to Proceed (NTP)

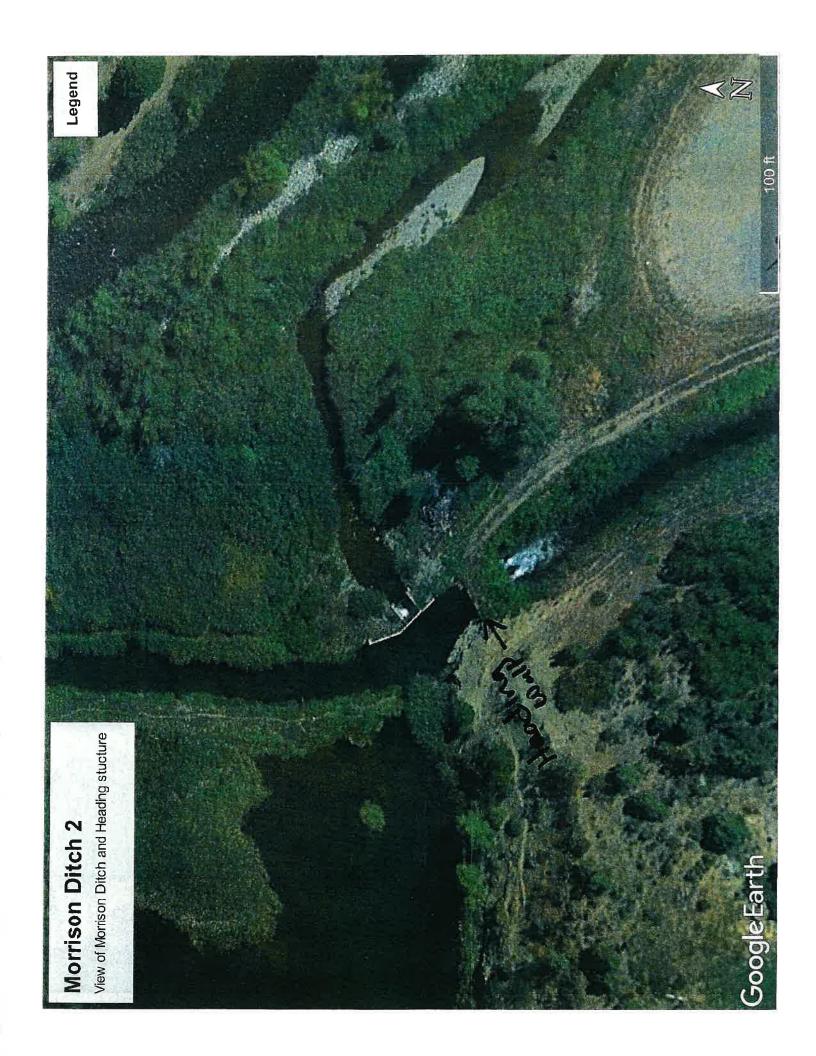
• NTP will not be accepted as a start date. Project activities may commence as soon as the grantee enters contract and receives formal signed State Agreement.

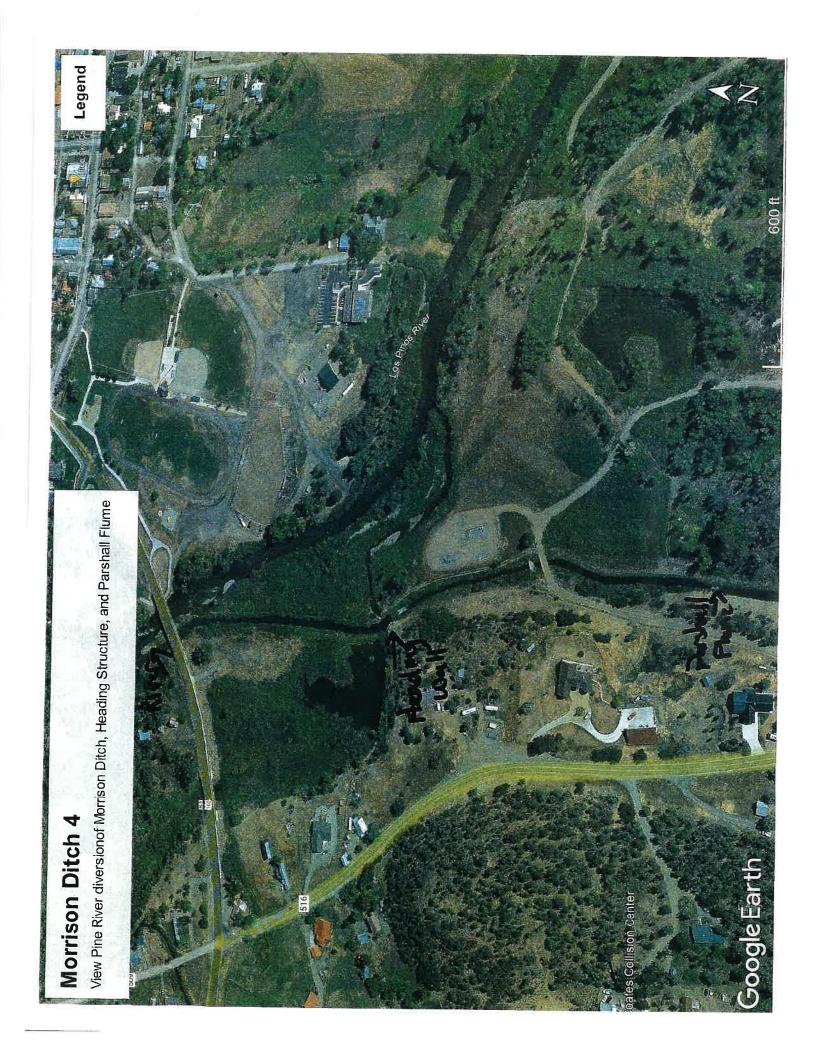
that fails to complete a satisfactory Final Report and submit to the CWCB with 90 days of the expiration of the PO or contract may be denied consideration for future funding The CWCB will pay the last 10% of the entire water activity budget when the Final Report is completed to the satisfaction of the CWCB staff project manager. Once the Final Report has been accepted, the final payment has been issued, the water activity and purchase order (PO) or contract will be closed without any futher payment. Any entity of any type from the CWCB.

Additionally, the applicant shall provide a progress report every 6 months, beginning from the date of contract execution

Standard contracting proceedures dictate that the Expiration Date of the contract shall be 5 years from the Effective Date.

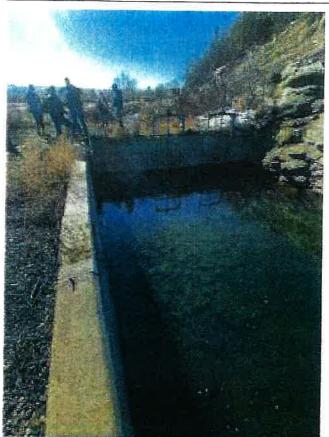


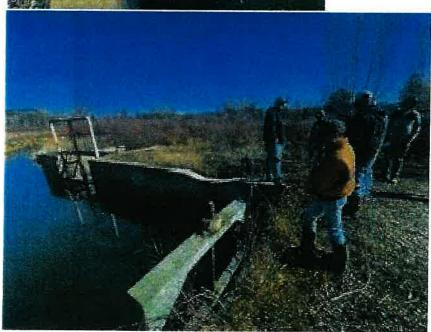




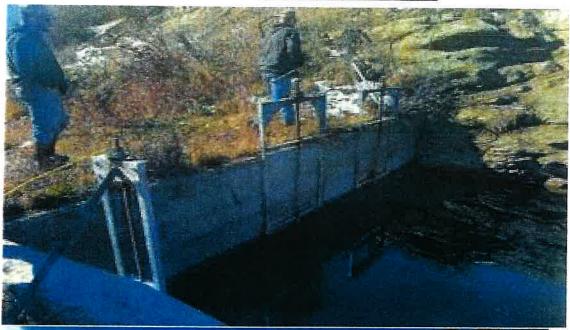
Top: Current heading wall with headgates to be replaced

Bottom: View of side wall with spillway. New heading wall will be tied into this wall and rock on right hand side.



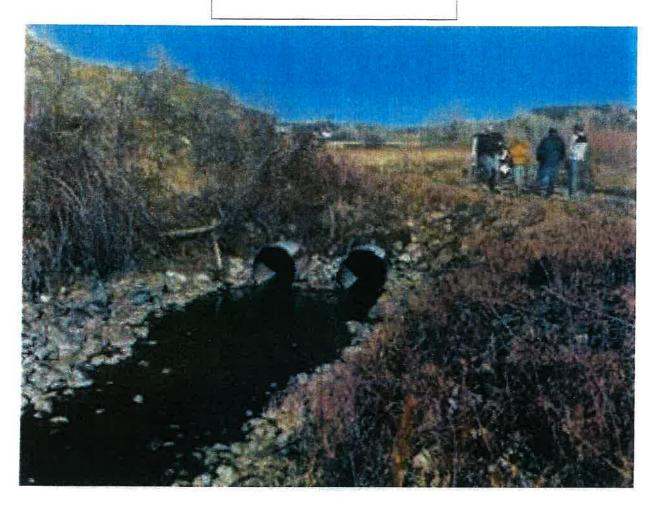


Current heading wall with headgates.





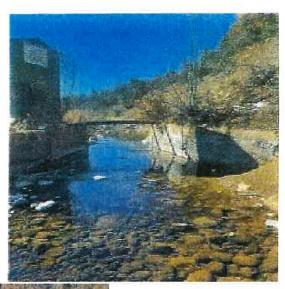
Outlet culverts that will be replaced with new 48" by 30' ADS pipe and new outlet wing walls



View of current outlet pipes in heading wall with corrosion and failure.



Pictures of current parshall flume. Concrete degradation. Inlet and outlet wing walls





8			
	P.		

Morrison Ditch Company

Bids Due 3-28-24 to jesse.swanemyr@outlook.com

Scope Of Work

Reconstruction of 2-48 inch headgates and new 48 inch headgate pipes

New Headwall and new outlet wall with wings

New 150 CFS Parshell Flume with inlet and outlet wing walls made out of Concrete

Rip rap outlet of Flume and 48 inch culvert pipes

Clean up and make ready to reseed

Morrison Ditch Company Supplied Materials

- 2-48 inch Headgates
- 2-30 foot 48 inch ADS Pipes

Measuring Devices for the Parshall Flume

Contractor supplied materials, labor

All labor and materials associated with Concrete work and Excavating of New Flume and new Heading wall with 2-48 inch headgates. Includes all rebar, concrete, grout, removal of all old pipe, flume, and all demoded concrete.

Flume

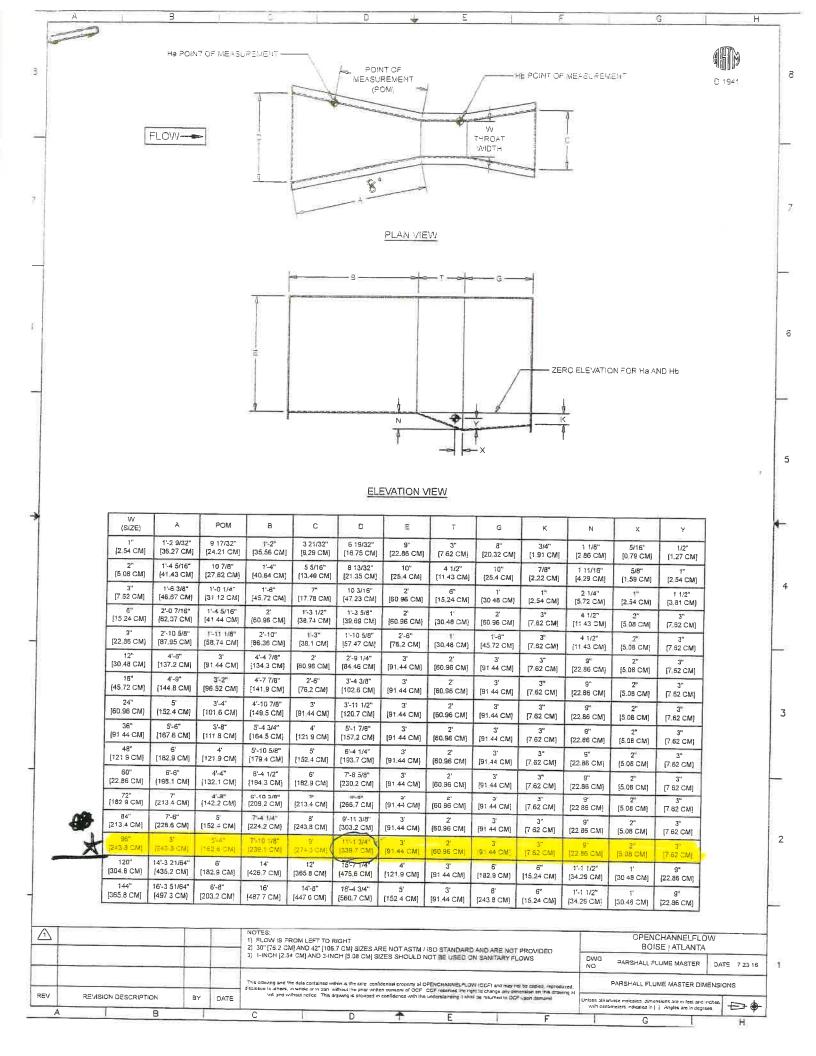
The Flume currently is constructed out of steel and is getting converted to concrete. Attached is drawings and dimensions of new flume. Currently this Flume will handle 120 CFS and the new Flume will be made to handle 150CFS.

There is currently a measuring device installed in the existing flume and this will need to be reinstalled in the new Flume. There will also be a 8'x8'x6" concrete pad for the Building to sit on. The new flume will be constructed with outlet walls and inlet walls to help with erosion. The outlet walls will also have rip rap (cobble rock) around them to help with undermining and erosion.

Dual 48 Inch Heading

Morrison Ditch Company will Purchase the 2 new 48 inch Headgates. These headgates will be a flush Mount to the Concrete wall. MDC will also supply the 30 foot long 48 inch ADS pipe. All this material will be delivered to site BY MDC.

The current pipe and old concrete will need demoed and hauled off site. It is unknown what the ground is like under the current wall so if the soil allows, we will install a 3 foot by 10 inch footer under the 10 foot wall. When the old wall is out and can be inspected will then determine weather the footer will work or if will have to drill and epoxy into existing rock. The current wall is the correct dimensions to what is needed but there is some age showing. The current wall will be constructed the same as what is in place. New outlet walls will be added to the outlet side of the heading. These walls will be on a 45 degree angle and will be 8 foot long off the face of the wall. There will be no concrete testing or compaction testing but this will be monitored by MDC rep. 95 % compaction of all aggregate will be required. Rebar to be on 1 foot centers with number 5 rebar.





Neil's Excavation & General Contracting, Inc. 486 County Road 515 Ignacio, CO 81137 970-884-2290

Estimate

Date	Estimate #		
3/18/2024	70883A		

AN ESTIMATE IS A BUDGET QUOTE AND THE WORK WILL BE INVOICED ON A TIME AND MATERIAL BASIS. IF THIS IS ACCEPTABLE PLEASE SIGN AND RETURN A COPY TO OUR OFFICE. HALF OF TOTAL IS DUE UP FRONT AND BALANCE DUE UPON COMPLETION OF PROJECT.

SIGN:			
DATE:			

	Project/Job		
	2024 Ditch Work		
Qty	Cost	Total	
STATE OF STREET		1,500.00	
1		4,500.00	
Service and 2		2,000.00	
4		4,000.00	
7		10,010.00	
3		3,000.00	
		3,000.00	
1	1,900.00	1,900.00	
		ACCURATION AND ADDRESS OF THE PARTY OF THE P	
1	3,500.00	3,500.00	
2	500,00	1,000.00	
2	600.00	1,200.00	
ACRISTMENT STATES 21 CANA	8,000.00	16,000.00	
90		9,900.00	
STATE OF THE PARTY		2,000.00	
4		4,000.00	
A to led with the An Indian		10,500.00	
A RATE CALL STORY CONTRACTOR AND ADDRESS OF THE PARTY OF		3,990.00	
	1 1 2 4 7 3 1 1 1	2024 Ditch Wo Qty Cost 1	

ESTIMATE ONLY GOOD FOR 30 DAYS.

*Price Does Not Include Engineering, Compaction Tests
Inspections, Blasting, Boring, Permits, Erosion Control

*We Are Not Liable For Unmarked Obstacles/Utilities

*Rock/Muck Excavation Handled On T&M Basis

*Snow Removal/ Frost Protection Handled T&M

Total Contingency 15% \$82,000.00

9430000

for allowance

RECIEPT

ORDER No. #D454 Order Date March 20, 2024 Email 4ditchwitch@gmail.com



Bill to

Morrison Consolidated Ditch Co. 7170 State Highway 172

Ignacio, 81137

Tel.

Ship to

Morrison Consolidated Ditch Co. 7170 State Highway 172 Ignacio, 81137

Tel.

Item Description	Qty	Price	Total
F066-48H0150 Fresno 6600 101C 48" Spigot back w/ 12.5' Frame F066-48H0150 Fresno 6600 101C 48" Spigot back w/ 12.5' Frame	×2	\$8,305.60	\$16,611.20
48" STORMTITE HDPE CULVERT BELL AND SPIGOT AASHTO 48" STORMTITE HDPE CULVERT BELL AND SPIGOT AASHTO	× 60	\$123.85	\$7,431.00
FREIGHT Shipping and Handling	× 35	\$50.00	\$1,750.00
	Subto	otal	\$25,792.20
	Shipp	ing	\$0.00
	Total		\$25,792.20

Thanks for your business!

If you have any questions, please do get in contact.

QIS Supply

23400 Road N / Cortez, CO 81321 / sales@qissupply.com / 9705161346 qissupply.com







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