

WaterSMART Grant:

Small-Scale Water Efficiency Projects
Funding Opportunity Announcement No. R22AS00195
For Fiscal Year 2022
\$100,000 Grant Request

March 29, 2022

Water Meter and Data Management Upgrade

Mesquite, NV

Applicant

Virgin Valley Water District
500 Riverside Road
Mesquite, Nevada 89027
TEL (702) 346-5731

Project Manager

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EXECUTIVE SUMMARY

Date: April 5, 2022

Applicant: Virgin Valley Water District
500 South Riverside Road
Mesquite, Clark County, NV 89027

Contact: Joe Phillips, PE
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Washington, UT 84780
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PROJECT SUMMARY:

For this project, Water Metering and Data Management Upgrade, 500 failing domestic water meters in Southern Nevada will be upgraded to new meters coupled with cellular endpoints for improved data analytics and water management. The project will increase efficiency in Virgin Valley Water District's distribution system and help achieve the District's goal of providing quality drinking water to its users through efficient management and conservation. It will also increase resiliency to climate change, particularly as it relates to severe drought. Furthermore, this project will help to stretch and secure water supplies for future generations. Proposed funding in the amount of \$100,000 acquired through the Bureau of Reclamation will be used to purchase the upgraded metering equipment while an equal or greater portion of funds will be provided as a matching contribution by Virgin Valley Water District to implement the project.

Applicant Eligibility	Category A
Estimated Start Date:	April 2023
Approximate Project Length:	21 months
Estimated Completion Date:	December 2024
Federal Facility:	This project is not located on a Federal facility



BACKGROUND DATA

As applicable, describe the source of water supply, the total quantity of water supply managed and supplied, the water rights involved, current water uses (i.e., agricultural, municipal, domestic, or industrial), the number of water users served, and the current and projected water demand. Also, identify potential shortfalls in water supply.

For municipal systems, please include the total approximate length of distribution lines, number and sizes of storage tanks, number of pump stations and capacities, and the number of connections and/or number of water users served and any other relevant information describing the system.

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

Although this section is not required by the Notice of Funding Opportunity for Fiscal Year 2022, it has been included because it provides relevant information for the reviewer.

The Virgin Valley is a valley in northwest Arizona and southeast Nevada on the Virgin River approximately 80 miles northeast of Las Vegas, NV. The Virgin River drains southwest Utah and southeast Nevada; parts of Arizona, especially the Arizona Strip region drain southwards into the Virgin River and Valley. The Virgin Valley begins as the Virgin River exits the Virgin River Gorge between the Beaver Dam Mountains and Wilderness north, and the northeast of the Virgin Mountains on the south of the Gorge. Lake Mead on the Virgin River extends slightly upstream into the Virgin Valley. The valley consists of the following towns or communities: Mesquite, NV; Bunkerville, NV; and Littlefield, AZ. Figure 1 is an area map for Virgin Valley.

The Virgin Valley Water District was created by the State Legislature in 1993. The initial assets of the Water District were formed from the Mesquite Farmstead Water Association and Bunkerville Water User's Association. Water rights contributed from each of the two water companies comprised 60% from the Mesquite Farmstead Water Association and 40% from the Bunkerville Water User's Association.

The VVWD service area covers the City of Mesquite and the Town of Bunkerville as well as a large portion of unincorporated area in the eastern region of Clark County, Nevada, as



Figure 1. Area Map of Virgin Valley



Other Water Sources

A significant portion of the District’s surface water rights come from flow in the Virgin River. The Virgin River is naturally high in Total Dissolved Solids (TDS) and other constituents that would require significant treatment to meet drinking water standards. While developing surface water sources is a viable option, it would almost certainly be more cost effective to continue using groundwater wells for future supply needs (if future groundwater rights can be acquired). However, the economic, social, political, and environmental conditions within the next 10-12 years will have an influence on which of the options above best suits the needs of the District.

Distribution System

The VVWD distribution system is composed of over 160 miles of distribution and transmission piping. Pipe sizes range from 4-inch distribution lines to 24-inch transmission lines. Table 2 provides a summary of the District’s existing pipe network. The majority of the District’s pipelines are made of PVC (80% or greater) and ductile iron. Through the network of piping and approximately 10,000 water meters, 4,000 residential, commercial, and industrial customers are provided with water for both indoor and outdoor use.

The existing connections that have yet to be upgraded are equipped with Badger M25 Disc Water Meters coupled with Orion Classic Drive By Radio Endpoints.

Table 2. VVWD Distribution System

Pipe Diameter (inches)	Total Length (feet)	Percentage of Network
4	4,566	0.53%
6	105,559	12.3%
8	367,886	42.86%
10	118,509	13.81%
12	85,018	9.90%
14	29,765	3.47%
16	97,363	11.34%
18	15,189	1.77%
24	34,538	4.02%
Total	858,393	100%

CONSERVATION PLAN

VVWD has a complete water conservation plan and actively supports conservation measures. The conservation plan details educational, financial, and regulatory incentives.

Water use per EDU in the District has shown a downward trend over the last several years. Decreased water usage may be attributable to a number of different factors, such as a decrease in system leaks (better maintenance), desert/drought tolerant landscaping, or customers becoming more conscious of water use. It is recommended that the District continue to promote water conservation and raise public awareness regarding the benefits of conserving water. Water use trends should be re-evaluated regularly, making revisions when necessary.



Figure 3. Meter Upgrades Location Map



TECHNICAL PROJECT DESCRIPTION

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

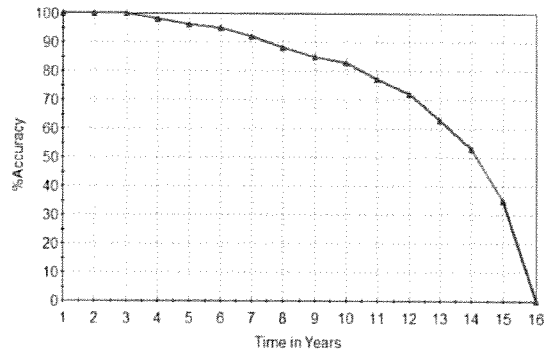
PROBLEMS AND NEEDS

VVWD faces three main issues stemming from the current meters and data collection method. These issues include an aging infrastructure, strain on District resources, and the ability to conserve water in accordance with VVWD's water conservation goals.

Aging Infrastructure

Typical domestic water meters have a service life of 10 to 15 years before accuracy begins to decline to an unacceptable level. When these types of meters begin to fail, the accuracy declines at a slow and steady rate for a period of months to years before taking a significant and noticeable drop in accuracy (see Figure 4). VVWD's method of meter data tracking is not sophisticated enough to detect faulty meters until after the significant drop in accuracy, resulting in prolonged, unnecessary losses in water supply and revenue. Most existing meters within VVWD's system range between 10 and 18 years old and are experiencing significant drops in accuracy. VVWD has identified 500 meters that are reading far below typical flows or have stopped transmitting data wirelessly. A Water Conservation Plan completed by VVWD in 2007 recommended replacing and upgrading meters on a recurring schedule.

Figure 4. Accuracy of Water Meter Over



Unnecessary Demand on District Resources

The size and nature of VVWD's service area is not conducive to the drive-by radio data collection required by the current meters. VVWD's office is situated in Mesquite-more or less centrally located in the approximate 40 square mile effective service area. This situation causes unnecessary demand on equipment and manpower, as well as consumes excess amounts of fuel, when regular trips are required to the extents of the service area. Each month, crews travel over 50 miles recording meter readings. These numbers are increased when meters fail to transmit data during drive-by meter reading activities.



The proposed meter upgrade project to VVWD's water system is expected to benefit VVWD, the Southern Nevada Water Authority, US Fish and Wildlife Service, Bureau of Reclamation, and other related organizations by improved water conservation techniques. VVWD will recognize additional financial benefits in the form of increased revenue and savings from more accurate meter reading. VVWD will then have the ability with the increased revenue to implement other and more advanced infrastructure and conservation practices in the future.

Explain the significance of the anticipated water management benefits for the Category A applicant's water delivery system and customers. Consider:

Upgrading VVWD's water meters will improve the overall efficiency of the water delivery system. The new metering and data management project will provide greater accuracy, earlier detection of leaks, and improve usage understanding by all parties to help reduce and manage water consumption in VVWD's service area.

- *Are customers not currently getting their full water right at certain times of year?*
Yes. However, with the ongoing and persistent drought in the region, there is some degree of uncertainty as to whether or not this will still be the case over time.
- *Does this project have the potential to prevent lawsuits or water calls?*
Yes. With the technology to capture and store data in real-time, the District and the customers will have the ability to refer to and pull historical or current data as necessary. This would aid in mitigating issues and disputes before escalating to legal battles. Further, these meter upgrades will likely result in the District having the ability to troubleshoot and resolve issues from an office setting rather making a call to the actual location of where the problem originated.
- *What are the consequences of not making the improvement?*
The meter system upgrades included in this WaterSMART Grant application will help the VVWD to be even more water efficient with its groundwater supply delivery, thus prolonging the need to develop and use the critical river water that eventually feeds Lake Mead. The more current and future water that can be captured in Lake Mead will be a future benefit for all Lower Basin States on the Colorado River. If these upgrades are not completed due to financial constraints, it will result in water losses that would typically remain in the river and eventually in Lake Mead.
- *Are customer water restrictions currently required?*
The District has calculated that the ¾" meters are using 106 gpcd, which is very low water use for the desert southwest. On this premise, the District has not been compelled to set customer water restrictions. The District does have the authority to set restrictions in the event that usage trends show an increase or conditions warrant such action as so indicated in the Water Conservation Plan. The District's goal is to reach 85 gpcd and this metering upgrade project will help in achieving this.
- *Other significant concerns that support the need for the project.*
Currently, the VVWD's primary water source is an aquifer (Water Basin 222) of which the VVWD has 12,271 acre-feet of water rights. The VVWD is currently pumping 7,200 acre-feet annually to provide water to the 26,000 citizens and 100,000's of visitors. Additionally, the VVWD has over 8,000 acre-feet of water rights in the Virgin River, which is a tributary to the Colorado River Basin.



- *Will the project complement work being done in coordination with NRCS in the area (e.g., the area with a direct connection to the districts water supply)? Please explain.*
No NRCS projects have been done in the proposed project area to VVWD's knowledge.
- *Will the project help address drought conditions at the sub-basin or basin scale? Please explain.*
This project will help address drought conditions at the sub-basin or basin scale by reducing the amount of water being drawn from the water table.

EVALUATION CRITERION B: PLANNING EFFORTS SUPPORTING THE PROJECT (30 POINTS)

Up to 30 points may be awarded based on the extent to which the proposed on-the-ground project is supported by an applicant's existing water management plan, water conservation plan, System Optimization Review, or identified as part of another planning effort led by the applicant. This criterion prioritizes projects that are identified through local planning efforts and meet local needs.

Plan Development: *Describe how your project is supported by an existing planning effort. Identify the planning effort and who developed it. If the planning effort was not developed by the Category A applicant, describe the Category A applicant's involvement in developing the planning effort.*
VVWD with public input from customers, developed a District wide Water Conservation Plan in 2007. The plan included a range of conservation tools for both the customers and the District.

Support for the Project: *Describe to what extend the proposed project is supported by the identified plan. Address the following:*

- ***Is the project identified specifically in the planning effort?***
Yes. The VVWD Conservation Plan states the following:
“The Virgin Valley Water District shall implement water conservation tools to ensure conservation in the transmission and delivery system. These management tools shall include, but not be limited to the following:
 - A. Ensure that all water meters are read on a regular scheduled basis
 - B. Establish water service rates that will encourage water conservation
 - C. Develop an analysis of the water consumption that would include the evaluation of:
 - a. Comparison of seasonal use of water
 - b. Comparison of well water production and monthly meter readings
 - c. Random review of customer water consumption
 - D. Daily reading of the well water production
 - E. Periodic leak survey of the distribution system
 - F. Routine reading of the static groundwater level
 - G. Repair known leaks in a timely manner
 - H. Exchange meters known to be non-functional
 - I. Assist customers with water conservation techniques”



Table 3. Proposed Project Schedule

Project Tasks and Milestones	Year 1				Year 2			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Receive Funding Award								
Coordinate with Reclamation on Agreement								
Order Meters & Supplies								
Install 500 Upgraded Meters								
Integrate Meters into Data Management System								
Project Closeout & Submit Final Report								

- Describe any permits that will be required, along with the process for obtaining such permits.**
 No permits are required for this project. It will be completed as a maintenance project under Nevada Division of Environmental Protection (NDEP) Bureau of Safe Drinking Water (BSDW) rules.
- Identify and describe any engineering or design work performed specifically in support of the proposed project.**
 No engineering or design work is required for this project.
- Describe any new policies or administrative actions required to implement the project.**
 No new policies or administrative actions are required to implement the project. However, VVWD accounting and GIS staff will be advised of the upgraded technology and receive training and direction on how to utilize the improved technology to archive and represent the data for use by VVWD managers in administering the system. The trainings will be focused on how efficiencies gained through the upgraded meter system can be recognized and capitalized.
- Describe the timeline for completion of environmental and cultural resource compliance. Was the timeline for completion of environmental and cultural resource compliance discussed with the local Reclamation office?**
 Whereas the proposed project (Metering and Data Management Upgrade) represents improvements to local meter assemblies at specific sites that have already been disturbed (there are existing meters in place at each of the sites), environmental impacts are expected to be negligible and NEPA compliance is expected to be tenable through a Categorical Exclusion. Compliance efforts and anticipated costs have been discussed with the local Reclamation office. It is anticipated that Reclamation will perform the work necessary to document NEPA compliance. For budgeting purposes, 3% of the direct costs have been included in the budget proposal to account for this expense, though costs are expected to be minimal.

EVALUATION CRITERION D: NEXUS TO RECLAMATION (5 POINTS)

Up to 5 points may be awarded based on the extent that the proposal demonstrates a nexus between the proposed project and a Reclamation project or activity. Describe the nexus between the proposed project and a Reclamation project or activity, including:

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



Sub-criterion no. E1: Climate Change

Points will be awarded based on the extent the project will reduce climate pollution; increase resilience to the impacts of climate change; protect public health; and conserve our lands, waters, oceans, and biodiversity. Address the following as relevant to your project.

Combating the Climate Crisis

E.O. 14008: Tackling the Climate Crisis at Home and Abroad, focuses on increasing resilience to climate change and supporting climate- resilient development. For additional information on the impacts of climate change throughout the western United States, see:

<https://www.usbr.gov/climate/secure/docs/2021secure/2021SECUREReport.pdf>. Please describe how the project will address climate change, including:

- **Please provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis.**

Figure 5. U.S. Drought Map Monitor



The ongoing drought in the west has had significant impact on the water supply throughout the region. The VVWD service area is currently in the D2 (severe) drought intensity according to the U.S. Drought Monitor as shown in Figure. 5. This has caused some degree of uncertainty in the future as it pertains to sustainable yield in community water sources.

As mentioned in other sections, VVWD receives all their water from a number of deep wells in the Virgin Valley Hydrologic Basin. This in itself acts to counter the drought crisis in the area as water is drawn

from deep in the aquifer rather than from shallow wells or surface flows. Studies show that conservation in its many forms is a primary and effective method to combat the impacts of climate crisis. In climate crisis such as drought, it is crucial for the water purveyors to have the tools necessary to monitor usage and to make adjustments to usage or to impose restrictions if needed.

This metering upgrade project will allow the District to better monitor and manage their system in a real-time environment and take appropriate action in response to drought conditions. Furthermore, accurate metering has shown to cause users to be more judicious in how they use water.

- **Does this proposed project strengthen water supply sustainability to increase resilience to climate change? Does the proposed project contribute to climate change resiliency in other ways not described above?**

This project will result in water users consuming less water both indoors and outdoors and as a result will strengthen water supply sustainability. Customers using less water from the deep well sources will allow the District to meet demands for a longer growth period.



- *High transportation cost burden and/or low transportation access*
 - *Disproportionate environmental stressor burden and high cumulative impacts*
 - *Limited water and sanitation access and affordability*
 - *Disproportionate impacts from climate change*
 - *High energy cost burden and low energy access*
 - *Jobs lost through energy transition*
 - *Access to healthcare*
- *If the proposed project is providing benefits to an underserved community, provide sufficient information to demonstrate that the community meets the underserved definition in E.O. 13985, which includes populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life.*

The City of Mesquite has benefited from grant funding from the Community Development Block Grant Program. This is a sound indicator that the area does have sectors of low to moderate income within the overall population. It would then stand to reason that there is a number of customers in the VVWD service area that would benefit from the grant funds provided through the WaterSMART program by alleviating some of the financial burden as opposed the District fully funding the project. Statistics show that 4% of the area live in poverty and approximately 62% of the population earn less than the national average. The unemployment rate in the area is nearly 9% and the average fuel price in the State of Nevada is currently above \$5.00/gal.

Impacts from drought are greater in the western U.S. than in other areas of the nation. Drought intensity is currently in the severe range according to the U.S. Drought Monitor.

Sub-criterion No. E.3. Tribal Benefits

Points will be awarded based on the extent to which the Project will honor the Federal government's commitments to Tribal Nations.

- ***Does the proposed project directly serve and/or benefit a Tribe? Will the project improve water management for a Tribe?***
No, not directly. However, there are likely indirect tribal benefits that will result from this conservation project.
- ***Does the proposed project support Tribal resilience to climate change and drought impacts or provide other Tribal benefits such as improved public health and safety by addressing water quality, new water supplies, or economic growth opportunities?***

These conservation efforts will result in tribal benefits that are seen more in a peripheral view. Conservation efforts that allow for more water to stay in the Virgin River will add social and economic benefit to tribal members who depend on the Virgin River and Lake Mead for the recreation and tourism element for employment and economic growth opportunities.



PROJECT BUDGET

The project budget includes:

- (1) Funding plan and letters of commitment
- (2) Budget proposal
- (3) Budget narrative

Project costs for environmental and cultural compliance and engineering/design that were incurred or are anticipated to be incurred prior to award should be included in the proposed project budget.

FUNDING PLAN AND LETTERS OF COMMITMENT

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

This WaterSMART Grant application for small-scale water efficiency projects is requesting \$100,000 in federal funding from the Bureau of Reclamation. VVWD will fund the remaining \$124,890 for the project using in-kind services and cash reserves. No other federal funding has been requested for this project and there are no other pending funding requests. This project will not incur any costs prior to the estimated start date. Table 4 summarizes the proposed financing sources for this project.

Table 4. Project Funding Sources

FUNDING SOURCES	AMOUNT
Non-Federal Entities	
Virgin Valley Water District: In-Kind Labor/Wages	\$ 84,890
Virgin Valley Water District: Cash	\$ 40,000
Non-Federal Subtotal	\$124,890
Federal Entities	
Bureau of Reclamation	\$ 100,000
Federal Subtotal	\$100,000
Total Project Cost	\$224,890

Since this project is not requesting funding from other third parties, no letters of commitment from partnering funding agencies are required. VVWD has already designated matching funds and resources in its budget for this fiscal year.

BUDGET PROPOSAL

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

A summary of the proposed project budget is provided in Table 5. The budget narrative explains the proposed budget in more detail.



Fringe Benefits

The provisional fringe benefits rates for VVWD personnel are based on 2021 benefits expenses and averages 35% of the base wage for the listed employees. Fringe benefits include Medicare, retirement, and insurance. Fringe benefits anticipated for the project represent an in-kind or cash matching contribution to the project by VVWD.

Travel

Travel related expenses are not eligible for reimbursement under this FOA and as such are not included in the project budget. Local travel costs are included in vehicle usage rates as part of the Equipment section.

Equipment

Equipment costs incurred are for use of VVWD owned equipment. Local vehicle travel costs and loader operating costs are included as part of the proposed budget. All equipment rates represent an in-kind or cash matching contribution to the project by VVWD.

Materials and Supplies

VVWD will purchase all 500 meters and cellular endpoints required for upgrade directly from the manufacturer, Sensus Meter. Pricing for additional supplies such as meter boxes and miscellaneous fittings has been compared to various local suppliers to verify appropriate costs. Requested funding from Reclamation is proposed to be applied towards materials and supplies costs.

Contractual

Whereas VVWD will install the upgraded meters with in-house crews, a contractor will not be retained to complete the work. VVWD anticipates using Sunrise Engineering, Inc. under the existing on-call services agreement between the parties where necessary to support VVWD’s efforts in reporting/coordinating with Reclamation. However, these services are not included as part of the project budget.

Environmental and Regulatory Compliance Costs

Discussions with representatives of the Bureau of Reclamation have determined that there will likely be no Environmental Compliance costs associated with a project of this nature.

Indirect Cost

No indirect costs are anticipated as part of this project and as such have not been included in the proposed budget.

Total Costs

The estimated total project cost for the Water Meter and Data Management Upgrade project is \$224,890. The requested federal share is \$100,000 and the remaining balance of \$124,890 will be provided by VVWD.

**ENVIRONMENTAL AND CULTURAL RESOURCES
CONSIDERATIONS**

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

The application should include the answers to:



This project has no effect on an irrigation system or any buildings, structures, or features listed or eligible for listing on the National Register of Historic Places. The improvements are limited to the meter assemblies only.

- ***Are there any known archeological sites in the proposed project area?***
No sites are known. The improvements will be made at specific meter sites which have already been disturbed. No new disturbances are anticipated.
- ***Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?***
No. The proposed project will improve service to low income and minority populations. Upgraded meters will promote early leak detection and provide more accurate and fair billing for water use at all improved connections.
- ***Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?***
No.
- ***Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?***
No.

REQUIRED PERMITS OR APPROVALS

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

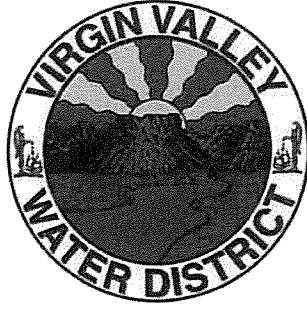
No permits are required for this project. It will be completed as a maintenance project under Nevada Division of Environmental Protection (NDEP) Bureau of Safe Drinking Water (BSDW) rules.

OFFICIAL RESOLUTION

An official resolution meeting the requirements set forth above is mandatory. If the applicant is unable to submit the official resolution by the application deadline because of the timing of board meetings or other justifiable reasons, the official resolution may be submitted up to 30 days after the application deadline.

An official resolution has been drafted and approved by VVWD's Board of Directors. The signed resolution is attached to this application.





April 5, 2022

Bureau of Reclamation
Financial Assistance Support Section
Attn: Mathew D. Reichert
P.O. Box 25007
Denver, CO 80225

Subject: FY22 WaterSMART Grant: Small-Scale Water Efficiency Project for Virgin Valley Water District

Dear Mr. Reichert,

The Board of Directors of the Virgin Valley Water District (VVWD) are in unanimous support of the VVWD's application for the Small-Scale Water Efficiency WaterSMART Grant to upgrade the VVWD's meter system to make it much more efficient.

The VVWD is implementing a robust and comprehensive water conservation program that will improve the VVWD's already low water consumption rate (when compared to other water providers in the southwest United States). Currently, the VVWD's primary water source is an aquifer (Water Basin 222) of which the VVWD has 12,271 acre-feet of water rights. The VVWD is currently pumping 7,200 acre-feet annually to provide water to the 26,000 citizens and 100,000's of visitors. Additionally, the VVWD has over 8,000 acre-feet of water rights in the Virgin River, which is a tributary to the Colorado River.

The meter system upgrades that the WaterSMART Grant would help pay for and aid the VVWD to be even more water efficient with its groundwater supply delivery, thus prolonging the need to develop and use the critical river water that eventually feeds Lake Mead. The more current and future water that can be captured in Lake Mead will be a future benefit for all Lower Basin States on the Colorado River.

The Virgin Valley Water District Board of Directors appreciates any assistance the Bureau of Reclamation can provide to assist the VVWD in its efforts to become more water efficient and to do our part in helping the struggling Colorado River. If you have any questions or require further information, please contact our General Manager, Kevin Brown, at 702-346-5731 or at kbrown@vvh2o.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Davis".

Ben Davis, Chairman
Virgin Valley Water District
Board of Directors



SOUTHERN NEVADA WATER AUTHORITY™

100 City Parkway, Suite 700 • Las Vegas, NV 89106
MAILING ADDRESS: P.O. Box 99956 • Las Vegas, NV 89193-9956
702-862-3400 • snwa.com

April 19, 2022

Bureau of Reclamation
Financial Assistance Support Section
Attn: Matthew D Reichert
P.O. Box 25007
Denver, CO 80225

Re: FY22 WaterSMART Grant: Small-Scale Water Efficiency Project for Virgin Valley Water District

Dear Mr. Reichert,

The Southern Nevada Water Authority (SNWA) supports Virgin Valley Water District's application for the Small-Scale Water Efficiency Project WaterSMART Grant to upgrade the water system's metering infrastructure. We believe this effort to be a vital component in the overall strategy for conserving water resources in the Virgin Valley for the benefit of the community and all interested parties.

As with all communities in southern Nevada, SNWA understands the importance of protecting and conserving the desert's most precious resource – water. Virgin Valley Water District's mandate is to operate a domestic water system that efficiently provides water to the communities the District serves. Installing technologically advanced infrastructure is an important strategy the District employs to ensure effective and efficient management of the water.

We believe this water efficiency project put forth by Virgin Valley Water District will be an asset to their community and support regional conservation goals.

The Southern Nevada Water Authority appreciates the opportunity to support Virgin Valley Water District in its endeavors to improve water infrastructure and water efficiency. If you need anything further, please do not hesitate to contact me at Katie.Horn@snwa.com.

Sincerely,

Katie Horn
Management Services Manager
Southern Nevada Water Authority

SNWA MEMBER AGENCIES

Big Bend Water District • Boulder City • Clark County Water Reclamation District • City of Henderson • City of Las Vegas • City of North Las Vegas • Las Vegas Valley Water District

April 13, 2022

Bureau of Reclamation
Financial Assistance Support Section
Attn: Matthew D Reichert
P.O. Box 25007
Denver, CO 80225

Re: FY22 WaterSMART Grant: Small-Scale Water Efficiency Project for Virgin Valley Water District

Dear Mr. Reichert,

The Bunkerville Irrigation Company (BIC) whole-heartedly supports Virgin Valley Water District's application for the Small-Scale Water Efficiency Project WaterSMART Grant to upgrade the water system's metering infrastructure. We believe this effort to be a vital component in the overall strategy for conserving water resources in the Virgin Valley for the benefit of the community and all interested parties.

As with all communities in southern Nevada, BIC understands the importance of protecting and conserving the desert's most precious resource – water. Virgin Valley Water District's mandate is to operate a domestic water system that efficiently provides water to the communities the District serves. Installing technologically advanced infrastructure is an important strategy the District employs to ensure effective and efficient management of the water.

BIC has considerable water interests in the Virgin River, a tributary of the Colorado River. BIC relies heavily on the infrastructure to beneficially use local water resources. We hope to see the community grow and prosper as a fundamental part of the economy in southern Nevada, but this can only be achieved if we act as responsible stewards of our natural resources. We believe this water efficiency project put forth by Virgin Valley Water District will provide much-needed water conservation and boost the overall health of the Town of Bunkerville and City of Mesquite.

The Bunkerville Irrigation Company appreciates the opportunity to support Virgin Valley Water District in its endeavors to improve water infrastructure and water efficiency. If you need anything further, please do not hesitate to contact me at 702-612-7709 or at bri_joy@hotmail.com.

Sincerely,



Brian Haviland
Secretary
Bunkerville Irrigation Company

April 18, 2022

Bureau of Reclamation
Financial Assistance Support Section
Attn: Matthew D Reichert
P.O. Box 25007
Denver, CO 80225

Re: FY22 WaterSMART Grant: Small-Scale Water Efficiency Project for Virgin Valley Water District

Dear Mr. Reichert,

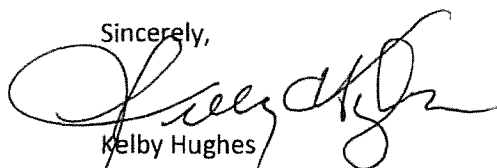
The Mesquite Irrigation Company (MIC) whole-heartedly supports Virgin Valley Water District's application for the Small-Scale Water Efficiency Project WaterSMART Grant to upgrade the water system's metering infrastructure. We believe this effort to be a vital component in the overall strategy for conserving water resources in the Virgin Valley for the benefit of the community and all interested parties.

As with all water entities in southern Nevada, MIC understands the importance of protecting and conserving the desert's most precious resource – water. Virgin Valley Water District's mandate is to operate a domestic water system that efficiently provides water to the communities the District serves. Installing technologically advanced infrastructure is an important strategy the District employs to ensure effective and efficient management of the water.

MIC has considerable water interests in the Virgin River, a tributary of the Colorado River. MIC relies heavily on the infrastructure to beneficially use local water resources. We hope to see the community grow and prosper as a fundamental part of the economy in southern Nevada, but this can only be achieved if we act as responsible stewards of our natural resources. We believe this water efficiency project put forth by Virgin Valley Water District will provide much-needed water conservation and boost the overall health of the Town of Bunkerville and City of Mesquite.

The Mesquite Irrigation Company appreciates the opportunity to support Virgin Valley Water District in its endeavors to improve water infrastructure and water efficiency.

Sincerely,



Kelby Hughes
President
Mesquite Irrigation Company

OFFICIAL RESOLUTION
OF THE
Virgin Valley Water District
Resolution No. 2022-01

The President of the Virgin Valley Water District, Ben Davis, and the Board of Directors, have reviewed and support the application for a contribution grant for an upgraded culinary water metering project focused on conserving water in southern Nevada. The grant request in the amount of \$100,000 plus an in-kind labor and cash match, for an approximate total project cost of \$225,000, would greatly benefit the local residents and the Virgin Valley Water District in their efforts to reduce errors and water usage costs, while increasing water efficiency.

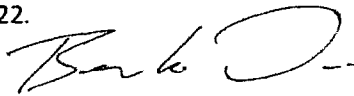
WHEREAS, the Department of the Interior, Bureau of Reclamation, has made grant funding available under the Small-Scale Water Efficiency Projects for FY22, the Virgin Valley Water District in Mesquite, Nevada is submitting a grant application requesting grant funds in the amount of \$100,000 for the upgraded metering materials and any other authorized use on the project.

WHEREAS, the Virgin Valley Water District supports the proposed FY22 WaterSMART Small-Scale Water Efficiency Program grant request and is committed to providing its portion of the required funding in support of the application and the budget necessary for the successful completion of the project.

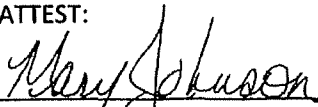
NOW THEREFORE, BE IT RESOLVED, the Virgin Valley Water District commits to providing the remaining budget balance of up to \$125,000, if necessary, through in-kind labor and cash reserves to comply with the FY22 WaterSMART Small-Scale Water Efficiency Program grant budget.

NOW THEREFORE, BE IT RESOLVED, the Virgin Valley Water District will work with the Bureau of Reclamation to meet environmental compliance and established deadlines for entering into a grant or cooperative agreement.

PASSED AND APPROVED by the Board of Directors of the Virgin Valley Water District this April 19, 2022.



Ben Davis, President

ATTEST:
 **SECRETARY-TREASURER**
Date: April 19, 2022

