

Fremont-Madison Irrigation District Canal Automation and SCADA Project

Small Scale Water Efficiency WaterSMART Grant Proposal 2021
Funding Opportunity Number: R21AS00300



APPLICANT:
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3/18/21
1147

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- Attachment A-Figure 1, Henry’s Fork Reservoirs, and Fremont-Madison Service Area (irrigated acres)
- Attachment B-Figure 2, Planned Project Site Map
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Fremont-Madison Irrigation District Canal Automation and SCADA Project

Small-Scale Water Efficiency Projects FY 2021

Technical Proposal and Evaluation Criteria

Executive Summary

Applicant Info

Date: March 12, 2021

Applicant Name: Fremont-Madison Irrigation District-Category A Applicant

City, County, State: Saint Anthony, Fremont, Idaho

Project Manager:

Name: Aaron Dalling

Phone: 208-624-3381

Email: aaron.fmid@myidahomail.com

Project Funding Request: Small Scale Water Efficiency Projects- Total Cost \$151,142.50. Fremont-Madison Irrigation District is requesting just under 50% funding from Reclamation or \$75,000.

Project Summary

A one paragraph project summary that provides the location of the project, a brief description of the work that will be carried out, any partners involved, expected benefits and how those benefits relate to the water management issues you plan to address. This information will be used to create a summary of your project for Reclamation's website if the project is selected for funding.

Fremont-Madison Irrigation District (Fremont-Madison) proposes to install remote operating and automation equipment on 8 main water control structures and collect data and operate them from our existing SCADA (Supervisory Control and Data Acquisition) computer system in our office. This project is in partnership with 4 canal companies we deliver storage water too. They are Southeast Idaho Canal Company (SICC), Salem Union Canal Company (SUCC), Consolidated Farmers Canal Company (CFCC) and Teton Island Feeder Canal Company (TIFCC). This project will help manage water more efficiently on 37,446 acres of irrigated cropland, bolster partnerships, and promote conservation among water users within our service area. This project will be another concrete step toward implementing an alternative in the 2015 Henry's Fork Basin Study that was coordinated and completed with the help of several partners including the Bureau of Reclamation (Reclamation). In the study, canal automation was identified as one of the most economical means of conserving water in the Henry's Fork Watershed.

Schedule

State the length of time and estimated completion date for the proposed project including the construction start date (month/year).

The desired start date for the project is October 2021, however this will depend on whether grant funds are obtained. The desired project completion is July of 2022. This will give us the opportunity to use the equipment for part of the 2022 irrigation season.

This project is not located on a federal facility.

Project Location

Figure 2 (Attachment B) provides the geographic locations on a map.

Table 1. Locations of Automation/Remote Operations Equipment

Location Name	Latitude	Longitude	County/State
Fall River Canal-Main Branch	43°59'57.50"N	111°31'18.78"W	Fremont/Idaho
Fall River Canal-North Branch	43°59'3.40"N	111°36'19.68"W	Fremont/Idaho
Fall River Canal-Middle Branch	43°58'36.42"N	111°36'34.76"W	Fremont/Idaho
Fall River Canal-Main Branch (Crosscut Diversion)	43°56'21.79"N	111°37'12.86"W	Fremont/Idaho
Farmers Friend Canal	43°58'56.72"N	111°37'36.41"W	Fremont/Idaho
Salem Union Canal	43°58'23.65"N	111°38'58.05"W	Fremont/Idaho
Teton Island Feeder Canal	43°53'37.43"N	111°41'32.97"W	Fremont/Idaho
Consolidated Farmers	43°56'53.91"N	111°43'13.52"W	Fremont/Idaho

The four Fall River Canal diversions and the Farmers Friend Canal diversion are each associated with SICC.

Nearest Towns:

The Fall River Canal Main Branch is located approximately 2.6 miles east of Chester, Idaho.

The Fall River Canal North Branch is located approximately 4 miles northeast of St. Anthony, Idaho.

The Fall River Canal Middle Branch is located approximately 3 miles east of St. Anthony, Idaho.

The Fall River Canal Main Branch/Crosscut Diversion is located approximately 3 miles southeast of St. Anthony, Idaho.

The Farmers Friend Canal is located approximately 2.5 miles northeast of St. Anthony, Idaho

The Salem Union Canal is located on the northeast side of St. Anthony, Idaho.

The Teton Island Feeder Canal is located 1 mile west of Teton City, Idaho.

The Consolidated Farmers Canal is located approximately 2 miles southwest of St. Anthony, Idaho.

Project Description

Provide a more comprehensive description of the technical aspects of your project, including the work to be accomplished and the approach to complete the work. This description should provide detailed information about the project including materials and equipment and the work to be conducted to complete the project. This section provides an opportunity for the applicant to provide a clear description of the technical nature of the project and to address any aspect of the project that reviewers may need additional information to understand.

Please do not include your project schedule and milestones here; that information is requested in response to the Readiness to Proceed criterion below. In addition, please avoid discussion of the benefits of the project, which are also requested in response to evaluation criteria. This section is solely intended to provide an understanding of the technical aspects of the project.

Please note, if the work for which you are requesting funding is a phase of a larger project, please only describe the work that is reflected in the budget and exclude description of other activities or components of the overall project.

Fremont-Madison proposes to install automation equipment on existing diversion structures for 8 main canal diversions within our water delivery system. This automation equipment will be installed on 3 canal diversion structures on the Henry's Fork River, 1 canal diversion structure on the Fall River, 1 canal diversion structure on the Teton River and on 3 canal diversion structures that divert water from one of our feeder canals known as the Crosscut Canal. (See Figure 2). We will connect the proposed automation equipment in with our existing Supervisory Control and Data Acquisition (SCADA) system in our office. This will allow us to monitor flow data and make flow changes from the office. This equipment will also make changes as needed automatically. For example, in a scenario when flow in the river or feeder canal changes, resulting in a change in head pressure on a canal's headgate. The headgate will automatically adjust to maintain a constant flow in the canal despite the change in head pressure on the headgate. This project is a continuation of a larger project we started with a WaterSMART grant in 2019. If we are able to obtain this grant and install this phase of the project, the Crosscut Canal will be fully automated.

The 8 main canal structures we plan to install automation equipment on the existing structures are as follows:

The main headgate for the Main Branch of the Fall River Canal- This headgate diverts on average between 200 and 300cfs during the peak of the irrigation season from the Fall River. This canal stretches a total of 16 miles delivering water to over 150 diversions. The capacity of the canal at the end is minimal requiring it be managed to nearly zero flow. This makes precision management critical but difficult with current equipment.

Crosscut Headgate for the Main Branch of the Fall River Canal- After approximately 8 miles the Main Branch of the Fall River canal siphons under the larger Crosscut Canal. There is also a headgate in place where up to 30cfs can be added from the Crosscut Canal as supplemental flow. During the peak of the irrigation season this supplemental flow is critical as the capacity of the Fall River Canal does not allow it to deliver all of the water needed from its main headgate on Fall River. After siphoning under the Crosscut this canal continues another 8 miles delivering irrigation water to highly productive farmland. In all this canal stretches over 16 miles delivering water to nearly 200 diversions.

North Branch of the Fall River Canal- This canal diverts between 40 and 75 cfs from the larger Crosscut Canal supplying water to 20 diversions.

Middle Branch of the Fall River Canal- This canal diverts between 50 and 100cfs during the peak of the irrigation season from the larger Crosscut Canal. This canal stretches over 7 miles and delivers water to over 50 diversions. Demand on this canal is highly variable making response time critical.

Farmers Friend Canal- This canal diverts up to 300cfs during the peak of the irrigation season for approximately 150 diversions over 8 total miles. This canal has junior natural flow water rights resulting in a reliance on storage water. Their reliance on storage water makes water management critical to maintaining water availability through the irrigation season.

The combination of these first 4 canals are all part of SICC and provide irrigation water to 14,754 acres.

Salem Union Canal- This canal diverts between 200 and 300cfs supplying irrigation water to over 100 diversions. It stretches nearly 15 miles irrigating 4,874 acres.

Teton Island Feeder Canal- This canal diverts between 100 and 600 cfs throughout the irrigation season supplying irrigation water to 300 diversions. It splits into two main branches referred to as the Teton Island Canal and Salem Irrigation Canal (See Figure 2) covering 16 total miles and irrigating 9,448 acres.

Consolidated Farmers Canal- This canal diverts between 200 and 300 cfs supplying irrigation water to over 125 diversions. It stretches over 12 miles irrigating 8,370 acres.

In all, these diversions supply irrigation water to nearly 1,000 diversions irrigating 37,446 acres of highly productive farmland. The primary crops grown in these areas include high quality potatoes, wheat, barley and alfalfa. These delivery systems are highly complex and increasing our precision in water management will be very beneficial. Table 2 details their combined water rights.

Table 2. Canal Company Water Rights

Canal	Natural Flow (CFS)	Storage (Acre Feet)
SICC	916.0	18,223.0
TIFCC	641.2	9,141.0
SUCC	315.0	30,131.0
CFCC	403.0	23,331.0
Totals	2,275.2	80,826.0

Evaluation Criterion A—Project Benefits (35 points)

Up to 35 points may be awarded based upon evaluation of the benefits that are expected to result from implementing the proposed project. This criterion considers a variety of project benefits, including the significance of the anticipated water management benefits and the public benefits of the project. This criterion prioritizes projects that modernize existing infrastructure in order to address water reliability concerns, including making water available for multiple beneficial uses and resolving water related conflict in the region.

- Describe the expected benefits and outcomes of implementing the proposed project.
 - What are the benefits to the applicant’s water supply delivery system?

This project will help us conserve water. Based on our past experience with installing automation equipment on canal diversions we believe we can average between 4 and 10-acre feet of water savings every day during the peak of the irrigation season for each of the 8 canals the equipment is installed on. Using the peak dates of our irrigation season from June 1st to September 15th this equates to a total water savings for this project of between 2,784-acre feet and 6,960-acre feet.

This water savings will be recognized in Henry’s Lake, Island Park and Grassy Lake Reservoirs. Keeping water in these reservoirs will benefit all water users in the Upper Snake Reservoir system and help us be more resilient in potential subsequent drought years. Keeping water in the reservoirs will also benefit fish habitat in the Henry’s Fork River. More water held in the reservoirs during the irrigation season directly results in higher winter flows in the river. These winter flows are critical for the Henry’s Fork fishery.

This project will save Fremont-Madison and each of the canal companies significant time, vehicle wear and result in an overall reduction in our carbon footprint. These canals stretch a total of 74 miles from there river diversions to their respective ending points. By installing the proposed project, the water-masters will have access to current flow data without physically seeing it. They will also be able to adjust flows without traveling to the physical locations. We believe this will reduce vehicle travel by up to 100 miles per day. Looking at the irrigation season from April 1st to October 1st this project will reduce travel each irrigation season by 18,200 miles.

Real time data will aid in future modeling and precision management efforts. With the help of the Henry’s Fork Foundation, we have undertaken a significant modeling effort. This project will help us develop better daily, weekly and irrigation season plans resulting in better water management.

- *If other benefits are expected explain those as well. Consider the following:*
 - *Extent to which the proposed project improves overall water supply reliability.*

One of the biggest benefits of this project is that it will significantly improve water reliability for those towards the end of the delivery systems. The most glaring example of this is on the main branch of the Fall River Canal. This is a complicated system that diverts water from the Fall River. After approximately 8 miles it siphons under the larger Crosscut Canal where 30cfs can be added to supplement flow, a mile later it siphons under the Teton River Canyon. Once it siphons under the Teton River Canyon it becomes the East Teton Canal and stretches another 7 miles for a total of over 16 miles. This canal has limited capacity at the end and flow must be managed to nearly zero. This can result in shortages or abundances of water at the end as diversions up stream change and our response time is limited by travel and outdated diversion structures. By implementing this automation project, which will include adding automation and remote operation equipment to the main headgate on the Main Branch of the Fall River Canal and its headgate on the Crosscut Canal where supplemental water can be added to the system; we will significantly improve water reliability to those on the lower half of the delivery system. This will prevent significant conflict by not shorting water users during critical times. The benefits of this improvement cannot be overstated.

It will also improve water reliability by increasing our carryover storage in the Reservoirs. Additional carryover in the reservoirs will benefit water reliability in subsequent drought sequences.

Real time flow data and remote operation of the gates will allow Fremont-Madison to make precise management decisions from our office where we have dedicated staff.

- *The expected geographic scope benefits from the proposed project (e.g., local, sub-basin, basin)*

The proposed project will specifically benefit the Henry's Fork Basin. It will also benefit the entire Upper Snake System. This project will allow us to keep more water in Island Park Reservoir, Grassy Lake Reservoir and Henry's Lake Reservoir during the irrigation season making them easier to fill each winter. Once these reservoirs are full, the excess water spills into American Falls Reservoir and fills it. Therefore this project benefits the entire Upper Snake System.

- *Extent to which the proposed project will increase collaboration and information sharing among water managers in the region.*

This project will provide real time flow data at the diversion structures which has not been available in the past. This new data will significantly increase collaboration and information availability and sharing between the 4 canal companies and Fremont-Madison. It will also help us work more effectively with the regulatory entity Water District 01.

- *Any anticipated positive impacts/benefits to local sectors and economies (e.g., agriculture, environment, recreation, tourism)*

This project will increase the water reliability for an irrigated agriculture economy that averages over 300 million in crop sales per year in Fremont, Madison and Teton counties according to the 2010 Fremont-Madison Irrigation District Canal Automation and SCADA Project

census of agriculture.

The Henry's Fork is a world-famous fly-fishing destination. This project will result in reduced outflow from the reservoirs during the irrigation season and increased flows in the winter which will more closely mimic nature. This increased winter flow is critical for trout habitat. Water quality in the rivers will be improved during the summer when most of the fishing occurs. Benefiting overall habitat in this way will increase trout populations bringing in additional anglers and thereby benefiting the local economies.

It will also maintain higher levels in the reservoirs benefiting recreation on the reservoirs themselves including, boating, fishing, camping etc. also benefiting the local economies.

Extent to which the project will complement work done in coordination with NRCS in the area (e.g., with a direct connection to the district's water supply). Describe any on-farm efficiency work that is currently being completed or is anticipated to be completed in the future using NRCS assistance through EQIP or other programs.

This project complements many of the on-farm projects the NRCS is currently working on in our area.

Evaluation Criterion B—Planning Efforts Supporting the Project (35 points)

Up to 35 points may be awarded based on the extent to which the proposed on-the-ground project is supported by an applicant's existing water management plan, water conservation plan, System Optimization Review, or identified as part of another planning effort led by the applicant. This criterion prioritizes projects that are identified through local planning efforts and meet local needs. Describe how your project is supported by an existing planning effort.

Does the proposed project implement a goal or address a need or problem identified in the existing planning effort?

Yes, this project will address several needs that have been identified in existing planning efforts as follows:

Henry's Fork Basin Study-2015

Canal automation was identified as the most economical alternative for conserving water on a per acre foot basis within Fremont-Madison in the 2015 Henry's Fork Basin Study.

Fremont-Madison Irrigation District Water Conservation Plan-2009

Fremont-Madison completed a Water Conservation Plan in 2009 with the assistance of Reclamation. One of the issues identified was our ability to measure water and know how much water is being diverted daily. Two specific recommendations of the plan were to increase water use data and to improve Crosscut Canal management. This project helps us accomplish both recommendations.

Drought Management Planning Committee-Ongoing

Additionally, in 2005 we formed a Drought Management Planning Committee (DMPC) in the Henry's Fork Watershed. This Committee developed a Drought Management Plan (DMP). The DMP was completed in 2005 and signed by Fremont-Madison, North Fork Reservoir Company, Reclamation, Henrys Fork Foundation, Trout Unlimited, and The Nature Conservancy. In 2018 the committee revised the DMP and included canal automation as one of the most effective means of conserving water in the Henrys Fork Watershed, which will improve the management of the reservoirs benefiting the fishery and agriculture.

The DMPC has developed water management and availability models that have significantly improved management of Island Park Reservoir and increased carryover by 17% in 2018. However, further gains are limited by current irrigation infrastructure and the time and resources necessary to operate it. Installing this automation equipment will provide a means to conserving additional water in the reservoirs for all to benefit from.

•*Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures.*

Through the planning efforts of Fremont-Madison and the DMPC, canal automation has been identified as the most economical way of conserving water within our irrigation district. The 2015 Henry’s Fork Basin Study also identified canal automation as the most economical way of conserving water in our basin.

In our efforts to continue to implement a science-based approach this project is a necessary next step to achieve additional water conservation.

Evaluation Criterion C—Project Implementation (10 points)

Up to 10 points may be awarded based upon the extent to which the applicant is capable of proceeding with the proposed project upon entering into a financial assistance agreement. Applicants that describe a detailed plan (e.g., estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates) will receive the most points under this criterion.

•*Describe the implementation plan for the proposed project. Please include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates.*

The schedule provided below outlines timing of the major tasks and milestones for the proposed project. The environmental evaluation will be simple and straight forward as there is no ground disturbance associated with this project. Once the environmental evaluation is complete construction can begin. Ideally, if the WaterSMART grant is awarded and environmental work is completed the construction phase of the project will begin in November of 2021 and be complete by July 1st, 2022. Even if we are not able to start this project in the fall of 2021 due to the environmental evaluation or other factors out of our control, we should be able to complete it by no later than July of 2022. This is a shovel ready project. We are only waiting for funding.

FMID SCADA and Automation Project	2021				2022											
	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Activity																
Award of WaterSMART Grant																
Develop and sign WaterSMART Contract																
Environmental Evaluation																
Installation of Automation Equipment																

•*Describe any permits that will be required, along with the process for obtaining such permits.*

There are not any required permits for this project. All equipment to be installed will be installed on privately owned water control structures with no ground disturbance.

Identify and describe any engineering or design work performed specifically in support of the proposed project.

This project does not require any design engineering. The engineering work necessary for the installation of the equipment is included in the proposals relied upon for budget calculation.

•*Describe any new policies or administrative actions required to implement the project.*

There are no new policies or administrative actions that will need to be implemented. The proposed project will enhance the ability to manage water under current policies and administrative mechanisms, without requiring new policies or changes in administration.

•Describe the timeline for completion of environmental and cultural resource compliance. Was the timeline for completion of environmental and cultural resource compliance discussed with the local Reclamation office?

The timeline for completing the environmental and cultural resource compliance for this project should be very simple with no ground disturbance or modification of existing structures. We did consult with the local reclamation office and this is what they said. “For installation of automation equipment and no ground disturbance occurring there is typically just CE (Categorical Exclusion) Environmental Compliance done. The cultural effort could take as few as a couple of hours of time.... Total turnaround time for this type of project could be done within a week if Reclamation staff have availability. Based on priorities for work it can likely be moved up to get done sooner rather than later and should be a pretty easy process....”

Evaluation Criterion D— Nexus to Reclamation (10 points)

Up to 10 points may be awarded based on the extent that the proposal demonstrates a nexus between the proposed project and a Reclamation project or activity. Describe the nexus between the proposed project and a Reclamation project or activity, including:

•Is the proposed project connected to a Reclamation project or activity? If so, how? Please consider the following:

The proposed project will be performed within Fremont-Madison, which is a part of Reclamation’s Minidoka Project. It will therefore benefit the District and Reclamation through better management of water resources and reduce overall demand.

- *Does the applicant receive Reclamation project water?*

Yes, Fremont-Madison and Fremont-Madison member canal companies receive all the storage water in Island Park and Grassy Lake Reservoirs.

- *Is the project on Reclamation project lands or involving Reclamation facilities?*

The project will be located on lands that are a part of the Minidoka Project, serving land irrigated with water from Island Park and Grassy Lake Reservoirs. The project will not be installed on Reclamation facilities but will benefit the overall operations of Island Park and Grassy Lake Reservoirs which are reclamation facilities.

- *Is the project in the same basin as a Reclamation project or activity?*

Yes, the proposed project will better manage water resources within the Henry’s Fork Basin by providing better water management ability and better water use data to Fremont-Madison. This project is expected to conserve water allowing us to keep it in the reservoirs thereby reducing impacts of potential subsequent drought years.

- *Will the proposed work contribute water to a basin where a Reclamation project is located?*

Yes, the proposed project will better manage water resources within the Henry’s Fork Basin by providing better water management ability and better water use data to the canal companies and Fremont-Madison. This project is expected to conserve water allowing us to keep it in the reservoirs thereby reducing impacts of potential subsequent drought years.

•Will the project benefit any tribe(s)?

As a part of the Nez Perce Water Rights Settlement Agreement of 2005, the Upper Snake River water users provide flow augmentation water down river for fish habitat. The amount of flow augmentation water available from the Upper Snake River system is significantly dependent upon reservoir levels. This project will help keep more water in the reservoir and therefore more water may be available in any given year for flow down river.

Project Budget

1. Funding Plan and Letters of Commitment

Describe how the non-Federal share of project costs will be obtained. Reclamation will use this information in making a determination of financial capability.

FMID or its partners will fund all non-federal contributions entirely with operating revenues. FMID officially committed to fund the non-federal share of the project in its official resolution.

2. Budget Proposal

The total project cost (Total Project Cost), is the sum of all allowable items of costs, including all required cost sharing and voluntary committed cost sharing, including third-party contributions, that are necessary to complete the project (Table 1). Note: The budget proposal must include the cost of all equipment, materials and supplies, and labor or contractual costs to complete the project.

Applicants must include the costs of all equipment, materials and supplies, and labor required to complete the project in the budget proposal (Table 2).

Budget Table 1. Total Project Costs

Budget Table 1. Total Project Budget

Source	Amount	% of Total Projects Cost
Cost to be reimbursed with the requested Reclamation Funding	\$75,000.00	50%
Cost to be paid by Fremont-Madison	\$76,142.50	50%
Total Project Cost	\$151,142.50	100%

As described in budget table 1, the total cost of the project is \$151,142.50. Fremont-Madison is requesting \$75,000 in WaterSMART grant funds.

Budget Table 2 Budget Proposal

Budget Item Description	COMPUTATION		Quantity Type	Total Cost
	\$/Unit	Quantity		
Salaries and Wages				
none	\$0.00	0	Hours	\$0.00
Fringe Benefits				
none	\$0.00	0	Hours	\$0.00
Contractual				
Fall River Canal-Main Branch				
<i>Automation and remote operation Equipment and installation</i>	\$22,378.00	1	EA	\$22,378.00
Fall River Canal-North Branch				
<i>Automation and remote operation Equipment and Installation</i>	\$14,908.00	1	EA	\$14,908.00
Fall River Canal Middle Branch				
<i>Automation and remote operation equipment and installation</i>	\$18,338.00	1	EA	\$18,338.00
Fall River Canal-East Branch				
<i>Automation and remote operation equipment and installation</i>	\$11,647.50	1	EA	\$11,647.50
Farmers Friend Canal				
<i>Automation and remote operation equipment and installation</i>	\$22,302.00	1	EA	\$22,302.00
Salem Union Canal				
<i>Automation and remote operation equipment and installation</i>	\$19,388.00	1	EA	\$19,388.00
Teton Island Feeder Canal				
<i>Automation and remote operation equipment and installation</i>	\$17,043.00	1	EA	\$17,043.00
Consolidated Farmers Canal				
<i>Automation and remote operation equipment and installation</i>	\$25,138.00	1	EA	\$25,138.00
			Total Project Cost	\$151,142.50

A full breakdown of the project cost is included in Attachment C.

3. Budget Narrative

The budget proposal was developed using a bid from a local contractor. The contractor bid the Automation/remote operations equipment and installation together.

Final selection of the contractor will be completed in accordance with Idaho law for Irrigation Districts and any additional requirements of the WaterSMART grant program.

Salaries & Wages

Aaron Dalling is the project manager and the Executive Director of Fremont-Madison however no Fremont-Madison salaries or wages will be included. Fremont-Madison’s staff time will be over and above the cost of the project and will not be counted toward the project cost.

Fringe Benefits

No fringe benefits will be required.

Travel

No travel will be required.

Other Expenses

No other expenses will be part of the project.

Indirect Costs

No indirect costs will be part of the project.

Environmental and Cultural Resource Considerations

To allow Reclamation to assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants should consider the following list of questions focusing on the NEPA, NHPA, and ESA requirements. Please answer the following questions to the best of your knowledge. If any question is not applicable to the project, please explain why.

The application should include the answers to:

- Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water[quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

There will be no ground disturbing work associated with this project. We will only be retrofitting existing structures with automation equipment. The impact to any resources including soil, air, water quality and quantity and animal habitat will be nil.

This project will have very little impact on the surrounding environment. If there is any impact it will be positive by limiting traffic, emissions etc. This project will benefit natural resources and the surrounding environment.

- Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?

No listed species or proposed to be listed species have critical habitat near the proposed project.

- Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as “Waters of the United States?” If so, please describe and estimate any impacts the proposed project may have.

This project will not impact any wetlands or Waters of the United States.

- When was the water delivery system constructed?

The Crosscut Canal was constructed in the late 1930’s. The other canals were constructed between the early 1890’s and about 1903.

- Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.

There will be no modifications to existing structures, rather equipment will be added to the existing structures to make them automatic and will provide the ability to make adjustments remotely.

Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.

This project will not affect any structures, buildings, or features that may be listed or eligible for listing under the natural register of historic places.

•Are there any known archeological sites in the proposed project area?

None

•Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?

No

•Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?

No

•Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?

No

Required Permits or Approvals

Applicants must state in the application whether any permits or approvals are required and explain the plan for obtaining such permits or approvals.

Note that improvements to Federal facilities that are implemented through any project awarded funding through this NOFO must comply with additional requirements. The Federal government will continue to hold title to the Federal facility and any improvement that is integral to the existing operations of that facility. Please see P.L. 111-11, Section 9504(a)(3)(B). Reclamation may also require additional reviews and approvals prior to award to ensure that any necessary easements, land use authorizations, or special permits can be approved consistent with the requirements of 43 CFR Section 429, and that the development will not impact or impair project operations or efficiency.

There are no required permits or approvals for this project. This project is not on federal facilities.

Unique Entity Identifier and System for Award Management

We have registered with SAMS and will maintain it for the life of the agreement.

Our DUNS number is 184839868 and SAMS cage code is 5UB95.

Mike Crapo
United States Senator
239 Dirksen Senate Office Building
Washington, D.C. 20510

James E. Risch
United States Senator
483 Russell Senate Office Building
Washington, D.C. 20510



Mike Simpson
Member of Congress
1339 Longworth House Office Building
Washington, D.C. 20515

March 9, 2021

Bureau of Reclamation
Attn: Commissioner of Reclamation
P.O. Box 25007, MS 84-27133
Denver, CO 80225

Dear Commissioner,

We write in support of the grant application submitted by Fremont-Madison Irrigation District (FMID) to the Bureau of Reclamation WaterSMART program. Well managed, available water is central to Idaho's economic sustainability and growth.

FMID was established in 1935 and includes over 285,000 irrigated acres in three Idaho counties. Since the mid 1990's FMID has worked through the Henry's Fork Watershed Council to improve river and reservoir management in the Henry's Fork Watershed. This project will be another concrete step forward in conserving water for various interest and stakeholders in the region.

The Snake River water supply has many competing demands including irrigation, municipal, recreation, ecological and industrial uses. These various demands and potential solutions to water availability bottlenecks were addressed in the Henry's Fork Basin Study hosted by the Henry's Fork Watershed Council. Completed in 2014 and funded by Reclamation and the Idaho Water Resource Board, the Henry's Fork Basin study identified canal automation as one of the most economical ways of conserving water in the Henry's Fork. If awarded, funding will allow FMID to install automation and remote control on 7 main water control structures helping to secure Idaho's water for the future.

We strongly support FMID's efforts to conserve this critically valuable resource and ask that you give their application full and fair consideration.

Sincerely,


MIKE CRAPO
United States Senator


JAMES E. RISCH
United States Senator


MIKE SIMPSON
Member of Congress



March 9, 2021

WaterSMART Grant Program
U.S. Bureau of Reclamation
Policy and Administration
Denver, CO 80225

Dear WaterSMART Grant Program Reviewers,

On behalf of the Friends of the Teton River (FTR), I would like to express my support for the grant proposal being submitted by the Fremont Madison Irrigation District (Fremont-Madison) to the WaterSMART Grant Program. Their proposed project is an excellent complement to work that Friends of the Teton River is doing to conserve water in the Teton Basin. Fremont-Madison's project is also directly in line with the goals of the Henry's Fork Watershed Council, of which FTR is an active participant.

The mission of Friends of the Teton River is to restore and conserve the Teton River Watershed, ensuring a lasting legacy of clean water, healthy streams, and a thriving wild fishery. We implement programs and projects founded on sound science, community education, and cooperation with landowners, citizens, and agency partners. As such, the proposed project is directly in line with our mission. Friends of the Teton River staff will continue to actively participate in the Henry's Fork Watershed Council during the project period.

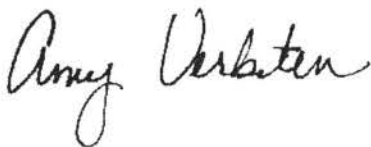
This project will continue to build on the Bureau of Reclamation's highly successful investment in the broader Henry's Fork Watershed, and particularly the priority alternatives that were identified in the 2015 Henry's Fork Basin Study. Canal automation was identified in the Basin Study as one of the most economical means for conserving water in the Henry's Fork Watershed, and is widely supported by agricultural and conservation partners.

Additionally, this project will build on the strong track record broad BOR support in the broader Henry's Fork Watershed, including recent BOR-supported work in the Teton River sub-watershed. FTR and our partners founded the Teton Water Users Association under a WaterSMART Cooperative Planning Phase I Grant, and utilized the WaterSMART Cooperative Planning Phase II funding program to support implementation of its phase I planning efforts. We recently partnered on BOR-supported work in the Canyon Creek drainage, successfully utilizing WaterSMART funding to act on the goals and priorities identified in the Henry's Fork Basin Study.

As a participating organization in the Watershed Council and a partner in watershed-wide water conservation, we believe that Fremont-Madison is in a unique position to meet agricultural water needs while completing projects that help to conserve Idaho's native trout species. The current grant proposal will help manage water more efficiently, bolster partnerships, and continue to promote a culture of conservation among water users within the watershed.

In summary, we support Fremont-Madison's application because it will improve water management for the benefit of all stakeholders in the broader Henry's Fork Watershed, and thus complement the BOR-supported work that is being done in the Teton River Watershed.

Sincerely,

A handwritten signature in black ink that reads "Amy Verbeten". The signature is written in a cursive, flowing style.

Amy Verbeten

Executive Director

Friends of the Teton River

208.354.3871 ext. 13

amy@tetonwater.org



March 3, 2021

Small Scale Efficiency WaterSMART Grant Proposal 2021
Letter of support for application of Fremont-Madison Irrigation District

Dear Grant Selection Committee:

As a nonprofit organization whose mission is to conserve, restore and protect the unique fish and wildlife resources of the Henry's Fork of the Snake River, the Henry's Fork Foundation (HFF) fully supports the grant proposal of Fremont-Madison Irrigation District (FMID) to the US Bureau of Reclamation's Small Scale Efficiency WaterSMART program. For over 27 years, our two organizations have collaborated with one another to advance the science and practice of watershed management. In fact, HFF has worked closely with FMID to develop and execute similar projects in the hopes that precision management of water resources will result in benefits to both irrigation entities and the wild trout fishery.

This grant proposal takes another step toward implementing some of the alternatives developed through the 2015 Henry's Fork Basin Study. Fremont-Madison Irrigation District (Fremont-Madison) proposes to install remote operating and automation equipment on 8 main control structures and collect data and operate them from their existing SCADA (Supervisory Control and Data Acquisition) computer system in their office. This project is in partnership with 4 canal companies FMID delivers storage water to each year. The partners are Southeast Idaho Canal Company (SICC), Salem Union Canal Company (SUCC), Consolidated Farmers Canal Company (CFCC) and Teton Island Feeder Canal Company (TIFCC). The project will help manage water more efficiently, bolster local partnerships, and promote conservation among water users within our service area. In the Henry's Fork Basin Study, canal automation was identified as one of the most economical means of conserving water in the Henry's Fork Watershed. After official release of the final Basin Study document in 2015, HFF's Board of Directors directed staff to find the appropriate role in pursuing implementation of alternatives in the Basin Study, as well as related actions that ensure sustainability of water resources for all uses, including irrigation and fish and wildlife habitat. This project proposal by FMID further implements site-specific actions that will increase annual carryover in Island Park Reservoir which provides many regional benefits and builds off of work that HFF has been more directly involved in. We are grateful to FMID and partners for continuing to expand on work that has proven to be beneficial for a broad spectrum of watershed stakeholders.

Sincerely yours,

Brandon Hoffner
Executive Director



House of Representatives State of Idaho

To Whom It May Concern:

I am pleased to support Fremont-Madison Irrigation District's (FMID) grant application for automation of 8 of their main water control structures. This project is an excellent example of using the most up-to-date technology to manage our water resources.

Well managed, available water is central to Idaho's economic sustainability and growth. I strongly support FMID's efforts to conserve this critically valuable resource. FMID's long-standing efforts to participate in the Henry's Fork Watershed Council and engage with conservation interests in the region is a model for the rest of the West.

The Henry's Fork water supply is limited with many competing demands including irrigation, municipal, recreation, ecological, and industrial uses. These various demands and potential solutions to the limited water supply were addressed in the Henry's Fork Basin Study hosted by the Henry's Fork Watershed Council. Completed in 2015 and funded by Reclamation and the Idaho Water Resource Board, the Henry's Fork Basin Study is a prime example of FMID working diligently with their collaborating partners to determine new and innovative means of conserving water. In the study, canal automation was identified as the most economical means of conserving water in the Henry's Fork Watershed.

This project will help secure Idaho's water for the future and is another concrete step in utilizing the Henry's Fork Basin Study.

Sincerely,

A handwritten signature in cursive script that reads "Jon O. Weber".

Fremont-Madison Irrigation District

Official Resolution 2021-01

In the matter of the proposed WaterSMART application to United States Bureau of Reclamation (Reclamation) for canal automation/remote operations for Fremont-Madison Irrigation District.

WHEREAS, Reclamation's Small-Scale Water Efficiency Grants provide funding to non-federal entities to implement actions to increase water supply reliability through investments in existing infrastructure; and

WHEREAS, Reclamation requires that Small-Scale Water Efficiency Grant applicant adopt a resolution verifying (1) the identity of the official with legal authority to enter into agreement, (2) the board of directors, governing body, or appropriate official who has reviewed and supports the application submitted, (3) the capability of the applicant to provide the amount of funding and/or in-kind contributions specified in the funding plan, and (4) that the applicant will work with Reclamation to meet established deadlines for entering into a cooperative agreement; and

WHEREAS, FMID desires to apply for a Small-Scale Water Efficiency Grant to assist the District with installing automation equipment on 8 main water control structures within the district, a project designed to improve water use efficiency; and

WHEREAS, The FMID Board of Directors have reviewed the WaterSmart Grant proposal and supports the grant application; and

NOW, THEREFOR, BE IT RESOLVED that FMID authorizes application to Reclamation for a WaterSMART grant and authorizes Jeff Raybould, Chairman to enter into an agreement with Reclamation for the WaterSMART grant; and

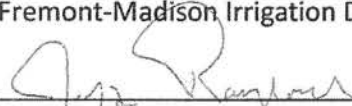
FURTHER IT BE RESOLVED, that FMID recognizes that Jeff Raybould, Chairman will represent FMID as its legal entity in the cooperative agreement; and

FURTHER IT BE RESOLVED, that FMID agrees to the WaterSmart funds and will work cooperative with Reclamation to meet established deadlines for entering into a cooperative agreement; and

FURTHER IT BE RESOLVED, that FMID shall provide or ensure the non-federal portion of the project costs.

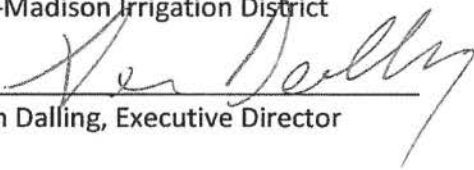
Dated this 26th day of February, 2021

Fremont-Madison Irrigation District



By: Jeff Raybould, Chairman

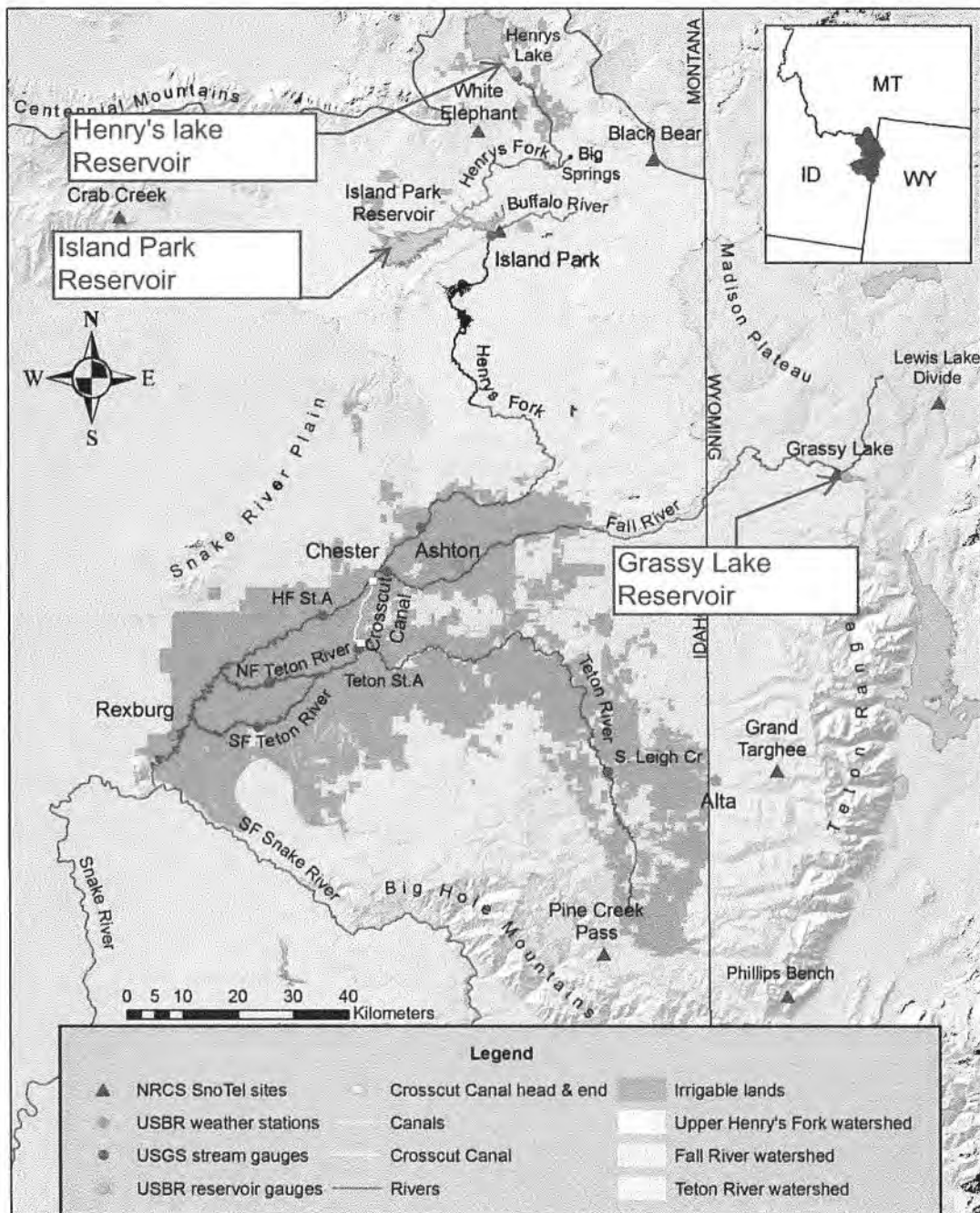
Fremont-Madison Irrigation District



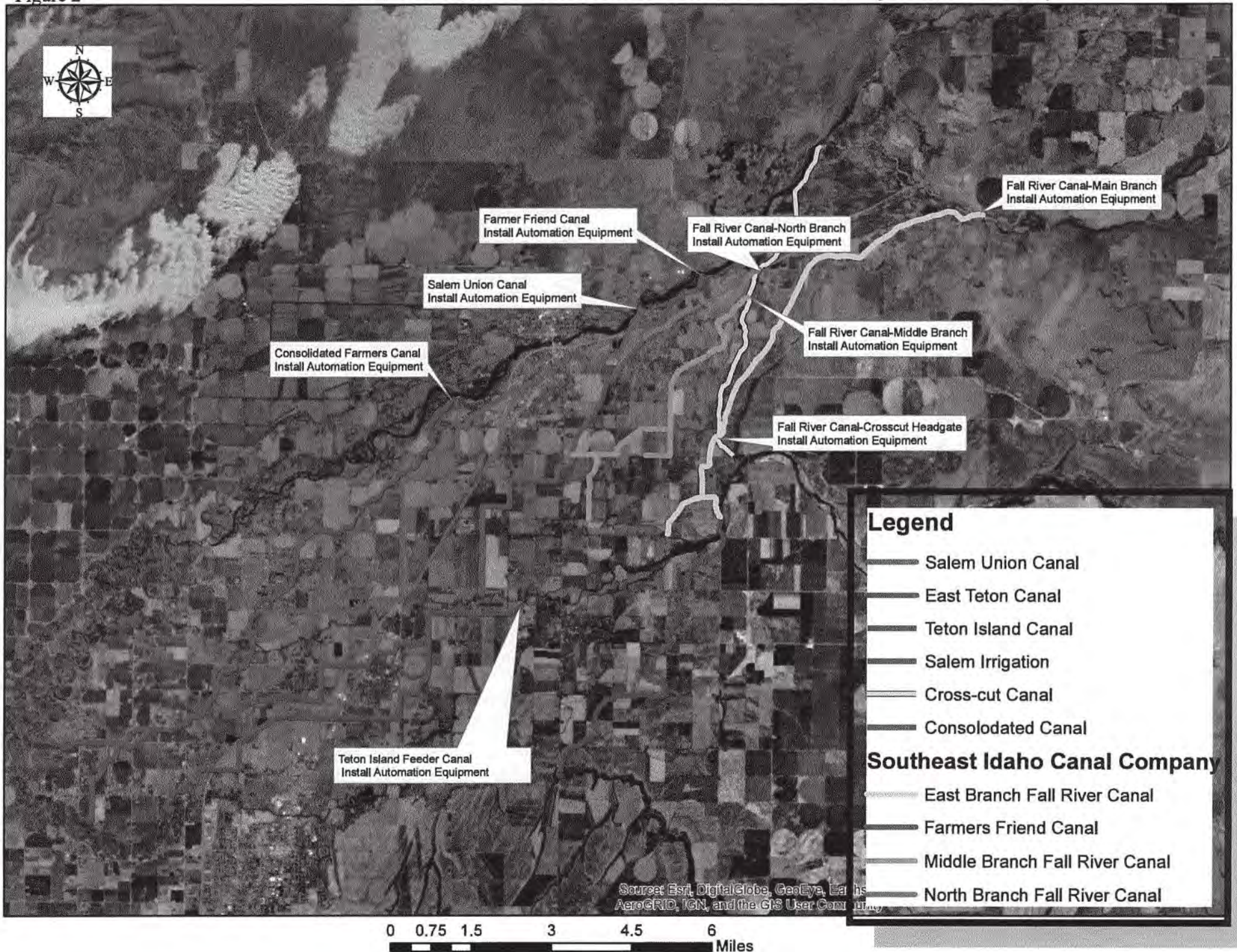
By: Aaron Dalling, Executive Director

Attachment A

Figure 1. Henry's Fork Reservoirs and Irrigated Acres



Fremont-Madison Canal Automation and SCADA Project Location Map



METCOM, INC.

4151 East 421 North
Rigby ID. 83442
(208)521-6403

Quote For:

Fremont-Madison Irrigation district

Description:

Automation for Fall River Canal. Flow will be maintained by adjusting gates according to desired water level at the gaging house.

Date: January 11, 2020

Part # & Quantity	Description	Unit Pr	Total
CR-1000X 1	Campbell controller/datalogger	\$ 1840.00	\$ 1840.00
CR-300 1	Data logger at Gage House	\$ 680.00	\$ 680.00
RF-451 2	Spread Spectrum radio, 1 watt	\$ 995.00	\$ 1990.00
CR-Cell 1	Campbell 4g network modem (Communications)	\$ 495.00	\$ 495.00
Cell-Ant 1	Modem antenna and cables	\$ 125.00	\$ 125.00
Ant-yagi 2	Yagi antennas for radios	\$ 135.00	\$ 270.00
Actuator 1	30,000lb actuator, limit switches, pos.sensor.	\$ 8900.00	\$ 8900.00
Encoder 1	Encoder and assemble with display	\$ 1150.00	\$ 1150.00
MOA-1 1	Manual-Off-Auto control switch box with display	\$ 595.00	\$ 595.00
Sol-100 2	100 watt solar panels	\$ 200.00	\$ 400.00
Sol-30 1	30 watt solar panel for gaging house	\$ 95.00	\$ 95.00
MetReg-7 2	Solar regualtor 7 amp, 12 volt for each battery	\$ 140.00	\$ 280.00
31series 2	Lead acid batteries, 12 volt 31 series	\$ 144.00	\$ 288.00
12-Rly-80 2	12 volt relays, 80 amp	\$ 50.00	\$ 100.00
misc. 1	Wire, mileage, fuses & holders, HD terminals, tys, etc.	\$ 350.00	\$ 350.00
Prog 1	Custom program, testing, calibrations, training, & support	\$ 1500.00	\$ 1500.00
Labor 50	Installation of all equipment	\$ 50.00	\$ 2500.00
Neam 4 enclosure 1	Hoffman 30"X30" enclosure with locking handles & insulated	\$ 995.00	\$ 995.00
Nema 4 enclosure 1	Nema 16"x16"x6" enclosure at gaging house	\$ 225.00	\$ 225.00
Neam metal stand 1	Metal stand 4" C channel for Nema box & solar mounts	\$ 250.00	\$ 250.00
Metal work	Labor for attaching actuator budget, by other party	\$ 1000.00	\$ 1000.00
Sub Total			\$ 22,028.00
Freight			\$ 350.00
Bal Due			\$ 22,378.00

METCOM, INC.

4151 East 421 North
Rigby ID. 83442
(208)521-6403

Quote For:		Description:		
Fremont-Madison Irrigation district		Automation for Fall River North Branch canal Flow will be maintained by using flow measurement at gaging house by radio communications. Existing cell modem will be moved to canal gate and existing equipment in gaging house will be interfaced with.		
Date: January 11, 2020				
Part # & Quantity	Description	Unit Pr	Total	
CR-1000X 1	Campbell controller/datalogger	\$ 1840.00	\$ 1840.00	
RF-401 2	Radios spread spectrum 1/4 watt	\$ 525.00	\$ 1050.00	
Yagi-Ant 2	Modem antenna and cables	\$ 135.00	\$ 270.00	
MOA-1 1	Manual-Off-Auto control switch box with display	\$ 595.00	\$ 595.00	
MicroEnc 1	Encoder for Gage level at house with assembly (may not need because of having water level already in house)	\$1150.00	\$ 1150.00	
Sol-100 2	100 watt solar panels	\$ 200.00	\$ 400.00	
MetReg-7 2	Solar regulator 7 amp, 12 volt for each battery	\$ 140.00	\$ 140.00	
31series 2	Lead acid batteries, 12 volt 31 series	\$ 144.00	\$ 288.00	
12-Rly 2	12 volt relays, 80 amp	\$ 50.00	\$ 100.00	
Gtpos 1	60" gate position sensors in nema housing	\$ 395.00	\$ 395.00	
misc. 1	Wire, mileage, fuses & holders, HD terminals, tys, etc.	\$ 350.00	\$ 350.00	
Prog 1	Custom program, testing, calibrations, training, & support	\$ 1500.00	\$ 1500.00	
Labor 40	Installation of all equipment	\$ 50.00	\$ 2000.00	
24V 1HP 1	1 hp dc motor	\$ 775.00	\$ 775.00	
60:1 Grbox 1	Heavy duty gear box	\$ 650.00	\$ 650.00	
12-Rly-80 2	Heavy duty relays 80amp	\$ 255.00	\$ 510.00	
Neam 4 enclosure 1	Hoffman 30"X30" enclosure with locking handles & insulated	\$ 995.00	\$ 995.00	
Neam metal stand 1	Metal stand 4" C channel box and solar mounts	\$ 250.00	\$ 250.00	
Metal Fab work	Budget for metal fabrication done by other	\$ 1500.00	\$ 1500.00	
		Sub Total	\$ 14,758.00	
		Freight	\$ 150.00	
		Bal Due	\$ 14,908.00	

METCOM, INC.

4151 East 421 North
 Rigby ID. 83442
 (208)521-6403

Quote For:
Fremont-Madison Irrigation district

Description:
Automation for Fall River Middle Canal. Flow will be maintained by weir rating down stream and measure at the gaging house with encoder. Automation at gate will adjust according to desired flow.

Date: January 11, 2020

Part # & Quantity	Description	Unit Pr	Total
CR-1000X 1	Campbell controller/datalogger	\$ 1840.00	\$ 1840.00
CR-Cell 1	Campbell 4g network modem (Communications)	\$ 495.00	\$ 495.00
Cell-Ant 1	Modem antenna and cables	\$ 125.00	\$ 125.00
Encoder 1	Encoder with display for gaging house water level	\$ 1150.00	\$ 1150.00
MOA-1 1	Manual-Off-Auto control switch box with display	\$ 595.00	\$ 595.00
MicroEnc 1	Encoder for Gage level at house with assembly	\$1150.00	\$ 1150.00
Sol-100 2	100 watt solar panels	\$ 200.00	\$ 400.00
MetReg-7 2	Solar regulator 7 amp, 12 volt for each battery	\$ 140.00	\$ 140.00
31series 2	Lead acid batteries, 12 volt 31 series	\$ 144.00	\$ 288.00
12-Rly-80 2	12 volt relays	\$ 50.00	\$ 100.00
Gtpos 1	60" gate position sensors in nema housing	\$ 395.00	\$ 395.00
misc. 1	Wire, mileage, fuses & holders, HD terminals, tys, etc.	\$ 350.00	\$ 350.00
Prog 1	Custom program, testing, calibrations, training, & support	\$ 1500.00	\$ 1500.00
Labor 50	Installation of all equipment	\$ 50.00	\$ 2500.00
24VDC/3/4hp	3/4 hp dc motor	\$ 675.00	\$ 675.00
120:1 Grbox 1	Heavy duty gear box(smaller may work?? then \$650)	\$ 2150.00	\$ 2150.00
Hy-Rlys 2	12 volt electrical solenoid hydraulic relays	\$ 255.00	\$ 510.00
Neam 4 enclosure 1	Hoffman 30"X30" enclosure with locking handles & insulated	\$ 995.00	\$ 995.00
Neam metal stand 1	Metal stand 4" C channel for Nema box	\$ 250.00	\$ 250.00
Conduit 350'	1" conduit, communication wire between house & gate	\$ 440.00	\$ 440.00
Trenching 1	Trenching from gate to gaging house done by other	\$ 500.00	\$ 500.00
Metal Fab work	Budget for metal fabrication done by other	\$ 1500.00	\$ 1500.00

Sub Total	\$ 18,188.00
Freight	\$ 150.00
Bal Due	\$ 18,338.00

METCOM, INC
 4151 East 421 North
 Rigby ID. 83442
 (208)521-6403

Quote For:
Fremont-Madison Irrigation district

Description:

Automation for East Branch Fall River Canal. Flow will be maintained by a weir level 1 mile downstream, but for immediate adjustment a level will be measured at the weir about 150' downstream of the gate and adjusted as needed to meet target 1 mile downstream.

Date: January 11, 2020

Part # & Quantity	Description	Unit Pr	Total
CR-1000X 1	Campbell controller/datalogger(Can probably use a 300)	\$ 1840.00	\$ 1840.00
CR-Cell 1	Campbell 4g network modem (Communications)	\$ 495.00	\$ 495.00
Cell-Ant 1	Modem antenna and cables	\$ 125.00	\$ 125.00
Act5000lb 1	5000lb actuators for 1 gate, limit switches and position.	\$ 1350.00	\$ 1350.00
MOA-1 1	Manual-Off-Auto control switch box with 1 displays	\$ 595.00	\$ 595.00
Sol-100 1	100 watt solar panels	\$ 200.00	\$ 200.00
MetReg-12 1	Solar regulator 7 amp	\$ 155.00	\$ 155.00
31series 1	Lead acid batteries, 12 volt 31 series	\$ 144.00	\$ 144.00
12-Rly 2	12 volt relays	\$ 38.00	\$ 76.00
Trans0-5' 1	Two Transducers, front and behind gate with 4" well (may only need one)	\$ 795.00	\$ 795.00
0-3.3Staff 1	Staff gages in front and behind gate	\$ 65.00	\$ 65.00
misc. 1	Wire, mileage, fuses & holders, HD terminals, tys, etc.	\$ 300.00	\$ 300.00
Prog 1	Custom program, testing, calibrations, training, & support	\$ 1500.00	\$ 1500.00
Labor 35	Installation of all equipment	\$ 1750.00	\$ 1750.00
Neam 4 enclosure 1	Hoffman 24"X30" enclosure, locking handles & insul.	\$ 895.00	\$ 895.00
Junc-Box 1	Junction box at weir	\$ 75.00	\$ 75.00
Neam metal stand 1	Metal stand 4" C channel for Nema box & solar mounts	\$ 250.00	\$ 250.00
Metal Fab 1	Budget for attaching actuator. Done by other contractor	\$ 300.00	\$ 300.00
Tranching 1	Trenching budget done by other contractor	\$ 400.00	\$ 400.00
Con-wire 150'	1" conduit and communication wire	\$ 1.25	\$ 187.50
Sub Total			\$ 11,497.50
Freight			\$ 150.00
Bal Due			\$ 11,647.50

METCOM, INC.
 4151 East 421 North
 Rigby ID. 83442
 (208)521-6403

Quote For:
Fremont-Madison Irrigation district

Description:

Automation for Farmers Friend Canal. Flow will be maintained by adjusting gates according to desired water level measured at a PVC stilling well water level between 100-200 feet downstream.

Date: January 11, 2020

Part # & Quantity	Description	Unit Pr	Total
CR-1000X 1	Campbell controller/datalogger	\$ 1840.00	\$ 1840.00
CR-300 1	Data logger at Gage House	\$ 680.00	\$ 680.00
CR-Cell 1	Campbell 4g network modem (Communications)	\$ 495.00	\$ 495.00
Cell-Ant 1	Modem antenna and cables	\$ 125.00	\$ 125.00
Actuator 1	30,000lb actuator, limit switches, pos.sensor.	\$ 8900.00	\$ 8900.00
Trans-Well 1	Transducer in PVC stilling well, in concrete	\$ 1150.00	\$ 1150.00
MOA-1 1	Manual-Off-Auto control switch box with display	\$ 595.00	\$ 595.00
Sol-100 1	100 watt solar panel	\$ 200.00	\$ 400.00
MetReg-7 2	Solar regulator 7 amp, 12 volt for each battery	\$ 140.00	\$ 280.00
31series 2	Lead acid batteries, 12 volt 31 series	\$ 144.00	\$ 432.00
12-Rly-80 2	12 volt relays, 80 amp	\$ 50.00	\$ 100.00
Con/wire 200	Guesstimation on conduit and wire between gate & tran	\$ 1.25	\$ 250.00
misc. 1	Wire, mileage, fuses & holders, HD terminals, tys, etc.	\$ 350.00	\$ 350.00
Prog 1	Custom program, testing, calibrations, training, & support	\$ 1500.00	\$ 1500.00
Labor 50	Installation of all equipment	\$ 50.00	\$ 2500.00
Nema 4 enclosure 1	Hoffman 30"X30" enclosure with locking handles & insulated	\$ 995.00	\$ 995.00
Nema 4 enclosure 1	Nema 16"x16"x6" enclosure for stilling well	\$ 225.00	\$ 225.00
Nema metal stand 1	Metal stand 4" C channel for Nema box	\$ 250.00	\$ 250.00
Staff 0-3.3 1	Staff gage for water level	\$ 65.00	\$ 65.00
Trenching 1	Trenching from gate to stilling budget done by other	\$ 500.00	\$ 500.00
Metal work	Labor for attaching actuator budget, by other party	\$ 1000.00	\$ 1000.00
Sub Total			\$ 21,952.00
Freight			\$ 350.00
Bal Due			\$ 22,302.00

METCOM, INC.
 4151 East 421 North
 Rigby ID. 83442
 (208)521-6403

Quote For:
 Fremont-Madison Irrigation district

Description:
 Automation for Salem Union Canal. Flow will be maintained by radio communication of flow from downstream gaging house. One hydraulic gate will be automatically adjusted to maintain desired flow.

Date: January 11, 2020

Part # & Quantity	Description	Unit Pr	Total
CR-1000X 1	Campbell controller/datalogger	\$ 1840.00	\$ 1840.00
CR-300 1	Data logger at gaging house for communications	\$ 680.00	\$ 680.00
RF-451 2	Campbell radio, spread spectrum, 1 watt	\$ 995.00	\$ 1990.00
CR-Cell 1	Campbell 4g network modem antenna and connectors	\$ 620.00	\$ 620.00
YagiAnt 2	Spread Spectrum Antennas	\$ 135.00	\$ 270.00
MOA-1 1	Manual-Off-Auto control switch box with displays	\$ 995.00	\$ 995.00
Encoder 1	Encoder for Gage level at house with assembly	\$1150.00	\$ 1150.00
Sol-100 2	100 watt solar panels	\$ 200.00	\$ 400.00
Sol-30	30 watt solar panel at gaging house	\$ 95.00	\$ 95.00
MetReg-12 1	Solar regulator High Current 12 amp	\$ 225.00	\$ 225.00
MetReg-3 1	Solar regualtor 3 amp	\$ 140.00	\$ 140.00
31series 3	Lead acid batteries, 12 volt 31 series	\$ 144.00	\$ 432.00
12-Rly 2	12 volt relays	\$ 38.00	\$ 76.00
Gtpos 1	80" gate position sensors in nema housing	\$ 745.00	\$ 745.00
misc. 1	Wire, mileage, fuses & holders, HD terminals, tys, etc.	\$ 350.00	\$ 350.00
Prog 1	Custom program, testing, calibrations, training, & support	\$ 1500.00	\$ 1500.00
Labor 50	Installation of all equipment	\$ 50.00	\$ 2500.00
12 or 24VDC/3/4hp	3/4 hp dc motor	\$ 675.00	\$ 675.00
?:1 GR 1	gear ratio box (Ratio ?? probably will not need)	\$ 525.00	\$ 525.00
Hy-Rlys 2	12 volt electrical solenoid hydraulic relays	\$ 255.00	\$ 510.00
Neam 4 enclosure 1	Hoffman 30"X30" enclosure with locking handles	\$ 995.00	\$ 995.00
Nema 4 enclosure 1	Nema 4 for gaging house 16"x16"x 6"	\$ 225.00	\$ 225.00
Neam metal stand 1	Metal stand 4" C channel for Nema box	\$ 250.00	\$ 250.00
Metal Fab work	Guesstimation for metal work budget done by other	\$ 2000.00	\$ 2000.00
Sub Total			\$ 19,188.00
Freight			\$ 200.00
Bal Due			\$ 19,388.00

METCOM, INC.
 4151 East 421 North
 Rigby ID. 83442
 (208)521-6403

Quote For:
 Fremont-Madison Irrigation district

Description:
 Automation for Teton Island canal. Flow will be maintained by radio communication of flow from downstream gaging house. One hydraulic gate will be automatically adjusted to maintain desired flow.

Date: January 11, 2020

Part # & Quantity	Description	Unit Pr	Total
CR-1000X 1	Campbell controller/datalogger	\$ 1840.00	\$ 1840.00
CR-300 1	Data logger at gaging house for communications	\$ 680.00	\$ 680.00
RF-401 2	Campbell radio, spread spectrum, 1/4 watt	\$ 525.00	\$ 1050.00
CR-Cell 1	Campbell 4g network modem antenna and connectors	\$ 620.00	\$ 620.00
YagiAnt 2	Spread Spectrum Antennas	\$ 135.00	\$ 270.00
MOA-1 3	Manual-Off-Auto control switch box with displays	\$ 595.00	\$ 595.00
Encoder 1	Encoder for Gage level at house with assembly	\$1150.00	\$ 1150.00
Sol-100 2	100 watt solar panels(may only need one for one gate)	\$ 200.00	\$ 400.00
Sol-30	30 watt solar panel at gaging house	\$ 95.00	\$ 95.00
MetReg-7 2	Solar regulator High Current 7 amp(maybe only one)	\$ 155.00	\$ 310.00
31series 3	Lead acid batteries, 12 volt 31 series	\$ 144.00	\$ 432.00
12-Rly 2	12 volt relays	\$ 38.00	\$ 76.00
Gtpos 1	80" gate position sensors in nema housing wire lead	\$ 745.00	\$ 745.00
misc. 1	Wire, mileage, fuses & holders, HD terminals, tys, etc.	\$ 350.00	\$ 350.00
Prog 1	Custom program, testing, calibrations, training, & support	\$ 1500.00	\$ 1500.00
Labor 40	Installation of all equipment	\$ 50.00	\$ 2000.00
12 or 24VDC/3/4hp	1 hp dc motor	\$ 775.00	\$ 775.00
?:1 GR 1	gear ratio box (Ratio ?? probably will not need)	\$ 525.00	\$ 525.00
Hy-Rlys 2	12 volt electrical solenoid hydraulic relays	\$ 255.00	\$ 510.00
Neam 4 enclosure 1	Hoffman 30"X30" enclosure with locking handles	\$ 995.00	\$ 995.00
Nema 4 enclosure 1	Nema 4 for gaging house 16"x16"x 6"	\$ 225.00	\$ 225.00
Neam metal stand 1	Metal stand 4" C channel for Nema box plus solar mts	\$ 250.00	\$ 250.00
Metal Fab work	Guesstimation for metal work budget done by other	\$ 1500.00	\$ 1500.00

Sub Total	\$ 16,893.00
Freight	\$ 150.00
Bal Due	\$ 17,043.00

Attachment C

METCOM, INC.
 4151 East 421 North
 Rigby ID. 83442
 (208)521-6403

Quote For:
Fremont-Madison Irrigation district

Description:
 Automation for Consolidated Farmers Canal. Flow will be maintained by adjusting gates according to desired water level at the gaging house communicating by radio. Two gates will be automated.

Date: January 11, 2020

Part # & Quantity	Description	Unit Pr	Total
CR-1000X 1	Campbell controller/datalogger	\$ 1840.00	\$ 1840.00
CR-300 1	Data logger at Gage House	\$ 680.00	\$ 680.00
RF-401 2	Spread Spectrum radio, 1/4 watt	\$ 525.00	\$ 1050.00
CR-Cell 1	Campbell 4g network modem (Communications)	\$ 495.00	\$ 495.00
Cell-Ant 1	Modem antenna and cables	\$ 125.00	\$ 125.00
Ant-yagi 2	Yagi antennas for radios	\$ 135.00	\$ 270.00
Actuator 2 1	30,000lb actuator, limit switches, pos.sensor.	\$ 8900.00	\$17800.00 8,980.00
Encoder 1	Encoder and assemble with display	\$ 1150.00	\$ 1150.00
MOA-1 1	Manual-Off-Auto control switch box with two display	\$ 995.00	\$ 995.00
Sol-100 2	100 watt solar panels	\$ 200.00	\$ 400.00
Sol-30 1	30 watt solar panel for gaging house	\$ 95.00	\$ 95.00
MetReg-7 2	Solar regualtor 7 amp, 12 volt for each battery	\$ 140.00	\$ 280.00
31series 3	Lead acid batteries, 12 volt 31 series	\$ 144.00	\$ 288.00
12-Rly-80 4	12 volt relays, 80 amp	\$ 50.00	\$ 200.00
misc. 1	Wire, mileage, fuses & holders, HD terminals, tys, etc.	\$ 450.00	\$ 450.00
Prog 1	Custom program, testing, calibrations, training, & support	\$ 2000.00	\$ 2000.00
Labor 50	Installation of all equipment	\$ 50.00	\$ 2500.00
Neam 4 enclosure 1	Hoffman 30"X30" enclosure with locking handles & insulated	\$ 995.00	\$ 995.00
Nema 4 enclosure 1	Nema 16"x16"x6" enclosure at gaging house	\$ 225.00	\$ 225.00
Neam metal stand 1	Metal stand 4" C channel for Nema box & solar mounts	\$ 250.00	\$ 250.00
Metal work	Labor for attaching actuator budget, by other party	\$ 1500.00	\$ 1500.00
Sub Total			\$ 33,588.00
Freight			\$ 450.00
Bal Due			\$ 34,038.00

25,138.00

Mike Crapo
United States Senator
239 Dirksen Senate Office Building
Washington, D.C. 20510

James E. Risch
United States Senator
483 Russell Senate Office Building
Washington, D.C. 20510



Mike Simpson
Member of Congress
1339 Longworth House Office Building
Washington, D.C. 20515

March 9, 2021

Bureau of Reclamation
Attn: Commissioner of Reclamation
P.O. Box 25007, MS 84-27133
Denver, CO 80225

Dear Commissioner,

We write in support of the grant application submitted by Fremont-Madison Irrigation District (FMID) to the Bureau of Reclamation WaterSMART program. Well managed, available water is central to Idaho's economic sustainability and growth.

FMID was established in 1935 and includes over 285,000 irrigated acres in three Idaho counties. Since the mid 1990's FMID has worked through the Henry's Fork Watershed Council to improve river and reservoir management in the Henry's Fork Watershed. This project will be another concrete step forward in conserving water for various interest and stakeholders in the region.

The Snake River water supply has many competing demands including irrigation, municipal, recreation, ecological and industrial uses. These various demands and potential solutions to water availability bottlenecks were addressed in the Henry's Fork Basin Study hosted by the Henry's Fork Watershed Council. Completed in 2014 and funded by Reclamation and the Idaho Water Resource Board, the Henry's Fork Basin study identified canal automation as one of the most economical ways of conserving water in the Henry's Fork. If awarded, funding will allow FMID to install automation and remote control on 7 main water control structures helping to secure Idaho's water for the future.

We strongly support FMID's efforts to conserve this critically valuable resource and ask that you give their application full and fair consideration.

Sincerely,

Handwritten signature of Mike Crapo in black ink.

MIKE CRAPO
United States Senator

Handwritten signature of James E. Risch in black ink.

JAMES E. RISCH
United States Senator

Handwritten signature of Mike Simpson in black ink.

MIKE SIMPSON
Member of Congress

3/18/21
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