



— BUREAU OF —
RECLAMATION



Peoa South Bench Canal & Irrigation Company

Irrigation Water Metering & Remote Telemetry Project

WaterSMART Grants: Small-Scale
Water Efficiency Projects
BOR-DO-20-F006

Applicant Contact:

Dave Lake, President
1501 Stevens Ln
Peoa, Utah 84061
435-659-003
dtlake@allwest.net

Project Manager:

Brian Deeter, PE
466 North 900 West,
Kaysville, Utah 84037
801-547-0393
brd@JUB.com

Table of Contents

Technical Proposal and Evaluation Criteria.....	1
Executive Summary	1
Applicant Information	1
Project Summary.....	1
Length of Time	2
Federal Facility	2
Background Data	2
Project Location.....	5
Technical Project Description and Milestones	5
Evaluation Criteria	6
Evaluation Criterion A – Project Benefits.....	6
Evaluation Criterion B – Planning Efforts Supporting the Project.....	8
Evaluation Criterion C – Project Implementation	8
Evaluation Criterion D – Nexus to Reclamation	9
Evaluation Criterion E – Department of the Interior Priorities	10
Project Budget.....	1
Funding Plan and Letters of Commitment	1
Budget Proposal.....	1
Budget Narrative	2
Environmental and Cultural Resources Compliance.....	1
Required Permits or Approvals	1
Letters of Project Support.....	1
Official Resolution	1

Attachments

- Attachment 1 – Irrigated Land Use Map
- Attachment 2 – Project Location Map
- Attachment 3 – Project Detail Map
- Attachment 4 – Meter & RTU Specs
- Attachment 5 – Letters of Support
- Attachment 6 – Official Resolution

Technical Proposal and Evaluation Criteria

Executive Summary

Applicant Information

Date: March 4, 2020

Applicant Name: Peoa South Bench Canal and Irrigation Company (South Bench)

City, County, State: Oakley City, Summit County, Utah

Project Manager:

Brian Deeter

Project Manager/Engineer

801-547-0393

brd@jub.com

Requested Reclamation Funding: \$75,000; **Total Project Costs:** \$172,000

Project Summary

Specify the work proposed, including how funds will be used to accomplish specific project activities. Briefly identify how the proposed project contributes to accomplishing the goals of this FOA.

The proposed project will install individual water meters and Remote Telemetry Units (RTUs) on its main pipeline and service laterals. By metering and collecting the water use data, South Bench and its shareholders will reduce overallocation, better manage its water supply, and conserve water. Under the proposed Irrigation Water Metering & Remote Telemetry Project, South Bench will install 11 RTUs on the mainline and 39 meters on the individual service laterals. In order to accomplish this, South Bench requests \$75,000 in WaterSMART grant funds. The proposed project will realize the goals of this FOA in the following ways:

- ♦ **Better Manage Water** - Individual water meters will be installed on the laterals for each shareholder. This will allow South Bench to measure individual and overall water use/flows and ultimately contribute to the better management of 5,477 acre-feet of water.
- ♦ **Leverage Technology** - RTUs will collect and store water use/flow data from the individual water meters. This data will help prevent overuse and improve water practices; while also making sure users receive their full water rights.
- ♦ **Impact on Drought** – Allow for efficient water use habits to prepare for future drought years.
- ♦ **Contribute to Water Supply Reliability** - There are several high elevation lakes that store water for South Bench that is also used for fishing and other recreation purposes. Water better managed and conserved as a result of this project will allow water to remain in the lakes and the Weber River for longer periods of time to sustain downstream agricultural water users, recreational water users, and habitats.

Length of Time

State the length of time and estimated completion date for the proposed project.

South Bench is prepared to move forward with the Project upon award. South Bench estimates the contract with Reclamation will be signed before November 2020. An Environmental Assessment (EA) from a previously awarded WaterSMART project is underway with a FONSI anticipated by Summer 2020. The proposed project area is within the ongoing EA but may require an update to include the proposed project locations. Bidding and coordination are projected to take approximately two months and will be completed in January 2021. Installation is anticipated from January – May 2021. This project will require the installation of the meters to take place outside of the irrigation season. The Project will be completed within a two-year time allowance.

Federal Facility

Is the proposed project located on a Federal facility?

No, the project is not directly located on a Federal facility; however, South Bench is in the same basin as the Rockport, Echo, and Smith and Morehouse Reservoirs. Water better managed and conserved will contribute to the Weber River, which feeds the Rockport and Echo Reservoirs.

Background Data

The South Bench service area has a rich agricultural history in Oakley, Utah, with water rights dating back to 1879. There are 29 shareholders and 427 shares that service over 800 acres of land. South Bench's service area has a very short irrigation season due to its elevation. The typical irrigation season is from May 20th to the end of August during a good water year and during drought years only to the end of July. The current main canal system is an open ditch with most of the farmers flood irrigating. Because of large seepage losses and the age and condition of the system, South Bench is in the process of replacing the entire mainline of the canal, allowing for a new, fully piped and pressurized system. This will result in a more efficient irrigation system that will conserve 2,629 acre-feet of water and allow users to implement a sprinkling system without the need for pumping to water their fields.

Source of water supply

South Bench has water storage in Fish Lake, high up in the Uinta Mountains above the Smith and Morehouse Reservoir. Their water is delivered down through the Weber River. Their existing diversion is located on the Weber River, approximately 1.5 miles upstream of the Highway 32 crossing of the Weber River. The headwall and gates were constructed in 2012 following flood damage to the diversion.



Image 1 - Weber River Diversion for South Bench

Total quantity of water supply managed and supplied

The total quantity of water supply managed and supplied is 5,477 acre-feet.

Water rights involved

South Bench takes its water rights from the Weber River, and they include:

- ♦ 33.04 cfs for flood
- ♦ 18.36 cfs for high flow stages
- ♦ 10.32 cfs for low flow stages

Currently, the system operates on turns, and at any given time, five irrigators are each using 1/5 of the total ditch flow. The number of shares that each irrigator owns determines the length of time they are allowed to use the water. In 2017, South Bench diverted 5,477 acre-feet of water over the course of the irrigation season.

Current water uses (i.e., agricultural, municipal, domestic, or industrial)

South Bench's water supply is primarily used for irrigation. Only 25.2 acres out of the 807.2 acres served is for urban use.

Number of water users served

South Bench has 427 shares and 29 shareholders.

Current and projected water demand

South Bench diverts and attempts to deliver their full water right as described above on an annual basis. Because they lack the proper metering technology, some farmers are taking too much water, keeping others from receiving their full share. There are approximately 780 acres of agricultural land within the South Bench service area. Attachment 1 represents the current irrigated land use within the South Bench service area.

If water is primarily used for irrigation, describe major crops and total acres served

The major crops are alfalfa and grass hay. The majority of the irrigated land is for pasture and livestock use.

Potential shortfalls in water supply

South Bench faces potential water supply shortfalls in the following areas:

Drought

Based on data collected on drought.gov, from 2012-2016, the entirety of Utah reached a period of severe to extreme drought conditions, which had major potential to destroy crop or pasture, including widespread water shortages that resulted in widespread water restrictions.

Conditions significantly improved from mid-2016 to late 2017, but not before they worsened again in 2018. Not far into 2018 and through the end of the year, drought conditions escalated higher than they have ever been since 2004. During 2018, Utah entered a period of exceptional drought that caused copious widespread crop and pasture loss, including shortages of water that created water emergencies! Figure 1 below shows the drought conditions in Utah from 2000 – 2020. The different colors represent levels of drought ranging from “abnormally dry” to

“exceptional drought;” and Figure 2 provides an explanation of the drought levels represented in Figure 1 and the risks they pose to irrigators.

Past drought years have caused local farmers and ranchers to struggle to make ends meet, resulting in reduced watering times during the most critical irrigation months, triggering a reduction in hay harvest that forced many to purchase more hay to feed their cattle, or to sell off cattle. The 2019 water year was good, allowing 2020 to begin with full reservoirs, farmers still fear future drought years and want to make sure they are prepared for them.

Overuse

Water users know how many shares they have, but without meters, it is difficult to know how much water they are diverting. Even with the new piped delivery system, without meters, South Bench water users will have the same difficulties of overuse, affecting shareholders in the lower part of the canal.

Figure 2 - Utah Drought Conditions (2000-2020)

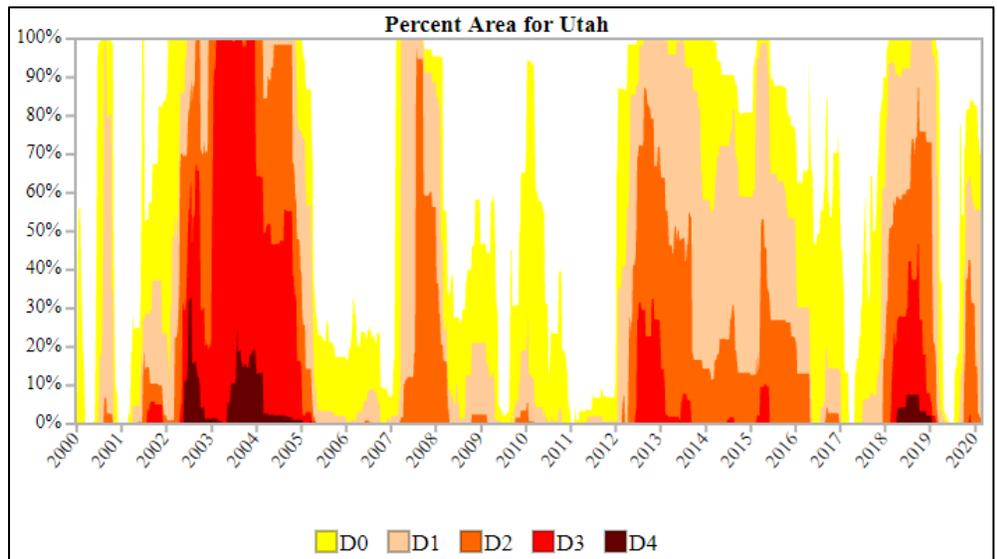


Figure 1 – Explanation of Utah Drought Conditions

	<p>D0 - Abnormally Dry</p> <ul style="list-style-type: none"> Short-term dryness slowing planting, growth of crops Some lingering water deficits Pastures or crops not fully recovered 	14.8% of State	70.2% D0-D4
	<p>D1 - Moderate Drought</p> <ul style="list-style-type: none"> Some damage to crops, pastures Some water shortages developing Voluntary water-use restrictions requested 	54.1% of State	55.4% D1-D4
	<p>D2 - Severe Drought</p> <ul style="list-style-type: none"> Crop or pasture loss likely Water shortages common Water restrictions imposed 	1.3% of State	1.3% D2-D4
	<p>D3 - Extreme Drought</p> <ul style="list-style-type: none"> Major crop/pasture losses Widespread water shortages or restrictions 	0.0% of State	0.0% D3-D4
	<p>D4 - Exceptional Drought</p> <ul style="list-style-type: none"> Exceptional and widespread crop/pasture losses Shortages of water creating water emergencies 	0.0% of State	0.0% of State

Describe the applicant’s water delivery or distribution system, as appropriate. For agricultural systems, please include the types and approximate total lengths of canals and laterals (e.g., unlined or lined open channel, pipe, including types of pipe and lining materials), the number of irrigation turnouts and other significant existing irrigation improvements (e.g., automated control structures, remote monitoring devices and SCADA systems). For municipal systems, include the total approximate length of distribution lines, number of sizes of storage tanks, number of pump stations and capacities, and the number of connections and/or number of water users served and any other relevant information describing the system.

South Bench’s water delivery system is comprised of the main canal and open ditches but is currently in the process of being piped and pressurized. The first turnout is approximately 2 miles downstream from the river diversion. The lower 2 miles of the canal is where all the irrigation use occurs. The lower section of the canal is mainly used to water livestock and open pasture.

Identify any past working relationships with Reclamation, including date(s), description of the relationship(s) with Reclamation, and a description of the project(s).

South Bench has participated with the Weber Basin Water Conservancy District as they have developed their most recent Drought Plan, and over the years, has worked on small projects in the Weber River.

In 2018, South Bench received \$1M in WaterSMART: Water and Energy Efficiency Grant funds to pipe the entire South Bench main canal system. This project is currently in the design phase, and construction is expected to be completed by Spring 2021.

Project Location

Provide specific information on the proposed project location or project area including a map showing the geographic location.

The South Bench Canal is approximately 4 miles long and extends from the Weber River through the town of Oakley, Summit County, Utah. The project latitude is 40.7164494°N, and longitude is 111.3192073°W. See Attachment 2 – Project Location Map, and Attachment 3 – Project Detail Map for exact project location and details.

Technical Project Description and Milestones

Describe the work in detail, including specific activities that will be accomplished. The description shall have sufficient detail to permit a comprehensive evaluation of the proposal. Include milestones for the completion of the project, including, but not limited to, environmental compliance, permitting, final design, and construction. If non-Federal cost share is not yet secured, the milestones should identify when the applicant anticipates that the funds will be available.

Problems and needs

South Bench needs to have the ability to accurately collect water use data. Their current measuring equipment consists of antiquated Parshall flumes that are not accurately measuring

water delivery, making it difficult for South Bench to document water flows and use. South Bench farmers are worried that they are not receiving their full water rights. Based on South Bench’s background and their system’s potential shortfalls described earlier, there is a need to form better water use habits that will prepare them for future drought years when water shortages and restrictions threaten crop production.

How the project is intended to address the problems and needs

The proposed project will address these problems and needs by installing 39 individual water meters and 11 RTUs along the main pipeline and on individual laterals. Each RTU will read approximately 3-4 meters. South Bench will be able to share collected water use data with its shareholders and work with them to help resolve any conflicts of overuse. These units will monitor daily use and store up to three years of data. Collected data will ultimately be transmitted to a web-based server. South Bench will have access to live and stored data in order to provide monthly water use reports to its shareholders.

Expected outcomes

Meters and RTUs will advance South Bench’s goal to better manage and conserve water to ensure shareholders can irrigate throughout the irrigation season, especially during difficult drought years. Water conserved by metering will ultimately benefit the Weber River and the upper lakes by allowing water to remain in the lakes and river system for longer in the season, supporting agriculture downstream, recreation, and habitats.

Milestones

1. The non-federal cost share for the proposed metering project has been secured.
2. Summer 2020 – Environmental: An EA for the proposed project area is in progress with the FONSI anticipated by Summer 2020. Reclamation may require an update to the EA for the proposed project. All permits have been obtained.
3. June/December 2020 – Award Notice and Contract: Anticipated award notice and contract signed
4. December 2020/January 2021 – Design: Minimal design is required prior to the installation of the proposed meters and RTUs (the design is covered by South Bench funds separate from the proposed project).
5. March/December 2021 – Installation: Installation of meters and RTUs on the main pipeline and service laterals will take place outside the irrigation season and is based on the completion timeline of the new piped system.
6. Final reporting and project close-out expected to be completed by April 2022.

Evaluation Criteria

Evaluation Criterion A – Project Benefits

Describe the expected benefits and outcomes of implementing the proposed project.

- What are the benefits to the applicant’s water supply delivery system?

Benefits to the applicant's water supply delivery system upon completion of the proposed metering project include:

- Better management of 5,477 acre-feet of water and improve water supply reliability
- Ability to measure, collect, store, and share water use data to ensure
 - ♦ full water rights are delivered/received
 - ♦ encourage better water use practices
 - ♦ conserve water resources that can remain in the Weber River for longer periods of time to sustain downstream water users.
- If other benefits are expected explain those as well. Consider the following:
 - Extent to which the proposed project improves overall water supply reliability
Metering is a pivotal step in the improvement of South Bench's overall water supply reliability. Over delivery throughout the system has impacted water availability during previous droughts, reduced crop yields, and created conflicts between water users. The implementation of technology to measure, collect, store, and to share water use data will allow South Bench to educate their shareholders and develop strategies for better water management and improve reliability.
 - The expected geographic scope benefits from the proposed project (e.g., local, sub-basin, basin)
The project will conserve water that will stay in the Weber River, Fish Lake, and other reservoirs that supply water to South Bench. This will ultimately benefit water storage throughout the basin and support recreational opportunities and habitats within the Weber River.
 - Extent to which the proposed project will increase collaboration and information sharing among water manager in the region
Water conservation and metering have been an ongoing discussion across the state of Utah. In 2018, South Bench prepared a Water Master Plan that assessed the conditions of their existing system, their water use and losses and the impact on their users and others around them. They collaborated with others as they prepared their plan. They found that the priority project addressed in their Master Plan would have a big impact on many in the Weber River Basin to sustain water availability for themselves as well as other below them in the river system. The plan describes the need to install meters and other technology to measure water use. This technology will allow South Bench to encourage better water practices, both upstream and downstream of their service area.
 - Any anticipated positive impacts/benefits to local sectors and economies (e.g., agriculture, environment, recreation, tourism)
South Bench's efforts to meter their irrigation water delivery system will allow water to remain in the Weber River and connected reservoirs for longer in the

season. This will benefit recreation, tourism, and habitats in the high Uinta lakes and in the Weber River Basin.

- 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.

South Bench’s farmers have applied for NRCS EQIP funds to help farmers to implement high efficiency sprinklers on their land with the implementation of a pressurized delivery system. The pressurized system will allow irrigators to implement the sprinkling systems without having to incur costly pumps and yearly pumping fees.

Evaluation Criterion B – Planning Efforts Supporting the Project

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, South Bench’s Master Plan & Funding Plan, prepared in 2018, documents the outdated metering technology and the difficulty of understanding the real water loss in the system. The plan also makes mention of implementing meters that can measure water use on individual farms.

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

Preparing for future drought years and mitigating overuse is a top priority for South Bench. In order to accomplish this, they must have the means by which to fully and accurately track individual water use. Installing the proposed meters and RTUs will allow South Bench to measure and collect water use data that can be shared with its shareholders to ensure efficient and fair water use is a priority in its service area.

Evaluation Criterion C – Project Implementation

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

Table 1 – Estimated Project Schedule

Major Tasks/Milestones	Dates
Agreement Stage	
Notice of Award	June 2020
Contract with Reclamation Signed	November/December 2020
Project Preparation Stage	
Project Coordination/Bidding	January/February 2021
Environmental Stage	
Update EA (FONSI)	December 2020 - February 2021

Construction Stage

Begin Installing Meters/RTUs	March 2021 – May 2021
Finish Installing Meters/RTUs	September 2021 – December 2021

Close-out Stage

Final Reporting/Project Close-out	January 2022 – April 2022
-----------------------------------	---------------------------

Describe any permits that will be required, along with the process for obtaining such permits.
All permits for the proposed project area have been obtained.

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

The location of the meters and RTUs will require a general site design configuration, as well as a site-specific design for each location to accommodate surface features and any existing irrigation equipment to be connected. Because the RTUs are solar powered, maximizing solar exposure will be a design consideration as well. All design costs are covered by South Bench funds separate from the proposed project.

Describe any new policies or administrative actions required to implement the project.
No new policies or administrative actions are required to implement the proposed project.

Describe how the environmental compliance estimate was developed. Have the compliance costs been discussed with the local Reclamation office?

An EA for the proposed project area is in progress with a FONSI anticipated by Summer 2020; an update to the EA may be required for the proposed meter/RTU project locations.

Evaluation Criterion D – Nexus to Reclamation

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

- Does the applicant receive Reclamation project water?
No.
- Is the project on Reclamation project lands or involving Reclamation facilities?
No, not directly. However, the water that is conserved or better managed can maintain instream flows through the Weber River and facilitate the augmentation of water that is stored in Rockport Reservoir and eventually Echo Reservoir.
- Is the project in the same basin as a Reclamation project or activity?
Yes, the project is located in the Weber River Basin where a number of Reclamation projects are located.
- Will the proposed work contribute water to a basin where a Reclamation project is located?
Yes, as the project conserves and better manages water use, South Bench can maintain instream flows within Weber River, which will help contribute to the storage and potential flows in the Rockport, Echo, and Smith and Morehouse Reservoirs. It will also allow for and enhance habitats and recreational opportunities in the high Uinta lakes

and within the Weber River Basin. Conserved water will be delivered through the Weber River to Rockport Reservoir, which is a Reclamation project.

Will the project benefit any tribe(s)?

No, the project will not directly benefit any tribes. However, all water conservation in the Weber River Basin will have some sort of benefit, especially when drought once again threatens the availability of Utah’s water resources.

Evaluation Criterion E – Department of the Interior Priorities

Creating a conservation stewardship legacy second only to Teddy Roosevelt



Image 2 - Theodore (Teddy) Roosevelt

Teddy Roosevelt said, “We have a right to expect that the best trained, the best educated men in...the Rocky Mountains...to take the lead in...securing the right use of waters.” South Bench is taking the lead in their area by completing the proposed metering/RTU project. The installation of meters and RTUs on the main canal and service laterals in South Bench’s service area will allow for the collection of water use data for the purpose of training and educating farmers on how to implement water practices that comply with Roosevelt’s statement; to use water correctly by conserving and storing as much as possible for use during difficult years. Stored water use data will be used by South Bench to provide reports to their shareholders on a monthly basis, showing their water use and providing tips on how they can reduce/improve water usage while still receiving enough water for their farms to thrive. Holding water users accountable for their water use is the only means by which they will understand how they can improve and contribute to the legacy left by Teddy Roosevelt.

Modernizing our infrastructure

The specific electromagnetic flowmeters used by South Bench allows its users to access flow data by simply logging onto the internet, which eliminates costly manual meter reading. In the past, the amount of water used by each user has only been a guess, and all South Bench could do is provide guidelines for smart water management practices with the hope that water users would do their part in holding themselves accountable. In addition to the meters, the proposed ADCON Series 6 Remote Telemetry Units (RTUs) will be able to store meter data for up to three years. Data collected by the RTUs – which have the capability to read up to four meters each – will ultimately be transmitted to a web-based server where the data can be stored indefinitely. South Bench will then have access to live and stored data in order to provide monthly water use reports to its shareholders. Additional info regarding the electromagnetic flow meters and the ADCON Series 6 RTU can be found in Attachment 4.

Project Budget

Funding Plan and Letters of Commitment

Describe how the non-Federal share of project costs will be obtained.

Cash will be contributed from South Bench’s cash reserve account.

Identify the sources of the non-Federal cost share contribution for the project, including:

- Any monetary contribution by the applicant towards the cost-share requirement and source of funds (e.g., reserve account, tax revenue, and/or assessments)
South Bench will provide its cash contribution from its cash reserve account.
- Any costs that will be contributed by the applicant
N/A
- Any third-party in-kind costs (i.e., goods and services provided by a third party)
N/A
- Any cash requested or received from other non-Federal entities
No funding has or will be requested or received from other Federal partners for installing the proposed meters and RTUs.
- Any pending funding requests (i.e. grants or loans) that have not yet been approved, and explain how the project will be affected if such funding is denied
There are no pending funding requests for the installation of the proposed meters and RTUs.

In addition, identify whether the budget proposal includes any project costs that have been or may be incurred prior to award. For each cost, describe:

- The project expenditure and amount
N/A
- The date of cost incurrence
N/A
- How the expenditure benefits the Project
N/A

Budget Proposal

Table 2 – Total Project Cost Table

Source	Amount
Costs to be reimbursed with the requested Federal funding	\$75,000
Costs to be paid by the applicant	\$97,000
Value of third-party contributions	\$0
Total Project Cost	\$172,000

Table 3 – Budget Proposal

Budget Item Description	Computation		Quantity Type	Total Cost
	\$/Unit	Quantity		
Salaries and Wages				\$0
Fringe Benefits				\$0
Equipment				\$0
Supplies and Materials				\$0
Contractual /Construction				\$0
Meters	\$2,000	39	EA	\$78,000
Remote Telemetry Units (RTUs)	\$6,000	11	EA	\$66,000
Construction Management	\$26,000	1	LS	\$26,000
EA (FONSI) Update	\$2,000	1	LS	\$2,000
Third-Party In-Kind Contributions				\$0
Other				\$0
Total Direct Costs				\$172,000
Indirect Costs				\$0
Type of rate	Percentage	\$base		\$0
Total Estimated Project Costs				\$172,000

Budget Narrative

Salaries and Wages

No separate salaries or wages outside of contractual costs will be included.

Fringe Benefits

No separate fringe benefits will be included.

Travel

No separate travel costs will be included.

Equipment

No separate equipment costs will be included. All of these costs are included in the contractual contracts.

Materials and Supplies

No separate materials and supplies costs will be included. All of these costs are included in the contractual contracts.

Contractual

Contractual costs include the cost and installation of meters and remote telemetry units (RTUs), construction management, and an update to the existing EA.

Third-Party In-Kind Contributions

No third-party in-kind contributions will be included.

Environmental and Regulatory Compliance Costs

An EA for the proposed project area is in progress with a FONSI anticipated by Summer 2020; an update to the EA may be required for the proposed meter/RTU project.

Other Expenses

No other expenses are expected for the proposed project.

Indirect Costs

No indirect costs will be part of the proposed project.

Total Costs

Total Project Costs: \$172,000; **Federal Cost Share:** \$75,000; **Non-Federal Cost Share:** \$97,000

Environmental and Cultural Resources Compliance

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

Impacts will be those associated with the installation of the proposed meters and RTUs. In the past, similar projects have had minimal impacts. The surface vegetation will be restored upon completion of the project.

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?

South Bench is not aware of any impacts concerning threatened or endangered species in this area.

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.

South Bench is not aware of any impacts to wetlands in this area.

When was the water delivery system constructed?

In 2018, South Bench received a WaterSMART: Water and Energy Efficiency Grant funds to pipe and pressurize the entire South Bench main canal system. This project is currently in the design phase, and construction is expected to be completed by Spring 2021.

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.

No, the proposed project will not result in any modification of or effects to the individual features of South Bench’s irrigation system.

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.

A cultural resource inventory will be completed as part of the submitted environmental document.

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

South Bench is not aware of any impacts to or locations of any archeological sites.

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

No, the project will not require a right-of-way or relocations from adjacent properties and will have no impact on residential uses within the study area.

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.

All permits for the proposed project area have been obtained.

Letters of Project Support

Include letters from interested stakeholders supporting the proposed project.

Letters of support from the following can be found in Attachment 5:

- ♣ Kamas Soil Conservation District – Lloyd Marchant, President
- ♣ Oakley City – Wade Woolstenhulme, Mayor
- ♣ Trout Unlimited – Paul Burnett, Weber River Project Coordinator

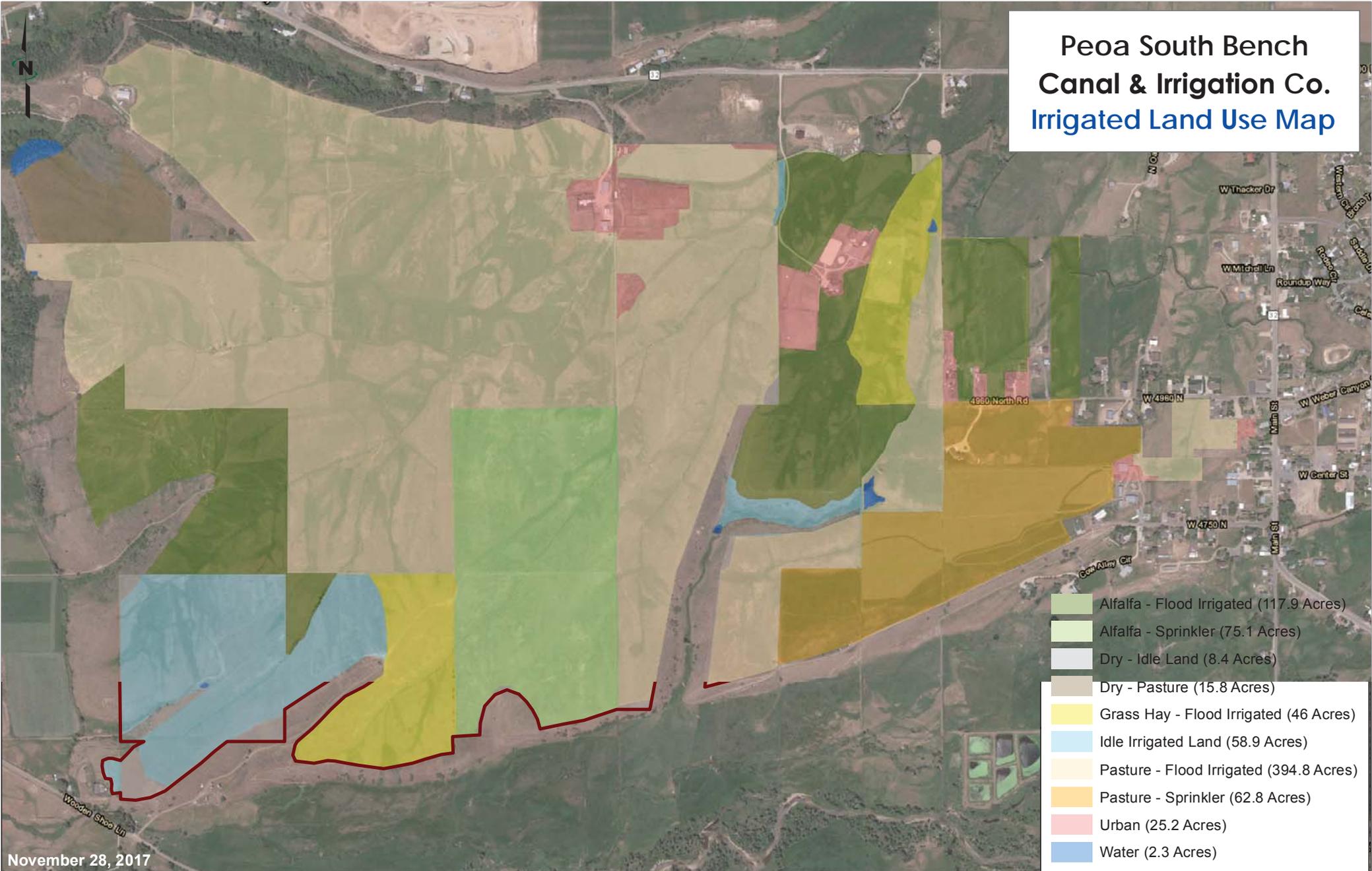
Official Resolution

Include an official resolution adopted by the applicant's board of directors or governing body. The official resolution may be submitted up to 30 days after the application deadline.

The Official Resolution for South Bench's Irrigation Water Metering & Remote Telemetry Project is included in Attachment 6.

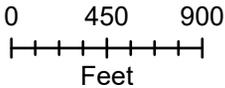
Attachment 1

Peoa South Bench Canal & Irrigation Co. Irrigated Land Use Map



November 28, 2017

Peoa South Bench Canal & Irrigation Co. Project Detail Map



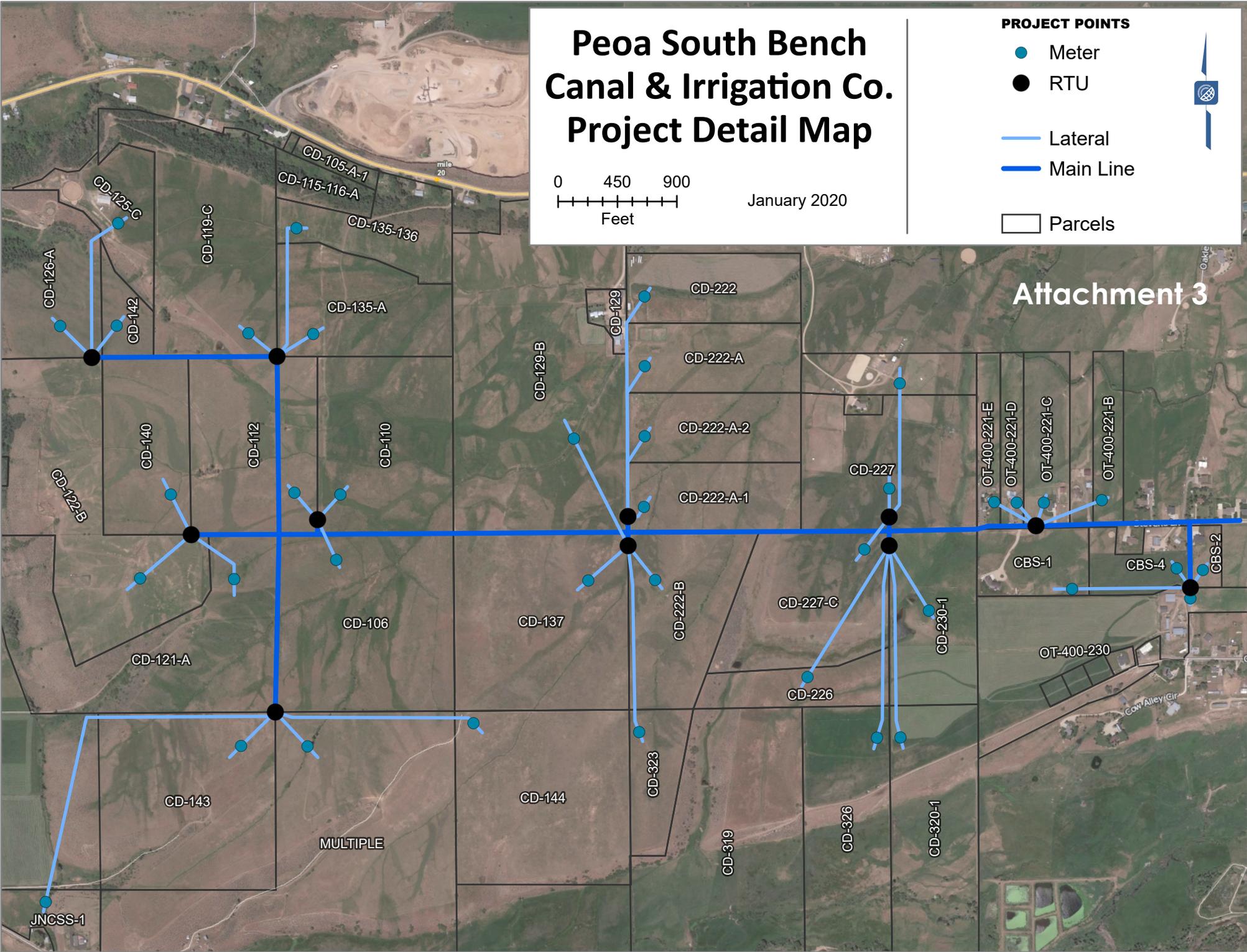
January 2020

PROJECT POINTS

- Meter
- RTU
- Lateral
- Main Line
- ▭ Parcels



Attachment 3



SPECIFICATION SHEET

BATTERY POWERED FLANGED ELECTROMAGNETIC FLOW METER

DESCRIPTION

McCrometer's Dura Mag is the easy choice for tough applications. With a 5-year meter warranty and a 5-year battery life, Dura Mag eliminates the need for AC power connection while providing the easiest installation possible for a flanged mag flow meter.

The meter is available to fit a common range of irrigation line sizes, from 4" to 12" diameter pipe. Dura Mag offers accuracy of +/- 1% with only 2D of upstream and 1D of downstream straight pipe required for most installations, all with the durability that the agricultural market has come to expect from McCrometer for the past 60 years.

The integrated electronic converter is secured with tamper evident screws. The meter offers flow rate and totalizer with a 5-year battery warranty. Dura Mag features two 3.6V lithiumthionyl chloride (Li-SOCl₂) D size batteries and one back-up battery. The batteries are easily replaced in the field in under 10 minutes.

Pulse and 4-20mA output are available for remote meter reading or SCADA. Dura Mag is compatible with McCrometer CONNECT wireless systems, which allows users to access flow data by simply logging on to the Internet. This eliminates costly manual meter reading.

KEY APPLICATIONS	Agriculture
<ul style="list-style-type: none"> Irrigation Center Pivot Systems Well Monitoring Water Distribution Dairy Lagoons Surface Water 	<ul style="list-style-type: none"> Chemigation Downstream Golf Course & Park Management Sandy Water

FREQUENTLY ASKED QUESTIONS

Q: What are the warranty lengths?
A: Meter warranty: 5 years
Battery pack: 5 years
Liner: Lifetime guarantee

Q: Is there a data logger?
A: Yes, every Dura Mag comes standard with an internal data logger for easy data recording and transfer.

Q: What alarms are available?
A: Two alarms: Empty pipe alarm and low battery.

Q: What if I need to connect to telemetry?
A: Choose one of the pulse or 4-20mA output options. If using one of McCrometer's telemetry options, choose the telemetry-ready 7-pin connector.

KEY FEATURES

- 5-year meter warranty
- 5-year battery warranty
- Lifetime liner guarantee
- Battery powered for easy installation – eliminate the hassle of cables or AC power
- Durable design – Proven in tough environments
- 10 minute DIY replaceable battery pack, keeps your meter running
- Made in the USA



Lid protects display from sun damage

Battery pack is replaceable in the field and has a 5 year warranty

Converter settings USB port accessible with adapters eliminates accidental setting changes

Easy push button to activate display

Included canopy protects converter from weather and extreme temperatures

Epoxy coating replaces liner, eliminating risk of separation or water intrusion

Meter has a 5 year warranty

Lifetime guarantee for liner

FLOW

SPECIFICATIONS

Pipe Sizes	4", 6", 8", 10", 12"
Accuracy *	± 1% or ± 0.075% of standard full scale
Display	2-Line LCD display (no backlight), 16 characters per line <ul style="list-style-type: none"> • Non-volatile memory • Anti-reverse totalizer (standard) • Total (to 9 digits of precision) • Flow Rate and Velocity (to 5 digits of precision) • Two alarms: low battery and empty pipe <i>Note: To preserve battery life a button on the front of the converter activates the display.</i>
Power	<p>Battery Standard: two 3.6V lithium-thionyl chloride (Li-SOCl₂) D size batteries. Batteries are field replaceable</p> <p>DC Power Linear power supply 10-35VDC, 2.4W</p>
Warranty	<p>Meter 5 year warranty</p> <p>Battery Pack 5 year warranty</p> <p>Liner Lifetime guarantee</p>
Outputs	<p>Pulse Output Digital pulse (open collector) output for volumetric and/or alarm</p> <p>Analog Output 4-20mA (not galvanically separated from the power supply). DC powered option only.</p>
Data Storage	Data logger (standard with all models), minimum of five years of data stored

Environmental	<p>Operating Temperature -4° to 140°F (-20° to 60°C)</p> <p>Storage Temperature -40° to 149°F (-40° to 65°C)</p>
Converter Enclosure	IP67
Electrical Connects	Optional quick connect for easy installation
Pipe Run Requirements	2D Upstream / 1D Downstream
Pressure Rating	150 psi
Options and Accessories	<ul style="list-style-type: none"> • Two alarms: low battery and empty pipe • Data logger cable (sold separately) • DC power w/battery backup • Pulse & 4 20mA output • Annual verification / calibration
Units	<p>US gallons</p> <p>US gallons x1000 (standard totalizer)</p> <p>US gallons x1,000,000</p> <p>cubic inches</p> <p>cubic feet</p> <p>cubic feet x1000</p> <p>cubic centimeters</p> <p>cubic decimeters</p> <p>milliliters, liters</p> <p>deciliters</p> <p>hectoliters</p> <p>kiloliters</p> <p>megaliters</p> <p>cubic meters</p> <p>cubic meters x1000</p> <p>acre feet</p> <p>acre inches</p> <p>imperial gallons</p> <p>imperial gallons x1000</p> <p>imperial gallons x1,000,000</p> <p>standard barrels</p> <p>oil barrels</p> <p>miner inch days</p>
Unit Rate Scales	seconds, minutes, hours, days

* All Dura Mag meters are calibrated in a NIST traceable gravimetric test stand with a minimum straight run of 10D upstream and 2D downstream. A calibration certification report is provided with each Dura Mag meter certifying the specification accuracy in our laboratory test. Alternative piping configurations or electrical environments may impact the performance of the meter in the field.



3255 WEST STETSON AVENUE • HEMET, CALIFORNIA 92545 USA
 TEL: 951-652-6811 • 800-220-2279 • FAX: 951-652-3078

Printed in the U.S.A. www.mccrometer.com
 Lit. # 30122-59 Rev. 1.4 / 20 MAR 2019

Copyright © 2014-2019 McCrometer, Inc. All printed material should not be changed or altered without permission of McCrometer. Any published technical data and instructions are subject to change without notice. Contact your McCrometer representative for current technical data and instructions. FPI Mag® is a registered trademark of McCrometer, Inc.

METER GROUNDING RECOMMENDATIONS

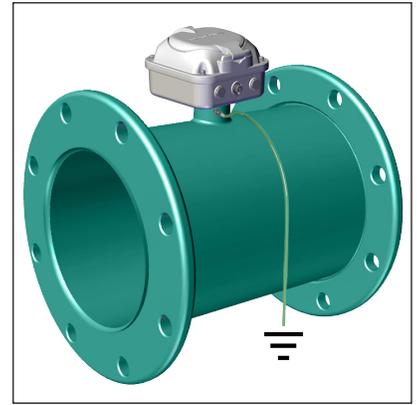
Grounding the meter body for safety according to national (NEC) or local electrical codes is recommended on ALL meter installations.

For best performance, grounding the fluid column is recommended when the meter is installed in an electrically noisy environment, such as with VFD pumps or nearby electrical systems with insufficient grounding.

Conductive or uncoated pipe - The uncoated pipe flange can be used to establish a connection to earth ground.

Plastic or internally coated pipe - Grounding rings can be installed to establish a connection to earth ground

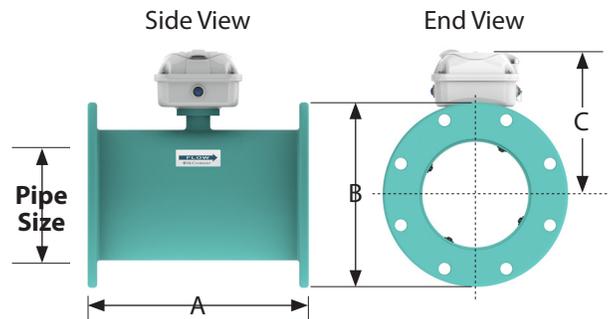
See the Dura Mag IOM Manual, Lit. # 30122-53, for more information on grounding configurations using grounding rods and grounding rings.



METER BODY DIMENSIONS AND WEIGHTS

Pipe Size (Nominal)	Standard GPM Flow Ranges Min - Max	DIMENSIONS (Lay Lengths in Inches)			* Estimated Shipping Weight (lbs.)
		A*	B	C	
4"	30 - 1,000	13.4"	9.0"	9.25"	70
6"	60 - 2,000	14.6"	11.0"	10.25"	80
8"	105 - 3,500	16.1"	13.5"	11.25"	115
10"	165 - 5,500	18.5"	16.0"	12.5"	140
12"	195 - 6,500	19.7"	19.0"	13.5"	190

* Shipping weights are estimated and may change due to specific order packaging.



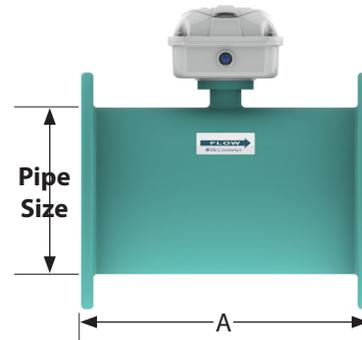
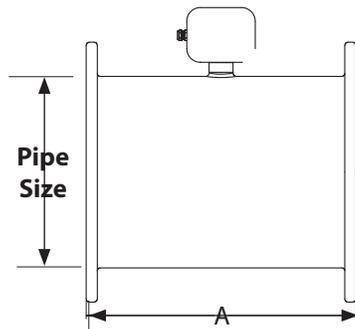
Dura Mag S Series meters are available in lay lengths compatible with products from other meter suppliers*. See the tables below for matched lay length options.

Other Supplier Dimensions*

Pipe Size (Nominal)	L (inches)	Weight (lbs)
4"	10.24	34
6"	12.27	50
8"	14.24	71
10"	18.18	130
12"	19.68	170

Dura Mag - S Series Dimensions

Pipe Size (Nominal)	L (A)	Weight (lbs)
4"	10.24	70
6"	12.27	80
8"	14.24	115
10"	18.18	140
12"	19.7	190



* Seametrics Electromagnetic Meters (Ag3000/Ag3000P or iMag4700 series); Seametrics® is a registered trademark of their respective owners. Sparling Instruments (BlueWater Flowmeter FM676); Sparling® is a registered trademark of their respective owners.



3255 WEST STETSON AVENUE • HEMET, CALIFORNIA 92545 USA
TEL: 951-652-6811 • 800-220-2279 • FAX: 951-652-3078

Printed in the U.S.A.

www.mccrometer.com

Lit. # 30122-59 Rev. 1.4 / 20 MAR 2019

Copyright © 2014-2019 McCrometer, Inc. All printed material should not be changed or altered without permission of McCrometer. Any published technical data and instructions are subject to change without notice. Contact your McCrometer representative for current technical data and instructions. FPI Mag® is a registered trademark of McCrometer, Inc.



DURA MAG™
Battery Powered
Electromagnetic Flow Meter

The Easy Solution For Irrigation Management



No Cables. No AC Power. No Hassle.

Battery Powered DURA MAG™ saves you time and money

Eliminates cost of AC Power hookup

Never remove your meter again

Durable canopy and lid protects converter and display from weather and extreme temperatures

± 1% accuracy with only 2D upstream and 1D downstream required

Easy push button to activate display

Fusion-bonded epoxy coating eliminates risk of liner separation and water intrusion

5 YEAR METER WARRANTY

5 YEAR BATTERY WARRANTY

LIFETIME LINER GUARANTEE*

Internal datalogger with 5 years of data storage

Converter enclosure rated IP67

Easy to use scrolling display

4-20mA, pulse, and telemetry ready output options

Converter settings USB port accessible - eliminates accidental setting changes



* Liner is guaranteed against delamination, cracking, separation, or collapse within normal use guidelines for the lifetime of the meter.

Battery Powered

For easy installation
eliminate the hassle of cables or AC power

Durable Design

Proven in tough environments

Keep Your Meter Running

10 Minute DIY Replaceable Battery Pack

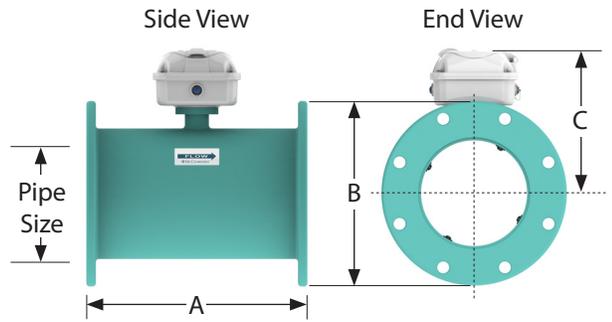


APPLICATIONS

-
- Irrigation
 - Downstream
 - Well Monitoring
 - Water Distribution
 - Sandy Water
 - Dairy Lagoons
 - Golf Course & Park Management
 - Surface Water
 - Chemigation
 - Center Pivot Systems
-

Dimensions and Weights

Pipe Size (Nominal)	Standard GPM Flow Ranges Min - Max	Dimensions (Lay Lengths in Inches)			Estimated Shipping Weight (lbs.) *
		A*	B	C	
4"	30 - 1,000	13.4"	9.0"	9.25"	70
6"	60 - 2,000	14.6"	11.0"	10.25"	80
8"	105 - 3,500	16.1"	13.5"	11.25"	115
10"	165 - 5,500	18.5"	16.0"	12.5"	140
12"	195 - 6,500	19.7"	19.0"	13.5"	190

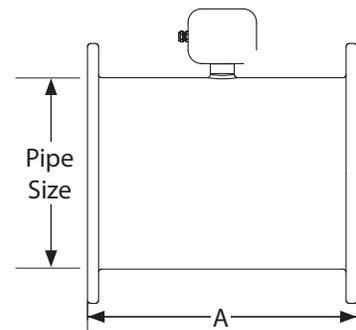


*Shipping weights are estimated and may change due to specific order packaging

Dura Mag S Series meters are available in lay lengths compatible with products from other meter suppliers*. See the tables below for matched lay length options.

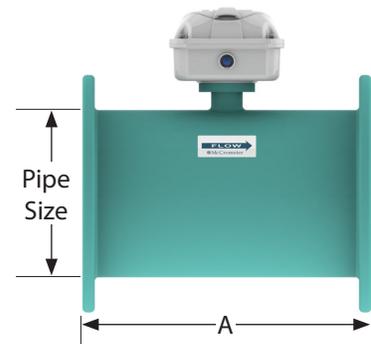
Other Supplier Dimensions *

Pipe Size (Nominal)	L (inches)	Weight (lbs)
4"	10.24	34
6"	12.27	50
8"	14.24	71
10"	18.18	130
12"	19.68	170



Dura Mag - S Series

Pipe Size (Nominal)	L (A)	Weight (lbs)
4"	9.94"	70
6"	11.94"	80
8"	13.94"	115
10"	17.88"	140
12"	19.38"	190



* Seametrics Electromagnetic Meters (Ag3000/Ag3000P or iMag4700 series); Seametrics® is a registered trademark of their respective owners.

Sparling Instruments (BlueWater Flowmeter FM676); Sparling® is a registered trademark of their respective owners.

Trusted Partner of the American Farmer

McCrometer prides itself on the fact that all McCrometer flow meters are designed, manufactured, and tested in the USA. Manufacturing takes place at our headquarters in Hemet, California. Our US based ISO certified manufacturing facility and quality control systems are the reason customers around the world have confidently chosen McCrometer flow meters for their most challenging flow applications since 1955.



Lit. # 30123-55 Rev. 1.5 | 13AUG2019

3255 West Stetson Avenue, Hemet, CA 92545, U.S.A
Phone 800-220-2279 | 951-652-6811 | 951-652-3078

www.mccrometer.com



ADCON Series 6 RTU

NEXT GENERATION ULTRA LOW POWER DATALOGGER

The ADCON Series 6 RTU is the new generation of remote-controlled, ultra low-power dataloggers for agricultural, meteorological and hydrological applications at a competitive price. The series distinguishes from its predecessors by a self-monitoring battery, a larger memory for up to 2 million values and a wireless data transfer via Bluetooth. Further advantages are the possible data encryption to ensure data safety, the comfortable firmware update over the air as well as the future-proof design to be integrated in IoT networks and connected to state-of-the-art communication technologies.

The ADCON Series 6 RTU includes three different models: the A760 Cell, the A764 Cell and the A765 Cell. They have different connectors as well as I/O ports and are available as 3G, 4G and LTE versions. With their 32-bit-CPU, they deliver the data fast and reliably.

Together with the ADCON addVANTAGE Pro software the models of the ADCON Series 6 RTU form a complete solutions for your monitoring tasks.

ADVANTAGES

- Fast, reliable and long-term operation due to 32-bit-CPU and IP65 or IP67 classified housing
- Extremely low power consumption
- Large memory for up to 2 million values
- Comfortable and flexible remote control, maintenance and sensor analysis possible leading to a low total cost of ownership
- Improved network management due to the possibility to perform firmware updates over the air
- Smart, self-monitoring battery function informing on the current battery status
- Together with the addVANTAGE Pro it forms an integrated system solution
- Easy and intuitive local operation by wireless communication via Bluetooth
- Attractive price-performance ratio
- Secure, encrypted data transmission if required
- Backward compatibility of sensors and accessories due to same connector concept than predecessors

APPLICATIONS

- Allround-RTU, extremely compact, extremely rugged, extremely low-power
- WMO compliant weather recording

and much more

SPECIFICATIONS

Model	A760 Cell	A764 Cell	A765 Cell
Dimensions	160 x 60 x 80 mm		
Weight	Approx. 1200 g		
IP class	IP65 & IP67		
Temperature range	-30 °C to +65 °C		
Case	Powder-coated aluminum		
Connectors (all connectors IP67 if properly mated or capped)	3x Binder M9 7-pin to sensors (A, B, D)	4x Binder M9 7-pin to sensors (A, B, C, D)	2x Binder M9 7-pin to sensors (A, D)
	1x Binder M9 5-pin to solar cell/power supply	1x Binder M9 5-pin to solar cell/power supply	1x Binder M9 5-pin to solar cell/power supply
	1x TNC Antenna connector	1x TNC Antenna connector	1x TNC Antenna connector
Power supply	6.0 V NiMH battery 3300 mAh with solar cell or mains adapter		
I/O Ports	9x analog in (0 to 2.5 VDC)	12x analog in (0 to 2.5 VDC)	
	3x pulse counter	4x pulse counter	2 x pulse counter
	3x digital in/out (0 to 5 V TTL)	4x digital in/out (0 to 5 V TTL)	2 x digital in/out (0 to 5 V TTL)
	40x SDI-12 values	40x SDI-12 values	40 x SDI-12 values
Resolution	Analog: 12-Bit @ 0 to 2.5 V	Analog: 16-Bit @ 0 to 2.5 V	Analog: None
Counter inputs	3x Configurable per I/O: Slow: 30 Hz Fast: 500 Hz	4x Configurable per I/O: Slow: 30 Hz Fast: 500 Hz	2x Configurable per I/O: Slow: 30 Hz Fast: 500 Hz
Sensor excitation	Unregulated batt. 5.6 to 7.2 V		
Sampling interval	User specific (from 10 s to 12 h)		
Internal memory	16 MB (typ. 2,000,000 values)		
Internal sensors	Temperature	Temperature & Humidity	Temperature & Humidity
Wind Gust Measurement capability	No	Yes (C only)	No
Rain Gauge Event capability	Yes		
Digital events	Yes		
I/O Current consumption measurement	No	Yes	Yes
Operating time (without charging of internal battery)	In standard mode up to 14 days, in power-save mode up to 6 months, depends on slot time, transmission rate and sensors		

UMTS Version			
UMTS bands	800, 850, 900, 1900, 2100 MHz		
GSM bands	Quad-Band		
UMTS Rx Sensitivity	-109 to -111 dBm (depends on band)		

LTE Version			
LTE information	LTE Cat M1/NB1		
Tx Output Power	21 to 33 dBm depending on network		
SIM form factor	Mini SIM (2FF)		
Antenna	Omni-directional, 2G/3G/4G, 2 dBi		
Bluetooth module	No	Yes (Bluetooth Low Energy 5)	Yes (Bluetooth Low Energy 5)
FOTA	Yes		
Expansion (optional)	No	- Modbus interface via RS-485/RS-232 - External digi-I/O Box A553	- Modbus interface via RS-485/RS-232 - External digi-I/O Box A553
Type Approvals	RED, FCC, IC, PTCRB		

Order information			
3G Version	A100760000	A100764000	A100765000
LTE Version	A100760001	A100764001	A100765001

Accessories			
Power supply - Solar panel (9 V / 540 mA)	A200733522		
Power supply - Mains power adapter	EU: A200720522		
	US: A200720523		
	UK: A200720524		
	AUS: A200720525		
Power supply - A922 Power adapter	A200733922		
Spare battery + gasket	A800000275	-	-
Spare smart battery + gasket	-	A800000276	A800000276
RTU Communication cable USB	A200720542		
A514 Modbus Interface	-	A800514001	A800514001
A553 Digital I/O Expansion	-	A200733553	A200733553





Kamas Soil Conservation District
3195 West 5340 North Peoa, Utah 84061

January 23, 2020

Dave Lake, President
Peoa South Bench Canal & Irrigation Company
P.O. Box 32
Oakley, UT 84405

Dear Mr. Lake,

Kamas Valley Conservation District is pleased to write in support of your grant application being submitted to the Bureau of Reclamation WaterSMART: Small Scale Water Efficiency Grant Program, to install irrigation water meters and remote telemetry units along your main pipeline and service laterals. We appreciate your efforts to better manage and conserve the area's irrigation water supply, and to increase accountability and provide education for the end user's water use. One of the goals of Kamas Valley Conservation District is to promote water conservation. This project will promote this goal.

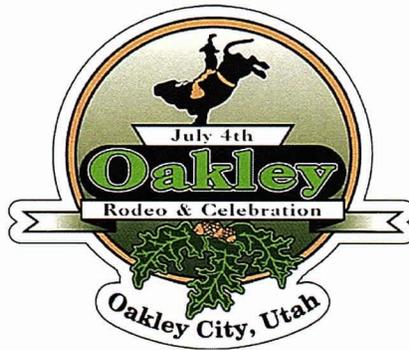
We strongly support your grant application and are willing to provide any support needed to expedite this process.

Sincerely,

A handwritten signature in black ink that reads "Lloyd Marchant".

Lloyd Marchant
President
Kamas Valley Conservation District

Mayor Wade Woolstenhulme
Oakley City Council
Steve Wilmoth
Tom Smart
David Neff
Joe Frazier
Ron Bowen



City Administration:
Abigail Morrison- Recorder
Amy Rydalch-City Planner

February 20, 2020

Dave Lake, President
Peoa South Bench Canal & Irrigation Company
P.O. Box 32
Oakley, UT 84405

Dear Mr. Lake,

Oakley City is pleased to write in support of your grant application being submitted to the Bureau of Reclamation WaterSMART: Small Scale Water Efficiency Grant Program, to install irrigation water meters and remote telemetry units along your main pipeline and service laterals. We appreciate your efforts to better manage and conserve the area's irrigation water supply, and to increase accountability and provide education for the end user's water use.

We strongly support your grant application and are willing to provide any support needed to expedite this process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade Woolstenhulme', with a long, sweeping horizontal stroke at the end.

Wade Woolstenhulme
Mayor
Oakley City



Trout Unlimited
1777 N Kent Street, Suite 100
Arlington, VA 22209
(703) 522-0200

February 18, 2020

Dave Lake
President
Peoa South Bench Canal and Irrigation Company
P.O. Box 32
Oakley, UT 84055

Dear Dave:

Over the past several years, Trout Unlimited has had the great opportunity and privilege to be involved in a positive effort within the Weber River Watershed, known as the Weber River Partnership, which represents a broad and diverse array of interests within the basin. As a collaborative partnership in the basin, we made great progress in the Weber River by working on the ground with a number of partners throughout the Weber River Basin, including the Utah Division of Wildlife Resources, agricultural producers and water rights holders and companies to protect and restore populations of Bonneville cutthroat trout and bluehead sucker through habitat restoration, fish passage and water efficiency projects. These fisheries have declined over time and are considered to be in jeopardy and of conservation concern. These species need our help and a cohesive strategy through a broad array of actions on the ground to conserve the fisheries while providing broad benefits to all stakeholders in the Basin.

Trout Unlimited is supportive of your proposed project through WaterSMART funding to install meters and improve efficiency through Remote Telemetry Units on your irrigation system. We are encouraged by your consideration of the ecological values of the native fisheries within this reach of the Weber River. We support your proposal and are committed to working with you on as the project develops.

With Kind Regards.

Paul Burnett - Weber River Project Coordinator
5279 South 150 East
Ogden, UT 84405
801-436-4062
pburnett@tu.org

OFFICIAL RESOLUTION
RESOLUTION NO. BOR-DO-20-F006

Peoa South Bench Canal & Irrigation Company

WHEREAS, The **Peoa South Bench Canal & Irrigation Company** must maintain, provide for, and service the Water System,

WHEREAS, The **Company** sees the need to construct the **Irrigation Water Metering & Remote Telemetry Project** to improve water and energy conservation and efficiency,

WHEREAS, The **Company** desires to obtain grant funding from the Bureau of Reclamation through the **WaterSMART: Small-Scale Water Efficiency Grant**.

NOW THEREFORE, BE IT RESOLVED that the **Board of Directors**, agrees and authorizes that:

1. **President** of the **Company** has the legal authority to enter into an agreement with Reclamation.
2. The **WaterSMART: Small-Scale Water Efficiency Grant** application prepared by **J-U-B Engineers, Inc.** has been reviewed by the **Board of Directors** and supports the application submitted;
3. The **Peoa South Bench Canal & Irrigation Company** is capable of providing the amount of funding and/or in-kind contributions specified in the funding plan; and
4. If selected for a **WaterSMART: Small-Scale Water Efficiency Grant**, the **Company** will work with Reclamation to meet established deadlines for entering into a grant or cooperative agreement.

DATED: Feb 20, 2020



Dave Lake, President

ATTEST:

Samuel Turpin

Sam Turpin, Secretary