



**Colorado Water Conservation Board**

# Water Supply Reserve Fund - Statewide & Basin

## Water Project Summary

Name of Applicant	Farmers Water Development Company
Name of Water Project	
Basin Account Request Subtotal	\$32,401.00
Statewide Request Amount	\$111,640.00
Statewide Project Category	Aging Infrastructure
Applicant Cash Match	\$38,908.00
Applicant In-Kind Match	\$90,562.00
Basin Requests	
Sources of Funding	

## Grant Details

### Statewide Project Category Justification

Gurley Dam is aging and had a second slip of material requiring repair. In 2023 another portion of the dam also slipped. Repair is needed for water storage to prepare for drought and to provide municipal water to the Town of Norwood as well as ag water.

## Applicant & Grantee Information

Name of Grantee: Farmers Water Development Company

Mailing Address: PO Box 10 Norwood CO 81423

Organization Contact: Deana Sheriff

Position/Title: Grant Administrator

Phone: 970-640-1173

Email: dsheriffbiz@gmail.com

Organization Contact - Alternate: Dave Alexander

Position/Title: Grant Writer

Phone: 970-327-4650

Email: farmerswdc@yahoo.com

Grant Management Contact: Deana Sheriff

Position/Title: Grant Administrator

Phone: 970-640-1173

Email: dsheriffbiz@gmail.com

Grant Management Contact - Alternate: Dave Alexander

Position/Title: Grant Writer

Phone: 970-327-4650

Email: farmerswdc@yahoo.com

## Description of Grantee/Applicant

FWDC provides agricultural water to 210 shareholders covering approx. 12,000 acres of land. Additionally, FWDC supplies water to the Norwood Water Commission for municipal water.



### Location of Water Project

Latitude 0.000000  
Longitude 0.000000  
Lat Long Flag  
Water Source  
Basins  
Counties  
Districts

### Water Project Overview

Major Water Use Type  
Type of Water Project  
Scheduled Start Date - Design 10/16/2024  
Scheduled Start Date - Construction 10/16/2024  
Description

### Measurable Results

0 New Storage Created (acre-feet)  
0 New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive  
0 Existing Storage Preserved or Enhanced (acre-feet)  
0 New Storage Created (acre-feet)  
0 Length of Stream Restored or Protected (linear feet)  
0.00 Length of Pipe, Canal Built or Improved (linear feet)  
\$0 Efficiency Savings (dollars/year)  
0 Efficiency Savings (acre-feet/year)  
0 Area of Restored or Preserved Habitat (acres)  
0 Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement (acre-feet)  
0 Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning  
0 Number of Coloradans Impacted by Engagement Activity  
Other  
No additional measurable results provided





Last Update: January 10, 2022

<https://cwcb.colorado.gov/>

<b>Colorado Water Conservation Board</b>	
<b>Water Supply Reserve Fund</b>	
<b>Exhibit A - Statement of Work</b>	
<b>Date:</b>	<b>September 27, 2024 (original submittal 08/14/24)</b>
<b>Water Activity Name:</b>	<b>Gurley Dam Slip Repair #2</b>
<b>Grant Recipient:</b>	<b>The Farmers Water Development Company (FWDC)</b>
<b>Funding Source:</b>	<b>CWCB, Southwestern Water Conservation District, FWDC</b>
<b>Water Activity Overview:</b> (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).)	
<p>In 2019, a portion of the Gurley Dam was completely saturated, and a layer of about 3 feet slipped and slid down the slope. This slip was repaired to the satisfaction of the State Dam Inspector. However, in 2023, another portion of the dam also slipped.</p> <p>The new repair will remove and replace material (using contractor produced 3” minus material), remove material for buttress addition, and repair up to the site of the buttress with on-site material (12” minus). Weak material will be replaced with these contractor-produced and on-site materials pulled from local “borrow” pits per the engineered plan. Most of the labor will be provided in-house (using FWDC excavator, dozer and dump truck), and subcontractors will be used as needed. Mobilization, demobilization and testing of material is included in the estimate received from Davis Engineering. A 20% contingency for materials and construction has been added to the project.</p> <p>It is anticipated to take approximately 4 to 6 weeks for the full repair.</p>	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS).)	
<p>The objective of the repair of the Gurley Dam is to complete all repairs in a timely manner and have the repairs inspected, and ultimately approved by the State Dam Inspector. The last repair (in 2019) was done so well that the State Dam Inspector strongly encouraged FWDC to use the same contractors and methodology to make repairs to the balance of the face of the dam.</p> <p>The previous repairs were made to current construction standards and have held extremely well. The final objective is that the Gurley Dam does not require any future repairs to old work and the focus can be on completely replacing an outlet in the future that will further maintain a high-quality reservoir that provides both agricultural and municipal water.</p>	



Last Update: January 10, 2022

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<b>Tasks</b>	
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)	
<b>Task 1 - (Name) Removal of Slipped Material on Gurley Dam</b>	
Description of Task:	
<p>Telluride Gravel (TG) is the approved contractor for this project. TG will remove all the “slipped” material from the face of the dam and set the material aside for reuse in the repair. Material will be removed from the site of the current slip to the edge of the dam wall (to the buttress), ensuring that no loose material will slip again in the future.</p> <p>Further, volunteers from FWDC will provide heavy equipment to help move the dross material and crush and sort material by size for TG’s on-site use.</p>	
Method/Procedure:	
<p>Utilizing heavy construction equipment (excavators, bulldozers, dump trucks, etc.), Telluride Gravel will carefully remove all loose materials involved in the current slip. This requires skilled operators due to the slope of the dam and the loose material itself. The loose material will be excavated down to solid material, providing a base for rebuilding the location.</p>	
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)	
<p>FWDC anticipates a deliverable of all loose material being removed from the face of the dam as well as deep into the site of the slip.</p>	
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)	
<p>Photos of material being removed and receipts of excavation.</p>	



Last Update: January 10, 2022

<https://cwcb.colorado.gov/>

<b>Tasks</b>	
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)	
<b>Task 2 - (Name) Replace and Compact Material to Repair Dam</b>	
Description of Task:	
<p>Telluride Gravel (TG) will replace the material in the manner determined by Davis Engineering to ensure that material is properly packed and will not slip again in the future.</p> <p>Once completed, Gurley Dam will be inspected by the State Dam Inspector.</p>	
Method/Procedure:	
<p>FWDC volunteers will sort materials (from both on-site and imported materials from TG's gravel pit) into different sizes to ensure the ease of construction and limitation of costs. By sorting the materials, this will enable the contractor to work more efficiently and to appropriately layer the materials by size, larger material to smaller material.</p> <p>These materials will be layered into the excavated section and compacted. All materials will have frequent testing to ensure that they meet all Colorado Dam standards.</p>	
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)	
FWDC expects the Gurley Dam to have the second slip repaired and the face of the dam repaired to a state of full stability.	
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)	
Photos of completed repair, Volunteer hours sign-in sheet(s), copies of receipts for materials and labor, and final report from the State Dam Inspector.	

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



Last Update: January 10, 2022

<https://cwcb.colorado.gov/>

### 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**  
**Detailed Budget Estimate**

**Date:** 9/27/2024

**Water Activity Name:** Gurley Dam - 2nd Embankment Slip Repair  
**Grantee Name:** The Farmers Water Development Company

DESCRIPTION	COST BY	QTY	UNIT	RATE	CASH	IN-KIND
<b>Task 1</b>						
Topsoil Removal & Waste (Avg. 3" thick)	FWDC	100	c.y.	\$ 20.00		\$ 2,000.00
Remove Material for Buttress Addition	FWDC	150	c.y.	\$ 15.00		\$ 2,250.00
Remove & Replace Material w/Contractor Produced 3" Minus*	CWCB	2409	c.y.	\$ 60.00	\$ 111,640.00	
Remove & Replace Material w/Contractor Produced 3" Minus* (Basin RT 10%)	BASIN				\$ 32,401.00	
Remove & Replace Material w/Contractor Produced 3" Minus*	SWCD	834	c.y.	\$ 60.00	\$ 50,000.00	\$ -
Remove & Replace Material w/FWDC Produced 3" Minus*	FWDC	642	c.y.	\$ 60.00		\$ 38,520.00
Buttress Material Addition w/Onsite Borrowed 12" Minus	FWDC	310	c.y.	\$ 20.00		\$ 6,200.00
Mobilization & Demobilization	FWDC	1	l.s.	\$ 15,000.00		\$ 15,000.00
Contingency (20%)	FWDC	1	ea	\$ 38,908.00	\$ 38,908.00	
Excavator use on-site (equipment + operator @ \$55.00)	FWDC	160	hr	\$ 55.00		\$ 8,800.00
Bulldozer use on-site (equipment + operator @ \$55.00)	FWDC	160	hr	\$ 55.00		\$ 8,800.00
Dumptruck use on-site & mobilization (equipment + operator @ \$40.00)	FWDC	160	hr	\$ 40.00		\$ 6,400.00
Volunteer construction personnel (20 days @\$16.20/hour)	FWDC	160	hr	\$ 16.20		\$ 2,592.00
<b>TOTAL</b>					\$ 232,949.00	\$ 90,562.00
<b>ESTIMATED TOTAL PROJECT COST = \$323,511</b>						

\*Bid from Telluride Gravel combined the labor and materials in the estimate. Anticipate 4-6 weeks to complete repair with volunteers helping for 20 days







## SOUTHWEST BASIN ROUNDTABLE'S EVALUATION QUESTIONNAIRE

### Responses from Farmers Water Development Company – 2024 Application for Gurley Dam Repair

**To assist the Roundtable in determining whether and to what extent a proposed project and/or process meets the values set forth in the Roundtable Bylaws and goals of the Basin Implementation Plan, the following questions should be addressed separately as can reasonably be answered by the applicant.**

*Note: this is not an exhaustive list and additional questions may be asked of the applicant.*

1. Identify the benefit(s) the project would provide. Are there multiple purposes (Agricultural, Environmental, Municipal, Industrial, Recreational) that the project would meet as defined in the Basin Implementation Plan? *Note: Projects that meet multiple purposes are strongly encouraged; however, this does not mean that a single purpose project would be rejected.*

The Gurley Dam Slip Repair #2 will secure the ability to provide water for Agricultural, Municipal and Recreational purposes. The repair is needed in order to store enough water to meet all the above needs.

2. Outline the steps needed for completion of the project. Are there permit issues that must be overcome? How will funds acquired in this process be used to accomplish the final goal?

There are no permit issues to overcome on this project. Funds shall be used to pay for materials and some contractor labor to make repairs to the dam. The steps are as follows:

- Remove and replace material using contractor-produced 3" minus material
- Remove material for buttress addition and repair the buttress with on-site materials
- Mobilization, demobilization and testing of materials are included in the construction/repair estimate

3. What is the ability of the sponsor to pay for the project? What actions have been taken to secure local funding? Are there supporting factors that affect the sponsor's ability to pay? Please provide a summary of the sponsor's financial condition such as the customer fee structure, mill levy rate, or other applicable information that demonstrates the sponsor's ability to support the project. For example, has the sponsor increased assessments or rates to meet the project requirements in the past five years. Also, address how a loan could address the needs of the applicant instead of a grant?

The sponsor is a mutual ditch company who's funding relies upon annual share assessments for operations as well as the ability to sell water to the Norwood Water Commission. Because the majority of shareholders are agricultural producers, FWDC tries to keep the assessments as affordable as possible. Assessments are used for the maintenance of ditches, insurance and bonds, equipment repair and maintenance, and payroll for part-time staff. Assessments were raised in 2022 in anticipation of future storage development, but this will take time to raise enough funds without grants. A loan may be a viable option, but the burden of repayment on the 210 shareholders was something the Board wanted to avoid if possible.

4. What alternative sources of water or alternative management ideas have you considered? Are there water rights conflicts involving the source of water for the project? If yes, please explain.

There are no alternative sources of water going into the Gurley Reservoir, nor is there any other option for alternative management of the dam. There are no water rights conflicts involved in this project.

5. Has there been public input solicited and is there local support for the project? Please provide a brief summary of public input if applicable.



There was public discussion at the FWDC Annual Meeting held in February, 2024. There were no comments in opposition to the repair of the dam.

6. Is there opposition to the project? If there is opposition, how have those concerns been addressed? Identify any conflicts that may exist and how they will be addressed.

There has been no opposition to the project and FWDC is not aware of any future conflicts that may exist.

7. Does the project affect the protection and conservation of the natural environment, including the protection of open space? If yes, please explain.

No, this project does not affect the protection and conservation of the natural environment or the protection of open space.

8. Are there impacts of the proposed action on other non-decreed values of the stream or river? Non-decreed values may include things such as non-decreed water rights or uses, recreational uses and soil/land conservation practices.

No, there are no known impacts on non-decreed values.

9. Does this project related to a Stream Management Plan (SMP) or Needs Assessment for one of southwest Colorado river reaches? If yes, please explain and provide detailed evidence of how project will meet SMP goals or needs.

No, this project is not related to a SMP or Needs Assessment.

10. Does this project relate to local land use plans? If yes, please explain.

The Gurley Reservoir is included in the Norwood Water Commission Water Master Plan-2020. Should the dam not be repaired, it could have significant impact on the domestic water availability for the Town of Norwood.

11. Does the project depend on a conversion of an agricultural water right? If yes, please explain.

No, this project does not depend on a conversion of an agricultural water right.

12. Does the project support agricultural development or protect the existing agricultural economy? If yes, please explain.

Yes, this project protects the existing agricultural economy.

13. Does the project optimize existing water rights and/or existing infrastructure? If yes, please explain.

By repairing the dam and improving the existing infrastructure, more water can be stored helping to optimize the existing water rights.

14. Does the applicant anticipate future funding requests to complete additional components of this project? Does the applicant have a long-term operation, maintenance, and replacement plan? When was the last update of the plan?

FWDC does not anticipate any further requests to the SWBR but will be applying for additional funds from CWCB to complete the repairs and updates. FWDC reviews their maintenance plan on an annual basis.





15. Does the project have an education component? If yes, please explain how it is consistent with the Roundtable's Education Action Plan.

This project does not have an education component, but education regarding the source of the water (Gurley Reservoir) is included in the Town of Norwood's Water Days event.





Norwood Fire Protection District  
1605 Summit St, P. O. Box 411  
Norwood, CO 81423  
970-327-4800  
[norwoodfiredistrict.org](http://norwoodfiredistrict.org)

To Whom It May Concern:

The Norwood Fire Protection District (NFPD) fully endorses all repairs and improvements to the Gurley reservoir. The Gurley reservoir is the sole source of drinking water for the Norwood community which services approximately 2500 residents. It also provides raw water used for field irrigation and the watering of farm/ranch animals, both of which are a mainstay of our community.

The NFPD depends on the water supplied from the Gurley reservoir for all fire suppression within the district to including structural and wildland. Norwood is an extreme risk area for wildland fires and wildland /urban interface. With the continued and increasing drought conditions in Western Colorado, we need all the water possible to combat these growing fires.

The NFPD STRONGLY supports Farmer's Water and their efforts to improve water conditions for the Norwood area.

Please feel free to contact me with any questions or concerns.

Respectfully,

A handwritten signature in blue ink, appearing to read "John J. Bockrath", with a long horizontal flourish extending to the right.

John J. Bockrath, Fire Chief  
Norwood Fire Protection District

Office: 970-327-4800  
Cell: 970-729-0934  
Email: [norwoodchief@norwoodcofire.com](mailto:norwoodchief@norwoodcofire.com)





PO Box 528; 1670 Naturita St, Norwood, CO 81423

Phone: 970-327-4288 - Fax: 970-327-0451; [www.norwoodtown.com](http://www.norwoodtown.com)

April 2, 2024

Southwestern Water Conservation District  
841 East Second Avenue  
Durango, CO 81301

Regarding: Consideration of Funding Request for Farmers Water Development Company – 2<sup>nd</sup> Repair

Dear SWCD Board of Directors:

The Town of Norwood Board of Trustees would like to take this occasion to express our strong support for Farmers Water Development Company's ("FWDC") funding request for the second repair to the Gurley Reservoir. The Gurley Reservoir, owned by FWDC, is the source for storage of the municipal water and irrigation water for the Raw Water Irrigation system which serves the Town of Norwood, and is a critical piece to our stability and future growth.

The second repair to the Gurley Reservoir, wherein FWDC plans to make a complete repair of the dam ensuring that no further "slips" occur, is urgent. As we move into spring and summer, the ability to store and allocate water becomes more relevant. The FWDC Boards (past and present) have managed this area's water with excellence and have managed to keep their costs as low as possible for their users. However, this has made infrastructure repairs and improvements very challenging, making it necessary to request grants for the unexpected.

As you consider this application, the Town of Norwood requests your vote of approval for funding this second repair so that repairs can begin immediately, and stabilization can occur.

Thank you for your consideration.

Candy Meehan, Mayor  
Town of Norwood





**THE SOUTHWESTERN WATER CONSERVATION DISTRICT**

Developing and Conserving the Waters of the  
SAN JUAN AND DOLORES RIVERS AND THEIR TRIBUTARIES  
IN SOUTHWESTERN COLORADO

West Building – 841 East Second Avenue  
DURANGO, COLORADO 81301  
(970) 247-1302

July 12, 2024

The Farmers Water Development Company  
PO Box 10  
Norwood, CO 81423

*Re: Gurley Dam Slip Repair #2*

Dear Dave Alexander,

Thank you for the application for financial assistance and the presentation that Deana Sheriff gave to the Southwestern Water Conservation District Board of Directors at their June 13<sup>th</sup> board meeting.

After discussing the merits of the application, the Board voted to approve your grant request in the amount of \$50,000.

Enclosed with this letter is a *Document of Understanding* that outlines the conditions of the grant. Please review, sign, and return it at your earliest convenience. Once that document has been received, The Farmers Water Development Company may then request funds when the money is needed. We understand based on your grant application that this request will occur in 2024. There is a *Request for Release of Funds* form enclosed that will need to be signed and sent to our office (or [morock@swgcd.org](mailto:morock@swgcd.org)) at that time.

If you have any questions, please contact us at (970) 247-1302 or [morock@swgcd.org](mailto:morock@swgcd.org).

Best Regards,

*Monika Rock*

Monika Rock, Programs Coordinator  
Southwestern Water Conservation District







April 5, 2024

Southwestern Water Conservation District  
841 East Second Avenue  
Durango, CO 81301

Regarding: Farmers Water Development Company – 2<sup>nd</sup> Repair

To whom it may concern:

I am writing in support of grant monies being allocated to the Farmers Water Development Co. for repairs to the Gurley Reservoir outside of Norwood, CO. This reservoir, built in the 1890s, is critical to the economic viability of Wrights Mesa. It is the main source of municipal water for the regional area, including households within the Town of Norwood, and also serves as a key source of water for agricultural interests on the mesa.

While a larger slip was successfully repaired last year, the dam is in need of further repairs as another slip has developed in recent months. The cost of repairing the new slip far exceeds what the budgeted amounts from regional entities can provide.

Thank you in advance for your consideration.

Sincerely,

Tony Daranyi, Chairperson  
Norwood Water Commission  
Shareholder, Farmers Water Dev. Co.



## BOARD OF COMMISSIONERS

Anne Brown Kris Holstrom Lance Waring



Southwestern Water Conservation District  
Emergency Grant  
~~Laura Sparr~~ MONIKA ROCK  
SWCD 841 East 2nd Ave  
Durango, CO 81301

April 10, 2024

RE: Farmers Water Emergency Grant application

Dear SWCD Board Members,

The San Miguel County Board of County Commissioners is in full support of the Farmers Water Emergency Grant application. The Gurley Reservoir is critical infrastructure for the west-end communities of San Miguel County, including the Town of Norwood and unincorporated Wright's Mesa. It supplies water to the Town of Norwood and surrounding agricultural lands. The dam has been degrading over time and recently, a breach occurred which will require more extensive repair. The repair is urgent to prevent additional damage and to restore the full capacity of the reservoir. The estimated repairs are beyond the financial capacity of Farmer's Water, the owner/managing entity of the Gurley Reservoir.

As we face more extreme drought conditions, this places all of the County's west-end communities at risk, threatening municipal water supplies, agriculture and water supplies for fire suppression. The need and urgency for these funds are immediate and we ask for your support of this Emergency Grant Application.

Sincerely,

Handwritten signature of Lance Waring in black ink.

Handwritten signature of Kris Holstrom in black ink.

Handwritten signature of Anne Brown in black ink.

San Miguel County  
Board of Commissioners



Gurley Reservoir - 2nd Embankment Slip Repair - Estimated Repair Costs*							
Description	Cost By	Qty	Unit	Rate	Cash	In-Kind	
Topsoil Removal & Waste (Avg. 3" thick)	FWDC	100	c.y.	\$ 20.00		\$ 2,000.00	
Remove & Replace Material w/Contractor Produced 3" Minus	CWCB	2409	c.y.	\$ 60.00	\$ 144,540.00		
Remove & Replace Material w/Contractor Produced 3" Minus	SWCD	834	c.y.	\$ 60.00	\$ 50,000.00		
Remove & Replace Material w/FWDC Produced 3" Minus	FWDC	642	c.y.	\$ 60.00		\$ 38,520.00	
Remove Material for Buttress Addition	FWDC	150	c.y.	\$ 15.00		\$ 2,250.00	
Buttress Material Addition w/Onsite Borrowed 12" Minus	FWDC	310	c.y.	\$ 20.00		\$ 6,200.00	
Mobilization & Demobilization	FWDC	1	l.s.	\$ 15,000.00		\$ 15,000.00	
Preliminary Review, Design & Construction Engineering (Davis Engineering)	FWDC	1	ea	\$ 5,026.00		\$ 5,026.00	
Contingency (20%)	FWDC	1	ea	\$ 38,908.00		\$ 38,908.00	
Excavator use on-site (equipment + operator @ \$55.00)	FWDC	160	hr	\$ 55.00		\$ 8,800.00	
Bulldozer use on-site (equipment + operator @ \$55.00)	FWDC	160	hr	\$ 55.00		\$ 8,800.00	
Dumptruck use on-site & mobilization (equipment + operator @ \$40.00)	FWDC	160	hr	\$ 40.00		\$ 6,400.00	
Volunteer construction personnel (20 days @ \$16.20/hour)	FWDC	160	hr	\$ 16.20		\$ 2,592.00	
<b>TOTAL</b>					\$ 194,540.00	\$ 132,496.00	
<b>ESTIMATED TOTAL PROJECT COST = \$272,540.00</b>							
*Anticipate 4-6 weeks to complete repair with volunteers helping for 20 days							

