

VALLEY COUNTY WATER DISTRICT
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(CATEGORY A Applicant)

Upgrades to the Supervisory Control and Data Acquisition (SCADA) System

Respectfully submitted to the United States Bureau of Reclamation (USBR)

WaterSMART Grants:
Small-Scale Water Efficiency Projects
Notice of Funding Opportunity No. R21AS00300

3/18/21
1120

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ATTACHMENTS

Official Resolution

Valley County Water District Maps

Valley County District Organizational Chart

Excerpts from Plans where project is identified

- a. Water Shortage Contingency Plan “Due to being crucial to the water system, it is recommended to prioritize and upgrade the SCADA system and place operator interfaces at each site s changes can be made on site.”
- b. Draft Local Hazard Mitigation Plan “Upgrade SCADA system to help with water use efficiency and provide immediate data on water use to make offsite, quick determinations of flow rates”
- c. 2019-2023 Capital Improvements Budget, #26 SCADA System Upgrades \$50,000 budgeted in 2021 and \$50,000 budgeted in 2022.

Project Quotes

TESCO for project implementation

McCall’s Meters and Service for equipment and installation

Federal Forms

- a. SF-424 Application for Federal Assistance
- b. SF-424A Budget Information Non-Construction Programs
- c. SF-424B Assurances Non-Construction Programs
- d. SF-LLL Disclosure of Lobbying Activities (if applicable)

TECHNICAL PROPOSAL

Executive Summary

Submitted March 2021 by Valley County Water District, Baldwin Park, CA, Los Angeles County

Valley County Water District (Valley County), a public agency, retail water provider, is seeking a grant to allow for the upgrade of their existing Supervisory Control and Data Acquisition (SCADA) system. Valley County is a Category A applicant. The upgrades would help to integrate flow data and to generate daily trends and reports. The upgrades would allow for immediate notification of leaks or overflows at the five (5) of Valley County Water District's (Valley County) water distribution plants.

Valley is a retail water provider formed under the California Water Code in 1926 as the Baldwin Park County Water District. Valley is located in the City of Baldwin Park in eastern Los Angeles County, California. We provide potable water to nearly 60,000 people, via 12,470 water connections. Valley County serves portions of the communities of Irwindale, West Covina, Azusa and Baldwin Park. The service area covers approximately ten (10) square miles. Based on the state criteria, approximately 60% of the residents meet the "disadvantaged community" (DAC) guidelines where the average household income is below 80% of the state's median income. Valley is a public agency, governed by a 5-member Board of Directors elected from the community area they represent. See attached District Maps. Valley is represented by Blanca Rubio of the California Assembly District 48 and Congresswoman Grace Napolitano of California Congressional District 32.

Valley provides a mix of water to its residents, primarily made up of groundwater from the Main San Gabriel Basin. However, it is a subagency of the Upper San Gabriel Valley Municipal Water District (USGVMWD), which is a Metropolitan Water District of Southern California member agency, and because Valley is a shareholder in the Covina Irrigating Co., they can supply surface water from that agency when necessary. Valley's growth has required a complex system of water supplies to meet the needs of its service area and creating partnerships with local water agencies, has proven to benefit its long-term water portfolio.

Valley's demographics are reliant upon affordable, reliable, safe potable water supplies. Because of the area's proximity to groundwater through the Main San Gabriel Basin, supply has not proven to be an obstacle when supplies are plentiful. During the last drought, the cutbacks did impact the area because of the low rates historically charged for the water to its residents not understanding their supply sources, cutting back was difficult. However, now the overall average gallons per capita per day (GPCD) remain at an average of approximately 79 GPCD. This is quite good and reflective of the landscape of the area. Valley would like to improve their water use efficiency through improved monitoring of their reservoirs and eliminate the potential for unintended leaks and overflows. This can be achieved by an upgrade to their SCADA system to include panel hardware and TESCO's services that would be required to integrate new

demand, real time data monitoring, improved screens that will have integrated the new information in to a single reporting method; and offsite data monitoring to provide alarms should a sudden drop in pressure, or a valve is not performing properly. These items have the potential to allow sudden large leaks, overflows and system disruption. The proposed SCADA upgrades would increase efficiency to Valley County's water distribution system, and allow better time management and reporting and reduce water loss. The SCADA system upgrades includes operator training, all manuals and support from TESCO to get the system fully operational. The detailed quote from TESCO and McCall's Meter Sales and Service, would provide for a full upgrade the SCADA system. Costs are shown in the attached quotes provided. This total project falls under the amount necessary for public bidding for Valley County. These two vendors have worked extensively with Valley on the SCADA and McCall's completes the work for the water production / treatment water meters. Valley has just begun a large meter testing program where McCall's will be testing all of the meters in Valley's water distribution system over 2 inches. By using these contractors, there will be no time necessary for an unfamiliar contractor to learn the system or to "start from scratch". The staff at Valley County are confident that these quotes meet the necessary standards and obtaining additional quotes will not gain any additional information or a better project outcome.

EVALUATION CRITERIA

Criterion A - PROJECT BENEFITS

This is a small water efficiency project that will not come to fruition for a number of years without financial assistance. Not because it is not important, but because of budgetary constraints. With this small project grant, it provides enough funding to make this project rise in its implementation status to create a better, more efficient SCADA system that meets today's reporting and water use efficiency needs.

The proposed SCADA upgrade would increase efficiency to both water use as well as staff time. Right now, staff must visit each site to determine water flow. Each site is NOT controllable from a single location and flow data must be obtained at each site because there is currently no operator interface at each location, changes can only be made from remote locations, creating a less than efficient means of controlling the water distribution within the system. If a sudden drop in flow were detected now, it would be after an operator arrived at the site. With the new software, that sudden flow drop would be detected immediately and assessed immediately. If it's due to a leak, the shutoff could be immediate, not just once a day upon an operator's visit.

The system operators must travel to each site to determine flows and set accordingly. This travel time is time that could be a hazard should one of the reservoirs experience an overflow or sudden leak. With Valley's current SCADA system, these items are not identified remotely. The operator would have to come up on the site to see that system failing, thus creating a large water loss that could have been prevented.

Knowing flow data and being able to integrate that to the overall system, immediately creates a much better management scenario that allows efficiency and eliminates large leaks going undetected as well as something as simple as a stuck valve, that currently would only be identified by each individual site visit. Wasted water due to leaks and overflows is lost water. That water has had no beneficial use and at all times goes against good water management practices. Not only is that lost revenue to a small agency like Valley County, but it could also create quite a lot of damage to property and ultimately, water lost leads to wasted water, which would lead to the need for additional imported supplies to meet demand.

Valley County's system relies primarily on groundwater. The Main San Gabriel Basin (MSGB) has been impacted severely in the last drought and much of the local groundwater has not been fully recharged yet. Eliminating another inefficient water use is beneficial to every pumper in the MSGB and allows for better planning and use of this local resource – groundwater basins in Southern California are heavily impacted by droughts and reliance on imported water is not a solution. Better water use efficiency of this LOCAL resource is more cost-effective and sustainable.

As a member of most of the local water consortiums of the region: Main San Gabriel Basin Watermaster (MSGB), Public Water Agency Group (PWAG), WEWAC, subagency of Upper San Gabriel Valley Municipal Water District (USGVMWD) data is crucial. There are 58 pumpers that pull their supply from the MSGB and each member must communicate on their current and expected water needs for the future. This is based on past use, planning, and sharing data. The upgrades to Valley's SCADA would provide a more timely, efficient means of sharing immediate data. The new system would eliminate the time needed to pull data and parse individual sites from the overall to develop reports of specific site usage. Immediate data is always beneficial to water use efficiency managers in this region.

The last drought was devastating to this region. That drought taught us all a lot about responsiveness of our customers, but also of the stresses on the local groundwater supply. Local cities had to plan accordingly for public spaces like parks, schools and community centers. By better managing and using the local water supply, the goal is to limit the impacts of localized droughts as well as statewide droughts that impact open space use, residential appearances, commercial manufacturing.

Making the best use of local water supplies helps to lessen the impact to imported water supplies, much of which goes to farming and the Delta. Valley's goal is to use its allocation of groundwater so effectively/efficiently that no imported supplies are necessary, thus freeing up imported water for more effective local-to-the-source uses.

Criterion B - PLANNING EFFORTS

Valley County Water District has included this SCADA upgrade in its 2020 Urban Water Management Plan; Hazard Mitigation Plan and the 2019/2020 Capitol and General Operating Budgets. (See attached excerpts). This project has been identified for a

number of years as something that Valley needed to address, but the upgrade costs were high in comparison to the other, larger, more visible projects facing the District. Because of this grant's criteria of relatively small projects, this upgrade fits nicely within those parameters, while the other projects are much larger in scale/scope/costs. The importance has never been questioned. Since staff has used the current SCADA system for a number of years, the upgrades will not be a major learning curve, but instead will be a welcomed efficiency to operators' rounds and system management. This upgrade allows for more efficiency for both staff and water use. But, as a small retail water provider, justifying hardware/software upgrades is often harder to do than the visible major infrastructure upgrades and repairs. "Invisible" projects that increase efficiencies are harder to demonstrate and therefore, frequently get put off until it is no longer a proactive response but instead a less efficient reactive response.

As stated in Valley County's 2020 Urban Water Management Plan; "The District's SCADA system is a vital component for helping collect, track, and analyze water usage within the water system. The SCADA system is able to look at many data trends across all facilities, reservoir, and pumps within the District. Due to being crucial to the water system, it is recommended to prioritize and upgrade the SCADA system and place operator interfaces at each site so changes can be made on site." (Valley County Water District, 2020 Urban Water Management Plan, page 7-7)

Criterion C – PROJECT IMPLEMENTATION

Since Valley has a small staff of 30 people, which includes operators and administrators, water management is done in the most effective manner possible. New technology often helps with efficiencies. Saving water by increasing efficiency makes sense for a small agency that has a complex source of supply and is working towards eliminating the need for imported water supplies. The operators have been queried on their desire for these upgrades and all are excited to have the opportunity to upgrade the SCADA system to include integrated flow data and ability to generate daily trends and reports on demand.

Valley County Water District staff will oversee the upgrades and will be working with TESCO. TESCO has been the District's contractor for SCADA system updates, repairs since 2016. They are well-acquainted with the system and these upgrades done by them will save some money since there will not be any "learning curve" for a new vendor to implement for the installation of these upgrades. TESCO does not need time to learn the system. These upgrades are only possible with a cost-share from the USBR. Valley's staff does not need to learn a new system, they will only need to learn how to integrate and read the new information provided in this upgraded software and hardware of the SCADA system.

This project could be implemented quickly. The quote from TESCO, Valley's SCADA consultant shows that they could mobilize relatively quickly. Coordination between TESCO and McCall's is not a problem and can be done seamlessly. TESCO could provide submittals to Valley approximately 6 to 8 weeks after they receive a notice to

proceed and delivery of 10 to 12 weeks after Valley approves the submittals. The entire project, could easily be completed within a year of receipt of grant acceptance. There are no required permits or CEQA requirements for a project like this.

The workplan schedule noted below is flexible. Should the grant award be provided earlier or later, the schedule can be shifted accordingly. However, per Section C.3.3, the project would have a start date no earlier than January 31, 2022. Preliminary administration could begin upon notification of grant award.

TASK	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Grant Award Announced								X				
Grant Contract received, reviewed, approved										X		
VCWD Meets with TESCO to set up schedule and layout invoice requirements											X	
TESCO is given Notice to Proceed												X
TESCO begins installations and reprogramming		X (Feb 1, 2022)										
Installations Complete				X								
VCWD Staff Training						X						
		Final Report to USBR (2022)						X				

Criterion D - Nexus to Reclamation:

Valley's main potable water source is the Main San Gabriel Basin. This groundwater basin has been heavily impacted by drought and earlier contamination. When groundwater levels get too low, there is a contaminated water plume that can be pulled in to the potable supplies, thus managing the groundwater basins in this area is critical to best management practices and allowing natural recharge be effective, and help clean up old pollution that is currently being addressed. However, that clean up is slowed down and made much more difficult in times of drought or groundwater overdraw. Valley does have the ability to obtain Metropolitan Water District (MWD) water through their member agency, Upper San Gabriel Valley Municipal Water District (USGVMWD). There are also connections to recharge the groundwater basin artificially when supplies are available through the MWD connections. This water is a mix of both State Water Project and/or Colorado River Aqueduct Water. Whenever local supplies are used efficiently, the need to import water is lessened. The goal is to keep LOCAL supplies healthy and plentiful through thoughtful use and protections. Lowering the impact on both Colorado River and State Water supplies, helps protect those areas from overproduction and land degradation. Conservation is one of the lowest cost means of increasing and managing water supplies and the proposed SCADA upgrades will help provide Valley County with the immediate information necessary to quickly eliminate/address leaks or overflows.

Reclamation Water

When the local groundwater basins do not get natural recharge from rain, as has happened in the last few years due to drought, the area draws from imported supplies to meet demand. The imported water is a mix of both Colorado River and State Water Project Water supplies. The goal is to maximize LOCAL water supply by conserving and providing the best possible uses of the water to eliminate the need for imported supplies, thus also saving energy costs associated with moving imported water. Moving water supplies around the State of California amounts to approximately 20% of the overall energy used in the State. Valley County works hard to meet demands with local water supplies and hopes to be able to achieve 100% local reliability in the near future.

Reclamation Land and Facilities

Valley County Water District does provide water to the Santa Fe Dam Recreation area. During times of drought, the supply is limited and goes first to residential and businesses in their service area. The immediate identification of excessive flows, sudden water level drops or overflows would greatly enhance management, saving more local water for recreational and fire suppression purposes for the Santa Fe Dam recreational area. (The water used behind this dam is also used to fight local fires.)

Reclamation Basin Water

Making the best use of local water supplies frees up water that is imported to the region. That would include the Colorado River and State Water Project Water. Water not wasted locally, in this case, is imported water saved. Not importing water also saves energy use, which is a contributing factor to climate change. When resources are well-managed locally, it advances sustainability practices and helps limit environmental damage.

PROJECT BUDGET

Funding Plan and Letters of Commitment

Valley County is hopeful that USBR will provide 50% of the funding necessary to provide the upgrades to the SCADA system. The remaining 50% of that cost can be covered by Valley's annual budget and since the item is identified in the CIP and General Budget. Since those costs were anticipated for a future year, if successful to receive the 50% cost-share, Valley could move this project up in the budgetary queue. Overhead and staff costs will be covered and no reimbursement for that time is being sought since the time allocated will be minimal due to the knowledge TESCO and McCall's already have of Valley County's existing SCADA system. The staff hours identified will primarily be devoted to oversight and processing/reviewing invoices to ensure that they meet the necessary formatting for successful grant reporting. Staff training time is considered regular time and a part of the job necessary to stay current and effective in required duties. No cost share is being sought for Valley staffs' time or overhead. The figures for these costs are identified, but not being sought for reimbursement.

Letters of Commitment

Valley County is not seeking any additional outside funding for this project. The approximately 62% cost-share can be obtained from the current fiscal year budget. Because of the potential for some relatively minor contingencies and installation hardware (brackets, wire, etc.) the budget reflects a 22% "other costs/contingencies" that Valley County will cover. The cost share sought in this application will be applied solely to the costs of equipment and installation as detailed in the quotes from the vendors identified. Letters of commitment for additional funding are not necessary since the funding match is available in the current/carryover budget.

Budget Proposal

SOURCE	AMOUNT
Costs to be reimbursed by Federal Request (USBR)	\$ 65,191
Costs to be paid by applicant (available upon contract signing)	\$104,114
Value of third-party contributions	\$ 0 *

****No third party contributions are being sought.***

NONFEDERAL FUNDING SOURCES	AMOUNT
NonFederal – Applicant Budgeted Line Item (see included Valley Approved Budget line item #---)	\$104,114

BUDGET ITEM DESCRIPTION	COMPUTATION \$/Hour	Quantity	Quantity Type	TOTAL COST
Employee 1 Full-Time (Erik Moss)	\$ 45.56 hourly \$78.92 with burden*	60	Hourly	\$ 2,734
Employee 2 Full-Time (Dana Diaz)	\$ 44.35 hourly \$68.25 with burden*	80	Hourly	\$ 3,548
Contractual-TESCO Contractual-McCall's Meters	\$104,750 \$ 25,631	Job Completion, to include all equip., materials, labor and training	Job	\$130,381
Costs "not covered" by TESCO quote and McCall's to include diagrams, brackets, additional wiring (if necessary), other contingencies	22%	Job Completion	Job	\$ 28,684
Indirect Costs				
Indirect Costs (AVERAGE)	63%	140	Hours	\$ 3,958
TOTAL ESTIMATED TOTAL PROJECT COSTS				\$169,305

*All employee benefits as well as required taxes and employer burdens

BUDGET NARRATIVE

The budget for salaries of the staff and consultants identified are consistently applied to Federal and non-Federal activities.

Since the SCADA upgrades have been listed in Valley County's CIP & General Budget, the shared funding could be made available now. The breakdown of federal funds is 50% of the costs of equipment from McCall's Meters, TESCO's installation, reprogramming and onsite training and manuals.

The applicant will cover contingencies as well as the Indirect costs for the staff identified include the total of their benefits – retirement, medical/dental insurance and other fringe benefits. Valley County is NOT seeking reimbursement for those costs.

*Job descriptions and salary ranges available upon request, if needed.

It is anticipated that once the funding becomes available, the entire job will take no more than a year. The staff assigned, Erik Moss, Senior Treatment and Production Operator and Dana Diaz, Management Analyst will devote approximately 12.5 hours per month on this project. That will include all oversight, billing and processing of paperwork. McCall's and TESCO will be required to provide monthly invoicing to match the work completed on the project.

As noted in the attached quote, the primary costs are equipment, software and engineering time. All of the requisite Valley County staff will be fully trained on the new software and hardware before releasing any final payments.

The equipment identified in TESCO's quote include:

1. 5 upgraded touchscreen panels—currently, input is necessary in the office
2. All mounting hardware and cables as needed
3. Professional engineering and documentation of the software, reporting, training, as-built documentation
4. Professional training and workshops with Valley County staff to ensure they understand and can fully operate the system to its maximum potential.

The equipment identified in McCall's Meter quote include:

1. 4 each Steel flange tube electronic meter, 150 PSI
2. 4 each Flowcom Digital Register Transmitters
3. 4 each Flowcom Remote Mount 50ft. cable
4. Inspection, installation verification and documentation, one day of on-site service
5. All necessary field labor, portal to portal (this is an estimate, any overage will be covered by Agency, any uncommitted will not be billed to USBR)

REQUIRED PERMITS

Since this project does not include any major construction, or major changes to infrastructure there are no permits or environmental permitting requirements to be met. All sites and equipment upgrades are on existing property owned/operated by Valley County Water District.

ATTACHMENTS

Official Resolution

Maps of District

Organizational Chart

Excerpt from Valley County Water District's 2020 Urban Water Management Plan

TESCO Quote from February 19, 2021

McCall's Meters and Service Quote, updated 03/12/2021

Excerpt from 2019/2020 Capital Improvement Project (CIP) and General Budget

Federal Forms:

- a. SF-424 Application for Federal Assistance
- b. SF-424A Budget Information Non-Construction Programs
- c. SF-424B Assurances Non-Construction Programs
- d. SF-LLL Disclosure of Lobbying Activities (if applicable)



RESOLUTION NO. 02-21-847

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE
VALLEY COUNTY WATER DISTRICT
AUTHORIZING THE SUBMITTAL OF A STATE GRANT APPLICATION AND
THE SUBSEQUENT APPROPRIATION OF FUNDS FOR THE UNITED STATES BUREAU OF RECLAMATION,
WATERSMART GRANT FOR SMALL-SCALE WATER EFFICIENCY PROJECTS

WHEREAS Valley County Water District believes itself to be qualified, and is willing and able to carry out all activities described in the state grant application; and,

WHEREAS in this action the Valley County Water District Board of Directors has reviewed and supports the application for grant funds in support of a Small-Scale Water Efficiency Project,

WHEREAS in this action Valley County Water District is committed to and able to meet the financial, staffing and timeline commitments of the WaterSMART Small-Scale Water Efficiency Project.

WHEREAS in this action the Valley County Water District Board of Directors will, upon an award and acceptance of the grant, agree to the terms of the grant;

IT IS THEREFORE RESOLVED THAT: The Valley County Water District Board of Directors requests the funds and assistance available from the United States Bureau of Reclamation for the WaterSmart Small-Scale Water Efficiency Project grant and will comply with state rules for the program, and,

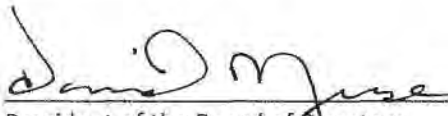
HEREBY AUTHORIZES the authorized representative General Manager to act on behalf of Valley County Water District to apply, enter into an agreement and sign all related documents relating to the United States Bureau of Reclamation WaterSmart grant for financial aid for the Small-Scale Water Efficiency Project, and

HEREBY AUTHORIZES the authorized representative General Manager to act on behalf of Valley County Water District to sign the grant agreement if the grant funds are awarded.

PASSED AND ADOPTED by the Board of Directors of the Valley County Water District, at a public meeting thereof duly called and held this 22nd day of February 2021.

By a vote of: 5 in favor, 0 against, and 0 abstain

SIGNED:



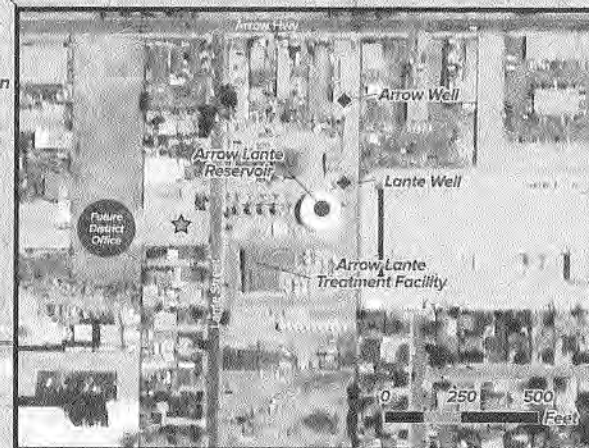
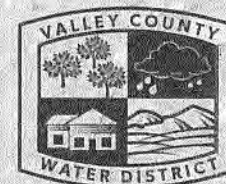
President of the Board of Directors

ATTEST:

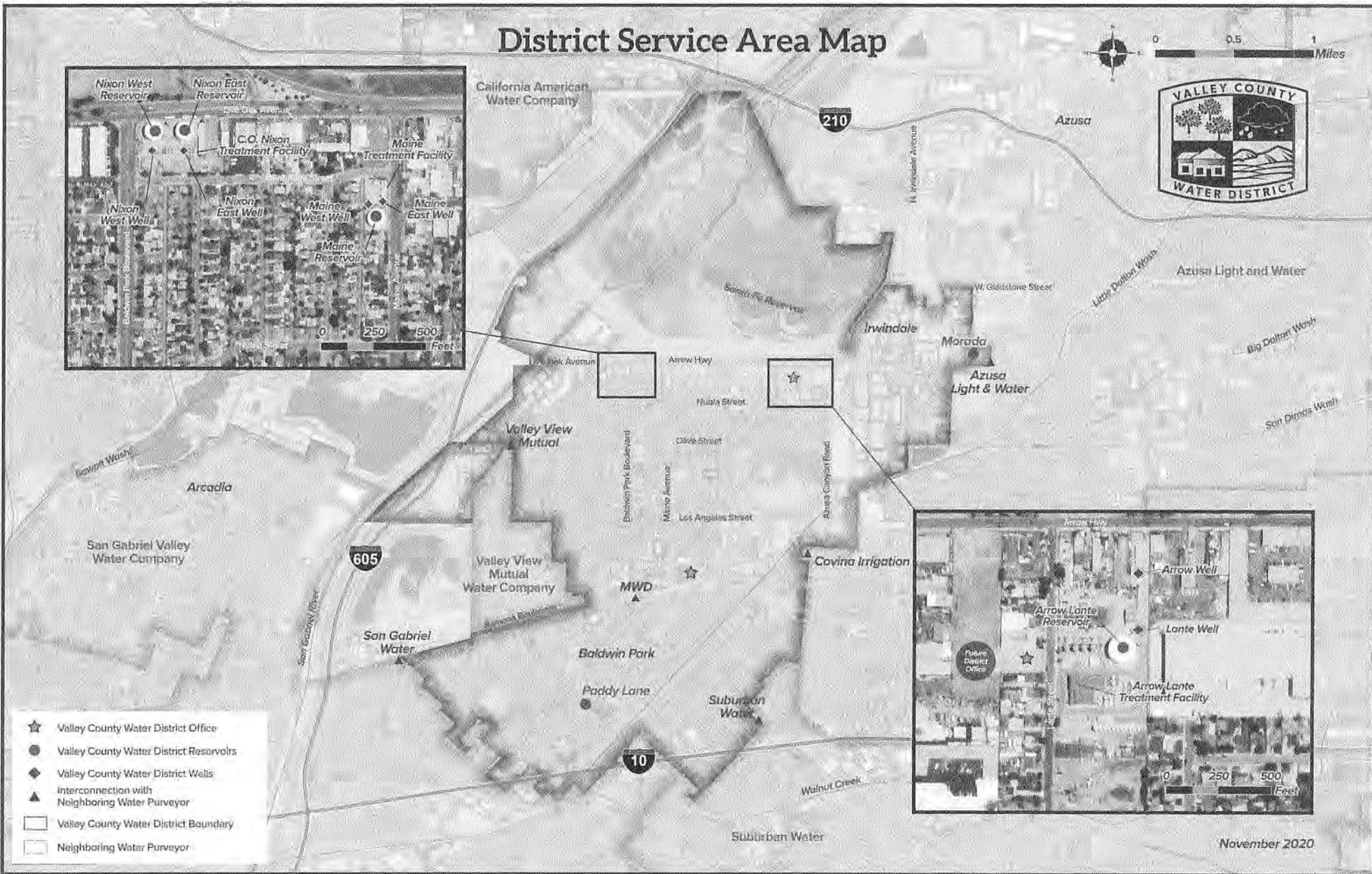


Secretary of the Board of Directors
(OFFICIAL VCWD SEAL)

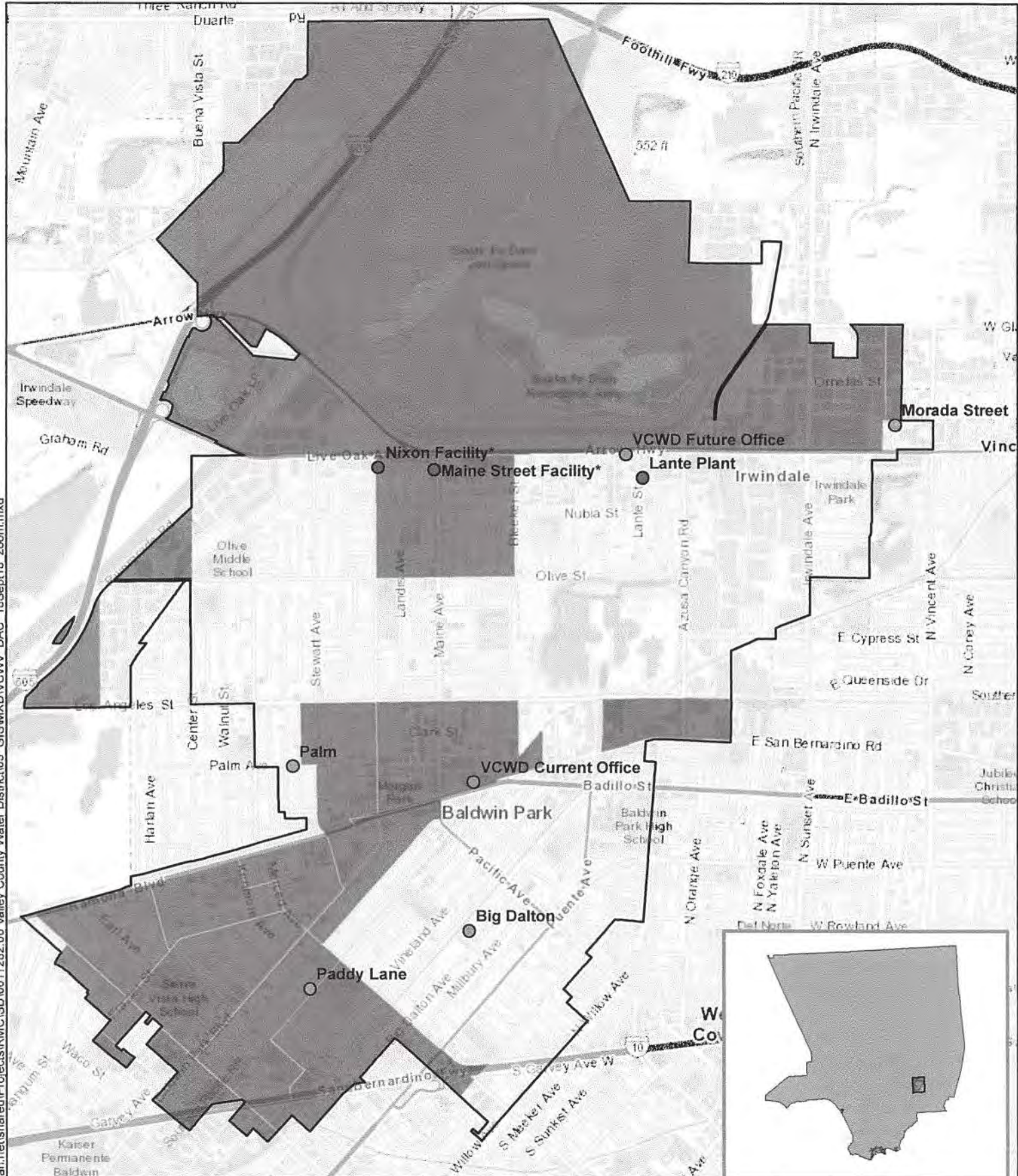
District Service Area Map



- ★ Valley County Water District Office
- Valley County Water District Reservoirs
- ◆ Valley County Water District Wells
- ▲ Interconnection with Neighboring Water Purveyor
- Valley County Water District Boundary
- ▭ Neighboring Water Purveyor

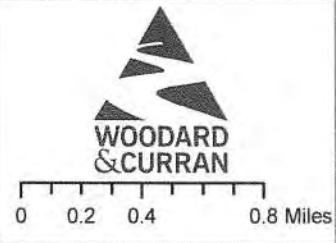
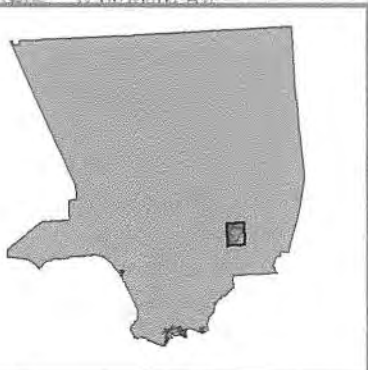


November 2020



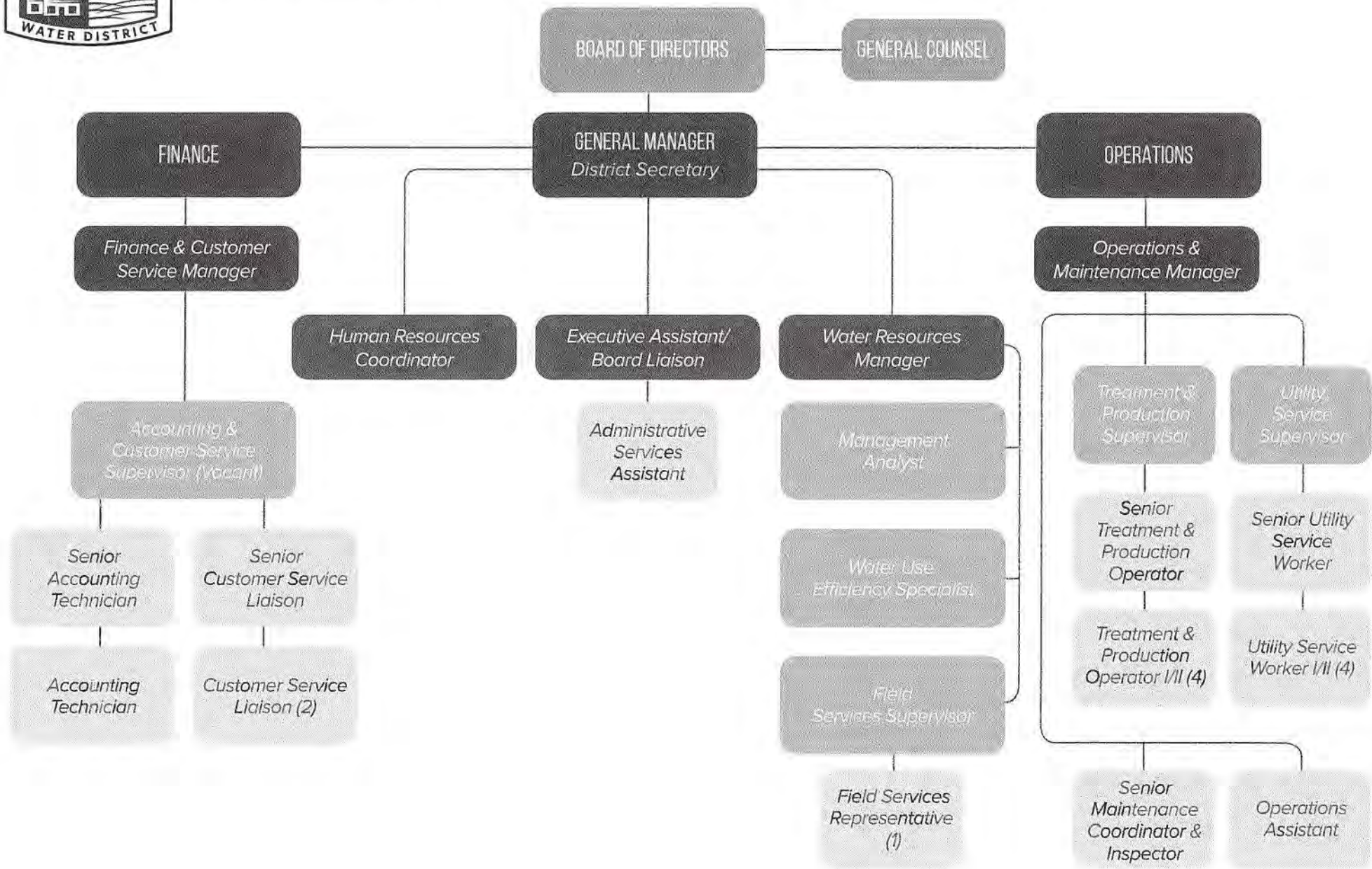
Disadvantaged Communities (DAC) in the Valley County Water District Service Area

- | | |
|------------------------|----------------------------------|
| Type of Feature | District Boundary |
| Building | Disadvantaged Community |
| Inactive Well | Waterbodies |
| Facility | * Active Production Wells Onsite |





Valley County Water District Organizational Chart – 31 Positions
 Approved January 13, 2021





of VCWD. The State of California has its own authorities, separate from the District, who are able to enforce the shortage response actions.

VCWD shall declare a water shortage emergency to prevail within the area served whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the District to the extent that there would be insufficient water for human consumption, sanitation, and fire protection. VCWD shall coordinate with any and all cities or counties within which the District provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.

7.8 Financial Consequences of WSCP

§10632 (a)(8). A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all of the following

(A) A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

(B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

(C) A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1.

Financial consequences for drought conditions include but are not limited to are reduced water use among customers, increased staff costs for tracking, reporting, patrolling, and enforcing actions, and providing communication efforts to inform customers about the WSCP. In response for a potential drought condition, the District maintains funds in their reserves that are specifically earmarked to address and mitigate fluctuations in revenue.

7.9 Monitoring and Reporting

§10632 (a)(9) For an urban retail water supplier, monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.

VCWD has AMI to help with accuracy of monitoring. New meters at production wells are monitored through SCADA for data trending. The District's highest consumers are monitored through a large meter testing. These large meters are considered to be sized as 2" or larger. For collection purposes, a monthly report is produced on a monthly basis.

The District's SCADA system is a vital component for helping collect, track, and analyze water usage within the water system. The SCADA system is able to look at many data trends across all facilities, reservoir, and pumps within the District. Due to being crucial to the water system, it is recommended to prioritize and upgrade the SCADA system and place operator interfaces at each site so changes can be made on site.



Local
HAZARD MITIGATION PLAN

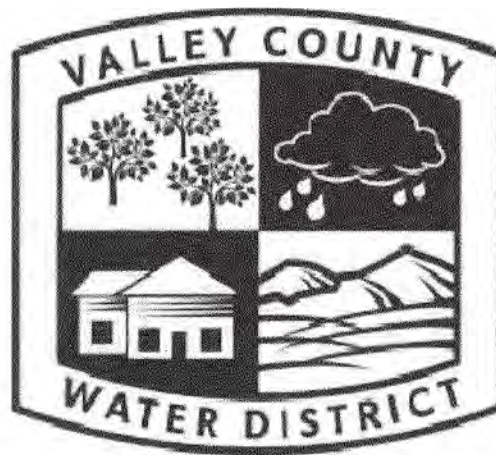
DRAFT OCTOBER 2020

DRAFT

2.5*	High	Build a public education center to provide customers information on water conservation. Include a model garden the incorporates water-saving equipment and installations	1-3 years	Grant HMPG BRIC	\$500,000	Climate change, drought
3.1	High	Complete developing and implementing a pandemic/influenza emergency response plan module	Ongoing	Operations Budget	\$5,000 annually	
3.2	High	As part of drought monitoring, continue to monitor well levels and groundwater basins	Ongoing	Operations Budget	\$5,000 annually	
3.3	High	Continue to institute water shortage contingency measures during extreme drought periods	Ongoing	Operations Budget	\$5,000 annually	
3.4	High	Consider training employees in the pandemic/ influenza procedures	Ongoing	Operations Budget	\$2,000 annually	
3.5*	High	Upgrade SCADA system to help with water use efficiency and provide immediate data on water use to make offsite, quick determination of flow rates	1-3 years	Grant HMPG BRIC	\$150,000	Climate change, Drought

VALLEY COUNTY WATER DISTRICT

**CAPITAL IMPROVEMENT & GENERAL OPERATING BUDGET
FOR FISCAL YEAR 2019/2020**



**Approved By the Board of Directors
Monday, June 24, 2019**



**VALLEY COUNTY WATER DISTRICT
2019-2023 CAPITAL IMPROVEMENT BUDGET
5-Year Forecast**

VCWD Capital Improvement Projects	Budgeted	Actual	Status	Budgeted Projections				
	FY 2018/2019			FY 2019/2020	FY 2020/2021	FY 2021/2022	FY 2022/2023*	FY 2023/2024*
1 2018/19 Water Main Replacement CIP	\$2,453,200.00	\$ 1,363,692.99	Active					
4 2019/20 Water Main Replacement CIP				\$2,000,000.00				
5 2020/21 Water Main Replacement CIP					\$1,500,000.00			
6 2021/22 Water Main Replacement CIP						\$1,500,000.00		
7 2022/23 Water Main Replacement CIP							\$1,500,000.00	\$1,500,000.00
8 AMI Meter Replacement Phase 1	\$1,000,000.00							
9 AMI Meter Replacement Phase 2				\$1,500,000.00				
10 AMI Meter Replacement Phase 3					\$1,500,000.00			
11 AMI Meter Replacement Phase 4						\$1,000,000.00		
12 Water System Master Plan Update				\$120,000.00	\$120,000.00			
13 Urban Water Management Plan					\$40,000.00			
14 New Nixon Booster Pump Station	\$2,000,000.00	\$ 854,002.01	Active	\$2,145,000.00				
15 Nixon East Well Reconfiguration	\$165,000.00			\$165,000.00				
16 Maine Booster Pump Station Reconfiguration	\$500,000.00	\$ 14,952.00	Active	\$575,000.00				
17 Nixon Storage Facility Expansion Design				\$240,000.00	\$110,000.00			
18 Admin/Operation Headquarters Design	\$400,000.00	\$ 109,036.97	Active	\$425,000.00				
19 Admin/Operation Headquarters Construction				\$2,000,000.00	\$7,000,000.00			
20 Reservoir Upgrades	\$500,000.00	\$ 100,967.74	Active	\$750,000.00	\$250,000.00	\$250,000.00	\$250,000.00	
22 Construction of 3 MG Reservoir (1 of 2)						\$2,750,000.00		
23 Construction of 3 MG Reservoir (2 of 2)						\$0.00	\$0.00	
24 Diesel Tank Construction (1 of 2)	\$65,000.00				\$75,000.00			
25 Diesel Tank Construction (2 of 2)							\$75,000.00	
26 SCADA System Upgrades	\$100,000.00			\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00
27 Geographic Information System Upgrades	\$30,000.00			\$25,000.00				
28 Purchase of Truck	\$35,000.00		Active	\$135,000.00	\$35,000.00	\$35,000.00	\$35,000.00	\$35,000.00
29 Purchase Forklift					\$50,000.00			
30 Air Compressor & Trailer	\$40,000.00							
31 Valve Trailer				\$40,000.00				
32 VCWD Projected Capital Improvement Totals	\$7,288,200.00	\$ 2,442,651.71		\$10,170,000.00	\$10,730,000.00	\$5,585,000.00	\$1,910,000.00	\$1,585,000.00

**Projected Capital Improvement Project Costs contingent upon a new cost of service study for the next five years starting with FY2023*

To: Valley County Water District
Attn: Eric Velazquez
Re: Valley County Water District
SCADA Additions & Touchscreen OITs (Nixon, Maine, Arrow, Morada, & Paddy Lane Plants)

Quote Date: 2/19/2021
Quote No.: 21B140Q02

Dear Eric:

Thank you for your continued interest in TESCO products, services, and solutions. We are pleased to quote the following scope of work pertaining to the above-referenced project.

Project Background

Valley County Water District (VCWD) has expressed a desire to implement further improvements to the SCADA and Process Control Systems utilized throughout their water distribution plants. The requested improvements include integrating additional plant flow data within the existing Wonderware InTouch SCADA application and adding new touchscreen Operator Interface Terminals at specific sites to create enhanced visualization for the operations staff and the ability to monitor critical processes locally.

It is understood VCWD has a primary goal of delivering quality water for consumption, while also optimizing water conservation. With that in mind, the addition of plant flow data to the SCADA system and the deployment of new OITs to increase operator awareness will aid VCWD in their mission to conserve water usage and provide them the ability to monitor real-time processes and modify distribution controls as needed to maximize these conservation efforts.

Scope of Work

This quote is inclusive of the panel hardware and TESCO services required to integrate new touchscreen OITs at five (5) VCWD sites, as well as add instantaneous and totalized effluent flow values to the Wonderware application hosted at the Nixon Facility. TESCO will supply and program a new C-more OIT to interface with the existing L3000 PLCs at each of the following water distribution plants: **Nixon, Maine, Arrow, Morada, and Paddy Lane**. Additionally, the PLC programs and SCADA screens related to these sites will also be modified to integrate the effluent plant data mentioned above. The integrated flow data will be used to generate daily trends and reports developed by TESCO.

Each of these sites is presently equipped with a TESCO Liquitronic display and keypad, which will remain in operation, but relocated within the existing pump control panel doors if required to accommodate the new OIT footprints. Based on existing panel sizes and space availability, Nixon, Morada, and Arrow will all receive 15-inch touchscreens; whereas, Maine and Paddy Lane will be equipped with 10-inch displays to fit with the smaller wall-mount panels.

Prior to retrofit of the new OITs, TESCO will coordinate with VCWD to define the display and control features required of each site. Following the completed programming and installation of OITs, TESCO will perform startup and testing services to verify the displays accurately monitor the local data and correctly respond to operator inputs. Refer to the *Scope of Supply* below for a complete listing of the materials and services to be provided by TESCO on this project.

Please Note: Not all effluent plant flow meters required for monitoring this data are currently installed, but will be contracted by VCWD and installed at a future date. Therefore, TESCO will implement all of the required

PLC/SCADA program modifications now and enable those functions once the required flow signals are eventually terminated and activated.

Scope of Supply

Item	Qty	Description
NIXON, MAINE, ARROW, MORADA, & PADDY LANE PLANTS		
1	1	<p>Pump Control Panel Upgrades to include:</p> <ul style="list-style-type: none"> ▪ (3) 15" C-more Touch Panel OITs ▪ (2) 10" C-more Touch Panel OITs ▪ Ethernet/Communications Cables as required ▪ Mounting Hardware as required
2	Lot	<p>Professional Services to include:</p> <ul style="list-style-type: none"> ▪ <u>Project Management</u> ▪ <u>Engineering</u> <ul style="list-style-type: none"> ▫ engineered bill of materials and submittals ▫ equipment schematics and technical data ▫ update existing as-built documentation and project records ▪ <u>PLC/OIT Programming</u> <ul style="list-style-type: none"> ▫ lead a technical workshop with VCWD's operations staff to confirm the data and graphics to be displayed on the new C-more OITs, as well as the monitoring and control functions required ▫ program the new OITs as required of the five (5) plants and according to the display preferences determined through the technical workshop ▫ provide monitoring and control functions through the OIT displays that include the following: <ul style="list-style-type: none"> — pump/HOA statuses, reservoir levels, chlorine residuals, and discharge flows/pressures — pump start/stop functions and time of use — control setpoints — alarms and setpoints ▫ implement program additions to each plant PLC (L3000) to capture instantaneous and totalized effluent flow data (<i>flow meter hardware to be supplied and installed by VCWD at a future date</i>) ▫ assist the Project SCADA Programmer with PLC register and SCADA tag assignment to integrate the new flow and VFD speed data within the existing Wonderware InTouch application ▫ assist the Project Field Service Engineer with startup and testing to ensure the new OIT controls function properly and the monitored field data is accurately displayed ▪ <u>SCADA Programming</u> <ul style="list-style-type: none"> ▫ add graphics and values to the existing Wonderware InTouch application at the Nixon Facility to integrate instantaneous/totalized flow and VFD speed data from the Nixon, Maine, Arrow, Morada, and Paddy Lane Plants ▫ incorporate pump speed control on the plant SCADA screens, based on adjustable pressure setpoints for each plant equipped with VFDs

Item	Qty	Description
		<ul style="list-style-type: none"> ▫ develop automated trends and reports representative of each plant's daily effluent flow totals ▫ verify the newly integrated data within the Wonderware application accurately reflects the local plant values ▪ <u>Field Service / Product Startup</u> <ul style="list-style-type: none"> ▫ retrofit the new C-more OITs within the existing pump control panels at the Nixon, Maine, Arrow, Morada, and Paddy Lane Plants <ul style="list-style-type: none"> — mount in the existing outer or dead-front panel doors as applicable — reorient the existing TESCO keypad displays as required to accommodate the new OITs ▫ product quality review, verification of installation, parameter/configuration adjustments as required, software upload/download as required, instrument/device signal spanning, function checks, and startup ▪ <u>Onsite Training</u> ▪ <u>O&M Manuals</u>
		TOTAL (Items 1-2, including applicable sales tax): \$104,750.00

Project Clarifications

- Unless otherwise indicated by the Scope of Work above, quote is to **furnish only** and does not include any trade labor, trade work, construction work, site improvement, contractor services, or any trade installation services. Any trade labor and/or related trade work shall be performed by others/contractor.
- Unless otherwise indicated by the Scope of Work above, the following is **not** included within this quotation:
 - Conduit, field wire, tubing, or basic trade installation materials (brackets, screws, bolts, j-box, stanchions, pull-box, etc.)
 - Instrumentation mounting components, brackets, stanchions, sunshields, etc.
 - Local control stations and/or field mounted disconnects.
 - Instrumentation, devices, components, or equipment not specifically identified in the above quotation.
 - Fiber optic patch panels, cable, splicing or terminations.
 - Networking infrastructure or architecture modifications to existing facilities.
 - Any 3rd party testing, harmonic testing/analysis, protective device coordination study, short-circuit analysis, or Arc-Flash Risk Assessment (AFRA) services.
 - Electrical interconnection diagrams for equipment not furnished by TESCO.
 - ISA process control loop diagrams.
 - Signal loop diagrams for equipment not furnished by TESCO.

Terms & Conditions

- Quote is firm for 30 days unless otherwise stated.
- Intellectual Property and Confidentiality Notice: The scope of work and price quotation shall not be construed as a formal design or recommendations on design for the related project. All content contained within this quotation is the intellectual property under the proprietorship of Tesco Controls, Inc. and is subject to applicable copyright laws. Such intellectual property shall not be duplicated, replicated, copied, or shared without explicit written consent from Tesco Controls, Inc., as it contains confidential information and work product developed exclusively for use by Tesco Controls, Inc.
- Submittals: to be provided approximately 6-8 weeks after receipt of purchase order, written notice of intent, or notice to proceed.
- Delivery: to be scheduled approximately 10-12 weeks after submittal approval.

- Unless otherwise stated above, price does not include any sales tax, use tax, or applicable fees; please apply any taxes and/or fees as appropriate. Please note that all invoices will include sales tax where applicable.
- TESCO price is FOB factory, full freight allowed.
- TESCO warranties against defect in design, workmanship, and materials for a period of one year from date of installation and does not exceed 18 months from the date of shipment from the factory.
- TESCO carries liability insurance, with full workers' compensation coverage.
- Terms are net 30 days on approved credit accounts.
- Interest will be applied to all past due invoices.
- All merchandise sold is subject to lien laws.
- Final retention to be paid within 10 days after the project notice of completion.

Please feel free to contact us at (916) 395-8800 to discuss any questions or comments you may have regarding this quotation.

Sincerely,

TESCO CONTROLS, INC.

A handwritten signature in black ink, appearing to read "John Wright". The signature is stylized and written in cursive.

John Wright
Technical Sales
jwright@tescocontrols.com

McCALL'S METER SALES & SERVICE

1498 MESA VIEW STREET
HEMET, CA 92543
PH: 951-654-3799

QUOTATION

DATE	ESTIMATE #
3/11/2021	24401E

office@mccallsmeters.com

CUSTOMER				
VALLEY COUNTY WATER DISTRICT 14521 RAMONA BLVD. BALDWIN PARK, CA 91706		TERMS	REP	FOB
		Net 30	BMJ	ORIGIN
QTY	ITEM	DESCRIPTION	COST	TOTAL
		REVISED 3/12/2021 TO A QUANTITY OF FOUR		
4	ML04D-12	12" STEEL FLANGE TUBE ELECTRONIC METER, 150 PSI	3,905.00	15,620.00T
4	FC101-02-M	FLOWCOM DIGITAL REGISTER TRANSMITTER 20mA/ OPTO PULSE OUTPUT	0.00	0.00T
4	RM50	FLOWCOM REMOTE MOUNT 50FT. CABLE TOT: USG IND: GPM	166.00	664.00T
		SUBTOTAL		16,284.00
4	START-UP	INSPECTION, INSTALLATION VERIFICATION AND DOCUMENTATION - ONE DAY OF ON SITE SERVICE	750.00	3,000.00
32	FIELD LABOR P2P	PORTAL TO PORTAL PER HOUR	125.00	4,000.00
1	FRT	FREIGHT APPROX.	800.00	800.00
		TAX	1,546.98	1,546.98
THANK YOU FOR THE INQUIRY... DOUG			TOTAL	\$25,630.98

**All Returned Goods Are Subject To 25%
Restocking Fee**

Pricing Valid 120 Days

CAPITOL OFFICE

1610 LONGWORTH BUILDING
WASHINGTON, DC 20515
(202) 225-5256
FAX (202) 225-0027

DISTRICT OFFICE

4401 SANTA ANITA AVE, #201
EL MONTE, CA 91731
(626) 350-0150
FAX (626) 350-0450
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Grace F. Napolitano
Congress of the United States
House of Representatives
32nd District of California

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CAUCUS

CO-CHAIR

CONGRESSIONAL YOUTH CHALLENGE

CAUCUS

CO-CHAIR

CONGRESSIONAL HISPANIC CAUCUS

March 17, 2021

Bureau of Reclamation
overnight services: Financial Assistance Support Section
Attn: Mr. Matthew Reichert
P.O. Box 25007, MS 84-27814
Denver, CO 80225

RE: WaterSmart Small-Scale Water Efficiency Projects Grant Application Funding Opportunity R21AS00300 for Valley County Water District's SCADA Operator Interface Panels

Dear Mr. Matthew Reichert:

I write in support of Valley County Water District's application for the WaterSmart Small-Scale Water Efficiency Project grant. Valley County is leading efforts to achieve diverse and healthy water portfolios to meet the needs of their customers.

This grant will allow Valley County to implement Supervisory Control and Data Acquisition system operator interface panels to allow water treatment operators to make operational changes at each of their reservoir sites and booster pump stations. The programming will allow alarms and setpoints, pump start and stop functions and provide live data for reservoir levels, chlorine residuals and discharge flows/pressures. This technology will alert the water district to possible water main breaks when water levels drop rapidly. It will also provide data trending and reports reflecting daily water use.

This program will help the community for many years to come by addressing the challenges of meeting water conservation goals with less revenue while still providing high quality, reliable water supplies for residents and businesses.

Thank you for your consideration of this grant request from Valley County Water District.

Sincerely,

Grace F. Napolitano
Member of Congress