

BUREAU OF RECLAMATION

WaterSMART

SMALL SCALE WATER EFFICIENCY PROJECT

NOTICE OF FUNDING OPPORTUNITY NO. R24AS00059
JANUARY 2025



AGRICULTURAL WELL METER INSTALLATION PROJECT

Prepared for:

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SECTION 1 - TECHNICAL PROPOSAL AND EVALUATION CRITERIA

1.1 - Executive Summary

Applicant Name: Gravelly Ford Water District

County, State: Madera, CA

Applicant Category: Category A (water district with USBR water contract)

Summary: The Gravelly Ford Water District (GFWD, District) is submitting a proposal for funding from the United States Bureau of Reclamation (USBR, Bureau) for the GFWD Agricultural Well Meter Installation Project. The purpose of this project is to provide guidance and offset costs for the installation of meters on agricultural wells in the District with the purpose of providing the District, farmers, and stakeholders with more precise groundwater extraction data to allow both the District and individual growers to more efficiently manage surface water and groundwater resources in compliance with the requirements of the Sustainable Groundwater Management Act (SGMA).

Surface waters are highly regulated in California, often creating dependence on groundwater for many farmers in the Central Valley. The District currently operates a conjunctive use program, utilizing both surface water and groundwater for irrigation. Regulations on groundwater in California were less effectual until SGMA was passed in 2014. Prior to SGMA groundwater users typically had unrestricted access to groundwater, often pumping in excess of the sustainable yield and causing effects such as subsidence and depletions in groundwater storage. SGMA requires critically overdrafted subbasins in California, such as the Madera Subbasin, to implement projects and management actions that protect groundwater resources by monitoring groundwater extraction, promoting groundwater recharge, and increasing irrigation efficiency.

In 2019 the Board passed Resolution No. 2019-04 which allows them to require all new and existing wells be registered and pumping volumes reported. The Board plans move forward with these requirements and will pass a resolution requiring all agricultural wells be metered, registered, and extraction volumes reported by 2030 in order to be able to fully implement their metering program by the end of the SGMA implementation period (2040). The District is requesting funds to install meters at agricultural wells in the District as a part of a well meter installation rebate program. There are 24 known operational wells in GFWD. The Board has proposed covering up to 50% of meter installation costs for growers in the District. Rebates will be available on a first come first serve basis. This will provide financial incentives to expedite the meter installation process. See Figure 1 for an overview of the District boundary and agricultural well located within.

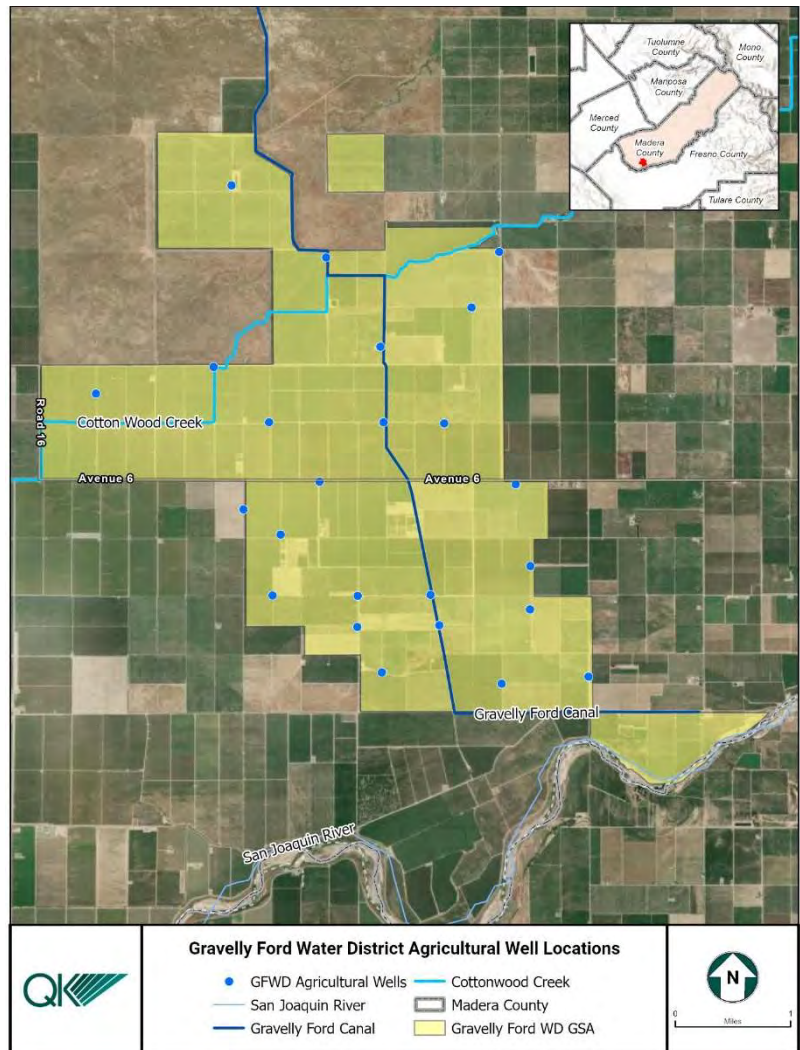
The GFWD Agricultural Well Meter Installation Project is a priority for GFWD. The request for match funds from the District was approved by the Board in hopes of leveraging funding from the USBR WaterSMART Small Scale Water Efficiency Program. GFWD has already met with and gained support from stakeholders, farmers, landowners, residents, and neighboring agencies. Madera agencies and districts are dedicated to working together and preserving one of the region's most precious natural resources. The District plans to finalize requirements for participation prior to the October 2025 award date in order to begin installations as soon as funds are granted, depending on the issuance of a Notice to Proceed.

1.2 - Project Location

The GFWD Agricultural Well Metering Program is a District-wide project. Any landowner in the District may apply for reimbursement of meters installed up to a maximum amount to be determined as part of the program development. The District is currently canvassing for any wells not listed below.

The District agricultural wells are located at the following sites:

Well Number	Latitude	Longitude
201	36.87367	-120.225
202	36.86461	-120.21
203	36.86536	-120.183
204	36.85837	-120.187
205	36.85338	-120.202
206	36.85081	-120.228
207	36.84741	-120.246
208	36.84384	-120.219
209	36.84387	-120.201
210	36.84378	-120.192
211	36.83613	-120.18
212	36.8364	-120.211
213	36.83287	-120.223
214	36.82971	-120.217
215	36.82206	-120.219
216	36.82205	-120.205
217	36.82218	-120.194
218	36.82584	-120.178
219	36.82037	-120.178
220	36.81837	-120.192
221	36.81812	-120.205
222	36.8124	-120.201
223	36.81105	-120.183
224	36.81194	-120.169



**Figure 1-1
Agricultural Well Locations**

1.3 - Technical Project Description

The GFWD will implement an Agricultural Well Meter Installation Project that will provide guidance and offset costs for the installation of meters on wells for agricultural water users. Requirements for groundwater extraction reporting and meter standards will be developed prior to the award for the agricultural well metering rebate program. This project will provide guidance and financial incentives to expedite the meter installation process in compliance with the Sustainable Groundwater Management Act and the Gravelly Ford Water District Groundwater Sustainability Plan (GSP).

The data obtained from the well meters will be used to provide the District and stakeholders with groundwater extraction data to more efficiently manage both surface water and groundwater resources. This project meets two of the District goals identified in the GSP: closing data gaps in the Madera Subbasin Groundwater Model by monitoring groundwater extraction and increasing irrigation efficiency. The District will use the data to analyze groundwater extraction volumes per acre for each landowner and compare that data to the sustainable yield of the aquifer to determine if irrigation efficiency measures need to be taken to achieve on farm sustainability.

The District is currently working with neighboring agencies and districts to protect groundwater in accordance with the requirements outlined in SGMA. The purpose of this project is to protect the natural environment while also protecting the District's economy and private property. This project will help to preserve agriculture in the District and protect localized groundwater resources for future use. These goals will be achieved with the assistance of the WaterSMART Program grant. Many farmers and Board members have expressed interest in participating in a meter installation rebate program. See Appendix A for letters of support for this project.

District Background

The Gravelly Ford Water District serves approximately 8,300 acres of land that is primarily used for agriculture with most crops being nut trees and vineyards. The District was formed in 1962 and is entirely within, the Madera Groundwater Subbasin in Madera County. The District was formed to be eligible to receive federal water from the San Joaquin River as a part of the USBR's Central Valley Project.

The District operates a conjunctive use irrigation program which consists of privately owned agricultural wells along with surface water from the nearby San Joaquin River and Cottonwood Creek. Surface water delivered within the District comes from two sources. The District has surface water rights on both the Cottonwood Creek (5,000 af/y) and the San Joaquin River (14,000 af/y). The District also diverts flood flows from both the San Joaquin River and Cottonwood Creek during wet years. Currently, groundwater extraction reporting is voluntary, and the District is unsure which wells already have meters or if they meet District standards.

Project Purpose and Need

Because of the effects of climate change and other environmental factors, surface water allocations are unpredictable, causing District farmers to become more reliant on groundwater. Historically, reductions in surface water allocations had a minimal effect on

farmers in the District due to the conjunctive nature of GFWD. However, due to the passing of SGMA in 2014, the State of California is requiring all critically overdrafted groundwater subbasins, such as the Madera Subbasin, to draft and implement Groundwater Sustainability Plans (GSP) that will monitor groundwater conditions and prevent negative impacts.

The District has drafted the Gravelly Ford Water District Groundwater Sustainability Plan. This GSP outlines local groundwater conditions, including groundwater levels, groundwater quality, land subsidence, etc. and proposed projects to improve and maintain sustainable groundwater conditions. The GFWD GSP lists the Agricultural Well Metering Program as a high priority project. The District plans to require all wells to have meters and report agricultural groundwater pumping by 2030. This will allow the District to use adaptive management practices to ensure sustainability by the end of the GSP implementation period in 2040.

The data obtained from the meters will be used to inform the Madera Subbasin Groundwater Model as a part of the Madera Groundwater Subbasin Joint GSP effort. The Madera Subbasin Groundwater model is used to track current and project future groundwater conditions. The District also tracks groundwater conditions and utilizes the GFWD groundwater analysis tools to determine groundwater net inflow and outflow, changes in groundwater storage, and the effects of pumping on these groundwater characteristics. This pumping data will help to close data gaps in the modeling for both the District and the Madera Subbasin as a whole.

In addition to closing data gaps in the groundwater models, this project will allow the District to make management and operational decisions regarding use of groundwater in the District. Groundwater pumping data will help the District identify growers that are not operating within the sustainable yield of the Subbasin. This will assist the District in determining appropriate operational and management decisions to reach and maintain sustainability such as providing education and opportunities for growers to increase irrigation efficiency, imposing fees for pumping groundwater in excess of the sustainable yield, or restricting groundwater pumping if necessary.

Because GFWD has a conjunctive use program it is imperative that the District monitor both surface water deliveries and groundwater pumping to determine the most efficient use of both. The District already has an extensive monitoring network that measures groundwater levels and ground surface elevations at all agricultural wells. Combining this data with groundwater pumping would allow the District to better estimate of groundwater inflow and outflow, the potential effects of groundwater pumping on subsidence and groundwater levels, and any potential effects of groundwater pumping on the San Joaquin River. The District also tracks monthly surface water deliveries and precipitation to get a wholistic picture of the monthly water balance.

The proposed program will be modeled after similar WaterSMART rebate programs that focus on turf replacement or energy-efficient appliance replacement. Because agricultural water use is such a large contributor to overall water use it is imperative that landowners be incentivized to meter groundwater production.

Project Scope

The project will include the following components:

Program Management – GFWD will work with the District Engineer to develop standards that will outline requirements for participation, eligible meter types and costs, contractor qualifications, maximum rebates, and reporting requirements. This work is planned for completion before grants are awarded. Funding for this phase will be limited to administration of the project.

Public Outreach – GFWD will work with the District Engineer to develop public outreach documents for mailers, online resources, and public informational meetings to encourage interest in the program.

Environmental/Compliance Documentation – Based on the determination by USBR, GFWD will coordinate the preparation of environmental documents, cultural/historical consultations, and a Biological Assessment. It is anticipated that this project will receive a Categorical Exclusion (CE).

Program Implementation – GFWD will accept and process applications for agricultural well installation and rebate. The process will include landowner application submittal, site visit by District representative, determination of eligibility, meter installation (by others), final inspection, submission of final documents to the District, and rebate/refund to the landowner.

Completed Work to Date

The District Board has been working toward developing a groundwater metering program since its initial grant application submittal in July 2024. Current work completed or underway includes inventorying all wells, both agricultural and domestic, in the District. The database of wells will include a unique well ID, construction information, surveyed location, pump size, served acreage, and property owner information. The District is also compiling a list of approved meters and local contractors to expedite the installation process. Additional work that needs to be completed includes outlining application procedures and requirements, legal requirements for obtaining access to meters and pumping data, and reimbursement procedures. The District will continue to move forward with the development of the requirements and standard for participation in the Agricultural Well Meter Installation Project. Standards for the project will be fully drafted and ready for implementation prior to the grant award date.

1.4 - Evaluation Criteria

1.4.1 - PROJECT BENEFITS CRITERIA A

Clearly anticipated water management benefits for water supply delivery system and water customers.

The meters will be a resource management tool, not only benefiting the Madera Subbasin, but also the local groundwater users in GFWD. This localized monitoring data will be used to develop the management criteria for the varying water year types to ensure long-term availability of groundwater resources.

Water management benefits will include the ability for the District Manager to determine if GFWD is operating within the sustainable groundwater yield. The District Manager will also be able to determine which areas are not operating within the sustainable yield and assist growers by providing resources to improve irrigation efficiency. Groundwater pumping data

will also be used to make management decisions which may include levying charges on agricultural users pumping in excess of the sustainable yield or pumping restrictions during extreme drought conditions.

Additionally, it will allow the District to better estimate the amount of surface water seepage (recharge) in wet years when groundwater pumping is reduced, and surface water is diverted for both irrigation and groundwater recharge. The District will use pumping data to determine the volume of surface water needed for recharge over an average 5-year period to offset groundwater pumping, when available.

The meters will also benefit farmers allowing them to determine on-farm irrigation efficiency of pumps which, when irrigation efficiency is optimized, will result in lower energy costs, fewer carbon emissions, improved air quality, reduced pump maintenance.

Data from the well meters will also be shared with the Madera Subbasin to improve the Madera Subbasin Groundwater Model. This will allow the Subbasin to provide more accurate projections of future groundwater conditions for the Subbasin as a whole and to evaluate overall Madera Subbasin groundwater sustainability. This will also allow the Madera Subbasin to make management decisions which will ensure sustainability by 2040.

In summary, the data from the well meters will be used to improve the Madera Subbasin Groundwater Model and the GFWD groundwater analysis tools, determine if growers are pumping within their sustainable yield, and allow the District and the Subbasin to set operational and management criteria for future groundwater pumping. It will also provide information to growers so they can implement efficiency measures to reduce pumping. This will be especially important during extreme drought years when surface water is unavailable, and farmers rely solely on groundwater for irrigation.

Significance of the anticipated water management benefits?

The data from the Agricultural Well Meter Installation Program will benefit District customers in multiple ways. First it will allow customers to track groundwater pumping data and quantify annual acre feet per acre of applied groundwater and compare that value to the sustainable yield for the District. The customers can then apply for additional assistance to improve irrigation efficiency.

The water delivery system will benefit as well. The system of canals acts as a recharge basin during wet years when surface water is available. The District will be able to quantify the amount of surface water recharged to the groundwater system. This will assist water managers in estimating recharge capacity of the system, groundwater inflows and outflows, and project the amount of surface water needed to achieve long term groundwater sustainability. It is estimated that the District may have the capacity to recharge an additional 20,000 acre feet of water per year during wet years. This data will help to confirm that estimate.

It is estimated that this project will conserve 1,000 af/year on average. Water conserved as a result of this project will remain within the Madera Subbasin. However, it is likely that unused groundwater will flow to the northwest out of the District and to neighboring groundwater users. Unused agricultural water is also available for use by domestic users in the District, whose wells are much shallower and more easily affected by drought.

Other miscellaneous benefits may include reductions in production costs and maintaining groundwater quality. There are also potential benefits for environmental and ecological users. Improved water management may also add benefit by protecting groundwater-dependent ecosystems and promoting natural flow between surface water and groundwater.

Are customers not currently getting their full water right at certain times of year?

No, customers are not getting full benefits from the Class II contract. In 1981, a Class II water contract was executed with the United States Bureau of Reclamation. This contract provides the District with an allotment of 14,000 acre-feet per year (af/yr) from the Central Valley Project (CVP) out of Millerton Lake. As of 2015, on average, the District has only received 6,361 af. of this allotment. In 1996, the District received their largest allocation of water from their USBR contract during irrigation season totaling 12,569 af. Conversely, there have been several years in which the District received none of their USBR contract water, most notably during the drought between 2013–2015 and more recently 2020–2022. This has caused increased reliance on groundwater and the need to monitor its use.

Does this project have the potential to prevent lawsuits or water calls?

The Madera Groundwater Subbasin has been designated a critically overdrafted subbasin. If the Subbasin fails to become sustainable by 2040, the potential for adjudication of the groundwater is possible. The alternative to adjudication of groundwater is the State taking control of the Madera Subbasin and imposing regulations on District beneficial users. This could lead to future litigation.

There are no specific mechanisms that would trigger a “water call” within the District. However, as stated above, the District plans to use the data from well meters to determine if pumping is occurring in excess of the sustainable yield. While not the Districts preferred course of action, this data would assist the Board in determining if pumping restrictions are warranted.

What are the consequences of not making the improvement?

As stated above, the consequences to not making improvements could result in the State taking control of the Subbasin and regulating groundwater use. There have been several recorded incidents of domestic wells going dry in Madera County. In neighboring districts private domestic wells and small community water systems have had issues with water production. Especially in the eastern portion of the Subbasin. It is not uncommon for farmers in the District to need to lower pump elevations or deepen wells to maintain access to water. This was well documented in 2021 and even garnered notice by the Fresno Bee.

Are customer water restrictions currently required?

There are currently no water restrictions with regard to groundwater. However, there are often restrictions on surface water which leads to greater dependence on groundwater. Should the State need to take control of the Subbasin, this would likely result in blanketed restrictions on groundwater production or requirements to alter land uses from their current agricultural uses which will impact the District economy.

Other significant concerns that support the need for the project

Groundwater Sustainability is the most pressing issue affecting the need for this project. As mentioned, this data is necessary to improve the management of groundwater and surface

water in the District. SGMA lists several other sustainability indicators that are impacted by unregulated groundwater pumping. These include:

1. Land subsidence, which is caused by the compaction of soil strata due to dewatering of the lower aquifer and can potentially cause damage to critical surface water delivery infrastructure such as the Chowchilla Bypass and Sack Dam;
2. Interconnected surface water, which is surface water that is hydrologically connected to groundwater. Interconnected surface water groundwater systems may support groundwater dependent ecosystems can also be affected by unregulated groundwater pumping.
3. While water quality is a more localized issue, it is still a requirement that the District address groundwater quality as it relates to groundwater use.

Broader project benefits, will the project improve broader water supply reliability at sub-basin or basin scale?

While this program will focus on the localized sustainability of Gravelly Ford Water District, it will be to the benefit of the greater Madera Subbasin and adjacent beneficial users. It is estimated increases in irrigation efficiency will result in conservation of 1,000 af/year to the benefit of the entire District.

Will the proposed project increase collaboration and information sharing among water managers in the region?

Yes, this project is intended to provide information for both the Gravelly Ford Water District and the Madera Groundwater Subbasin Technical Committee. This information will also be included in annual reports that are submitted to the State for SGMA, which is uploaded to the DWR SGMA Portal and available for public review. The District collaborates with all Madera Groundwater Subbasin partners and interested parties. Additional collaboration is anticipated between the Madera and Kings Groundwater Subbasins.

Project effect on drought conditions at the sub-basin or basin scale

Yes, Madera Groundwater Subbasin has been designated as critically overdrafted. All beneficial users in the Subbasin have been impacted significantly by drought and water scarcity with the most extreme effects being inability to access water. The goal of this project is to address groundwater overdraft locally and increase groundwater recharge to the benefit of the entire subbasin. By stabilizing groundwater in the District the Subbasin will be able to focus on the needs of other water users.

Project benefits to federally threatened or endangered species

Drought and significant lowering of groundwater levels can foster conditions that support invasive species and can lead to unnatural groundwater flow, both of which can affect the aquatic ecology and threaten fish species, including introduced Chinook Salmon that are native to the San Joaquin and are part of the San Joaquin River Restoration Project adjacent to the District.

Project impacts/benefit to various sectors and economies within the applicable geographic area

The Sustainable Groundwater Management Act has the potential to affect agriculture in a negative way if the District is unable to reach groundwater sustainability by 2040. If the District is deemed unsustainable the State may require that groundwater pumping be reduced, which would be prohibitive to the existing agricultural operations already in place. In short the implementation of the GFWD Agricultural Well Meter Installation Program will

allow the District to continue to manage both surface water and groundwater as a conjunctive use system while protecting both resources.

Will the project complement work being done in coordination with NRCS in the area?

Yes, the District encourages growers and landowners to work with NRCS to perform farm assessments and upgrade to increase water efficiency. Currently, the Chowchilla/Madera NRCS is offering free pollinator programs and irrigation evaluations. This Agricultural Well Meter Installation Project will provide additional opportunities to promote NRCS programs as part of the outreach process.

1.4.2 - PLANNING EFFORTS SUPPORTING THE PROJECT – CRITERIA B

Specific planning document or effort supporting project

The GFWD GSP and the larger Madera Subbasin GSP, which compliments the GFWD GSP and acts as a basin-wide document, were submitted to DWR in January 2020. The proposed Agricultural Well Metering Program is the second project listed in the Projects and Management Actions section of the GFWD Groundwater Sustainability Plan, This project is the first step in integrating metered well data into the existing monitoring network. This project complies with the requirements of SGMA. More information on SGMA in general can be found on DWR's website¹.

GFWD plays an active role in the ongoing technical development and implementation of both GSPs. Both GSPs identify closing data gaps in the Subbasin and providing pumping data to the Madera Subbasin Groundwater Model as an essential part of sustainable groundwater management. This project will satisfy the requirements for filling these data gaps and improve the Groundwater Model.

Plan Development

Who developed the planning effort? What is the geographic scope of the plan?

The District is a category A applicant, and also the agency that developed and drafted the GFWD GSP and sat as a consultant on the technical committee for the Madera Subbasin GSP. Both plans were developed by or consulted on GSP development.

The area of scope of the GFWD GSP is the Gravelly Ford Water District boundary, and the Madera Subbasin GSP covers the entire Madera Subbasin from the ground surface to the base of fresh water.

Support for the Project

GFWD and Madera Subbasin GSPs were developed through extensive outreach and engagement with local agencies, agricultural water users, municipal water users, Disadvantaged Community (DAC) members, and other stakeholders in the Subbasin. The planning group considered all feedback and comments from the outreach events to finalize the GSPs. The District will continue working with the land owners, agencies, and interested parties. District members have shown a sincere interest in implementing a well meter rebate program. See Appendix A for letters of support.

Is the project identified specifically by name and location in the planning effort?

¹ <http://www.water.ca.gov/groundwater/sgm/>

Yes, the proposed Agricultural Well Metering Program is listed as a water management action in the Projects and Management Actions section of the GWFD GSP.

Is this type of project identified in the planning effort? Will it implement a goal, objective, or address a need or problem identified in the existing planning effort?

Yes, this project will work to close data gaps and allow the District to more effectively manage water resources, assist in increasing irrigation efficiency, and potentially implement fees or restrictions if necessary.

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

The District Engineer has worked with the District and stakeholders to prioritize projects based on direct benefit, cost, and feasibility. This project was selected for funding as it was determined to be the most feasible project that provided the largest benefit to all water users while simultaneously helping to close data gaps.

1.4.3 - IMPLEMENTATION AND RESULTS – CRITERIA C

Scope and Schedule

Project Schedule & Milestones

Depending on the USBR Notice of Award and Notice to Proceed, the following schedule is an estimated timeline for planning and implementation of the proposed GFWD Agricultural Well Metering Program

Table 1-1: Tentative Milestone/Task Schedule

<i>Tasks/ Milestones</i>	<i>Subtasks</i>	<i>Milestone/Deliverable</i>	<i>Responsible Party</i>	<i>Planned Start and Completion Dates</i>
USBR Notice of Award	-	USBR Notice of Award	USBR	10/1/2025
USBR Notice to Proceed	-	USBR Notice to Proceed	USBR	10/1/2025-11/1/2025
Task 1	-	Project/Grant Management	QK Inc/GFWD	11/1/2025-10/1/2027
Task 2	Task 2.1	Public Outreach Documents	QK Inc/GFWD	11/1/2025-2/1/2026
	Task 2.2	Public Workshop	QK Inc/GFWD	2/16/2026
Task 3	-	NEPA Consulting and Documentation with USBR	USBR/QK Inc	10/1/2025-10/1/2026
Task 4	Task 4.1	Application Processing	QK Inc/GFWD	12/1/2025-8/1/2027
	Task 4.2	Meter Installation	Contractor	2/16/2026-10/1/2027

Detailed Scope & Description of Tasks

The proposed project consists of the following tasks:

Task 1 - Project Management

This task includes the ongoing grant and project management of the Agricultural Well Meter Installation Project. This task will also include kick off meetings and any progress meetings and reports.

Deliverables:

- Progress reports

- Kick-off Meeting

Task 2 - Public Outreach

GFWD will make available the Agricultural Well Meter Installation Project requirements on the Gravelly Ford Water District website. The District will hold a public workshop to address any comments or questions about the project, how to apply, qualifications, and other necessary information. GFWD will work with the District Engineer to develop public outreach documents, such as mailers and online resources for public informational meetings and program implementation.

- **Task 2.1 – Development of Public Outreach Documents.** This task will consist of developing informational mailers and online resources regarding the meter installation project. This information will consist of information regarding how to apply and participate in the program.
- **Task 2.2 – Public Workshop.** This task will consist of a meeting open to the public that will discuss the project, answer questions, and assist District members in applying.

Deliverables:

- Outreach Documents
- Public Workshop

Task 3 - Environmental/Compliance Documentation

Based on the determination by USBR, GFWD will coordinate the preparation of environmental documents, cultural/historical consultations, and a Biological Assessment. It is anticipated that this project will receive a Categorical Exclusion (CE), and these documents may not be required; however, a budget has been added to hire a subconsultant to produce these documents if needed. The District will work closely with USBR and other State and local agencies to determine environmental compliance and permitting needs if required.

Deliverables:

- NEPA Decision Documentation
- Any Related Studies/Surveys if Required

Task 4 - Program Implementation – GFWD will accept and process applications for agricultural well installation and rebate. The process will include landowner application submittal, a site visit by a District representative, determination of eligibility, meter installation (by others), final inspection, and rebate/refund to the landowner. It will also consist of ongoing outreach and data collection.

- **Task 4.1 – Application Processing.** This task will include the review and processing of applications, site visits, and final inspections.
- **Task 4.2 – Meter Installation.** This task will include the installation of the meter, which can consist of reconfiguration of the discharge pipe, installation of the meter, and materials.

Deliverables:

- Copies of Applications and Associated Documentation
- Meter Installation
- Annual Groundwater Production Reports

Budget

See Section 2 for a detailed budget narrative.

Permits & Approvals

No permits are anticipated as a part of this project. This project only consists of retrofitting existing irrigation piping. No potable water sources will be modified as a part of this project.

Engineering & Design

The District will provide specifications on pre-approved meters, installation requirements, and a list of local contractors. Applicants can choose other meters or contractors than those listed, but they will be subject to District approval. The District will also determine the maximum reimbursement amount per meter and reporting requirements. This work is now in process and will be completed by the projected award date.

The well contractor will conduct their site visits and produce a set of construction documents for the meter installation that will be submitted to the District as part of the application process. The typical turnaround for these construction documents and submittal to the District is 30 days from the day of the site visit. It is estimated that the District will need an additional 30 days to process the application consisting of engineered drawings.

Access & Easements

As part of the approval process, the applicant will be required to agree to submit groundwater production reports annually. The applicant will also be required to provide access to meters for the District in the event that the meter readings are erratic or not within standard parameters. The District legal council will draft a Standard Access Agreement that will allow the District access to read meters and assess the conditions of the meters for the lifetime of the project, which will be included in and required as part of the application.

Consultation with Reclamation

The District has consulted with the local USBR office in Sacramento, CA. They have maintained contact with Anna Sutton, who is a Water Conservation Specialist. Currently, it is anticipated that this project will be covered with a Categorical Exclusion as this project aims to fit existing wells with meters and no ground disturbance is anticipated. However, there is a line item in the budget for a subconsultant to develop NEPA documents and additional consultation with the local reclamation office if needed in the future.

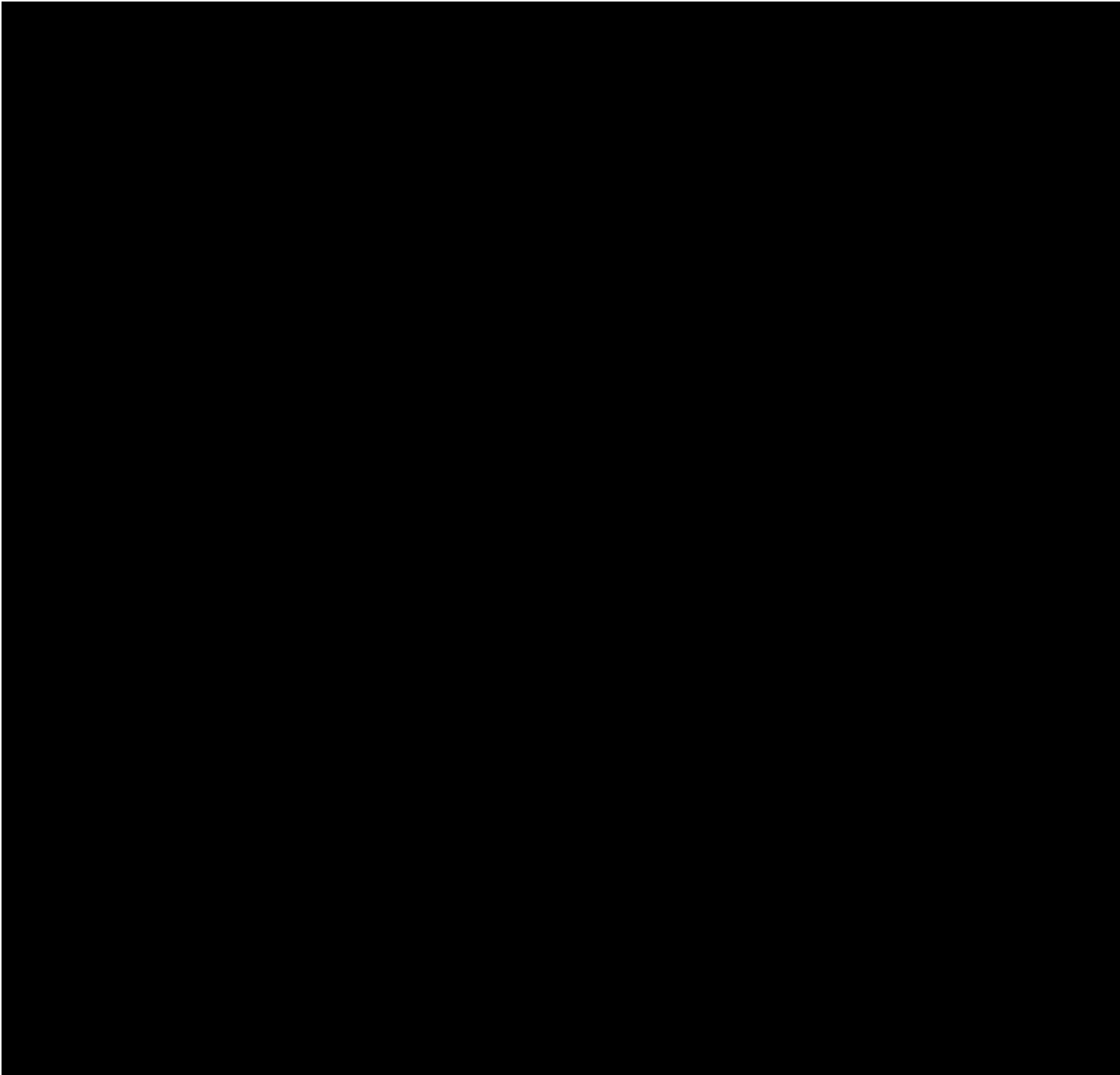
1.4.4 - NEXUS TO RECLAMATION – CRITERIA D

Describe the nexus between the proposed project and a Reclamation project or activity, including: Does the applicant have a water service, repayment, or O&M contract with Reclamation?

Yes, the District has a Central Valley Project (CVP), Class II water contract with the Bureau of Reclamation for water from the San Joaquin River. They also have the ability to purchase flood water from the Bureau. The District diverts Reclamation water from the San Joaquin River. Reclamation water used for both groundwater recharge and irrigation is released from the Friant Dam, which is USBR infrastructure and part of the CVP.

Will the proposed work benefit a Reclamation Project area or activity?

Yes, there are many activities and facilities in the vicinity. For example, the Bifurcation, where flood waters are diverted into the Chowchilla Bypass, is in the neighboring district, but localized groundwater activities can benefit nearby projects. The District is also adjacent to the San Joaquin River Restoration Project. This project will protect Reclamation facilities by diverting flood flows during wet years, and it will increase water reliability during times of drought, allowing the District to recharge excess surface water for later use. It will also help regulate interconnected surface waters that affect the San Joaquin River Restoration Project and will assist in preventing subsidence that threatens Reclamation facilities.



SECTION 2 - BUDGET

2.1 - Funding Plan/Letters of Commitment

The members of the District approved a per acre tax through the Proposition 218 election process in 2018. This has established a source of revenue for the implementation of the Groundwater Sustainability Plan and other capital projects. These funds will be used to finance the District's portion of the Agricultural Well Metering Program. The District is requesting a 50% cost share with the United States Bureau of Reclamation, with the Bureau covering \$125,000 of the cost and the District covering \$126,340 of the total cost. See the Budget Proposal and Budget Narrative below for additional details on costs.

2.2 - Budget Proposal

Table 2-1: Budget Proposal

Summary			
Budget Object Category	Total Cost	Federal Estimated Amount	Non-Federal Estimated Amount
a. Personnel	\$0		
b. Fringe Benefits	\$0		
c. Travel	\$0		
d. Equipment	\$0		
e. Supplies	\$0		
f. Contractual	\$49,340		
g. Construction	\$202,000		
h. Other Direct Costs	\$0		
i. Total Direct Costs	\$251,340		
i. Indirect Charges	\$0		
Total Costs	\$251,340	\$125,000	\$126,340
Cost Share Percentage		50%	50%

**Table 2-2
Project Cost Estimate**

Task Description	District Engineer	District Manger Cost	USBR Cost	Sub Consultant / Contractor Cost	TOTALS
Task 1 Program Development & Management					
1.2 - Ongoing Project/Grant Management (24 months)	\$14,930	\$4,200	\$0	\$0	\$19,130
Subtotals	\$14,930	\$4,200	\$0	\$0	\$19,130
Task 2 Public Outreach					
2.1 - Public Outreach Docs	\$6,770	\$1,200	\$0	\$0	\$7,970
2.2 - Public Workshop	\$1,090	\$600	\$0	\$0	\$1,690
Subtotals	\$7,860	\$1,800	\$0	\$0	\$9,660
Task 3.0 Environmental Documentation					
3.1 - NEPA Documents and Consultation with Agency	\$4,830	\$0	\$12,000	\$30,000	\$46,830
Subtotals	\$4,830	\$0	\$12,000	\$30,000	\$46,830
Task 4 Program Implementation (15 sites)					
4.1 - Application Processing	\$11,220	\$4,500	\$0	\$0	\$15,720
4.2 - Meter Installation	\$0	\$0	\$0	\$160,000	\$160,000
Subtotals	\$11,220	\$4,500	\$0	\$160,000	\$175,720
TOTALS	\$38,840	\$10,500	\$12,000	\$190,000	\$251,340

2.3 - Budget Narrative

2.3.1 - PERSONNEL

The District does not have any employees. Operations and maintenance are performed by contract.

2.3.2 - FRINGE BENEFITS

Because there are no employees in the District, there are also no fringe benefits being paid.

2.3.3 - TRAVEL

There is no travel listed in the budget. All work will be performed by contract, and travel will be factored into the proposal costs submitted by consultants/contractors.

2.3.4 - EQUIPMENT

This project is for design only. There will be no equipment purchased or rented as a result of this project. Any equipment used (surveying or engineering equipment) will be provided by the consultant and is included in the proposed costs for the work.

2.3.5 - SUPPLIES

Because the District hires consultants for all operations and maintenance, the District does not directly purchase any supplies. All supplies for administration, design, planning, or construction are included in contractor cost estimates.

2.3.6 - CONTRACTUAL

All services are contracted by the District using approved procurement policies that require bid submittals for service. The District has a current contract with Don Roberts Civil Engineering as the District Manager. Don Roberts Civil Engineering is responsible for stakeholder outreach and management of the District, including contracts with other consultants, and management of District data collection for irrigation, water use, and groundwater conditions, and other administrative duties. These costs have been included in the overall QK cost estimate (shown in Table 2-2) as District Manager costs. The District Engineer estimated that Don Roberts will work approximately 14 hours on Phase 1 for ongoing project management, 6 hours for public outreach, and 15 hours for application processing at \$300/hour for a total of \$10,500 over the duration of the project.

QK Inc. has the current contract as the District Engineer and will be developing the Agricultural Well Metering Program under the direction of the District Manager and stakeholders. QK Inc. works closely with the District and stakeholders and is intimately familiar with the District's needs and limitations. Based on similar projects performed by QK Inc. for other clients, consultation with USBR, and general estimates from contractors, the District Engineer estimates that the program development will take approximately 90 hours for ongoing grant/program management for 24 months, 48 hours for public outreach, 30 hours for consultation with USBR and facilitation of NEPA documents production, and 60 hours of program implementation for review of applications. The total estimated cost for the District Engineer is approximately \$39,000. The total project cost is shown in Table 2-2.

GFWD understands that all contracts to be used under this grant will be subject to review and will meet the general procurement standards required.

2.3.7 - CONSTRUCTION

Construction consists of the drafting of the meter design, submission of the design and applicable documentation to the County of Madera, and installation of the meter and any appurtenant equipment. It is approximated that the District can install 15 meters on wells in the District as a part of this funding opportunity, with the cost share being split between the District and USBR. It is estimated that the meter installation will cost a little more than \$10,000 for each meter.

The program will be designed to allow the landowner to select the contractor and meter based on the specific needs of the well or crop and the parameters set by the Agricultural Well Meter Installation Project requirements. The District will assist in providing a contractor and meter list, however; the landowner can select contractors and meters not listed if they fit the parameters of the program. The landowners will be required to pay the contractor for the installation. They will then be required to submit the invoice for work. The District will review the invoice and reimburse the landowner for approximately half of the cost, up to a maximum amount. At that time, the landowner will be required to begin recording and submitting groundwater production quantities to the District. It should be noted that the landowner's share of costs is intended to satisfy the District's cost share, and the reimbursement will be provided from the funds granted by USBR.

Below is an example of estimated costs for the installation of a water meter:

Water Meter & Piping	\$2,500
Equipment	\$4,000
Labor	\$3,500
Misc. costs	\$1,000

Construction cost totals also include the production of NEPA documentation by others and USBR costs for consulting on NEPA document development. The project is assumed to be covered by a Categorical Exclusion; however, additional monies are included if surveys or document development is required.

2.3.8 - OTHER DIRECT COSTS

There are no other direct costs associated with this project. All project management, technical consultation, survey, and design activities are reflected in the contractual and construction budget line items above. Land use agreements will be signed as a part of the application process and held for the lifetime of the project, approximately 30 years.

2.3.9 - INDIRECT COSTS

There are no indirect costs associated with this project.

SECTION 3 - ENVIRONMENTAL AND CULTURAL COMPLIANCE

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.

There is no ground disturbance anticipated as part of this project. This project will only install meters on existing wells and construct upgrades to discharge pipes.

Are there any Federal threatened or endangered species, or designated critical habitat?

It is unknown if there are any threatened/critical species or critical habitat; however, there is no anticipated ground disturbance and therefore no anticipated effect to any listed species.

Are there wetlands or other surface waters inside the project boundaries?

If there are wetlands or surface waters that fall under Waters of the United States, they will not be affected by this project as there is no ground disturbance.

When was the water delivery system constructed?

The water delivery system was constructed by Miller and Lux in approximately 1930. It was existing and owned by the Bureau of Reclamation prior to the executed Class II water contract. The Bureau agreed to deed the water delivery system to the District upon finalization of the agreement. It is unknown by the District when the canals were constructed; however, they existed prior to the 1961 District formation and have been expanded and maintained by GFWD since that time.

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

This project will not affect surface water irrigation systems, but it will add meters to existing agricultural wells that are used to subsidize reductions in surface water allocations.

Are any buildings, structures, or features 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 disproportionate effect on low-income or minority populations?

No, if there is any effect from the construction it will benefit low-income/minority populations in the area by increasing domestic well reliability. The project is anticipated to have a positive benefit to the Disadvantaged Community this project resides in.

Will the proposed project limit access to or 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

APPENDIX A
LETTERS OF SUPPORT

ALKALI HOLLOW FARMS, INC

Janice Lowder
Alkali Hollow Farms, INC
President
1625 Howard Road #255
Madera, CA 93637

June 28, 2024

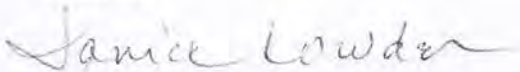
RE: USBR Funding No. R24AS00059 and WaterSMART Small Scale Water Efficiency Project – Agricultural Well Metering Program

To Whom It May Concern,

This letter is provided to strongly endorse and provide support for the Gravelly Ford Water District (GFWD) Agricultural Well Metering Program to the USBR for the Funding Opportunity No R24AS00059 WaterSMART Small-Scale Water Efficiency Projects. As a farmer and resident in the District, I support the District's application for this grant to obtain funding to develop and implement an agricultural well metering program to increase water use efficiency. This is a great step toward the District's water conservation goals to increased access to groundwater, lower pumping costs, and help prevent groundwater overdraft. As the District is able to optimize and modernize their monitoring system, they will be able to provide more reliable water supplies while protecting natural resources.

Thank you for accepting this letter of support for the grant consideration.

Sincerely,

A handwritten signature in cursive script that reads "Janice Lowder".

Janice Lowder
President

Davis Ag Prop LP

David L. Davis, Pres.
26704 Avenue 8
Madera, CA 93637

Office: (559) 674-9439
Fax: (559) 661-1421

June 17, 2024

RE: USBR Funding No. R24AS00059 and WaterSMART Small Scale Water Efficiency Project – Agricultural Well Metering Program

To Whom It May Concern,

This letter is provided to strongly endorse and provide support for the Gravelly Ford Water District (GFWD) Agricultural Well Metering Program to the USBR for the Funding Opportunity No R24AS00059 WaterSMART Small-Scale Water Efficiency Projects As a farmer in the District, I support the District #39's application for this grant to obtain funding to develop and implement an agricultural well metering program to increase water use efficiency. This is a great step toward the District #39's water conservation goals to increased access to groundwater, lower pumping costs, and help prevent groundwater overdraft. As the District is able to optimize and modernize their monitoring system, they will be able to provide more reliable water supplies while protecting natural resources.

Thank you for accepting this letter of support for the grant consideration.

Sincerely,

David Davis





TSB AG INC
PO Box 58
Madera, Ca 93639

June 11, 2024

RE: USBR Funding No.
R24AS00059 and WaterSmart
Small Scale Water Efficiency
Project-Agricultural Well Metering Program

To Whom It May Concern,

This letter is provided to strongly endorse and support the Gravelly Ford Water District (GFWD) Agricultural Well Metering Program to the USBR for the Funding Opportunity No. R24AS00059 WaterSMART Small-Scale Water Efficiency Projects. As A farmer/resident in the District, I support the district's application for this grant to obtain funding to develop and implement an agricultural well metering program to increase water use efficiency. This is a great step toward the district's water conservation goals to increase access to groundwater, lower pumping costs, and help prevent groundwater overdraft. As the District optimizes and modernizes their monitoring system, they will be able to provide more reliable water supplies while protection natural resources.

Thank you for accepting this letter of support for the grant consideration.

Sincerely,

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

Lak Brar, President
Lak@tsbaginc.com

Seth kirk
Seth Kirk Farms
Owner
4844 Road 19
Madera Ca 93637

June 17, 2024

RE: USBR Funding No. R24AS00059 and WaterSMART Small Scale Water Efficiency Project - Agricultural Well Metering Program

To Whom It May Concern,

This letter is provided to strongly endorse and provide support for the Gravelly Ford Water District (GFWD) Agricultural Well Metering Program to the USBR for the Funding Opportunity No R24AS00059 WaterSMART Small-Scale Water Efficiency Projects As a farmer/resident in the District, I support the District's application for this grant to obtain funding to develop and implement an agricultural well metering program to increase water use efficiency. This is a great step toward the District's water conservation goals to increased access to groundwater, lower pumping costs, and help prevent groundwater overdraft. As the District is able to optimize and modernize their monitoring system, they will be able to provide more reliable water supplies while protecting natural resources.

Thank you for accepting this letter of support for the grant consideration.

Sincerely,

Seth kirk, Owner





June 20, 2024

To Whom It May Concern:

G3 Enterprises, Inc., owns farmland in the Gravelly Ford Water District (“GFWD”) and strongly supports the GFWD’s Agricultural Well Metering Program and the application to USBR for the Funding Opportunity No R24AS00059 WaterSMART Small-Scale Water Efficiency Projects. The funding would allow GFWD to develop and implement an agricultural well metering program to increase water use efficiency. This is a great step toward the District's water conservation goals to increase access to groundwater, lower pumping costs, and help prevent groundwater overdraft. As the GFWD optimizes and modernizes its monitoring system, the GFWD will be able to provide more reliable water supplies while protecting natural resources.

Thank you for accepting this letter of support for the grant consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tim Byrd', written over a horizontal line.

Timothy A. Byrd
Vice President and General Counsel
502 E. Whitmore Ave, Modesto, CA 95358
Tel: 209-602-0571
Email: Tim.Byrd@G3Enterprises.com

WE EXIST FOR YOU TO SUCCEED.

APPENDIX B
GFWD RESOLUTION

**GRAVELLY FORD WATER DISTRICT
RESOLUTION NO. 2024-05**

**RESOLUTION OF THE BOARD OF DIRECTORS OF GRAVELLY FORD
WATER DISTRICT APPROVING THE WATERSMART SMALL SCALE WATER
EFFICIENCY PROJECT GRANT APPLICATION AND FINANCIAL SUPPORT
FOR THE GFWD AGRICULTURAL WELL METERING PROGRAM FOR
FUNDING IN FISCAL YEAR 2025**

WHEREAS, the Gravelly Ford Water District (District) and its member landowners must optimize the use of the groundwater resources to achieve sustainability in the Madera Groundwater Subbasin; and

WHEREAS, the Gravelly Ford Water District and its member landowners seek to develop and implement an agricultural well metering program to maximize groundwater use efficiency and close data gaps in the GFWD Groundwater Sustainability Plan - Monitoring Network; and

WHEREAS, the District has an existing Central Valley Project contract, which is a United States Bureau of Reclamation associated multi-purpose water project; and

WHEREAS, United States Bureau of Reclamation WaterSMART grants can provide supplemental funding for such water efficiency projects that focus on water efficiency; and

NOW, THEREFORE, THE BOARD OF DIRECTORS OF GRAVELLY FORD WATER DISTRICT DOES HEREBY RESOLVE, DETERMINE AND ORDER AS FOLLOWS:

1. GFWD has authorized that an application be submitted pursuant to the Bureau of Reclamation's **WaterSMART Grants: Small Scale Water Efficiency Project - Funding Opportunity Number R24AS00059** for the development and implementation of the GFWD Agricultural Well Metering Program for the purpose of maximizing groundwater use efficiency, and closing data gaps in the GFWD Groundwater Sustainability Plan - Monitoring network.

2. If selected for said grant, the Gravelly Ford Water District is financially capable and agrees to provide in-kind and cash funding towards this project as detailed in the grant application and will work closely with the Bureau of Reclamation to successfully complete the design of the project.

3. This Resolution shall be effective upon its adoption.

I hereby certify that the foregoing is a full, true and correct copy of Resolution 2024-05 adopted by the Board of Directors of Gravelly Ford Water District at its meeting held on June 17, 2024 upon the motion of Director M Naito, seconded by Director D Kirk with the following vote:

AYES: Directors N Davis, D Kirk, M Naito, P Stewart
NOES: None
ABSENT: S Kirk
ABSTAIN: None



Seth Kirk, President

ATTEST:



Diane Kirk, Board Secretary

(SEAL)



APPENDIX C
QK RESUMES



Garth Pecchenino, PE, PLS
Principal Engineer / Vice President of Technical Services
Role: Principal-In-Charge



Garth’s skill as an engineer goes back to his childhood when he constructed and took apart mechanical devices to figure out how they worked. This interest in problem-solving led him to a career in engineering, where he now has over 35 years of experience in civil engineering and land surveying projects focused on hydraulic and water resources for public agencies. He currently serves as District Engineer for several water and special districts.

Garth is highly skilled in managing project design teams, meeting each client’s goals and outcomes, permitting/application, writing specifications, and designing irrigation, water well, wastewater treatment, and storm drainage facilities. He has focused his career on helping smaller, disadvantaged communities with water and drainage systems, resulting in a better quality of life for local populations.

EDUCATION

B.S. Agricultural Engineering
 California Polytechnic State University, San Luis Obispo

EXPERIENCE

QK Tenure **31 years**
Industry Tenure **35 years**

LICENSES

Professional Engineer - Civil
 California, No. 52678

Professional Engineer - Agricultural
 California, No. 492

Professional Land Surveyor
 California, No. 7825

California Water Audit Validator
 American Water Works Association
 California-Nevada Association

CLIENT REFERENCES

Eric Swenson
 Merquin County Water District
 (209) 634-6058

Jason Rogers
 City of Chowchilla
 (559) 267-3157

RELEVANT PROJECT EXPERIENCE

Water Treatment Plant Replacement
Principal-In-Charge

City of Dos Palos | Dos Palos, CA

Drought Emergency Project
Principal-In-Charge

Woodville Public Utility District | Tulare, CA

Ashlan Avenue Overlay & Jensen Avenue Overlay
Principal-In-Charge

City of Fresno | Fresno, CA

Visalia Road Improvements
Principal-In-Charge

City of Farmersville | Farmersville, CA

General Engineering Services
Principal-In-Charge

Le Grand Community Service District | Le Grand, CA

Design Review Application & Site Plan
Principal-In-Charge

Kirby Manufacturing, Inc. | Tulare, CA

Improvements to Well Sites 1, 2 & 7
Principal-In-Charge

City of Merced | Merced, CA



Spencer Supinger, PE
Senior Engineer / Branch Manager - Merced
Role: Project Manager / Lead Engineer



Spencer has always excelled at math, mechanics, and problem-solving, so a career in engineering was a natural fit. He is an enthusiastic project manager who has served a large variety of QK clients throughout the Central Valley. He has designed water, sewer, and storm drain improvements, including distribution mains, booster pumps, wells, storage tanks, and lift stations.

Spencer has a strong interest in solving water system issues for smaller communities that do not have the resources afforded to larger communities. He has extensive experience overcoming the unique challenges and diverse aspects involved in each different water project. Spencer has also helped various clients apply for and secure funding to provide citizens with safe, clean drinking water. Spencer currently serves as Contract City Engineer and District Engineer for several cities and water/special districts.

EDUCATION

B.S. Civil Engineering
 Brigham Young University, Provo

EXPERIENCE

QK Tenure **10 years**
Industry Tenure **17 years**

LICENSES

Professional Engineer - Civil
 California, No. 75909

CERTIFICATIONS

Institute for Sustainable
 Infrastructure - Approved Trainer

AFFILIATIONS

American Society of Civil Engineers

CLIENT REFERENCES

Curtis Jorritsma
 Hilmar County Water District
 (209) 652-4258

Jason Rogers
 City of Chowchilla
 (559) 267-3157

RELEVANT PROJECT EXPERIENCE

MD-85 Valeta Water System Improvements
Project Manager
 County of Madera | Madera, CA

Chowchilla Boulevard Reconstruction
Project Manager
 City of Chowchilla | Chowchilla, State

Sanitary Sewer System Master Plan Update
Project Manager
 City of Exeter | Exeter, CA

Robertson Boulevard - Downtown Beautification
Project Manager
 City of Chowchilla | Chowchilla, CA

Exeter Water Master Plan Update
Project Manager
 City of Exeter | Exeter, CA

Woodville PUD Water and Sewer Rate Study
Project Manager
 Woodville Public Utility District | Woodville, CA

Chowchilla On-Call City Engineering Services
Project Manager
 City of Chowchilla | Chowchilla, CA



Antonio Westerlund, PLS, CFedS
Senior Land Surveyor
Role: Lead Surveyor



Antonio has always been drawn to math-based disciplines, and surveying allows him to leverage these strengths to serve the community. His expertise contributes to proper conservation measures and helps resolve boundaries and title issues. Community and conservation are at the heart of everything Antonio does, and he mentors QK’s emerging survey experts to do the same. As the Survey Lead for the City’s projects, he will guide the City to concrete solutions that will stand the test of time.

EDUCATION

B.S. Geomatics Engineering

California State University, Fresno

A.S. Forestry | A.A. Mathematics |

A.A. Liberal Arts

Columbia College, Sonora

EXPERIENCE

QK Tenure **5 years**

Industry Tenure **13 years**

LICENSES

Professional Land Surveyor

California - No. 9399

CERTIFICATIONS

Certified Federal Surveyor

Bureau of Land Management - No. 1719

AFFILIATIONS

California Land Surveyors Association

CLIENT REFERENCES

John Armendariz

City of Clovis
 (559) 324-2395

Daniel Cervantez

City of Porterville
 (559) 782-7499

RELEVANT PROJECT EXPERIENCE

Porterville Fire Station #2

Lead Surveyor

City of Porterville | Porterville, CA

Clean CA Farmersville 198 Gateway & Downtown Improvements

Lead Surveyor

City of Farmersville | Farmersville, CA

Farmersville Transit Center

Lead Surveyor

Self-Help Enterprises, Inc. | Farmersville, CA

Surveying & Construction Staking for Veterans Blvd. Interchange

Project Manager/Lead Surveyor

NV5, Inc. | Fresno, CA

Farmersville Pedestrian ADA Improvements

Lead Surveyor

City of Farmersville | Farmersville, CA

Farmersville CDBG Alley Improvement Project

Lead Surveyor

City of Farmersville | Farmersville, CA

Lacey Boulevard Pedestrian Safety Project

Lead Surveyor

City of Hanford | Hanford, CA

Survey Services for Clovis Ave. Improvements Project (Alluvial to Nees)

Lead Surveyor

City of Clovis | Clovis, CA

Department of Social Services (DSS) Campus

Lead Surveyor

Cook Land Company | Clovis, CA

APPENDIX D
QK BILLING RATES

Charge Rate Schedule



2024 CHARGE RATE SCHEDULE

Current

TECHNICAL SERVICES	
Project Administrator	\$100 / hour
Assistant CADD Technician / Assistant CADD Designer / GIS Technician	\$100 / hour
Associate CADD Technician / Associate CADD Designer / Associate GIS Analyst	\$115 / hour
Senior Associate CADD Technician/ Senior Associate CADD Designer / Senior Associate GIS Analyst	\$125 / hour
Senior CADD Technician / Senior CADD Designer / Senior GIS Analyst	\$155 / hour
Landscape Architect Technician	\$115 / hour
PROFESSIONAL SERVICES	
Engineering	
Assistant Engineer	\$125 / hour
Associate Engineer	\$155 / hour
Senior Associate Engineer	\$180 / hour
Project Engineer	\$205 / hour
Senior Engineer / City Engineer / District Engineer	\$235 / hour
Senior Air Quality Engineer	\$275 / hour
Principal Engineer	\$275 / hour
Planning / Environmental / Landscape Architecture	
Assistant Environmental Scientist	\$100 / hour
Assistant Planner	\$110 / hour
Associate Planner / Associate Environmental Scientist	\$125 / hour
Senior Associate Environmental Scientist	\$145 / hour
Senior Associate Planner	\$150 / hour
Senior Environmental Scientist	\$185 / hour
Senior Planner / Senior Landscape Architect	\$180 / hour
Principal Planner / Principal Environmental Scientist	\$210 / hour
Senior Principal Planner / Senior Principal Environmental Scientist	\$225 / hour
Construction and Project Management	
Field Construction Observer	\$135 / hour
Senior Field Construction Observer	\$160 / hour
Assistant Construction Manager / Assistant Project Manager	\$125 / hour
Associate Project Manager	\$139 / hour
Associate Construction Manager / Associate Field Construction Observer	\$150 / hour
Project Manager	\$150 / hour
Senior Associate Construction Manager / Senior Associate Project Manager	\$165 / hour
Senior Project Manager	\$195 / hour
Senior Construction Manager	\$195 / hour
Principal Construction Manager / Principal Project Manager	\$225 / hour
Surveying	
Assistant Surveyor	\$120 / hour
Associate Surveyor	\$134 / hour
Senior Associate Surveyor	\$164 / hour
Project Surveyor	\$185 / hour
Senior Surveyor	\$205 / hour
One-Person Survey Crew	\$180 / hour
Two-Person Survey Crew	\$275 / hour
Three-Person Survey Crew	\$375 / hour
UAV Pilot	\$195 / hour
UAV Flight Observer	\$160 / hour

Fees are based on the median hourly pay rate for employees in each classification, plus indirect costs, overhead, and profit.

EXPENSES	
Plotting, Printing and Reproduction, Equipment Rental, Postage and Shipping	1.15 x Cost
Transportation and per diem (QK will provide documented evidence of business travel, travel outside of work areas shall be pre-approved by Client)	1.15 x Cost
Mileage	\$0.77 / mile
Other Expenses – Including Subconsultants & Purchased Services through Subcontracts	1.15 x Cost

Rates are effective through December 31, 2024. If contract assignment extends beyond that date, a new rate schedule may be added to the contract. Expert Witness/ Litigation support will be billed as quoted.

Rates based on "Prevailing Wage" (PW) for Construction Surveying will be determined by project and County per California law.

4/18/2024

SECTION 2 - BUDGET

2.1 - Funding Plan/Letters of Commitment

The members of the District approved a per acre tax through the Proposition 218 election process in 2018. This has established a source of revenue for the implementation of the Groundwater Sustainability Plan and other capital projects. These funds will be used to finance the District’s portion of the Agricultural Well Metering Program. The District is requesting a **50%** cost share with the United States Bureau of Reclamation, with the Bureau covering \$125,000 of the cost and the District covering \$126,340 of the total cost. See the Budget Proposal and Budget Narrative below for additional details on costs.

2.2 - Budget Proposal

Table 2-1: Budget Proposal

Summary			
Budget Object Category	Total Cost	Federal Estimated Amount	Non-Federal Estimated Amount
a. Personnel	\$0		
b. Fringe Benefits	\$0		
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h. Other Direct Costs	\$0		
i. Total Direct Costs	\$251,340		
i. Indirect Charges	\$0		
Total Costs	\$251,340	\$125,000	\$126,340
Cost Share Percentage		50%	50%

**Table 2-2
Project Cost Estimate**

Task Description	District Engineer	District Manger Cost	USBR Cost	Sub Consultant / Contractor Cost	TOTALS
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1.2 - Ongoing Project/Grant Management (24 months)	\$14,930	\$4,200	\$0	\$0	\$19,130
Subtotals	\$14,930	\$4,200	\$0	\$0	\$19,130
Task 2 Public Outreach					
2.1 - Public Outreach Docs	\$6,770	\$1,200	\$0	\$0	\$7,970
2.2 - Public Workshop	\$1,090	\$600	\$0	\$0	\$1,690
Subtotals	\$7,860	\$1,800	\$0	\$0	\$9,660
Task 3.0 Environmental Documentation					
3.1 - NEPA Documents and Consultation with Agency	\$4,830	\$0	\$12,000	\$30,000	\$46,830
Subtotals	\$4,830	\$0	\$12,000	\$30,000	\$46,830
Task 4 Program Implementation (15 sites)					
4.1 - Application Processing	\$11,220	\$4,500	\$0	\$0	\$15,720
4.2 - Meter Installation	\$0	\$0	\$0	\$160,000	\$160,000
Subtotals	\$11,220	\$4,500	\$0	\$160,000	\$175,720
TOTALS	\$38,840	\$10,500	\$12,000	\$190,000	\$251,340

2.3 - Budget Narrative

2.3.1 - PERSONNEL

The District does not have any employees. Operations and maintenance are performed by contract.

2.3.2 - FRINGE BENEFITS

Because there are no employees in the District, there are also no fringe benefits being paid.

2.3.3 - TRAVEL

There is no travel listed in the budget. All work will be performed by contract, and travel will be factored into the proposal costs submitted by consultants/contractors.

2.3.4 - EQUIPMENT

This project is for design only. There will be no equipment purchased or rented as a result of this project. Any equipment used (surveying or engineering equipment) will be provided by the consultant and is included in the proposed costs for the work.

2.3.5 - SUPPLIES

Because the District hires consultants for all operations and maintenance, the District does not directly purchase any supplies. All supplies for administration, design, planning, or construction are included in contractor cost estimates.

2.3.6 - CONTRACTUAL

All services are contracted by the District using approved procurement policies that require bid submittals for service. The District has a current contract with Don Roberts Civil Engineering as the District Manager. Don Roberts Civil Engineering is responsible for stakeholder outreach and management of the District, including contracts with other consultants, and management of District data collection for irrigation, water use, and groundwater conditions, and other administrative duties. These costs have been included in the overall QK cost estimate (shown in Table 2-2) as District Manager costs. The District Engineer estimated that Don Roberts will work approximately 14 hours on Phase 1 for ongoing project management, 6 hours for public outreach, and 15 hours for application processing at \$300/hour for a total of \$10,500 over the duration of the project.

QK Inc. has the current contract as the District Engineer and will be developing the Agricultural Well Metering Program under the direction of the District Manager and stakeholders. QK Inc. works closely with the District and stakeholders and is intimately familiar with the District's needs and limitations. Based on similar projects performed by QK Inc. for other clients, consultation with USBR, and general estimates from contractors, the District Engineer estimates that the program development will take approximately 90 hours for ongoing grant/program management for 24 months, 48 hours for public outreach, 30 hours for consultation with USBR and facilitation of NEPA documents production, and 60 hours of program implementation for review of applications. The total estimated cost for the District Engineer is approximately \$39,000. The total project cost is shown in Table 2-2.

GFWD understands that all contracts to be used under this grant will be subject to review and will meet the general procurement standards required.

2.3.7 - CONSTRUCTION

Construction consists of the drafting of the meter design, submission of the design and applicable documentation to the County of Madera, and installation of the meter and any appurtenant equipment. It is approximated that the District can install 15 meters on wells in the District as a part of this funding opportunity, with the cost share being split between the District and USBR. It is estimated that the meter installation will cost a little more than \$10,000 for each meter.

The program will be designed to allow the landowner to select the contractor and meter based on the specific needs of the well or crop and the parameters set by the Agricultural Well Meter Installation Project requirements. The District will assist in providing a contractor and meter list, however; the landowner can select contractors and meters not listed if they fit the parameters of the program. The landowners will be required to pay the contractor for the installation. They will then be required to submit the invoice for work. The District will review the invoice and reimburse the landowner for approximately half of the cost, up to a maximum amount. At that time, the landowner will be required to begin recording and submitting groundwater production quantities to the District. It should be noted that the landowner’s share of costs is intended to satisfy the District’s cost share, and the reimbursement will be provided from the funds granted by USBR.

Below is an example of estimated costs for the installation of a water meter:

Water Meter & Piping	\$2,500
Equipment	\$4,000
Labor	\$3,500
Misc. costs	\$1,000

Construction cost totals also include the production of NEPA documentation by others and USBR costs for consulting on NEPA document development. The project is assumed to be covered by a Categorical Exclusion; however, additional monies are included if surveys or document development is required.

2.3.8 - OTHER DIRECT COSTS

There are no other direct costs associated with this project. All project management, technical consultation, survey, and design activities are reflected in the contractual and construction budget line items above. Land use agreements will be signed as a part of the application process and held for the lifetime of the project, approximately 30 years.

2.3.9 - INDIRECT COSTS

There are no indirect costs associated with this project.