



METER AND SCADA SYSTEM EXPANSION PROJECT

WaterSMART: Small-Scale Water Efficiency Projects

Reclamation District 787

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SF 424

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Executive Summary

Applicant Information

Date: April 22, 2019

Applicant Name: Reclamation District 787

City, County, State: Yolo County, California

Project Manager: Roger Cornwell

41758 County Road 112

Knights Landin, CA 95645

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WaterSMART Project Summary

Reclamation District No. 787 (RD 787 or the District) is proposing to install two water meters and Supervisory Control Data Acquisition (SCADA) systems on two Sacramento River pumps. Implementation of this project will result in the District having complete water monitoring and flow control of the Colusa sub-basin, which will improve water management and lower electricity costs. The total project cost is an estimated \$58,798.

Project Length

Assuming a project start date of October 2019, the estimated project duration is 12 months and the anticipated completion date is September 2020.

Project Location on Federal Facility

The proposed meter and SCADA expansion project is not located on a federal facility.

Background Data

RD 787 was formed under the general reclamation district laws of 1908 for the purposes of providing drainage and reclamation of the lands within its boundary. Irrigation water is delivered to agriculture users (primarily rice) within the District through a system of canals and ditches that are supplied primarily by surface water diversions from the Sacramento River. The respective landowners within the District (River Garden Farms, Cooling, Faye and Geer) have riparian and appropriative water rights, as well as water rights settlement contracts with the United States Bureau of Reclamation. Although the District does not own or operate water supply wells, there are private well owners within the District, including River Garden Farms, who operate several irrigation wells. An Memorandum of Understanding exists between the District and River Garden Farms (Attachment 1) and a lease agreement exists between Faye and River Garden Farms (Attachment 2).

The District covers approximately 8,950 acres, most of which is irrigated agricultural land. The District has 15 miles of canals and 79 turnouts. The majority landowner in the District is River Garden Farms, which covers approximately 7,400 acres (nearly 82%) of the District. Water

demands within RD 787 have historically averaged between about 25,000 to 30,000 acre feet per year (afy) over the last 40 years, and have been met mostly with surface water diversions from the Sacramento River.

RD 787 overlies the Sacramento Valley Groundwater Basin, Colusa Sub-basin. The Colusa Sub-basin is part of the larger Sacramento Valley Basin, which includes areas underlying the Sacramento Valley, the Sacramento River, and its tributaries as they flow south and west toward the Sacramento-San Joaquin Delta. The Colusa Sub-basin is bounded on the east by the Sacramento River, on the north by Stony Creek, on the west by the Coast Ranges, and on the south by Cache Creek. The Colusa Sub-basin is about 1,400 square miles in area, and underlies portions of Tehama, Glenn, Colusa and Yolo Counties.

Practically all the water requirements in the District are met by diversions of surface water from the Sacramento River. River Garden Farms has a Contract Total Supply of 29,800 afy, of which almost all (29,300 afy) is Base Supply and the balance (500 afy) is Central Valley Project (CVP) Project Water. The Base Supply and Project Water components of River Garden Farms’ contract supply are limited to specific months; the entire amount is limited to the months of April through October, and is further limited to a total of 12,700 af in the critical months of July through September. Total surface water supply is also limited in Shasta critical years to 75 percent of total contract amount. Most of the other land within the District is riparian to the Sacramento River and thus has water supply availability subject only to reasonable, beneficial use.

Table 1. Water Rights Entitlement

	Central Valley Project Water	Base Supply Water Rights	TOTAL
River Garden Farms	500 afy	29,300 afy	29,800 afy

Source: Reclamation District No. 787 Groundwater Management Plan, October 2012 (page 18)
https://water.ca.gov/LegacyFiles/groundwater/docs/GWMP/SR-39_RD787_GWMP_2012.pdf

There are currently seven production wells in the District that are available to complement surface water supplies in addition to one supply well used for River Garden Farm’s headquarters (the “Shop PW” with a capacity of about 3,000 gpm). Commonly known by names that denote their locations relative to the field numbering system, the wells have approximate capacities as follows:

Table 2. River Garden Farms Production Wells Capacity

Well	Capacity (gpm)
Field 65	2,500
Field 71	1,700
Field 91-09	2,840
Field 93	3,000
Field 98	2,500-3,000
Field 104	2,500

Field 104-09	2,990
F-117	1,965
Source: Reclamation District No. 787 Groundwater Management Plan, October 2012 (page 19) https://water.ca.gov/LegacyFiles/groundwater/docs/GWMP/SR-39_RD787_GWMP_2012.pdf	

At those capacities, the seven production wells have the capability to produce a combined total of about 17,000 to 17,500 gpm, which equates to a maximum of about 13,700 to just over 14,000 af over a six-month irrigation season. An additional production well, at Field 93, constructed in Spring 2013, added another 3,000 gpm. The seven production wells can be used for regular irrigation water supply, or can provide a substitute water supply for some of the Total Contract Supply from the Sacramento River.

RD 787 currently utilizes SCADA on parts of its drainage system, and River Garden Farms has it installed on its wells and pumping stations. Adding SCADA to the remaining 2 pumps will allow RD 787 to monitor the entire basin more accurately and control water flow measurements better.

Past Working Relationships with Reclamation

RD 787 has maintained a good working relationship with BOR since the execution of its water rights contract for the CVP.

Project Location

RD 787 is located in the northeastern portion of Yolo County, west of the town of Knights Landing and adjacent to the Sacramento River. The District is bounded by the Sacramento River to the north and east, the Colusa Basin Drain Canal to the south, and County Road 98A to the west. State Highway 45 and Sycamore Slough generally bisect the District.

The meter and SCADA project will be installed at Faye Pump Station located at latitude 38 51'38.02"N and longitude 121 46'10.45"W.

Figure 1. Location of meters and SCADA installation



Figure 2. Colusa Groundwater Sub-basin and RD 787

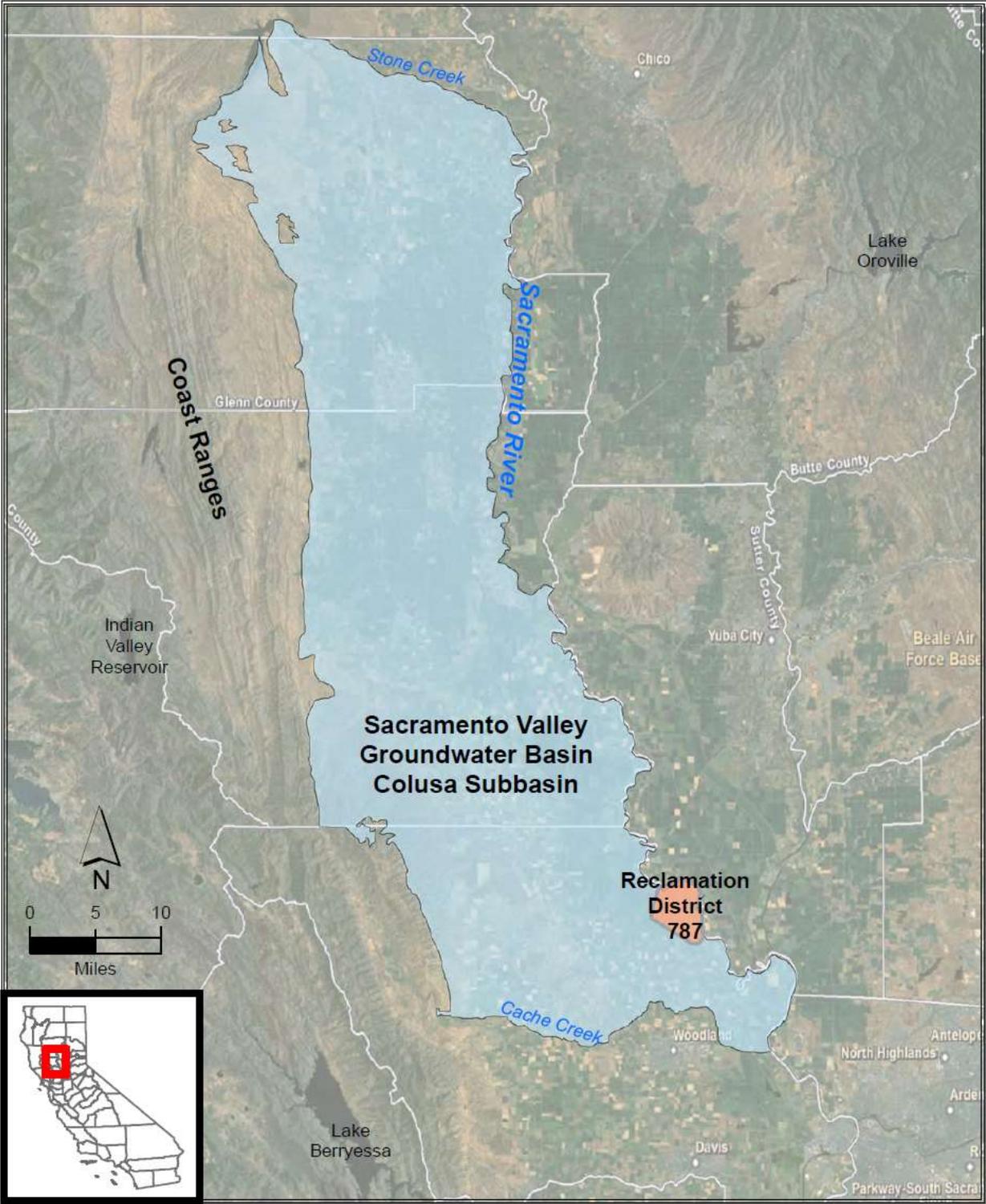
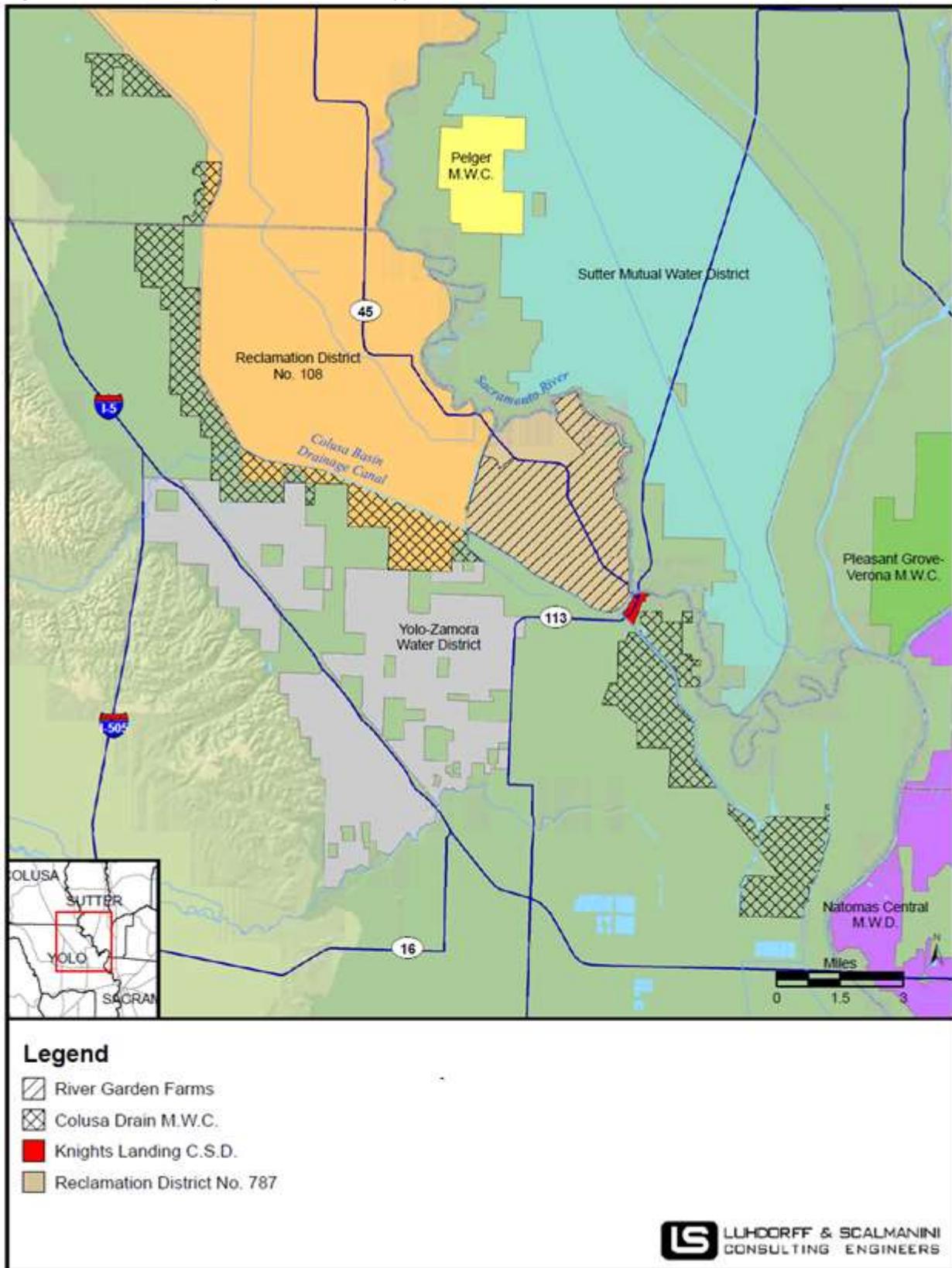


Figure 3. RD 787 and Nearby Water Districts and Suppliers



Technical Project Description and Milestones

RD 787's territory covers land owned by River Garden Farms, Cooling, Faye and Geer. Currently, almost 82% of the District has water meters and SCADA capabilities; however, there is a gap in its coverage on the Faye property, where the proposed WaterSMART project will take place. The Faye Property entered into a Lease agreement with River Garden Farm in October 2018 (see attachment 2).

The lack of monitoring technology in RD 787's remaining coverage area does not allow for highly accurate pumping. Currently, the District utilizes pump curves for the Faye station to figure out how much water to pump. This is not the most accurate system, as calculations are subject to change based on the Sacramento River level.

Installing the meters and SCADA system on the Faye pump will tie all the basin together into one integrated system and will help with the District's water management efforts. The new meters will provide readings to a computer system for near-instantaneous tracking and viewing, greatly reducing the manual labor required for meter reading and allowing faster detection of overuse on the Faye property. The proposed SCADA system installation will allow operations personnel to operate the headgate remotely, saving time and mileage and improving operational efficiency.

Meters

RD 787 has consulted with Eaton Pumps to design the proposed project. Based on conversations and a tour of the property it was decided that Water Specialties propeller meter model ML20-D welded saddle meters would be installed a minimum of 10 pipe diameters of straight run of pipe upstream and 2 pipe diameters downstream. The Flow Com Register Model FC100/ FC 101 and the Seametrics DL76 data logger will be installed remotely from the meters and pipes in the same area / enclosure as the SCADA equipment.

In order to properly install the meters, the two-meter locations will need about 26' of straight run for the 20" meter and 21' for the 16". Due to the unknown exact lengths of straight pipe straightening vanes may need to be installed to ensure that any angles or other obstructions are properly dealt with and the meters function properly. Straightening vanes would cut the distance in half IE 5' upstream and 1' downstream.

SCADA

The SCADA system will consist of a Xetawave 9x radio, the automation Direct Domore Brix PLC, a Wika level transduce, and the HMI will be provided from inductive Automations Ignition.

Conduit wires from the meters on the surface diversion and well discharge will be brought into enclosure mounted near or on the existing electrical control back board. Meter registers from the river pumps will be mounted inside enclosure. Well meter head will remain in the same location, but output wire will be run into enclosure.

The level transducer will be installed in the sounding tube of the well. An additional cap will be installed to allow manual sounding of the well if needed.

Information gathered from the three meters, level transducer, and well control panel will be sent with the Xetawave radio to the dedicated server located in the River Garden Farms Office. The HMI will upload the information at a frequency set by Innovative controls and River Garden Farms to the server and to website where recorded data will be collected and available.

In addition to the data collection the automation feature will allow the well pump (expandable to the river pump controls at a future time) to allow the well to be started and stopped automatically as well as send alerts if there are problems.

Timeline

Assuming a project start date of October 2019, the estimated project duration is 12 months and the anticipated completion date is September 2020. A detailed project timeline with tasks and milestones can be found in the [Evaluation Criterion C – Project Implementation](#) section. Information regarding Environmental and Cultural compliance can be found in the [Environmental and Cultural Resources Compliance](#) section of the application as well as in Attachment 4.

Evaluation Criteria

Evaluation Criterion A – Project Benefits

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

The proposed project will allow RD 787 manage water more effectively by being able to track the amount of water going in and out District wide. RD 787 expects to see the following benefits will result through the installation of 2 meters and SCADA system at the Faye pump:

- Lower electricity costs
- Reduced staff time traveling to check pumps
- Accurate understanding of overall water usage and supply reliability throughout the entire District
- Real time flow measurements

What are the benefits to the applicant's water supply delivery system? Extent to which the proposed project improves overall water supply reliability

RD 787 is intending it to use the meters to increase the efficiency of the District by increasing its ability to monitor water usage more accurately. With the ability to more accurately monitor water usage onsite and remotely, the District can deliver the water to our customers more efficiently.

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

RD 787 overlies the Sacramento Valley Groundwater Basin, Colusa Sub-basin. The project will allow the District to more accurately monitor and adjust the amount of water being pumped in and out of its service area.

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

RD 787 and River Garden Farms have an executed Memorandum of Understanding (Attachment 1) which outlines that all levee operations and maintenance and equipment needs are overseen by River Garden Farms. As such, the District and River Garden Farms frequently and often share data with each other. RD 787 is also willing to share data collected through the implementation of this project with nearby District and the County, as request.

As part of this project, outreach will occur and will include potentially producing a short video, tour, meetings, and developing a one-pager information sheet on the project to show how RD 787 is monitoring the entire basin and can be shown as an example of a holistic approach to surface water and ground water management. The goal is to highlight the benefits of the project and how it improves real time decision making for the growers and the Reclamation District. The target audience for the outreach will be Yolo County Sustainable Groundwater Authority, Yolo County local government, other Districts and nearby growers.

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

Water meters can accurately measure how much water is being used to irrigate so that water use can be precisely managed through SCADA and unnecessary watering can be avoided. Using the flow rate from the meter and SCADA, the volume of water used to irrigate for a certain period of time can be calculated. Monitoring flow rate can also help farmers discover problems with the irrigation system such as costly leaks or over pumping.

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.

River Garden Farm, located within RD 787, is eligible for EQIP and is exploring applying for funding in 2019. River Garden Farm would use EQIP funds to install variable frequency drives, expand its monitoring systems and install weather stations. The proposed WaterSMART project would complement these efforts by adding another layer of data available to the district to monitor water use efficiencies.

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

In 2012 RD 787 completed a [Groundwater Management Plan Update](#) (the Plan). The Plan includes a number of actions related to groundwater supply and the long-term sustainability of groundwater and interrelated surface waters within the District. A major goal outlined in the plan is “Groundwater and Surface Water Monitoring” which consists of monitoring groundwater levels, groundwater quality, production (pumping rates and volumes), land subsidence, and surface water flows. River Garden Farms currently has ongoing monitoring in monitoring wells on their property, using dedicated water level pressure transducers which record water levels on a regular basis. The proposed project will install meters and SCADA which will allow the District to track and monitor more data on water being pumped in and out of the District more accurately. This data will allow RD787 to ensure the long-term sustainability of its resources and prevent potential overdrafts.

The District has participated in the [Sacramento Valley Water Management Program](#) (SVWMP), which is a collaborative effort to coordinate water management and planning for the beneficial use of water resources while providing for the long-term sustainability of those resources and improving water quality and supplies for a variety of uses throughout California. As part of the SVWMP, dedicated monitoring programs are being developed for each area in the Valley (including RD 787) that might be involved in that Program or other similar activities. The monitoring programs include pumpage, groundwater levels, groundwater quality, subsidence, and surface water flows. RD 787’s participation in the SVWMP and expanding its ability to monitor and collect data through the proposed WaterSMART project will also ensure water in the District is being used efficiently.

Evaluation Criterion C – Project Implementation

The expected project milestones and tasks are shown in the table below.

Table 3. Estimated Project Schedule

Milestones/Tasks	Estimated Timing
Environmental Documentation Prepared and Approved by BOR	4 months
Expose pipes	2 months
Install flow meters	
Run conduit and wires to panel	
Test flow meters	
Install SCADA control boxes and infrastructure	4 months

Tie in new flow meters and existing well flow meters	
Integrate well controls	
Install submersible transducers	
All related work to integrate new station into River Garden Farms Server	
Final Reporting and Project Close Out	2 months

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

This project does not require approval or permitting.

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

Engineer and design work is only needed for the SCADA portion of the project and has been included in the vendor quotes found in Attachment 3.

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

RD 787 does not anticipate any new policies or administrative actions required to implement this project. The SCADA and meters will be seamlessly integrated into the existing infrastructure to which staff are already trained and competent.

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

RD 787 reached out to Reclamation’s Mid-Pacific Regional Office in Sacramento to discuss environmental compliance costs for the proposed WaterSMART meter and SCADA project on March 26, 2019. Reclamation’s environmental team determined that the proposed project will meet environmental compliance through an Environmental Assessment. The estimate cost to complete the environmental documentation for NEPA and cultural resources was quotes at approximately \$8,000. See Attachment 4 for proof of consultation.

Evaluation Criterion D – Nexus to Reclamation

Is the proposed project connected to a Reclamation project or activity? If so, how?

The proposed project is not connected to a Reclamation project or activity.

Does the applicant receive Reclamation project water?

River Garden Farms has a Contract Total Supply of 29,800 afy, of which almost all (29,300 afy) is Base Supply and the balance (500 afy) is Central Valley Project (CVP) Project Water.

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

This project does not directly involve Reclamation lands or facilities.

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

RD 787 overlies the Sacramento Valley Groundwater Basin, Colusa Sub-basin.

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

The proposed project will result in better water management, but is not expected to contribute water to the Colusa Sub-basin.

Will the project benefit any tribe(s)?

The proposed project will not benefit any tribes.

Evaluation Criterion E – Department of Interior Priorities

The proposed water metering and SCADA project align with the following DOI priorities:

*Creating a conservation stewardship legacy second only to Teddy Roosevelt -
Utilize science to identify best practices to manage land and water resources
and adapt to changes in the environment*

Expanding RD787's meter and SCADA coverage to the Faye Pump will result in having necessary water efficiency data to cover the District's entire service area a basin footprint. The technology being deployed has been rigorously researched and proven to be effective in improving water monitoring and water usage efficiencies. The ability to have such data available will ensure the protection of the environment (avoid over drafting), minimize waste resulting in water conservation, and improve water management practices.

Project Budget

Funding Plan

The Table below summarize the funding sources for the Project. RD 787 will provide a cash match of \$29,399 through its General Funds.

Funding Sources	Amount
Non-Federal Entities	
Cash on Hand	\$29,399
Federal Entities	
Requested WaterSMART Small-Scale Funding	\$29,399
TOTAL PROJECT FUNDING	\$58,798

Budget Proposal

Budget Item Description	\$/Unit	Quantity	Quantity Type	Total Cost
Direct Costs				
Salaries and Wages				
<i>General Manager</i>	\$48.92/Hr	20	Hr	\$978.40
<i>Field Supervisor</i>	\$27.67/Hr	30	Hr	\$830.10
<i>Accounting</i>	\$34.01/Hr	15	Hr	\$510.15
Fringe Benefits				
<i>General Manager</i>	18% of salaries and wages outlined above			\$176.11
<i>Field Supervisor</i>				\$149.42
<i>Accounting</i>				\$91.83
Equipment				
<i>None</i>				
Travel				
<i>None</i>				
Supplies and Materials				
<i>None</i>				
Contractual/Construction				
<i>Eaton Pumps – Meters/Installation/Calibration</i>	\$19,533/each	1	each	\$19,533
<i>Innovative Controls - SCADA</i>	\$25,029/each	1	each	\$25,029
<i>Franklin Pictures - Outreach</i>	\$3,500	1	each	\$3,500
Third-Party In-Kind Contributions				
<i>None</i>				
Other				
<i>Environmental Compliance</i>	\$8,000/each	1	Each	\$8,000
TOTAL DIRECT COSTS				\$58,798.01
Indirect Costs				
<i>None</i>				
TOTAL ESTIMATED PROJECT COSTS				\$58,798.01

Budget Narrative

Salary and Wages

RD 787 will have three staff dedicated to the proposed WaterSMART project. Hourly wages were calculated based on yearly salary by the finance department and quantity of time dedicated to the project was determined based on previous experience installing SCADA and Meters as well as conversations with other entities who have implemented similar projects.

The *General Manager* will be responsible for general oversight of the project as well as final reports.

\$48.92/hr * 20 hours = \$978.40

The *Field Supervisor* will be responsible for project implementation oversight, monitoring the progress of the contractors executing the SCADA and meter implementation.

\$27.67/hr * 30 hrs = \$830.10

The Accountant will be responsible for financial reporting and tracking.

\$34.01/hr * 15hrs = \$510.15

Fringe Benefits

Fringe benefits include FICA and health insurance costs and were calculated for each staff participating in this project. Fringe benefits are calculated as 18% of the salary.

Equipment

Not Applicable. All equipment costs are included in the Contractual line item found below.

Travel

Not Applicable

Supplies and Materials

Not Applicable. All supplies and material costs are included in the Contractual line item found below.

Contractual/Construction

RD 787 received quotes from vendors in order to estimate the cost of each element.

The SCADA system implementation quote of \$25,029 was provided by *Innovative Controls* (see Attachment 3). The quote includes the following labor and material for a Turn-Key SCADA system installation on the 2 Faye well station:

Description	Quantity
DRX PLC	1
Xetawave Radio	1
Power Supply	2
Comm. Cables	4
Switch	1
Misc Panel Comp	1
Jumper	1
Polyphaser	1
Connectors	2
½" Helix	30

Description	Quantity
Antenna Pole	1
Antenna	1
24x24x8 NEMA 12 Enclosure	1
24x24 Backpan	1
Transformer 480/120VAC	1
Conduit and fittings	1
Level Transducer Enclosures	2
Level Transducers	1
Optical Isolater	1
Labor	
PLC Programming	
HMI Programming	
Radio Programming	
Build Panel	
Debug	
Engineering	

The \$19,533 quote for the installation of water meters on two Sacramento River pumps located on the Faye Ranch was provided by *Eaton Pumps* (see Attachment 5). The meters will be placed outside the river bank between the tow of the bank and the distribution weird. This will place the meters in the dirt road so they will be set in a steel rider with reinforced locking lid. The remote loggers will be mounted adjacent to the existing electrical and SCADA system. The quote includes:

Description	Quantity
Excavator Rental	2 days
Water Specialties 16" electronic propeller water meters	1
Water Specialties 20" electronic propeller water meters	1
FlowCom digital register	2
Seametrics remote mount Data logger with FlowInspector Software	2
50' data logger cables	2

RD 787 will spend \$3,500 on project outreach which will include potentially producing a short video, tour, meetings, and developing a one-pager information sheet on the project to show how RD 787 is monitoring the entire basin and can be shown as an example of a holistic approach to surface water and ground water management. The goal is to highlight the benefits of the project and how it improves real time decision making for the growers and the Reclamation District. The target audience for the outreach will be Yolo County Sustainable Groundwater Authority, Yolo County local government, other Districts and nearby growers.

Franklin Pictures provided a quote to RD 787 in order to estimate these costs (see Attachment 6).

Third-Party In-Kind Contributions

Not Applicable

Other

Environmental and Regulatory Compliance Costs. RD 787 reached out to the BOR Mid-Pacific Region staff to discuss the proposed project on March 26, 2019. Local staff determined that an Environmental Assessment would be required for the project and would cost approximately \$8,000. See Attachment 4 for proof of correspondence and consultation.

Environmental and Cultural Resources Compliance

Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)?

The proposed project involves minor ground disturbance to install the 2 meters. The ground disturbance to install the meters at 2 locations would be 30-inch holes/boxes. The meters will be outside the river bank between the toe of the bank and the distribution weir. This will place the meters in the dirt road so they will be set in a steel riser with reinforced locking lid.

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?

Located within the project area includes the giant garter, yellow-billed cuckoo, California tiger salamander, California red-legged frog, Delta Smelt, Valley Elderberry Longhorn Beetle, Vernal Pool Fairy Shrimp, and Vernal Pool Tadpole Shrimp. There are no critical habitats in the area. None of these species are located close to the project site and it is anticipated that they will not be impacted by the project.

Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States?"

No

When was the water delivery system constructed?

1950s

Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)?

No, this project does not involve any modifications to the existing irrigation system.

Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?

There are no historic buildings, structures or features in the irrigation district listed on the National Register of Historic Places.

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

There are no known archeological sites in the proposed project area.

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

The proposed project will not impact low income or minority populations.

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

There are no sacred sites or tribal lands that will be impacted by the proposed project.

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?

This project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species.

Required Permits or Approvals

RD 787 does not anticipate the need for any permits or approvals as part of this project.

Official Resolution

Resolution No #19-09
Reclamation District 787

RESOLUTION AUTHORIZING THE SUBMITTAL OF A FINANCIAL ASSISTANCE APPLICATION TO THE BUREAU OF RECLAMATION FOR INSTALLING 2 WATER METERS AND SUPERVISORY CONTROL DATA ACQUISITION (SCADA) SYSTEMS; AUTHORIZING THE BOARD OF DIRECTORS TO EXECUTE ALL NECESSARY APPLICATION DOCUMENTS; AND AUTHORIZING THE SUBMISSION OF THIS APPLICATION

WHEREAS, Reclamation District 787 desires to improve water monitoring and management of its entire service area; and

WHEREAS, the Project involved installing two water meters and Supervisory Control Data Acquisition systems (SCADA) on two Sacramento river pumps; and

WHEREAS, the Reclamation District 787's Groundwater Management Plan and the Sacramento Valley Water Management Program recognize the need for monitoring water use and using water efficiently; and

WHEREAS, the U.S. Bureau of Reclamation (USBR) has announced the availability of funds for small-scale water efficiency projects through FY 2019 WaterSMART Grants: Small-Scale Water Efficiency Projects; and

WHEREAS, said funding is intended to conserve and use water more efficiently; mitigate conflict risk in areas at a high risk of future water conflict; and accomplish other benefits that contribute to water supply reliability in the western United States; and

WHEREAS, said funding includes grants at reasonable terms; and

WHEREAS, Reclamation District 787 will comply with all applicable laws and regulations relating to the project, including NEPA prior to implementation of the Project; and

WHEREAS, various documents are required to be filed with the USBR related to the FY 2019 WaterSMART Grants: Small-Scale Water Efficiency Projects application.

NOW, THEREFORE, BE IT RESOLVED:

1. That the Board of Directors authorized the submittal of a financial assistance application with the USBR for the meter and SCADA system expansion project.
2. That the Board of Directors is authorized to sign all necessary Project application documents.
3. That the Board of Directors supports the grant application.

Need **Passed and Adopted** by the Board of Trustees of Reclamation District No. 787 on the 19th day of April 2019.

AYES: 3
NOES: 0
ABSTAIN: 0
ABSENT: 0



Roger Cornwell, Chairman

CERTIFICATION

I, Roger Cornwell, Chairman and trustee for Reclamation District No. 787 (District) do hereby certify that the above is a true and correct copy of the resolution which the Board of Trustees of the District unanimously adopted on April 19th, 2019.

Executed on April 19th, 2019, in Knights Landing, California.

Required Forms

Application for Federal Assistance SF-424								
* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application			* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision			* If Revision, select appropriate letter(s): _____ * Other (Specify): _____		
* 3. Date Received: 04/23/2019			4. Applicant Identifier: _____					
5a. Federal Entity Identifier: _____			5b. Federal Award Identifier: _____					
State Use Only:								
6. Date Received by State: _____		7. State Application Identifier: _____						
8. APPLICANT INFORMATION:								
* a. Legal Name: Reclamation District 787								
* b. Employer/Taxpayer Identification Number (EIN/TIN): 47-5051973			* c. Organizational DUNS: 1170366640000					
d. Address:								
* Street1: 41758 County Road 112								
Street2: _____								
* City: Knights Landing								
County/Parish: _____								
* State: CA: California								
Province: _____								
* Country: USA: UNITED STATES								
* Zip / Postal Code: 95645-9500								
e. Organizational Unit:								
Department Name: _____			Division Name: _____					
f. Name and contact information of person to be contacted on matters involving this application:								
Prefix: _____		* First Name: Roger						
Middle Name: _____								
* Last Name: Cornwell								
Suffix: _____								
Title: _____								
Organizational Affiliation: _____								
* Telephone Number: (530) 435-6274			Fax Number: _____					
* Email: rcornwell@rivergardenfarms.com								

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

D: Special District Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Bureau of Reclamation

11. Catalog of Federal Domestic Assistance Number:

15.507

CFDA Title:
Water SMART (Sustaining and Manage America's Resources for Tomorrow)

*** 12. Funding Opportunity Number:**

BOR-DO-19-F005

* Title:
WaterSMART Grants:Small-Scale Water Efficiency Projects for Fiscal Year 2019

13. Competition Identification Number:

BOR-DO-19-F005

Title:
WaterSMART Grants: Small-Scale Water Efficiency Projects for Fiscal Year 2019

14. Areas Affected by Project (Cities, Counties, States, etc.):

*** 15. Descriptive Title of Applicant's Project:**

Meter and SCADA System Expansion Project

Attach supporting documents as specified in agency instructions.

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text"/>	29,399.00
* b. Applicant	<input type="text"/>	29,399.00
* c. State	<input type="text"/>	0.00
* d. Local	<input type="text"/>	0.00
* e. Other	<input type="text"/>	0.00
* f. Program Income	<input type="text"/>	0.00
* g. TOTAL	<input type="text"/>	58,798.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- a. This application was made available to the State under the Executive Order 12372 Process for review on
- b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

Yes No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative:

* Date Signed:

BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>
2. Land, structures, rights-of-way, appraisals, etc.	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>
3. Relocation expenses and payments	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>
4. Architectural and engineering fees	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>
5. Other architectural and engineering fees	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>
6. Project inspection fees	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>
7. Site work	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>
8. Demolition and removal	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>
9. Construction	\$ <input style="width: 100%; text-align: right; value: 58,798.00;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%; text-align: right; value: 58,798.00;" type="text"/>
10. Equipment	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>
11. Miscellaneous	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>
12. SUBTOTAL (sum of lines 1-11)	\$ <input style="width: 100%; text-align: right; value: 58,798.00;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%; text-align: right; value: 58,798.00;" type="text"/>
13. Contingencies	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>
14. SUBTOTAL	\$ <input style="width: 100%; text-align: right; value: 58,798.00;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%; text-align: right; value: 58,798.00;" type="text"/>
15. Project (program) income	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%;" type="text"/>
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ <input style="width: 100%; text-align: right; value: 58,798.00;" type="text"/>	\$ <input style="width: 100%;" type="text"/>	\$ <input style="width: 100%; text-align: right; value: 58,798.00;" type="text"/>
FEDERAL FUNDING			
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share.			Enter eligible costs from line 16c Multiply X <input style="width: 50px;" type="text"/> % \$ <input style="width: 100%; text-align: right; value: 0.00;" type="text"/>

ASSURANCES - CONSTRUCTION PROGRAMS

OMB Number: 4040-0009
Expiration Date: 02/28/2022

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progressive reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards of merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.
20. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL Roger Cornwell	TITLE Chairman
APPLICANT ORGANIZATION Reclamation District No. 787	DATE SUBMITTED 04/23/2019

Attachment 1: RD 787 and River Garden MOU

RECLAMATION DISTRICT NO. 787

RESOLUTION NO. 19-01

**A RESOLUTION BY THE BOARD OF TRUSTEES OF RECLAMATION DISTRICT
NO. 787 TO AUTHORIZE CONTRACTING FOR LEVEE REPAIRS AND
MAINTENANCE**

WHEREAS, Reclamation District No. 787 (District) has an ongoing need to hire contractors to perform maintenance and repair work on the District levees;

WHEREAS, historically the most economical way to provide such services has been to contract with Trustees and landowners for those services; and

WHEREAS, Government Code Section 1090 prohibits members of the board of trustees from being financially interested in any of the District's contracts; and

WHEREAS, Government Code Section 1091(b)(13) defines a board member's financial interest as "remote" in a contract for reimbursement of expenses, salary or per diem; and

WHEREAS, Government Code Section 1091.4 defines a board members' financial interest in a contract as remote in the case of certain contracts for maintenance and repair; and

WHEREAS, the District is a landowner voter district with a population of less than 5,000 people that does not distribute water for domestic use, pursuant to Government Code 1091.4, and the work to be performed is for levee maintenance and repair;

WHEREAS, pursuant to Government Code 1091.4 the District's need for maintenance and repair services has been widely advertised; and

WHEREAS, as demonstrated by previous bills from known area contractors, the proposed rate of reimbursement for this work is reasonable and will result in materially less expense to the district than the expense that would have resulted under reasonably available alternatives.

NOW, THEREFORE, BE IT RESOLVED THAT:

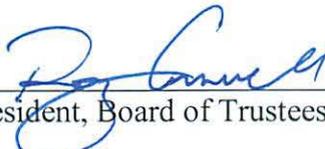
1. After a review of the relevant documents and information, the District Board of Trustees has determined that the District cannot hire an independent contractor to perform the needed work at a reasonable price.

2. In light of the District's ongoing need for such services and lack of available personnel to provide them, the Board has determined that it is in the District's best interest to periodically hire board members or their companies to perform such work on an as-needed basis, and to reimburse those individuals for their expenses associated with that work.

3. The Board hereby authorizes the reimbursement of board members, or companies in which the board members are financially interested, to conduct maintenance and repairs on District levees until March 2020, at which time the District intends to re-advertise the work and reevaluate whether an independent contractor can be hired for a reasonable price.

4. No board member who is hired to conduct this periodic work shall participate in making the contract on behalf of the District and will abstain voting on whether to approve the contract.

PASSED AND ADOPTED by vote of the Board of Trustees on February 6th, 2019.

By 
President, Board of Trustees

CERTIFICATION

I, Roger Coan, certify that I am, and at all times mentioned herein was, the duly appointed, qualified and acting Secretary of the Board of Trustees of Reclamation District 787, a reclamation district organized and existing under and by virtue of the laws of the State of California; that the foregoing is a full, true and correct copy of a Resolution duly and regularly adopted at a meeting of the Board of Trustees of said District duly and regularly held on 2-6-19, a majority and quorum of the members of said Board being present and voting in favor of said Resolution; and that said Resolution has not been modified, rescinded, altered or amended and is now in full force and effect.

WITNESS my hand this 6th day of February, 2019.


Secretary, Board of Trustees

Attachment 2: River Garden Farm and Faye Property Lease Agreement

AGRICULTURAL LEASE

THIS LEASE is made and entered into this 17th day of October, 2018, by and between Faye Properties, Inc., hereinafter referred to as "LESSOR" and River Garden Farms, hereinafter referred to as "LESSEE." LESSOR and LESSEE hereby acknowledge that this Lease shall supersede all prior agreements.

1. DESCRIPTION OF PREMISES: Pursuant to the terms and conditions set forth herein, LESSOR leases to LESSEE, and LESSEE hires from LESSOR, all that certain real property located in the County of Yolo, State of California, which is described as:

Field Nos.	Acres	2019 Crop Plan
1	135	Rice
2	54	Wheat
6	145	Sunflower
9	45	Tomato (Richter)
10	72	Sunflower
11	50	Sunflower
13	55	Tomato (Richter)
14	122	Rice
15	110	Rice
16	142	Rice
17	60	Tomato
25	80	Tomato
	1070 Total	

2. CONDITIONS OF PREMISES: By entry under this Lease, LESSEE accepts the premises in their present condition and LESSOR makes no warranty as to the suitability of the soil for growing the crop LESSEE is authorized to grow under this Lease. LESSEE agrees on the last day of the term, or on sooner termination of this Lease, to surrender the premises and the appurtenances to LESSOR in the same condition as when received, reasonable use, wear, and damage by fire, act of God, or the elements.

3. LEASE SUBJECT TO EXISTING RIGHTS OF OTHERS: This Lease is subject to

- A. All existing easements, servitudes, licenses; and right of way for canals, ditches, levees, roads, highways; and telegraph, telephone and electric power lines, railroads, pipelines; and other purposes, whether recorded or not;
- B. The rights of other lessees under any existing or future oil, gas and mineral lease or leases from LESSOR affecting the entire or any portion of the premises, whether recorded or not.

4. ENTRY BY OWNER AND INSPECTION OF RECORDS: LESSEE shall permit LESSOR, and LESSOR'S agents and assigns, at all reasonable times, to enter the leased premises, to use the roads established on the premises now or in the future, for the purposes of inspection, compliance with the terms of this Lease, posting notices, and all other lawful purposes. LESSEE shall make and keep pertinent records of all operations and conduct under this lease and shall make them available to LESSOR and LESSOR'S agents and assigns, at all reasonable times for inspections.

5. UTILITIES: LESSEE shall pay for all water, power, utility company charges and for all other services supplied to the premises, except as otherwise provided in this lease. All water charges, including but not limited to, cost of water, water delivery and water district costs, shall be paid by LESSEE, prior to water delivery. LESSOR assumes no responsibility to LESSEE for any water shortage and makes no warranty respecting the quantity or quality of the water supplied to the premises. All PG&E costs will be paid directly to PG&E by LESSEE. LESSEE will provide LESSOR with documentation of costs paid.

6. TERM: This term of this Lease is one year. Said term commences with the crop year and shall terminate at the conclusion of harvest of the crop year but in no event later than October 31, 2019. LESSEE shall take occupancy of the premises and commence crop preparation as hereinafter provided no later than November 1, 2018.

7. ABANDONMENT: LESSEE shall not vacate or abandon the premises at any time during their term; or if LESSEE does abandon, vacate or surrender the premises, or if LESSEE is dispossessed by process of law, or otherwise, any personal property belonging to LESSEE and left on the premises shall be kept for reasonable time by LESSOR, but in no event longer than fifteen (15) days after LESSOR gives LESSEE notice to remove that property from the premises, after which time, if it has not been reclaimed by LESSEE, it may be treated by LESSOR as abandoned.

8. USE: The premises are leased for agricultural purposes only. The premises shall be planted to rice, sunflower, tomato and wheat per 2019 Crop Plan. LESSEE shall not participate in any 50/92, 0/02 or any additional acreage reduction programs without the express written consent of LESSOR. No other crops shall be planted on any portion of the premises without the prior written consent of the LESSOR. LESSEE shall not use, or permit to be used, any part of the premises for any purpose other than the purpose for which the premises are leased as set forth in this paragraph. All operations incident to this use on the premises shall be carried on according to the best course of husbandry practiced in the vicinity; and, on default of LESSEE to do so, LESSOR reserves the rights, after giving forty-eight (48) hours' notice, to make necessary remedial measures at the expense of LESSEE, for which LESSEE shall reimburse LESSOR on demand. LESSEE will make necessary remedial measures at the expense of LESSEE, and will make diligent efforts to prevent the spread of all noxious weeds, rodents and other pests on the leased premises from infestation of insects, spiders and other such pests. LESSEE will make diligent efforts to prevent infestation of organisms that may produce disease in crops grown on the premises during the term of this Lease.

9. DRAINAGE: LESSEE expressly agrees to, and at all times and in all respects, comply with all federal, state, local and water agency laws, regulations, ordinances, applicable water quality objectives and other requirements, permits and orders issued in relation thereto which concern all drainage or releases including irrigation tail-water. (regulatory reporting: see point 17)

10. RENT: LESSEE shall pay to LESSOR as rent for the use and occupation of premises rent as follows:

Crop	Acres	Unit Price	% Share Rent	Rent Due
Rice	509	\$400.00	CASH	June 15, 2019 October 15, 2019
Sunflower	267	\$1.00	25%	within 60 days post-harvest
Tomato	140	\$70.00	15%	within 60 days post-harvest
Wheat	154	\$8.25	25%	within 60 days post-harvest
	1070 Total			

11. SECURITY: As security for payment of the foregoing cash rent, LESSEE agrees to obtain from a financial institution acceptable to LESSOR, a Standby Letter of Credit in the amount of \$ _____. The Standby Letter of Credit shall be in a form satisfactory to Lessor and shall provide that upon presentation to the issuing bank of a statement of default after November 16, 2001 and a draft drawn on LESSEE in the amount of the amount of the credit, the draft will be honored on presentation to the issuing bank.

12. WASTE: LESSEE shall not commit, nor suffer to be committed, or permit others to commit, waste on the leased premises or a nuisance, or any other act that could disturb the quiet enjoyment of LESSOR or any other tenant of LESSOR on reserved or adjacent property, or uses the leased premises for any unlawful purpose.

13. OIL, GAS AND MINERAL RIGHTS: All rights in all minerals, oil, gas and other hydrocarbons located on or under the leased premises are reserved to LESSOR and are accepted from the property covered by the terms of this Lease. LESSEE expressly grants to LESSOR, and to any and all LESSOR, and to any and all LESSEES of these oil, gas and mineral rights, and to LESSOR'S Agents and licensees, a right of entry and a right-of-way for ingress and egress in and to, over and on, the leased premises during the term of this Lease for the exploration, drilling and mining of minerals, oil, gas and other hydrocarbons on the leased premises; provided that LESSOR shall reimburse LESSEE for any damages that LESSEE sustains as a result of any interference with the agricultural operations conducted on the leased premises under the terms of its Lease arising from exploration, drilling of mining operations.

14. HUNTING RIGHTS: There shall be no hunting rights on the leased premises.

15. MAINTENANCE: LESSEE shall care for both the premises and the approaches to the premises, including, but not limited to, all fences, wells and pumps, ditches and roadways, and maintain them in the same order and condition in which received, ordinary wear and tear excepted. In default of LESSEE to maintain the premises as required herein, LESSOR shall have the option to declare a default or, after giving forty-eight (48) hours' notice, to take necessary remedial measures at LESSEE'S expense, for which LESSEE shall reimburse LESSOR on demand. LESSEE will supply labor for minor infrastructure repairs, coordinating efforts with LESSOR. LESSOR will supply materials needed for minor infrastructure repairs.

16. ALTERATION: LESSEE shall not make, or permit to be made, alterations of the premises, without first obtaining LESSOR'S written consent. LESSEE shall keep the premises free from any liens arising out of the work performed, material furnished, or obligations incurred by LESSEE.

17. COMPLIANCE WITH LAW: LESSEE will be responsible for all mandatory reporting including, but not limited to, Nitrogen Management Plan, SB-88, water rights reporting, Irrigated Lands Regulatory Program, Farm Service Agency, etc., and provide LESSOR with copies of all reporting.

A. In General. LESSEE shall comply with all requirements of all governmental authorities in force, either now or in the future, affecting the premises and shall faithfully observe in LESSEE'S use of the premises, all laws, rules and regulations of these authorities in force either now or in the future. The judgment of a court of competent jurisdiction, or LESSEE'S admission in any action or proceeding against LESSEE, whether LESSOR be a party to it or not, that LESSEE has violated any law, rule or regulation in LESSEE'S use of the premises shall be considered conclusive evidence of that fact as between LESSOR and LESSEE. If during the term of this Lease a change in, or addition of, any law, regulation or rule by these authorities requires correction or alleviation of naturally occurring conditions, including, but not limited to, weed infestations and disease conditions, that exist wholly or in part at the start of this Lease, the correction or alleviation shall be performed by LESSEE, but its cost shall be borne by both LESSOR and LESSEE in a proportion based on the extent to which the conditions required to be corrected existed at the time this Lease commenced. If LESSEE fails to comply with any such law, regulation or rule, LESSOR reserves the right to take necessary remedial measures at LESSEE'S expense, for which LESSEE agrees to reimburse LESSOR on demand.

B. Environmental Requirements. Without limiting the generality of the foregoing, LESSEE agrees to comply with all federal, state and local laws, regulations, ordinances, other requirements, permits, and orders issued in relation thereto, which are designed to protect public health and safety, worker health and safety, or the environment.

- C. Pesticides and Fertilizers. LESSEE agrees to use and handle pesticides and fertilizers in compliance with all applicable federal, state and local laws, regulations, ordinances, labels and labeling and other requirements and permits and orders issued pursuant thereto which are designed to regulate pesticides and fertilizers including, but not limited to, requirements pertaining to reentry or pre-harvest intervals. No pesticide or agricultural chemicals shall be used by LESSEE if results in a plant-back restriction or other provision which would place any limitation on the use of the leased premises which extends beyond the term of the Lease, without the prior written consent of LESSOR.
- D. Hazardous Materials and Toxic Waste. LESSEE agrees to comply with all federal, state and local laws, regulations, Ordinances, other requirements and permits and orders which concern any contamination, release, pollution, nuisance or waste, whether toxic or nontoxic, chemical or biological, which may result from LESSEE'S operations on and the use of the leased premises during the term of this Lease, whether created or maintained by LESSEE, its agents, servants or employees or whether LESSEE assists in the creation or maintenance thereof. LESSEE shall further comply with all such governmental enactments which concern management of hazardous materials and/or hazardous waste. For this purpose, "management" includes, but is not limited to, use, storage, handling and transportation. LESSEE agrees not to store, treat, dispose of or bury any hazardous waste or toxic materials on the leased premises.

18. INDEMNITY: INSURANCE: LESSEE agrees to keep LESSOR, its present and former agents and representatives, free from all liability and claims for damages arising from any injury from any cause to any person, including LESSEE, while in, upon or in any way connected with the premises including, but not limited to, the flooding of roads or neighboring lands because of improper or inadequate drainage or escaping irrigation waters during the term or any extension of this Lease, or any occupancy under this lease. LESSEE agrees to maintain, during the term of this Lease at LESSEE'S expense, public liability to the public arising as an incident to the use of, or resulting from any accident occurring in or about, the premises. The limits of liability under this insurance shall be in an amount not less than \$1,000,000 for any accident or injury or death to any person and \$500,000 for any property damage. These policies shall insure the contingent liability of LESSOR, its agents and representatives and LESSEE is to provide a written binder or copy of the policy or certificate of insurance to the LESSOR. LESSEE has the duty to obtain the written consent of the insurance carriers to notify LESSOR in writing 30 days before any cancellation of the insurance. LESSEE agrees that, if LESSEE does not keep insurance in force, LESSOR may take out the necessary insurance and pay the premium. The repayment of the premium shall be made on demand and failure to pay will be deemed a default. LESSEE further agrees to maintain during the term of the Lease, at LESSEE'S expense, proper and adequate Worker's Compensation Insurance.

19. REMEDIES OF LESSOR ON DEFAULT: If LESSEE breaches this Lease, LESSOR shall have, in addition to other rights or remedies, the right of reentry, after having given 2 days' notice, and the right to take possession of all crops, harvested or unharvested, and to remove all persons and property from the premises; LESSOR may store the property removed in a public warehouse or elsewhere at LESSEE'S expense and for LESSEE'S account. LESSOR, at LESSOR'S election, shall become the owner of all crops of which LESSOR has so taken possession, without being obligated to compensate LESSEE for them.

If LESSOR elects to reenter, as provided above, or to take possession under legal proceedings or under any notice provided for by law, he may (1) terminate this lease or (2) from time to time, without terminating this Lease, relet the entire or any part of the premises for such terms (which may extend beyond the term of this Lease) and at such rentals and other conditions as LESSOR in LESSOR'S sole discretion deems advisable. LESSOR also has the right to make alterations and repairs to the premises.

On each reletting either Subparagraph (A) or (B) shall apply:

- A. LESSEE shall be immediately liable for payment to LESSOR of (1) LESSOR'S expenses of reletting and making alterations and repairs; (2) the amount by which the rent specified in this Lease for the period of the reletting (up to but not beyond the term of this Lease) exceeds the amount agreed to by the new LESSEE to be paid as rent for the leased premises; and (3) all other indebtedness due under the lease; or

- B. At LESSOR'S option, rents received by LESSOR from reletting shall be applied: First, to the payment of any indebtedness, except rent, due under this lease from LESSEE to LESSOR; second, to the payment of expenses of relating and of alternations and repairs; third, to the payment of rent due under the Lease and unpaid, with the residue, if any, being held by LESSOR and applied in payment of future rent as it becomes due and payable under the Lease.

If LESSEE has been credited with rent to be received by reletting under the option in Subparagraph (A) above and the rent is not promptly paid to LESSOR by the new tenant; or if the rentals received from reletting under the option in Subparagraph (B) above during any month are less than that to be paid during that month by LESSEE under the Lease, LESSEE shall pay the deficiency to LESSOR. This deficiency shall be calculated and paid monthly.

No reentry or taking possession of the premises by LESSOR shall be construed as an election by LESSOR to terminate this lease unless written notice of such an intention is given to LESSEE or the lease is declared to be terminated by a court of competent jurisdiction. Even though the reletting was without termination by LESSOR, LESSOR may at any future time elect to terminate the Lease for the previous breach by LESSEE. If LESSOR terminates the Lease for a breach, in addition to any other remedy LESSOR may recover from LESSEE all damages LESSOR incurs by reason of the breach, including both the cost of termination, of the excess of the amount of rent and charges equivalent to rent specified in this Lease, for the remainder of the stated term, over the then reasonable rental value of the premises for the remainder of the term. All of these amounts shall be immediately due from LESSEE to LESSOR.

All of these rights shall be concurrent and cumulative and are in addition to, and not in derogation of, all other rights and remedies available to LESSOR. Any termination of this Lease by LESSOR shall be without prejudice to LESSOR'S right to recover the worth at the time of the award, by a court of competent jurisdiction, of the amount by which the unpaid rent for the balance of the term after the time of such award exceeds the amount of such rental loss for the same period that LESSEE proves could be reasonable avoided.

Nothing contained in this Lease, and no security or guarantee of the LESSEE that LESSOR holds now or in the future under the Lease, shall in any way constitute a bar or defense to any action by LESSOR in unlawful detainer or for recovery of the premises.

20. INSOLVENCY; RECEIVER: Any one of the following also constitutes a breach of this Lease by LESSEE:

- A. The appointment of a receiver to take possession of all or substantially all assets of LESSEE; or
- B. A general assignment by LESSEE for the benefit of creditors.

21. ATTORNEY'S FEES ON DEFAULT: If the advice of an attorney is sought to construe this Lease or in connection with acts or events arising hereunder or in an action or proceeding to enforce this Lease or any provision hereof, LESSOR shall be entitled to all costs incurred and to reasonable attorney's fees.

22. SURRENDER OF LEASE NOT MERGER: The voluntary or other surrender by LESSEE, or a mutual cancellation, of this Lease shall not work a merger, and shall, at LESSOR'S option, terminate all existing subleases or sub tenancies, or may, at LESSOR'S option, operate as an assignment to LESSOR of and all subleases or sub tenancies.

23. ASSIGNMENT OR SUBLETTING: LESSEE shall not assign this Lease, or any rights under it, and shall not sublet the entire or any part of the premises, or any right or privilege appurtenant to the premises, or permit any other person (the agents and servants of LESSEE excepted) to occupy or use the entire or any portion of the premises, without first obtaining LESSOR'S written consent; provided that LESSOR shall not unreasonable withhold consent to assignment, sublease, or other transfer of use or possession of the premises. Consent to one assignment, subletting, occupation, or use by another person is not consent to a future assignment, subletting, occupation, or use by another person. An assignment or a subletting without LESSOR'S consent shall be void, and shall, at LESSOR'S consent shall be void, and shall, at LESSOR'S option, terminate this Lease. No interest of LESSEE in this Lease shall be assignable by operation of law without LESSOR'S written consent.

24. CROP MORTGAGE: All security interests, crop mortgages, encumbrances or liens given or suffered by LESSEE on LESSEE'S share of the crops grown on the premises shall be for terms or periods not extending beyond the term of the Lease. All liens created by LESSEE must be satisfied of record by LESSEE before the end of the term of this Lease. If a mortgage or lien creates a cloud on LESSOR'S title, LESSEE must pay all reasonable costs and expenses, including attorney's fees, required for the removal of the cloud, either before or after termination of the Lease.

25. SUBORDINATION: This Lease shall be subordinate to any mortgage or deed of trust that now exists or that may subsequently be placed on the premises, to all advances made under them, to the interest on all obligations secured by them, and to all renewals, replacements, and extension of them, unless the mortgagee or beneficiary in those mortgages or deeds or trust, or LESSOR, elects to recognize the Lease of LESSEE in the event of foreclosure and provided that LESSEE is not then in default. If any mortgagee or beneficiary elects to make this Lease superior to its mortgage or deed of trust, then this Lease shall be superior to the lien of that mortgage or deed of trust, whether this Lease is dated or recorded before or after said mortgage or deed of trust.

26. WAIVER: The waiver by LESSOR of the breach of any term, covenant or condition contained in this Lease shall not be a waiver of a future breach of the same or any other term, covenant or condition contained in this Lease. The acceptance of rent by LESSOR shall not be treated as a waiver of a previous breach by LESSEE of any term, covenant or condition of this Lease, other than the failure of LESSEE to pay the particular rental so accepted, regardless of LESSOR'S knowledge of a previous breach at the time of acceptance of rent.

27. SALE BY LESSOR: In the event that the premises are sold for any reason, LESSOR, at LESSOR'S sole option and discretion shall have the right to terminate the Lease upon the giving of written notice to the LESSEE specifically referring to this paragraph and exercising the option provided herein to terminate the Lease; provided, however, that the LESSEE shall nonetheless have the right to plant, harvest and complete the crops during the then current crop year. In the event that the LESSOR shall not exercise the option to terminate as provided in this paragraph, then the Lease shall remain in full force and effect.

28. CFSA PROGRAMS: The parties expressly covenant and agree that at no time, whether during the term of this Lease or thereafter, shall the LESSEE be entitled to any United States Department of Consolidated Farm Service Agency (CFSA) acreage basis, crop basis, allotments, units or any other similar governmental benefit or entitlement under any diversion, price support or payment-in-kind program that accrues either to the premises, the farming of the premises, the land itself, or the use of the land by LESSEE, the history of the farming of the premises, or in any other manner whatsoever, that would otherwise accrue to the owner of the land. The intent and purpose of this paragraph is that all rights and entitlements with respect to any acreage reduction program, entitlements with respect to any acreage reduction program, payment-in-kind program, subsidy or diversion program of every nature or description, the production history, or basis with respect to the premises, shall at all times remain with the real property and accrue to the benefit of the owner of the land who shall have a separate property right therein, and shall not accrue to the separate account or benefit of the LESSEE.

29. DEVELOPMENT: In the event that the premises, or part thereof, are developed for any reason, LESSOR at LESSOR'S sole option and discretion shall have the right to terminate the Lease upon the giving of written notice to the LESSEE specifically referring to this paragraph and exercising the option provided herein to terminate the Lease; provided however, that the LESSEE shall nonetheless have the right to plant, harvest and complete the crops during the then current crop year. In the event that the LESSOR shall not exercise the option to terminate as provided in this paragraph, then the Lease shall remain in full force and effect.

30. NOTICES: Any notice to be given to either party by the other shall be in writing and shall be served either personally or by certified mail, return receipt requested, addressed as follows:

LESSOR: Faye Properties, Inc.
5787 Eldorado Ranch Drive
Knights Landing, CA 95645

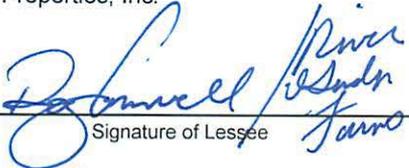
LESSEE: River Garden Farms Company
41758 County Road 112
Knights Landing, CA 95645

31. LEGAL EFFECT: All covenants of LESSEE contained in this Lease are expressly made conditions. The provisions of this Lease shall apply to and bind the heirs, successors, executors, administrators and assigns of the parties hereto and all parties to this Lease shall be jointly and severally liable under it. The titles or heading to the paragraphs of this Lease are not a part of this Lease and shall have no effect on the construction of interpretation of any part of this Lease.

Notwithstanding any other provision of this Lease, in the event Lessor's water supply under Sacramento River Settlement Contract No. 14-06-200-878A-R-1 between Lessor and the U.S. Bureau of Reclamation ("Contract") is reduced by more than 25 percent, Lessor shall have the right, in its sole and absolute discretion, to terminate this Lease upon 10 days prior written notice to Lessee. In the event Lessor elects to terminate the Lease in accordance with the previous sentence, Lessee shall have no right whatsoever to seek compensation from Lessor, in law or equity, for any losses, damages, or claims arising from or relating to the termination of this Lease (collectively "Claims") and Lessee hereby forever waives and relinquishes all Claims.

Executed on the day and year hereinabove first written at Knights Landing, California.

Faye Properties, Inc.

By: 
Signature of Lessee

Date: 10-16-18

By: 
Signature of Lessor

Date: 9-29-18

Attachment 3: SCADA Quote



Lic # 965664

To: River Garden Farms

Attn: Dominik

Project: Faye Well

Date: 3/18/19

Project Scope:

This project will provide labor and material for a Turn-Key Supervisory Control and Data Acquisition (SCADA) system. On the Faye Well station. User with the ability to Remotely turn on/off the well while monitoring Flow, Volume and water depth. Flow and Volume of the other two meters will also be viewable. User will also have the ability to set a Setpoint which the well will shutdown when level goes below setpoint and will send out an alarm stating low level has been met.

Faye Well 3 Meters

	Description	Qty
1	BRX PLC	1
2	Xetawave Radio	1
3	Power Supply	2
4	Comm. Cables	4
5	Switch	1
6	Misc Panel Comp.	1
7	Jumper	1
8	Polyphaser	1
9	Connectors	2
10	1/2" Heliac	30
11	Antenna Pole	1
12	Antenna	1
13	24x24x8 NEMA 12 Enclosure	1
14	24x24 Backpan	1
15	Transformer 480/120VAC	1
16	Conduit and fittings	1
17	Level Transducer Enclosures	2
18	Level Transducer	1
19	Optical Isolater	1

Well Sites Setup

	Description
1	Labor
2	PLC Programming
3	HMI Programming
4	Radio Programming
5	Build Panel
6	Debug
7	Engineering

Total

\$25,029.00

Clarifications:

1. This quote is good for 30 days.
2. No preliminary radio test to verify radio RSSI at each site.
3. 1 Year Warranty parts and Labor
4. Assumes all Flowmeters on Wells are in good standings and allow for a Transmitter to be installed. If Flowmeters need to be calibrated or replaced a separate quote will be provided for shipping and installation of flowmeter.
5. Assume all existing equipment is in good working condition.

6. Tax and Shipping not included.

Should you have any questions or require any clarifications please contact us.

Innovative Controls

Phone 1.800.301.4814

Email ryan@icscada.net

Attachment 4: BOR Consultation

Re: [EXTERNAL] WaterSMART: Small Scale Projects - Environmental Compliance Request

Anderson, Angela <aanderson@usbr.gov>

Mon 4/8/2019 1:17 PM

To: Heidi Schott <HSchott@tfgnet.com>

Heidi,

I received an update from the Environmental review group. I am not sure if I sent you the estimate they had stated before of \$5k, but there were concerns that it did not cover all the costs associated with the project. So, they have increased the estimated environmental costs to \$8k. If you have submitted your application with the \$5k amount, it should be fine. The difference between the \$5k and \$8k can be resolved during budget reconciliation, if your application is selected to be awarded. This exercise is to avoid any concerning issues that might bump the environmental from an expected \$5k-\$10k to something like \$20k-\$30k. Sorry for the delay, I have been working on a special project and should be back on regular duty Monday next week.

Thank you and have a great day!

Angela Anderson

Program Specialist
US Bureau of Reclamation
2800 Cottage Way, MP-410
Sacramento, CA 95825
Phone: 916-978-5215
aanderson@usbr.gov

On Thu, Apr 4, 2019 at 10:03 AM Heidi Schott <HSchott@tfgnet.com> wrote:

Hi Angela –

The ground disturbance to install the meters at 2 locations would be 30 inch holes/boxes.

The BOR is currently doing cultural survey work on the property for a levy project to replace pipes. The metering project is in the same location as where the levy project is taking place. Would another cultural survey need to be done or could we utilize that?

Thanks

**Heidi Schott**202.304.9778 **MOBILE****TheFergusonGroup.com**

aanderson@usbr.gov

On Mon, Apr 1, 2019 at 10:01 AM Simon, Megan <msimon@usbr.gov> wrote:

Hi Angela,

Sorry, I was out on vacation last week.

Because it's a Watersmart grant and we have no corresponding Categorical Exclusion to cover it, it has to be an EA for the NEPA documentation. However:

1. We have page limits now for the EA (15 pp) and the policy seems to be no press release or public comment period (which could lead to more than one document: draft and final forms) on smaller, less consequential projects (i.e. costs for those efforts are eliminated now).

2. On a recent Watersmart project for SCADA that Doug Kleinsmith worked on, FWS said they were ok with a finding of No Effect, including the giant gartersnake, the species they are most concerned about with ground disturbances. So I anticipate there would not be ESA consultation with this one if the SCADA and meter installation is the entirety of the project. To know for certain, we've need an approximate size of the disturbance for comparison with the project Doug worked on (also a grant project for Natomas).

To get a cost estimate for cultural, I would need the location (map), depth and surface area of the disturbance and a cost authority for them to provide the estimate (they've pushed back requests w/out one). Very few projects these days have a No Effect determination for Cultural. I anticipate it would be a No Historic Properties Affected determination which would involve SHPO and perhaps tribal consultation.

My guess is that \$5k (\$2k for NCAO NEPA, \$3k for Cultural) would cover it.

To get a closer estimate, we could use the costs from Doug's project if you could obtain them.

For a closer estimate yet, we could use Doug's prior costs and get the details on the disturbance size and location to get a site and activity-specific cost estimate from Cultural (again, need a cost

authority for that).

Let me know how close you need the estimate to be and whether or not you could obtain the extra info needed to get it refined.

Thanks!

- Megan

On Wed, Mar 27, 2019 at 2:54 PM Anderson, Angela <aanderson@usbr.gov> wrote:

Megan,

WaterSMART has a new policy for the application process. Since there have been issues in the past with regards to environmental costs, we look for estimated costs before they submit their application. Please make this a general high level overview to provide an estimate. Can you please provide an estimate for this project?

Thank you and have a great day!

Angela Anderson

Program Specialist

US Bureau of Reclamation

2800 Cottage Way, MP-410

Sacramento, CA 95825

Phone: 916-978-5215

aanderson@usbr.gov

----- Forwarded message -----

From: **Berens, Jacob** <jberens@usbr.gov>

Date: Wed, Mar 27, 2019 at 12:42 PM

Subject: Re: [EXTERNAL] WaterSMART: Small Scale Projects - Environmental Compliance Request

To: Anderson, Angela <aanderson@usbr.gov>

I just received word from RD 787 that they are going to pursue a FY2019 WaterSMART Grants: Small-Scale Water Efficiency Projects, which is due April 22, 2019. As you know, part of the application advises that we reach out to our Local Reclamation Office to discuss environmental compliance costs associated with the project.

RD 787 plans on installing 2 water meters as well as SCADA on 2 existing pumps. There will be minor ground disturbance for installation of the meters. Could you let me know what a compliance quote would look like, as well as how long environmental review with BOR participation would likely take?

We have been able to answer the following questions regarding our project:

- 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. **The project involves minor ground disturbance to install meters. The meters will be outside the river bank between the toe of the bank and the distribution weir. This will place the meters in the dirt road so they will be set in a steel riser with reinforced locking lid.**
- 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? **Yes the giant garter snake (*Thamnophis gigas*), yellow-billed cuckoo (*Coccyzus americanus occidentalis*), California tiger salamander (*Ambystoma californiense*), California red-legged frog (*Rana draytonii*), Delta Smelt (*hypomesus tranpacificus*), Valley Elderberry Longhorn Beetle, Vernal Pool Fairy Shrimp, and Vernal Pool Tadpole Shrimp. There are no critical habitats in the area. None of these species are anticipated to be impacted by the project.**
- Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States?" **No**
- When was the water delivery system constructed? **1950**
- Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., head gates, 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 there will not be any modifications to the irrigation system**
- Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? **No**
- Are there any known archeological sites in the proposed project area? **No**
- 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**

Thanks

Heidi Schott

202.304.9778 **MOBILE**

TheFergusonGroup.com

--

Gene Lee

Water Conservation Team

916-978-5219 (office)

--

Megan K. Simon

Natural Resources Specialist
U.S. Bureau of Reclamation
Northern California Area Office
16349 Shasta Dam Blvd.
Shasta Lake, CA 96019
(530) 247-8513
msimon@usbr.gov

Attachment 5: Meter Quote

March 11, 2019

River Garden Farms
Attention: Dominic Bruno
41758 Road 112
Knights Landing California

Dear Mr. Bruno;

The letter is in response to our meeting concerning the need for water meters to be installed on the two Sacramento River pumps located on the Faye Ranch. These meters are somewhat temporary as when the new levee pipes are installed they will be moved and installed on the new levee pipes.

As per our site inspection it appears the best temporary placement of the meters will be outside the river bank between the toe of the bank and the distribution weir. This will place the meters in the dirt road so they will be set in a steel riser with reinforced locking lid.

Per our discussion, River Garden Farms can deliver and rent a mini excavator for box and meter install. Estimated 2-day rental (including delivery and pick up)

2 Daily JCB excavator rental \$1100.00

The remote loggers will be mounted adjacent to the existing electrical and SCADA system. Note that straightening vanes are not included as there appears to be an adequate straight run of pipe to obtain accurate data and the meters will be moved when the new pipes are installed. Depending on the layout, straightening vanes could be installed at that time, if needed.

The major components are as follows:

- 1 Water Specialties 16" electronic propeller water meter
- 1 Water Specialties 20" electronic propeller water meter
- 2 FlowCom digital register
- 2 Seametrics remote mount Data logger with FlowInspector Software
- 2 50' data logger cables

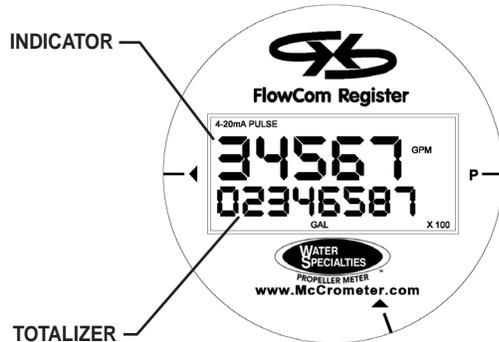
The total cost is \$19,533.00 plus applicable California taxes. Terms are net 30 days with an .83% per month charge on past due invoices.

If you have any questions please contact me at 530-661-6737 office, 530-908-8037 cell or reberlein@eatonpumps.net

Sincerely,
Richard Eberlein



MODEL ML20-D
 150 psi WELDING SADDLE METER
 SOLID STATE ELECTRONIC PROPELLER METER
 DIGITAL INDICATOR-TOTALIZER
 SIZES 4" thru 72"



TYPICAL
DIGITAL INDICATOR-TOTALIZER



DESCRIPTION

MODEL ML20-D WELDING SADDLE METERS are manufactured to the highest standards. Materials used on all meters and flow ranges for the low velocity meter meet or exceed AWWA standard C704-02. The weld-on design permits use in a wide range of applications with up to 150 psi working pressure. It is necessary, upon ordering, to furnish the I.D. dimension of the pipe the meter is to be mounted on for calibration purposes. The O.D. dimension or wall thickness must also be furnished for proper fit of the saddle to the pipe.

INSTALLATION is made by cutting a hole in the existing pipe line and then welding the saddle to the line. The removable meter head assembly can then be bolted to the saddle. The meter can be installed horizontally, or inclined on suction or discharge lines. The meter must have a full flow of liquid for proper accuracy. Fully opened gate valves, fittings, or other obstructions that tend to set up flow disturbances should be a minimum of ten pipe diameters upstream and two pipe diameters downstream from the meter. Installations with less than ten pipe diameters of straight pipe require straightening vanes. Meters with straightening vanes require at least five pipe diameters upstream and two pipe diameters downstream of the meter. An optional remote mounting kit with up to 100 feet of cable is available to locate the indicator-totalizer at remote locations.

PROPELLER is magnetically coupled with the electronic sensor through the sealed gearbox. This completely eliminates water entering the meter assembly, and eliminates all moving parts except for the propeller. The propeller is a conical shaped three bladed propeller, injection molded of thermoplastic material resistant to normal water corrosion and deformity due to high flow velocities.

BEARING is a water lubricated ceramic sleeve and spindle bearing system with a ceramic/stainless steel spindle. Dual ceramic thrust bearings, standard on all meters, handle flows in both forward and reverse directions. The bearing design promotes extended periods of maintenance free propeller operation. Bearings within the sealed meter mechanism are shielded precision stainless steel bearings and are factory lubricated for the life of the meter.

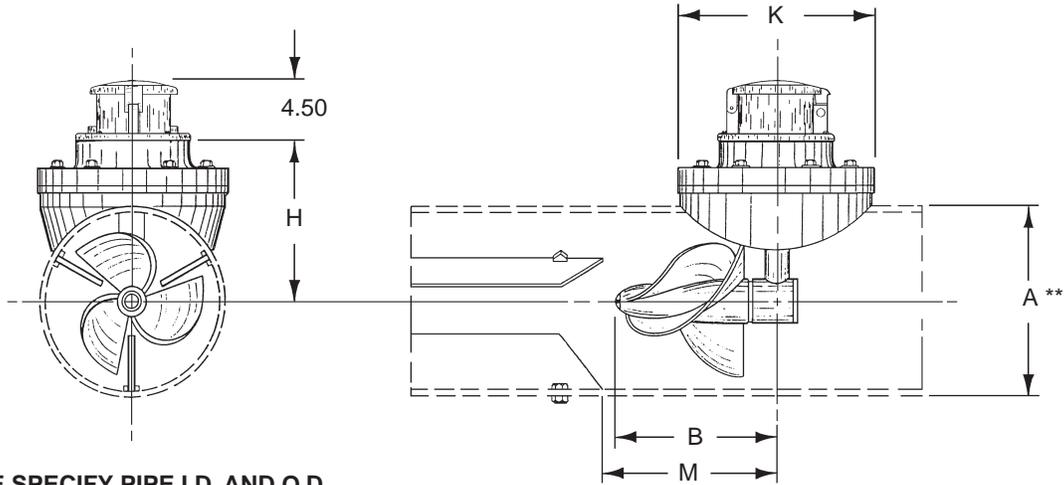
DIGITAL INDICATOR-TOTALIZER has a non-volatile EEPROM memory to store totalizer count (updated hourly while running). Features a large two line display. Five digit top line indicates flow rate, and eight digit bottom line provides volumetric flow data. Indicator is available in 22 different units, including GPM, CFS, MGD. Totalizer is available in 20 different units, including Gallons, AF, CF. Units of measurement are user-selectable. Battery life is 6 - 10 years. Housing is NEMA 4X rated.

Available with optional 4-20mA and/or pulse output.

SPECIFICATIONS

ACCURACY	Plus or minus 2% of actual flow within the range specified for each meter size.
PRESSURE RANGE	Up to 150 PSI maximum working pressure.
TEMPERATURE RANGE	140° F Maximum. Consult factory for special construction for higher temperatures.
MINIMUM FLOWS	As shown for each meter size and construction are required for accurate registration. See flow chart.
MAXIMUM FLOWS	As shown for each meter size and construction are rated for continuous operation. See flow chart.
INTERMITTENT FLOWS	As shown for each meter size are rated for 10% to 15% of the total time the meter is operating. Consult factory for High Velocity construction when intermittent flows are higher than shown on flow chart and/or when longer operating periods are required.
MATERIALS	Used in construction are chosen to minimize the corrosive effects of the liquids measured by the meter assembly. PROPELLER MAGNET - permanent ceramic type PROPELLER BEARING - ceramic sleeve type PROPELLER SPINDLE - ceramic coated stainless steel PROPELLER - injection molded thermoplastic GEARBOX - cast bronze SEPARATOR - stainless steel METER HEAD BOLTS - stainless steel (4"-20"), plated steel (24"-72") METER HEAD - cast iron or fabricated steel, fusion epoxy coated.
OPTIONAL EQUIPMENT	Includes a remote mounting kit with up to 100 feet of cable, totalizer extensions, digital transmitter, and a wide range of controls and instruments for indicating, totalizing, and recording flow data for each meter. Special constructions and materials are available upon request.
ORDERING INFO	Must be specified by the customer and includes: Minimum & maximum flow ranges Temperature of meter environment Indicator scale & units Totalizer dial units Type of materials and construction Optional equipment desired Pipe I.D. and O.D.

MODEL ML20-D
 150 psi WELDING SADDLE METER
 SOLID STATE ELECTRONIC PROPELLER METER
 DIGITAL INDICATOR-TOTALIZER
 SIZES 4" thru 72"



** PLEASE SPECIFY PIPE I.D. AND O.D.

METER & PIPE SIZE	*LOW VELOCITY CONSTRUCTION MIN. - MAX.	FLOW RANGES, GPM STANDARD CONSTRUCTION MIN. - MAX. - INT.	HIGH VELOCITY CONSTRUCTION MIN. - MAX.	DIMENSIONS					EST. SHIPPING WEIGHT POUNDS
				A	B	H	K	M	
4	N/A	55-500-700	200-700	4½	8	5 ³ / ₁₆	9	10	55
6	N/A	120-1200-1500	300-1500	6 ⁵ / ₈	8	6¼	9	10	55
8	N/A	150-1500-2000	400-2500	8 ⁵ / ₈	8	7¼	9	10	55
10	N/A	180-2000-3000	500-3500	10¾	8	8½	11	10	60
12	N/A	200-3000-3500	800-5000	12¾	8	9½	11	10	70
14	N/A	300-4000-4500	1000-6000	14	8	10½	13½	10	75
16	N/A	400-5000-6000	1200-7500	16	8	11½	13½	10	75
18	N/A	700-6000-7500	1500-9000	18	8	12½	13½	10	75
20	N/A	850-8000-9000	2000-12000	20	8	13½	13½	10	75
24	N/A	1000-10000-13500	3000-15000	24	11½	17½	21	13½	250
30	N/A	1800-15000-21000	4000-25000	30	11½	20½	21	13½	250
36	N/A	2000-20000-30000	5000-35000	36	11½	23½	21	13½	250
42	N/A	3000-30000-40000	6000-50000	42	11½	27	32	13½	525
48	N/A	5500-35000-50000	7000-60000	48	11½	30	32	13½	525
54	3200-45000	6500-45000-55000	8000-65000	54	11½	33	32	13½	525
60	4000-60000	7500-60000-80000	10000-90000	60	18 [‡]	36	32	22 [‡]	525
66	4750-75000	8500-75000-95000	12000-105000	66	18 [‡]	39	32	22 [‡]	525
72	5500-90000	9500-90000-115000	15000-125000	72	18 [‡]	42	32	22 [‡]	525

Standard construction will be supplied for all main line meters unless special flow range, materials, or construction are required.

* Low velocity (LV) construction has the same low and maximum flow rates as AWWA C704-02.

‡ On High Velocity Meters "B" Dimension is 11½" and "M" dimension is 13½".



FlowCom™ Register

DIGITAL DATA & COMMUNICATIONS

MODEL FC100/FC101

CONFIGURATION SHEET

FLOWCOM REGISTER

DESCRIPTION

The FlowCom Register displays a flowmeter's flowrate and volumetric total. The FlowCom can be fitted to any new or existing Mc Propeller or Water Specialties propeller flowmeter.



Register face for FC100 and FC101

FEATURES & SPECIFICATIONS

- Retrofits to any existing Mc Propeller or Water Specialties Propeller Flowmeter.
- Four output options: 4-20mA Loop, Open Collector, Optically Isolated, and Contact Closure.
- Unique Units of Measurement for Rate, Total, 4-20mA and Pulse Outputs.
- Factory sealed Remote and Meter-Mounted Models.
- Sensus compatible with three wire protocol

Environmental Operating Temp: -4°F to 158°F (-20°C to 70°C) Storage Temperature: -40°F to 158°F (-40°C to 70°C) Housing Rating: NEMA 4X Meter Rating (with remote mount): IP67	4-20mA Analog Power Requirements: 12 to 30VDC Transmissions: 5,000 feet max. 4mA/20mA Trim: .01mA to .50mA Engineering/Time Units: 22 different units
Input Signal Input Compatibility: McCrometer Flowmeters Remote Distance: 50 feet max.	Pulse Outputs Engineering Units: 20 different units Optically Iso. Pulse Width: 80 ms Open Collector Pulse Width: adjustable Collector to emitter voltage: 50v @ 50mA max. Pulse Width: 80 ms Max Pulses Per Minute: 30 Signal Distance: 500 feet max. Contact Closure Output Contact Rating: 30v @ 1Amp max. Pulse Width: 80 ms Max Counts Per Minute: 30 Signal Distance: 500 feet
Rate Functions Display: 5-digit Rate Units: 22 different units Totalizer Functions Display: 8-digit Totalizer Units: 20 different units Accuracy: 0.25% Non-Volatile Storage: Updated hourly	Power Requirement Battery Type: Lithium 3.6V Battery Life: 6 - 10 years Optional 4-20mA: Loop powered
Programming Program Access: Magnetic wand Access Lockout: 4-digit code Test Modes: 4mA and 20mA test modes Totalizer Reset: Programming Total Reset Disable: Programming (permanent) Calibration Adjustment: + or - .01% to 10%	

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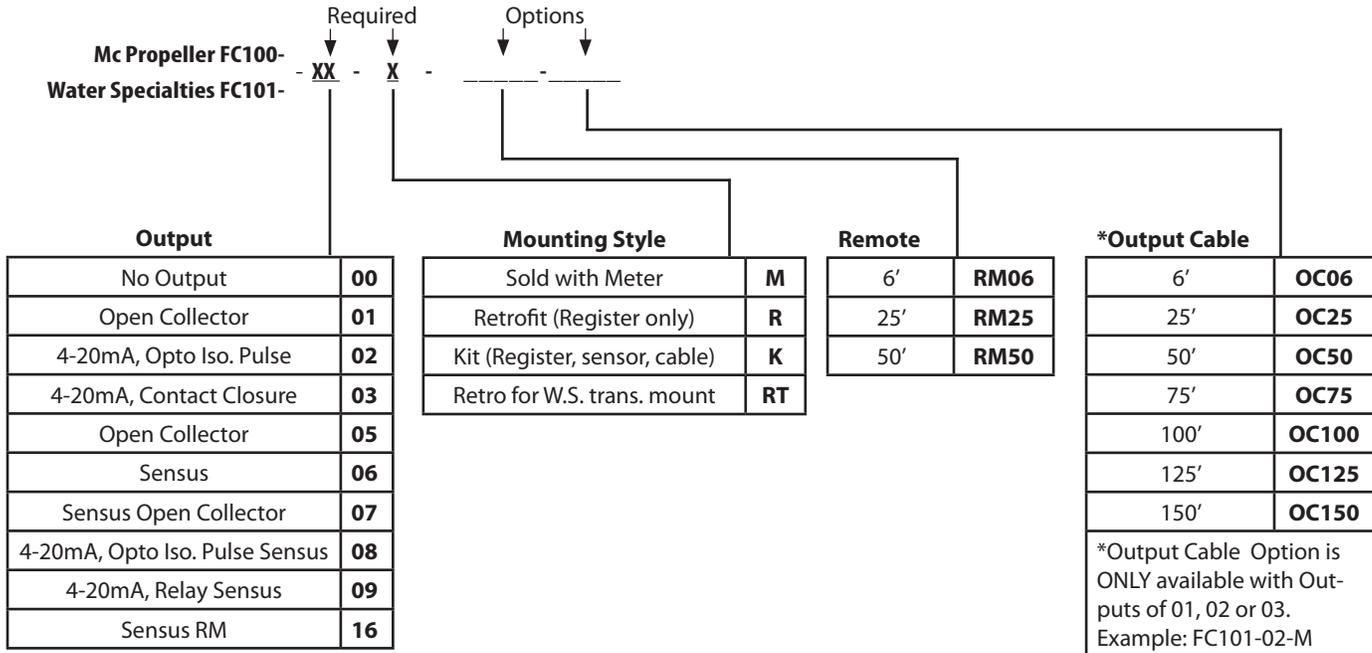
FlowCom™ Register

DIGITAL DATA & COMMUNICATIONS

CONFIGURATION SHEET

MODEL FC100/FC101

FLOWCOM REGISTER



Example Orders:

Example 1: FC100-00-M

Example 2: FC101-02-K-RM50-OC25

Example 3: FC101-02-R

Mc Propeller FlowCom - Meter Mounted, no outputs

Water Specialties FlowCom - Remote Mounted 50', 4-20mA & Opto, 25' Output Cable

Water Specialties FlowCom Retrofit - Register to replace Meter Mounted register

Conversion of Meter Mount to Remote Mount Kits

Water Specialties	Mc Propeller	Description
FCRMWS-25	FCRMMC-25	Hardware and 25' Cable
FCRMWS-50	FCRMMC-50	Hardware and 50' Cable

HOW TO ORDER:

Please provide the following (as applicable):

- Model Number
- Total Unit/Rate Unit
- Pulse Type/ Pulse Unit/ Pulse Increment
- 4-20mA Unit / 20mA Full Scale

Example:

FC101-02-K-RM50_OC25
 ACRE FEET/CFS
 Pulse: Optically Iso./AFT/0.01
 4-20mA: CFS / 10

For -K, -R, -RT models provide the existing meter serial number.
 Optional: Remote Cable Length (feet) Remote Cable: 50 feet
 Optional: Output Cable Length (feet) Output Cable: 25 feet

McCrometer reserves the right to change design or specifications without notice. Warranty Period: 1 Year



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DL76

DATA LOGGER



APPLICATIONS

- Water usage monitoring, reporting and management
- Custody transfer regulation
- Peak demand monitoring

FEATURES

- Easy to set-up, easy to use
- Weeks/months/years of data storage
- User-selected sampling interval
- Data retrieval with laptop computer
- Single data retrieval device serves multiple data loggers

The DL76 is a battery-powered data logger that can be used with any Seametrics flowmeter. It stores pulses for up to 3 years, depending on the user-selected frequency of reading. Indicator lights on the unit flash to indicate when it is functioning and when the battery is low.

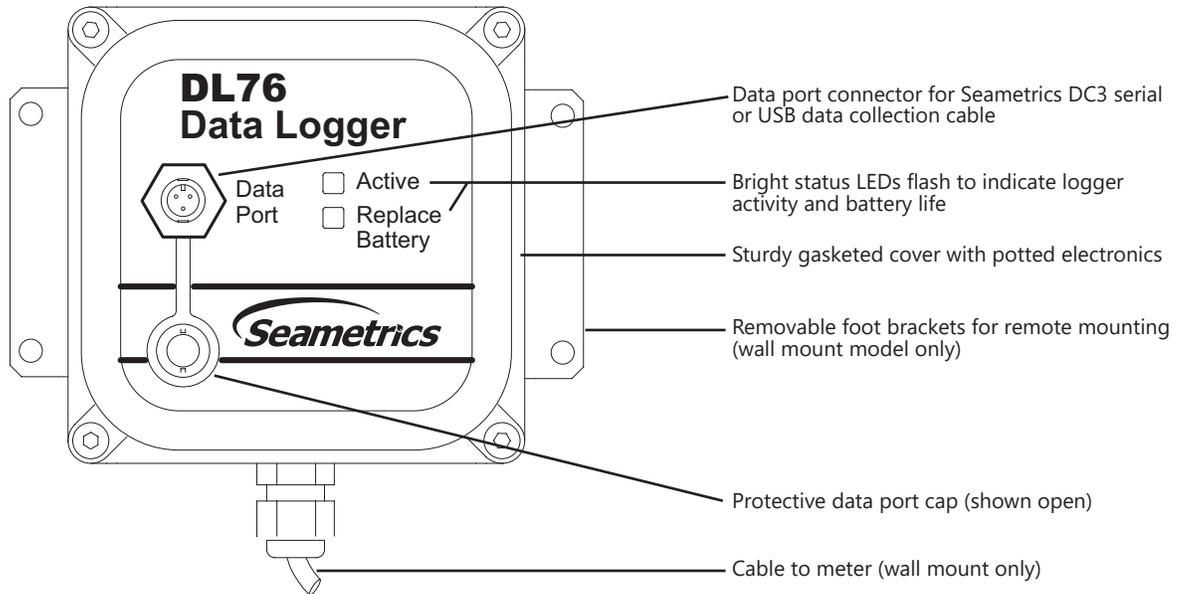
The DL76 can be factory-mounted on the meter or remotely mounted. Housings are rugged cast aluminum, gasketed for environmental protection.

When a DL76 logger is placed into operation, it is easily set up using a laptop computer. Data is also retrieved from the DL76 by means of a laptop and can be analyzed on the laptop or easily loaded on a desktop computer for analysis.

*FlowInspector version 2 software (ordered separately) is required for the downloading, storing, viewing, graphing, charting and printing of data in several formats. FlowInspector requires a PC with Windows 98, NT, 2000, XP, Vista or Windows 7; CD-Rom drive; 800 x 600 screen resolution; serial port or USB/serial adapter; and a Seametrics DC3 data cable. FlowInspector can be used with an unlimited number of dataloggers.

*Older versions of FlowInspector are not compatible with the DL76.

FEATURES

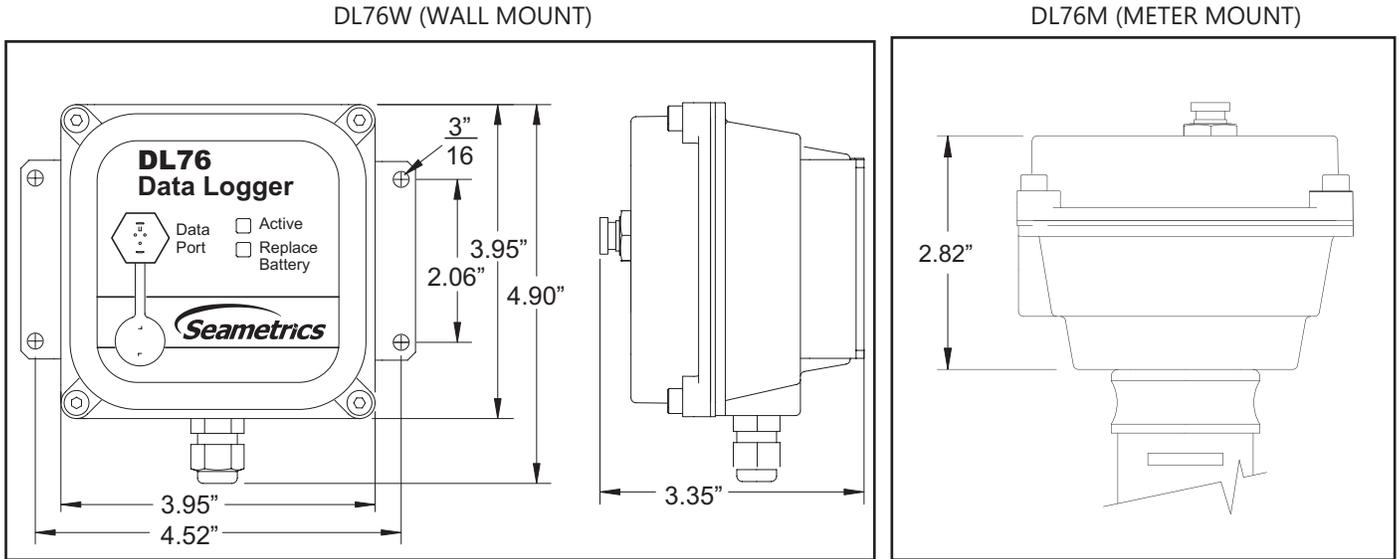


SPECIFICATIONS*

Power	Size C 3.6 Vdc lithium battery (included)		
Battery Life	Estimated life is 3-5 years depending on usage.		
Temperature	0° to 130° F (-18° to 54°C)		
Rate Units	Volume	mL, liter, gallon, Imperial gallon, cubic foot, cubic meter, million gallon	
	Time	Seconds, minutes, hours, days	
Total Units	Liter, gallon, Imperial gallon, cubic foot, cubic meter, million gallon, acre-foot, acre-inch, megaliter, thousand-gallon		
Data Storage Capacity	Capacity	at	Sampling Interval
	11 days	at	15 seconds
	22 days	at	30 seconds
	44 days	at	60 seconds
	6 months	at	240 seconds
	1 year	at	480 seconds
	3 years	at	1450 seconds
Example: If logging interval is every 480 seconds (8 min.) = 7.5 datapoints/hour = 180 datapoints/day. Therefore: for 365 days capacity is 65,700 datapoints/year.			
Maximum Input Frequency	500 Hz		
Indicators	Low battery; Power		
Memory Wraparound	Selectable options (Stop or Overwrite) on 512KB Internal Memory		
Clock Accuracy	10 minutes/month (.02%)		
Environmental	NEMA 4X, IP66		

*Specifications subject to change • Please consult our website for current data (www.Seametrics.com).

DIMENSIONS

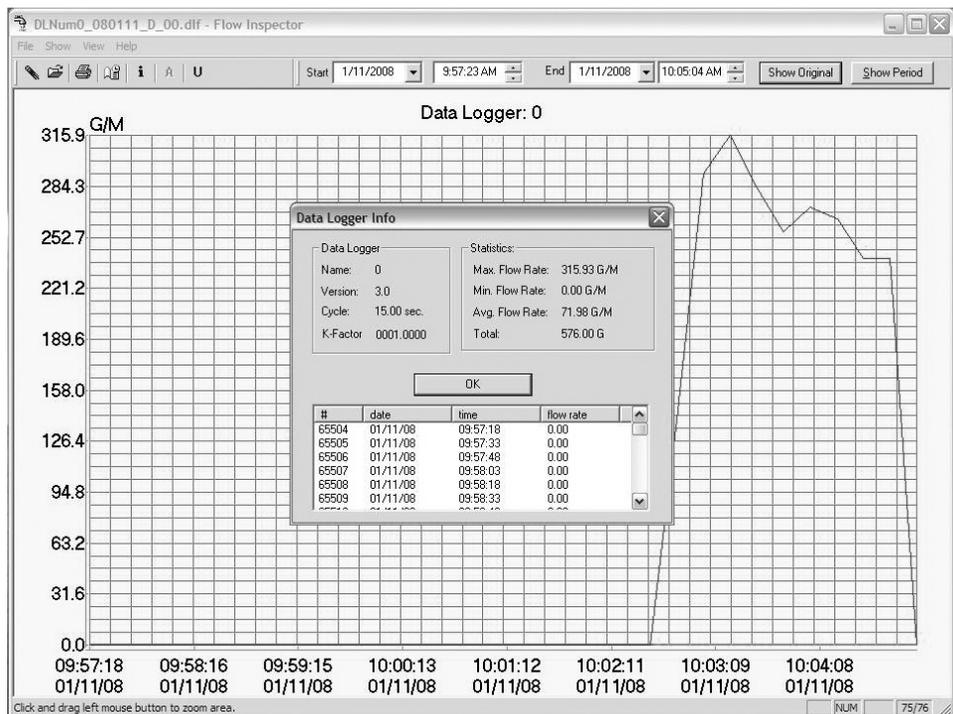


FlowInspector™ SOFTWARE

FlowInspector version 2 software (ordered separately) is required for setup and operation of the DL76, including data retrieval (with a laptop computer), storage, and analysis. (NOTE: Older versions of FlowInspector are not compatible with the DL76.)

FlowInspector Capabilities:

- Manage multiple loggers
- Record up to 3 years of data (depending on sampling interval)
- View current rate and total
- Download files to laptop
- Download files stored on the laptop
- Display flow information as a graph
- Display average and maximum/minimum flow rate for any selected time period
- Zoom in to graph any time period
- Show daily flow totals in table format
- Append multiple files
- Print graphs and tables
- Export data to an Excel spreadsheet (.csv) or simple text (.txt) file



HOW TO ORDER

<p>MODEL</p> <p>Data Logger = DL76</p> <p>DL76</p>	<p>MOUNTING</p> <p>Wall mount = W</p> <p>Meter mount = See appropriate meter specification to order meter mounted units.</p>	<p>SOFTWARE</p> <p>FI-SW Version 2*</p>
<p>*If ordering a wall mounted DL76 with a mechanical meter, select the micropower -04 option.</p>		
<p>ACCESSORIES</p> <p>Data Logger Serial Cable for Laptop = DC3</p> <p>Data Logger USB Cable for Laptop = DC3-USB</p>	<p>NOTE: If the DC3 Serial Cable is used with a laptop configured with a USB port, a serial-to-USB converter cable is required.</p> <p>NOTE: FlowInspector software is provided at no charge but must be ordered as a separate line item.</p>	

*FlowInspector software is also available for download at: www.seametrics.com/downloads

CONTACT YOUR SUPPLIER

Attachment 6: Outreach Quote



ESTIMATE OF WORK TO BE COMPLETED

**Roger Cornwell
General Manager
River Garden Farms
41758 Co Rd 112
Knights Landing, CA 95645**

April 15, 2019

Work to be completed includes design, development and execution of a printable one-sheet to highlight impacts of flow meters on particular landholding as described by client. Additional resources could include incorporation into video projects and communication outreach and strategy.

ESTIMATED EXPENSES **\$ 3,500.00**

**Franklin Pictures
3385 Lanatt Street Suite A
Sacramento, CA 95819**

**Rob McAllister
Vice President – Creative Strategy
rob@franklinpictures.com
916.847.0417**