

**WaterSMART: Small-scale Water Efficiency  
Programs for (FY) 2021  
Installing Smart Water Meters for Ivins  
Irrigation Company Phase I**

**FOA: R21AS00300**



**WASHINGTON COUNTY  
WATER CONSERVANCY DISTRICT**

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**March 18, 2021**

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## TECHNICAL PROPOSAL

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### Executive Summary

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*Date, applicant name, city, county, and state*

March 18, 2021

Washington County Water Conservancy District (WCWCD)

Saint George, Washington County, Utah

*Indicate type of applicant.*

Applicant type A

*One paragraph project summary that provides the location of the project, a brief description of the work to be carried out, any partners involved, expected benefits and how those benefits relate to the water management issues you plan to address.*

*Water Conservation – Irrigation Flow Measurements*

In this project, WCWCD will install water meters with automatic meter reading (AMR) capability for the end users of Ivins Irrigation Company (IIC). WCWCD delivers water out of the Santa Clara River to this system. Since Ivins City has an established automatic meter infrastructure (AMI) using Badger meters with Itron meter reading components, the equipment of choice will be the same. These meters have been tested by other water districts in the state and have been proven to work well in secondary water conditions. Overall, the project can provide information on water use which can assist in understanding irrigation needs focusing this phase on agriculture users and assist in better management of the water resource. NRCS will be brought in to assist in education of best management practices to minimize water use.



- Specifically, the information collected from the meters can:
- Create a bigger picture of water use and assist in making needed and wise policy decisions.
  - Aid in the reduction of water use through ability to audit the system, maintain water allotments among the users and determine high water users.
  - Allow financial incentives when users conserve water.
  - Provide watering habits; hourly data provides education to homeowner in dispute of water use and watering habits.
  - Identify high water users to help educate them on their use and if necessary, penalize them for irresponsible use allowing high water users to pay the brunt of the cost when additional water supply is driven by the demand of irresponsible users.
  - Allow for equitable use on the system.

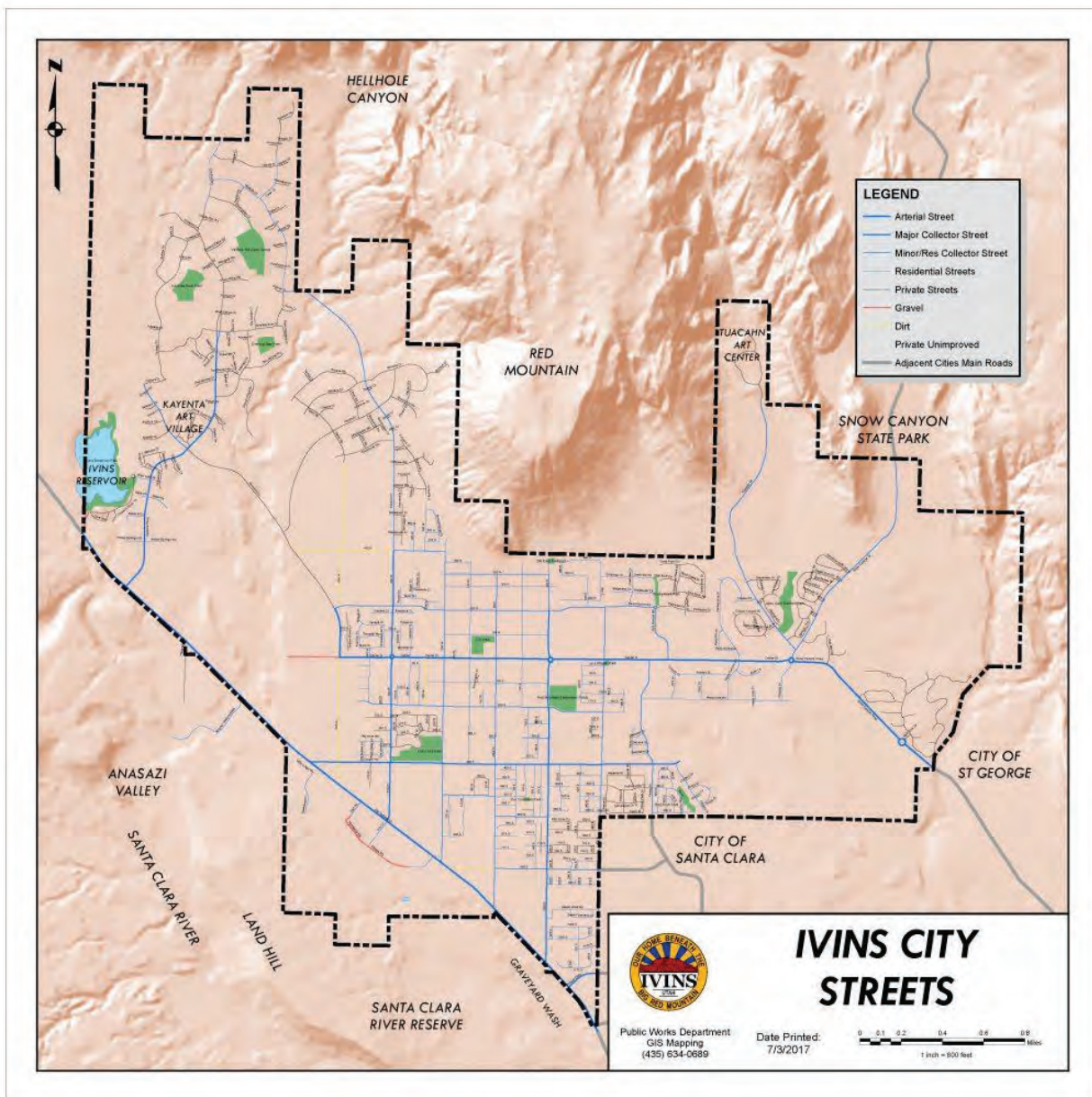
*State the length of time and estimated completion date for the proposed project including the construction start date (month/year)*

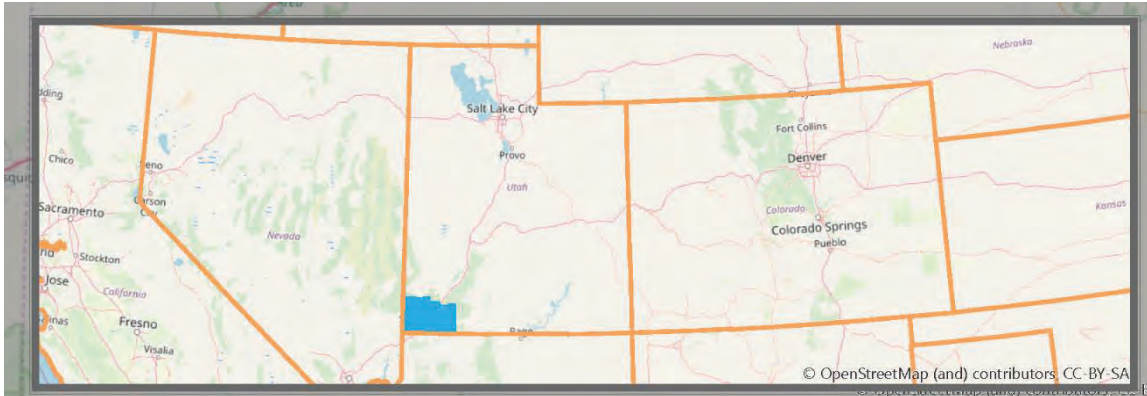
The project's timeline will begin on February 1, 2022 and complete by January 31, 2024.  
*Whether or not the proposed project is located on a federal facility*  
This project is not located on a federal facility.

### Project Location

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

Ivins City is located in Washington County. The county is in the Virgin River/Kanab Basin located in the southwest corner of Utah. This area is located in the Lower Colorado River Basin and is a tributary to Lake Mead which is identified as a highly likely area to experience a water crisis by the year 2025. The following maps shows the location of Ivins City and the county location in the state of Utah.





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## Project Description and Milestones

*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 aspects of the project that reviewers may need additional information to understand. [no milestones, no project benefit]*

The proposed project is to install new AMR meters on all shareholder connections for 179 shareholders in the Ivins Irrigation system. The project will be broken down into two phases. The first phase will address the meters larger than a 1-inch for a total of 36. The following paragraphs explain what the project will accomplish:

Shareholder education and outreach – This will reduce negative feelings and prepare shareholders for the upcoming change. It will also promote proper irrigation practices and help identify water use habits and change them to reduce use. Since this phase deals with the agriculture connection only, NRCS will be brought in to help with education. The district has a great working relationship with NRCS and this project will work with them in educating agriculture users in proper irrigation methods and practices.

Locate and map all 179 connection points – It is necessary to identify all potential connection points in the system whether they are adjacent to a current shareholder or not. 39 of the 179 total connections will be completed in this phase. A GPS device with survey grade capabilities shall be used to locate these points and provide digital and physical maps to the irrigation company for future use. Illegal connections shall also be looked for and eliminated when found.

Purchase and Install Water Meter Equipment – The project will install meter boxes and meter setters and install AMR meters on all active connections that currently being used by shareholders.

Management – Establish agreements and ensure proper software capabilities between the irrigation company and Ivins City for the reading of the meters and sending of billing statements.

Establish procedures for evaluating usage and protocols for proper reactions to overuse.  
Establish procedures for identifying water loss and leakage.

## EVALUATION CRITERIA

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### ***Evaluation Criterion A: Project Benefits—Municipal Metering***

*Describe the expected benefits and outcomes of implementing the proposed project. Benefits to the applicant's water supply delivery system. If other benefits explain those as well. Consider the following: Extent to providing water supply reliability.*

#### *Improvements proposed.*

The meter of choice is the Badger E-series (larger meters will be Master Meter Octave meters) have been tested by other water districts in the state and have been proven to work well in secondary water quality. The AMI devices will be as manufactured by Itron so that it will be compatible with the City's meter reading capabilities.

The water that is to be conserved is water that is currently lost due to system losses, illegal connections, and overuse due to unmetered flows. Currently, a complete audit cannot be performed on the system because meters are not available at end use. This project will allow for an audit on the system to find water losses on the system. Even capturing a 10 percent of system water loss would save up to 200 acre-feet.

#### *Water Savings*

This project is for a small secondary water system in Ivins City. The community contains small agriculture spaces interspersed among the new developments. This project will allow better management of water delivery through installing smart meters on end users of the system. IIC delivers 70 percent of the water to agriculture. 30 percent is delivered to residential. Right now, the water is only tracked at WCWCD's point of delivery. IIC will be able to track user water use and audit system by the upgrade to meters. The meters will bring better management for these shortages within this system and verification of water savings. WCWCD administers delivery of all the water shortages to all water users on the river system.

The irrigation company delivers between 1,000 and 1,700 acre-feet of water for the system's 179 connections of both residential and agriculture. Even with only 39 connection agriculture use, 70 percent of the water delivery is taken by agriculture. Currently, these connections are not metered, and this project will allow for verification of:

- Tracking system water-efficiency measures. Increased measurement will allow for better management of water.
- Implementing an audit and loss control program.
- Providing education to water users on watering habits; data provides education to homeowner in monthly statement of water use.
- Identifying high water users to help educate on their use and if necessary, penalize for irresponsible use allowing high water users to pay the brunt of the cost when additional water supply is driven by the demand of irresponsible users.
- Allowing for equitable use on the system.
- Providing data for flagging accounts with excess water use on the system.

The estimated savings on a full usage water year for the agriculture portion should be 220 acre-feet based on our assumptions and analysis as described below.

### *Distribution System Losses*

Currently, there is a master meter measuring the water going to this system and the historical water use is recorded and available for comparisons post project. In addition to this historical data, the end use meters and data from the AMR/AMI will allow the ability to audit the system, track water use and verify the actual water savings on the system. Even capturing a 10 percent of system water loss would save up to 100 acre-feet for the agriculture delivery.

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

There are no expected geographic scope benefits.

### *Benefits to increased collaboration and information sharing among region.*

#### *Support and Collaboration*

Support letter from Ivins City and a resolution from Ivins Irrigation Company can be found in the appendix.

IIC's service area is located in Ivins City. Ivins City has plans to implement a city-wide irrigation system to all residences. The City has a population of 9,774 with expectations to grow to 25,000 over the next 30 years with a current growth rate of 4 percent. It is critical for the City to implement an efficient irrigation system to meet the future demands. The City is extremely interested to see the irrigation company implement water metering because that would enable the two irrigation systems to be interconnected and operated as a single system, using the same water sources.

#### *Consumer Engagement*

This project will have a high consumer engagement implementing the installation of the meters and tracking monthly water use. The information will be presented prior to installation and through the installation process. The project will also measure the success of customer actually engaged in the self-monitoring, self-assessment and consumption changes provided each month. This will promote what WCWCD is anticipating a conservative 10 percent reduction in agriculture water use. The public outreach campaign will assess the water users willingness to monitor, assess and correct water use (using the existing unmetered, no information provided system) to the system that will be available after the installation of the AMI/AMR tools are available.

*Positive impacts/benefits to local sectors, economies, agriculture, environment, recreation, tourism.*

#### *Project Benefits Endangered Species*

Also, in the recent study published by the BOR: Colorado River Basin Water Supply and Demand Study, it identifies this area as one to experience a 9 percent decrease in the Colorado River basin flows in the next 50 years due to climate change. This report considers four options to resolve the imbalance of water supply and demand. One of those options is to reduce demand in water and energy. This project would work toward utilizing that option. The water conserved from the project will improve the ability of water users to ensure base flows in the Santa Clara River per the agreements that have previously been established.



The county's major river, Virgin River, is home to some of the rarest fish species on earth. A contributory river to the Virgin and one that the IIC receives its water from is the Santa Clara River. This river has 2 endangered fish in its reaches. Water users on this river system have also

entered into an agreement, known as the Santa Clara Project. The agreement can be found here: <http://www.wcwcd.org/wp-content/themes/wcwcd/pdf/municipal/Shivwits-Band-Water-Right-Agr.pdf>.

The agreement provides a pooling of water rights of both surface and ground water in the Santa Clara River system. This river system has erratic flows and most years does not supply sufficient water to satisfy all existing water rights. This agreement settles the water right claims of the Shivwits Band of Paiute Indians, conserves water and provides for a more dependable water supply for users and provides certain instream flows in the Santa Clara River below Gunlock Reservoir for the Virgin River Spinedace. Signers of this agreement are: Bloomington Canal Company; Lower Gunlock Reservoir Corporation; New Clara Field Canal Company; Gunlock Irrigation Company; Shivwits Band of the Paiute Indian Tribe of Utah; Southgate Irrigation Company; City of St. George, Utah; St. George Clara Field Canal Company; the United States of America; State of Utah; Ivins Irrigation Company; and WCWCD.

This project will help deal with the rations of IIC's river allotment that are shared by all users on the river and meet the obligations found in the Shivwits Water Settlement Act and The Virgin Spinedace Conservation Agreement and Strategy. (Agreement can be found here: [https://virginriverprogram.org/wp-content/uploads/2019/05/2009\\_Virgin\\_Spinedace\\_MOU\\_Signatures.pdf](https://virginriverprogram.org/wp-content/uploads/2019/05/2009_Virgin_Spinedace_MOU_Signatures.pdf).) Measuring water delivery and reducing water use on IIC system will minimize losses and improve these water delivery obligations.

The Washington County area has been consistently growing at a rate higher than the rest of the State of Utah. Water resources are always under pressure in this desert environment regardless of pressures from community growth. It is critical that this project proceed so that the resource can be used most efficiently. The extra water that is generated from this project but not needed to sustain the minimum flows needed in the Santa Clara River will be available for growth of the irrigation system and reduce the demand on the culinary system.

It is the responsibility of the District to find all possible ways to conserve and improve the efficiency of use of local water resources in addition to planning future water projects to meet the county's water needs. This proposed water efficiency project is part of the district's efforts to balance the water needs for residents while preserving the threatened and endangered species, critical habitat, and other fish and wildlife impingements.

*Extent to project complements work done in coordination with NRCS in the area, on-farm efficiency work using NRCS assistance. (e.g., with a direct connection to the district's water supply). Describe any on-farm efficiency work that is currently being completed or is anticipated to be completed in the future using NRCS assistance through EQIP or other programs.*

There will be no NRCS funding assistance with this grant. However, NRCS' expertise will be brought in and their best management practices to minimize water use will be applied.

### ***Evaluation Criterion B: Planning efforts Supporting the Project***

*Describe how project is supported by an existing planning effort.  
Water Conservation Plan*

Ivins City has adopted a water conservation plan that identifies Ivins Irrigation Company as a water resource and inclusion in the conservation plan. This project meets the following conservation measures identified in the plan.

- Promote the use of new conservation technologies.
- Promote a secondary water system for irrigation purposes.



The plan can be found here: <http://www.ivins.com/wp-content/uploads/2016/06/2013-Conservation-Plan-Update.pdf>.

In 2019, the state developed water conservation goals for its nine regions. Washington County is in the Lower Colorado River South region and has been given a target goal of 260 gallons per capita daily (gpcd) by 2030. WCWCD's current water conservation plan can be found at: <https://www.wcwcd.org/conservation/plan/>.

*Does the proposed project implement a goal or address a need or problem identified in the existing planning effort?*

Ivins City has established a goal to reduce the gallons used per capita by 25% by the year 2050. Another goal has been to identify and replace water meters that are old or inaccurate and locate and repair underground leaks.

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

Ivins City has plans to implement a city-wide irrigation system to all residences. The City has a population of 9,000 with expectations to grow to 25,000 over the next 30 years with a current growth rate of 4 percent. It is critical for the City to implement an efficient irrigation system to meet the future demands. The City is extremely interested to see the irrigation company implement water metering because that would enable the two irrigation systems to be interconnected and operated as a single system, using the same water sources. With this in mind, it is not an option to not have meters on irrigation system and all efforts to fund this expense must be pursued.

By April 2020, Utah State requires all new secondary water connections have meters. All secondary water providers were required to submit a secondary metering plan to Division of Water Resources by December, 2019.

### ***Evaluation Criterion C: Project Implementation***

*Describe a detailed plan (e.g., estimated project schedule of stages and duration including major tasks, milestones, and dates)*

Improving Water Management through measurement in Ivins Irrigation Company System. Currently, this system is lacking end user meters. No construction is needed for this project, only meter installation is involved to an existing valve. The system has end user valves that will be replaced with AMR/AMI. WCWCD and IIC is ready to go on this project and has the ability to complete this project within two (2) years of award. Here are the performance measures listed below indicates the project's readiness to proceed with the project as soon as approval is received from Bureau of Reclamation.

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#### **February 1 to March 1, 2022**

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- Create a coordination team between WCWCD, Ivins City and ICC to complete the process of the work with all performance measures. Verify meter count again and order meters and other pertinent equipment.
  - Firm up project budget and schedule with coordination team. Request bids for meter installation.
  - Develop a procedure for leak detection/management policy and guidelines with the coordination team.
  - Begin developing a public relation/outreach campaign with events and materials.
  - Develop database with coordination team and start integrating a monthly statement process.
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#### **March 1, 2022 to January 31, 2023**

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- As soon as bid has been accepted install meters.
  - Launch public relation/outreach campaign and arrange for an IIC water users open house.
  - As meters are installed provide customer with information to track use and estimated landscape/crop need. This will be implementation of the education component of the grant to help understand plant water needs with irrigation habits.
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#### **January 31, 2024**

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- Host a community event with community and IIC water users, reporting on project completion.
  - Begin the process of closing out grant. Draft results, success stories and lessons learned.
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#### **April 1, 2024**

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- Submit final report to Bureau of Reclamation.
- 

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

This project will have minimal permits and approval requirements. The only needed one will be an encroachment permit from Ivins City. In the past these permit costs have been waived.

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

No engineering or design work will be needed to complete this project

*Describe new policies or administrative actions required to implement the project*

The development of a procedure for leak detection/management policy will be established and guidelines sets with the coordination team. A public relation/outreach campaign for the project will be developed to promote and identify the benefits of this project to the water users. A database will be developed among the coordination team and to provide quarterly progress of the project and eventually morph into a water use report for water user.

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

The environmental compliance cost was estimated using a percentage of the total project cost. The percentage used was 2 percent.

## Evaluation Criterion D: Nexus to Reclamation

*Is the proposed project connected to a Reclamation project or activity*

This project is in the lower Colorado River basin and addresses the issue raised with the BOR Colorado River Basin Study which identifies a 9 percent decrease in the Colorado River basin flows in the next 50 years due to climate change. This report identifies an imbalance of water supply and demand. Of the four category options to resolve the demand and supply issue, one option was to reduce demand. This project would meter users on the IIC system. Meters have been installed to put the accountability of water use should be shared by all users on the system. Utility companies have also used meters to aid in the reduction of water use. From the user's perspective, information on water use can help change watering habits and assist in understanding irrigation needs of landscapes. From a utility perspective, the information collected from the meters can create a bigger picture of water use and assist in making needed and wise policy decisions. Meters can be used to maintain water allotments among the users. Meters can show water use reduction which can allow the utility to provide financial incentives when conserving water. Meters can help compare watering habits; hourly data provides education to homeowner in dispute of water use and watering habits. Meters can also identify high water users to help educate them on their use and if necessary, penalize them for irresponsible use pay for future water supply that is driven by the demand of irresponsible users. Meters can justify changes in rates for high users as well as the need for future water supply. Overall, meters allow for equitable use on the system.

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

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

WCWCD has been innovative in water conservation and is featured as part of the Case Study 4 located in Appendix 3B of the Innovative M&I Water Conservation and Reuse Programs Case Studies found in the final report of the Colorado River Basin Study. (Case study is found on page 135 of the 452-page report.)

<https://www.usbr.gov/lc/region/programs/crbstudy/MovingForward/Phase I Report/fullreport.pdf>.

Appendix 3B – Innovative M&I Water Conservation and Reuse Programs Case Studies

### Case Study 4

#### Water Conservation Easement

Washington County Water Conservancy District, Utah

##### Program Overview

Washington County Water Conservancy District (WCWCD) assesses impact fees for new development based on meter and lot size. If the lot is more than 10,000 square feet, the applicant can qualify for a minimum impact fee by signing a water conservation easement. This easement generally restricts the lot to 5,000 square feet of irrigated landscape. By assessing impact fees and requiring users to pay based on irrigated landscape area, incentives are provided for water conservation. Impact fees and water conservation easements apply to all culinary (potable) water users in the District's wholesale and retail systems, including residential and commercial users, so the incentives to reduce outdoor water use by limiting irrigated landscape are widespread.

The water conservation easement program is part of WCWCD's Regional Water Supply Agreement with its seven major municipal customers. This Agreement also encourages conservation by eliminating the "take-or-pay" contract incentive for municipal customers to sell water because they must pay for it whether or not it is used. Municipal customers pay only for water as it is delivered from the WCWCD system, allowing them to actively promote conservation without creating budget issues. Additional provisions call for water conservation structures, time of day water use and landscape ordinances, and maximum use of secondary irrigation and water reuse systems.


##### Main Program Elements

###### Costs

The Agreement provides that impact fees will be paid at the time of platting or building permit issuance. Impact fees are paid by developers or lot owners and must be segregated to pay for system costs as set forth in WCWCD's Regional Water Capital Facilities Plan and Impact Fee Analysis. Accordingly, WCWCD does not budget separately for this program, but rather absorbs the costs of its operation into general staffing allocations.

##### Key Program Elements

- Increased awareness of developers and lot owners of the costs of irrigated landscape
- Limits outdoor watering with every new connection
- Financial incentives to reduce irrigated landscape and consequently outdoor water use.
- WCWCD and municipal customers partner under terms of the Regional Water Supply Agreement with its seven municipal customers to eliminate the "take or pay" contract



Impact Fees in New Developments  
Source: Washington County Water Conservancy District

##### Implementation Resources

The water conservation easement, which limits landscape area, is a benefit offered to avoid additional impact fee charges. This option is part of the processing of impact fees and is explained in published materials and on WCWCD's website ([wcwcd.org](http://wcwcd.org)). Because many unique circumstances are presented at the time impact fees are processed, WCWCD staff works with developers and lot owners to find ways to make the water conservation easement work in varying

May 2015 3B-13

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

**Evaluation Criterion E: Department of Interior Priorities and Bureau of Reclamation Priorities**

*Department of Interior Priorities*

1. Creating a conservation stewardship legacy second only to Teddy Roosevelt
2. Utilizing our natural resources
3. Restoring trust with local communities.
4. Striking a regulatory balance
5. Modernizing our infrastructure

*Bureau of Reclamation Priorities*

1. Increase Water Supplies, Storage, and reliability under WIIN and other Authorities
2. Streamline Regulatory Processes and Remove Unnecessary Burdens to Provide More Water and Power Supply Reliability
3. Leverage Science and Technology to Improve Water Supply Reliability to Communities
4. Address Ongoing Drought
5. Improve the Value of Hydropower to Reclamation Power Customers
6. Improve Water Supplies for Tribal and Rural Communities
7. Implementation of new Title Transfer authority pursuant to P.L. 116-9

Part of the BOR’s mission is to develop partnerships with local agencies “to address the competing needs of our limited water resources”. This grant will allow our agency to implement better water management practices to meet water demand in the area. Without funding from these grants, these system upgrades will be curtailed or even eliminated.

Washington County is upstream of a major hot spot area. This project will maximize our water resources by minimizing water waste benefitting this “hot spot” area identified by BOR as having a high potential in experiencing a water crisis by the year 2025.

In the recent study published by the BOR: Colorado River Basin Water Supply and Demand Study, it identifies this area as one to experience a 9 percent decrease in the Colorado River basin flows in the next 50 years due to climate change. This report considers four options to resolve the imbalance of water supply and demand. One of those options is to reduce demand in water and energy. This project would work toward utilizing that option. The water conserved from the project will improve the ability of water users to ensure base flows in the Santa Clara River per the agreements that have previously been established.



The county’s major river, Virgin River, is home to some of the rarest fish species on earth. A contributory river to the Virgin and one that the IIC receives its water from is the Santa Clara River. This river has two endangered fish in its reaches. Water users on this river system have also entered into an agreement, known as the Santa Clara Project. The agreement can be found here: <https://www.wcwcd.org/wp-content/themes/wcwcd/pdf/municipal/Shivwits-Band-Water-Right-Agr.pdf>

The agreement provides a pooling of water rights of both surface and ground water in the Santa Clara River system. This river system has erratic flows and most years does not supply sufficient water to satisfy all existing water rights. This agreement settles the water right claims

of the Shivwits Band of Paiute Indians, conserves water and provides for a more dependable supply for users and establishes certain instream flows in the Santa Clara River below Gunlock Reservoir for the Virgin River Spinedace. Signers of this agreement are: Bloomington Canal Company; Lower Gunlock Reservoir Corporation; New Clara Field Canal Company; Gunlock Irrigation Company; Shivwits Band of the Paiute Indian Tribe of Utah; Southgate Irrigation Company; City of St. George, Utah; St. George Clara Field Canal Company; the United States of America; State of Utah; Ivins Irrigation Company; and WCWCD.

This project will help deal with the rations of IIC's river allotment that are shared by all users on the river and meet the obligations found in the Shivwits Water Settlement Act and The Virgin Spinedace Conservation Agreement and Strategy. (Agreement can be found here: <http://www.wcwcd.org/wp-content/themes/wcwcd/pdf/environmental/VRP-MOU.pdf>.) Measuring water delivery and reducing water use on IIC system will minimize losses and improve these water delivery obligations.

The Washington County area has been consistently growing at a rate higher than the rest of the State of Utah. Water resources are always under pressure in this desert environment regardless of pressures from community growth. It is critical that this project proceed so that the resource can be used most efficiently. The extra water that is generated from this project but not needed to sustain the minimum flows needed in the Santa Clara River will be available for growth of the irrigation system and reduce the demand on the culinary system.

It is the responsibility of the District to find all possible ways to conserve and improve the efficiency of use of local water resources in addition to planning future water projects to meet the county's water needs. This proposed water efficiency project is part of the district's efforts to balance the water needs for residents while preserving the threatened and endangered species, critical habitat, and other fish and wildlife impingements.



**REQUIRED PERMITS AND APPROVALS**

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This project will have minimal permits and approval requirements. The only needed one will be an encroachment permit from Ivins City. In the past these permit costs have been waived.

**FUNDING PLAN**

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WCWCD is a local government entity with a property tax base and revenues from hydroelectric power and wholesale water sales. **Appendix A** explains the financial sovereignty of WCWCD and provides the General Fund Budget to show the revenues anticipated for 2021.

**PROJECT BUDGET PROPOSAL**

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**Summary of non-Federal and Federal Funding sources**

<b>Funding Sources</b>		<b>Funding Amount</b>
Non-Federal Entities		
Ivins Irrigation Company	\$128,170	
Ivins City	\$30,000	
Washington County Water Conservancy District	\$15,000	
		\$173,170
Non-Federal Entities Subtotal:		
Other Federal Entities		
Other Federal Entities Subtotal:		\$0
Requested Reclamation Funding	\$75,000	
		\$75,000
Total Project Funding		\$248,170

**Funding Sources**

<b>Funding Sources</b>	<b>Percent of Total Project Cost</b>	<b>Total Cost by Source</b>
Recipient Funding	70%	\$173,170
Reclamation Funding	30%	\$75,000
Other Federal Funding		\$0

2020-2022 Budget						
	Computation		Recipient	Reclamation	Total Cost	
	\$/Unit & Unit	Quantity				
<b>SALARIES, WAGES, FRINGE BENEFITS</b>					\$0	
					\$0	
<b>TRAVEL</b>					\$0	
<b>EQUIPMENT</b>					\$0	
<b>SUPPLIES/MATERIALS</b>					\$0	
<b>OTHER COSTS</b>					\$0	
<b>CONSTRUCTION</b>					\$0	
<b>CONTRACTUAL/CONSULTANTS</b>						
Meters with installation (includes 15% Contingency)		1	\$173,170	\$75,000	\$248,170	
Environmental & Regulatory Compliance		2%			\$4,963.40	
<b>Total Direct Costs</b>					\$253,133.40	
Total Indirect Costs _____%					\$0	
<b>Total Project/Activity Costs</b>					\$253,133.40	



## Budget Narrative

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*Salaries and Wages/Personnel.* — No grant funds will be used towards salaries or wages

*Fringe Benefits.* — Not any grant funding will be used for personnel fringe benefits.

*Travel.* — No travel will be paid for by this grant.

*Equipment.* — Under contracts.

*Supplies/Materials.* — Under contracts

*Consultants/Contracts.* — The project will be put out for bid on the installation of the meters. This will involve a labor contract to install the meters. Ivins City will set up the automatic read system and WCWCD will set up the customer database and monthly water use statements.

*Construction.* — This project will not involve any construction. It will simply be switching out valves to meters.

*Environmental and Regulatory Compliance Costs.* — It is anticipated there will be no environmental and regulatory compliance cost with this project, however, a minimal 2 percent of the budget has been added.

*Other Costs.* — No other cost needed for this project.

*Indirect Costs.* — No indirect costs will be funded by this grant.

*Total Project Costs.* — \$248,170

## **APPENDIX A: FUNDING PLAN**

# 2021 Budget

December 2, 2020



**Washington County Water Conservancy District  
Fiscal Year 2021 Final Budget**

Fund	Account	Sub	2019 Actual	2020 as of 10/31/20	2021 Budget
<b>Fund 10 General</b>					
<b>10</b>	<b>Total Revenue</b>		<b>\$ 14,243,811</b>	<b>\$ 4,622,234</b>	<b>\$ 13,210,000</b>
10	3100	Property Taxes	10,635,819	2,837,488	11,000,000
10	3110	In Lieu of Fees	802,986	668,136	500,000
10	3120	Prior Years Taxes	541,582	413,237	500,000
10	3800	Interest Income	1,688,290	603,017	1,000,000
10	3850	Other Income	389,409	53,851	60,000
10	3855	Redevelopment St. George City - Property Taxes	46,374	46,505	50,000
10	3880	SITLA Water Reservation Fee	139,351	-	100,000
<b>10</b>	<b>Total Expenses</b>		<b>\$ 3,271,168</b>	<b>\$ 2,207,326</b>	<b>\$ 13,210,000</b>
<b>10</b>			<b>3,271,168</b>	<b>2,207,326</b>	<b>3,857,925</b>
10	4000	110 Salary & Wages	1,296,950	766,322	962,700
10	4000	120 Payroll Taxes	-	17,349	79,560
10	4000	130 Employee Benefits	220,230	137,845	307,580
10	4000	132 State Retirement	298,455	157,855	216,580
10	4000	150 Insurance & Bonds	5,633	6,479	6,000
10	4000	160 Board Expense	7,000	5,250	8,000
10	4000	164 Board Training/Seminars/Travel	1,685	-	5,000
10	4000	190 Education Expense	-	-	60,000
10	4000	200 Bank & Credit Card Fees	672	492	6,000
10	4000	208 New Hire Screening	-	1,283	1,500
10	4000	211 Subscriptions & Memberships	-	-	35,245
10	4000	215 Advertising	-	-	2,000
10	4000	220 Public Notices	-	-	2,000
10	4000	221 Print & Production	1,050	-	20,000
10	4000	230 Travel	46,567	17,257	35,100
10	4000	232 Training/Seminars/Travel	64,121	73,862	141,900
10	4000	240 Office Supplies	40,088	19,775	25,600
10	4000	241 Copy Machines	-	-	20,000
10	4000	250 Software Maintenance	192,464	45,345	56,300
10	4000	251 Hardware Maintenance	-	-	1,800
10	4000	253 Website Design & Maintenance	-	-	16,000
10	4000	255 Building Maintenance	42,056	34,434	40,000
10	4000	270 Utilities	23,981	19,253	30,000
10	4000	280 Telephone	24,886	21,757	15,000
10	4000	282 Communication & Mobile Devices	-	-	11,660
10	4000	308 Accounting	39,330	37,360	40,000
10	4000	310 Legal	587,197	470,622	700,000
10	4000	323 Consultants	-	-	81,800
10	4000	325 Drug Testing	-	-	2,000
10	4000	340 Permits & Fees	1,260	2,514	3,000
10	4000	452 Uniforms	-	-	5,000
10	4000	460 Tools & Accessories	-	-	1,600
10	4000	471 Equipment Repair/Maintenance	16,428	-	12,000
10	4000	480 Vehicle Fuel	-	6,190	23,200
10	4000	521 Insurance - Vehicles	-	-	2,500
10	4000	525 Community Outreach	52,683	62,235	33,000
10	4000	526 Legislative Outreach	-	-	35,000
10	4000	580 Redevelopment Agencies (RDA)	177,457	92,335	350,000

**Washington County Water Conservancy District  
Fiscal Year 2021 Final Budget**

Fund	Account	Sub	2019 Actual	2020 as of 10/31/20	2021 Budget	
10	4000	610	Miscellaneous Expense	-	49	20,600
10	4000	680	Water Augmentation	26,381	26,381	36,500
10	4000	703	Water Rights	109,636	117,445	150,000
10	4000	740	Equipment Purchases	(5,042)	67,637	197,200
10	4000	751	Hardware Purchases	-	-	3,400
10	4000	770	Contingent Expense	-	-	55,600
<b>10 Total Contributions and Transfers</b>			<b>-</b>	<b>-</b>	<b>9,352,075</b>	
10	9915		Transfers to Conservation Fund 15	-	-	1,963,500
10	9923		Transfers to Unincorporated County Fund 23	-	-	978,253
10	9931		Transfers to Toquerville Secondary Water System (T	-	-	138,046
10	9960		Transfers to Capital Projects Fund 60	-	-	2,953,947
10	9965		Transfers to Capital Projects (Non-Impact Fee) Fund	-	-	3,318,329

**APPENDIX B: LETTERS OF COMMITMENT**



December 3, 2020

Bureau of Reclamation  
Financial Assistance Support Section  
Attn: Ms. Irene Hoiby  
Mail Code: 84-27814  
PO Box 25007  
Denver, CO 80225

This letter explains the financial ability of Washington County Water Conservancy District (WCWCD). WCWCD was established to conserve, develop, manage and stabilize water supplies within the county. WCWCD is a political subdivision of the State of Utah organized and existing under the Water Conservancy District Act.

WCWCD is a local government entity with a property tax base and revenues from hydroelectric power and water sales. This provides adequate monies for the cost share of the grant proposal. Therefore, WCWCD is able to fulfill the obligation of the costs identified in this funding request in this proposal.

WCWCD is committed to conserving the limited and unpredictable water resources of this county. Grant opportunities like these allow projects, such as these, to be implemented in this area. The partnership with Bureau of Reclamation has proved beneficial to this local community in the past and WCWCD looks forward to future opportunities.

Respectfully,

A handwritten signature in black ink, appearing to read "Zachary Renstrom".

Zachary Renstrom  
General Manager

**APPENDIX C: RESOLUTION**



**RESOLUTION AUTHORIZING SUBMISSION OF A WATERSMART GRANT PROPOSAL  
TO THE U.S. BUREAU OF RECLAMATION AND AUTHORIZING A COOPERATIVE  
AGREEMENT WITH RECLAMATION AND GRANT MATCH FUNDS**

WHEREAS, Washington County Water Conservancy District (hereinafter referred to as District) delivers water to Ivins Irrigation Company (hereinafter referred to as IIC) who owns and operates a pressurized irrigation system.

WHEREAS, a goal of the District and ICC, is to efficiently manage and conserve the use of the available water resources of Ivins City area.

WHEREAS, Ivins Irrigation Company desires to work with the District to install meters that will allow improved water management and promote water efficiency by users and throughout the system.

WHEREAS, meters will aid in the reduction of water use through ability to audit the system, maintain water allotments among the users and determine high water users. In addition, meters will allow for better management of system by tracking demand habits.

WHEREAS, meters provide all water users on the system accountability for their water use. Use of meters can provide information on irrigation use which can then be used to help educate to promote change in watering habits and assist in understanding irrigation needs for landscapes and agriculture.

WHEREAS, a WaterSMART grant for Small-scale Water Efficient Projects Grants for FY 2021 is available through the United States Bureau of Reclamation (Reclamation) for entities that will provide matching funds and that will work with Reclamation to meet the established deadlines for entering into a cooperative agreement.

WHEREAS, IIC desires to partner with the District and apply for the grant to help offset some of the cost for this improvement to this water system in a management and efficiency project.

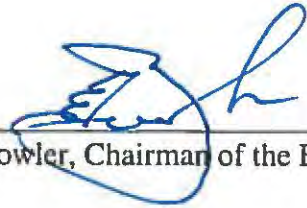
WHEREAS, the District is authorized by law, including but not limited to the Utah Interlocal Cooperation Act (Utah Code Sections 11-13-101 *et seq.*), to enter into a cooperative agreement with Reclamation.

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

- A. If selected for the WaterSMART grant, the District is authorized to enter into an agreement with Reclamation regarding the attached grant proposal.
- B. The attached grant proposal that will be submitted to Reclamation has been reviewed and is approved.
- C. IIC can provide the amount of funding and/or in-kind contributions, specified in the funding plan, not to exceed \$75,000; and
- D. If selected for this WaterSMART grant, the District will work with IIC and Reclamation to meet established deadlines for entering into a cooperative agreement.

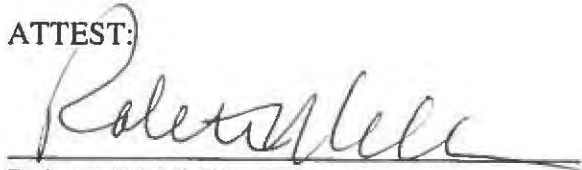
DATED: \_\_\_\_\_

3/4/21



Ed Bowler, Chairman of the Board

ATTEST:



Roberta McMullin, Secretary

## RESOLUTION

WHEREAS, a goal of Ivins Irrigation Company (hereinafter referred to as IIC), is to efficiently manage and conserve the use of the available water resources of Ivins City area.

WHEREAS, IIC who owns and operates a pressurized irrigation system using water delivered by Washington County Water Conservancy District (hereinafter referred to as District).

WHEREAS, Ivins Irrigation Company desires to work with the District to install meters that will allow improved water management and promote water efficiency by users and throughout the system.

WHEREAS, meters will aid in the reduction of water use through ability to audit the system, maintain water allotments among the users and determine high water users. In addition, meters will allow for better management of system by tracking demand habits.

WHEREAS, meters provide all water users on the system accountability for their water use. Use of meters can provide information on irrigation use which can then be used to help educate to promote change in watering habits and assist in understanding irrigation needs for landscapes and agriculture.

WHEREAS, IIC desires to partner with the District and apply for WaterSMART: Small-scale Water Efficiency Projects to help offset some of the cost for this improvement to this water system in a management and efficiency project.

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

- A. The Board or governing body of IIC has reviewed and supports the proposal submitted;
- B. The Board has legal authority to enter into an agreement with the Bureau of Reclamation;
- C. IIC can provide the amount of funding and/or in-kind contributions, specified in the funding plan; and
- D. If selected for this WaterSMART grant, IIC will work with the District and Reclamation to meet established deadlines for entering into a cooperative agreement.

DATED: March 17, 2021

  
Robert Ence, President of Ivins Irrigation

Company

ATTEST:

  
Steve Roberts, Secretary

**APPENDIX D: LETTER OF SUPPORT**



GARY R. HERBERT  
*Governor*  
SPENCER J. COX  
*Lieutenant Governor*

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

### Division of Water Rights

BRIAN C. STEED  
*Executive Director*

BOYD P. CLAYTON  
*State Engineer/Division Director*

January 29, 2021

Bureau of Reclamation  
Small-scale Water Efficient Programs  
Application Review Committee Members

Subject: Letter of support for Washington County Water Conservancy District/Ivins Irrigation Company Meter Project

In this project, the Division of Water Rights is in support of Ivins Irrigation Company to install AMI/AMR meters at the end users of this system. Overall, the benefits that can be received from this project can provide information on water use which can assist in understanding irrigation needs of residential and agriculture users and assist in better management of the water resource.

Specifically, the information collected from the meters can:

- Create a bigger picture of water use and assist in making needed and wise policy decisions
- Aid in the reduction of water use through ability to audit the system, maintain water allotments among the users and determine high water users
- Identify high water users to help educate them on their use
- Allow for equitable use on the system

We look forward to this project and the benefit it provides for better management of our water resources. Thank you for consideration of the proposal.

Respectfully,

Nathan Moses, P.E.  
Regional Engineer  
Southwestern Region  
Utah Division of Water Rights

Ivins City  
55 N. Main Street  
Ivins, Utah 84738  
(435) 634-0689

[www.ivins.com](http://www.ivins.com)

An Equal Opportunity Employer



Mayor Chris Hart  
City Council Members:  
Sue Gordhammer  
Derek Larsen  
Jenny Johnson  
Cheyne McDonald  
Dennis Mehr

City Manager Dale Coulam

March 16, 2021

Re: Letter of Support for USBR WaterSMART Grant to Ivins Irrigation Company

To Whom It May Concern:

Ivins City, as the local government entity and as one of the largest shareholders of Ivins Irrigation Company strongly supports the effort to pursue funding for the installation of water meters for Ivins Irrigation Company. This project is essential to Ivins City as we pursue the goal of expanding the city's irrigation water infrastructure to include more residential users as well as large irrigators. The City cannot expand its system effectively without the irrigation company users being metered first.

The entire community will be benefited by the expansion of irrigation water use in Ivins City because Ivins would reduce its culinary water usage and be able to use lower quality water sources in its place, potentially delaying capital intensive projects, and improving overall efficiency of water delivery in the whole County.

We also recognize the other obvious benefits of this project such as:

- Creates a bigger picture of water use and assists in making needed and wise policy decisions.
- Aids in the reduction of water use through ability to audit the system, maintain water allotments among the users and determine high water users.
- Allows financial incentives when users conserve water.
- Provides watering habits; hourly data provides education to homeowner in dispute of water use and watering habits.
- Identifies high water users to help educate them on their use.
- Allows for equitable use on the system.

Ivins City is in strong support of this project and will work with WCWCD or Ivins Irrigation Company to complete the AMR/AMI installation and meet the goals identified for this project.

Sincerely,

Chris Hart  
Ivins City Mayor

**APPENDIX E: SAMPLE EDUCATION LETTER OF WATER USE**

This user exceeded their estimated need in August, but was below their estimated need in July.

To get hourly information on how much water you are using, visit our web portal and log in using this account # and code.

## WEBER BASIN WATER CONSERVANCY DISTRICT

2817 East Highway 193 • Layton, Utah 84040 • Phone (801) 771-1677 • (SLC) 359-4494 • Fax (801) 544-0103

Report Date: 9/27/2018

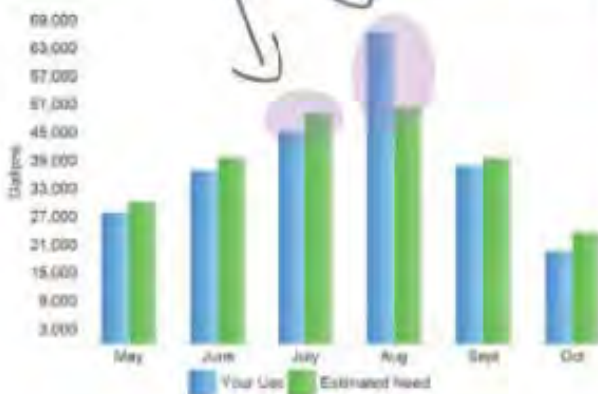
Account Number: 01-001-0001D

Did you know you can view your hourly and daily usage information online? Visit Customers.WeberBasin.com and supply the below information when registering!

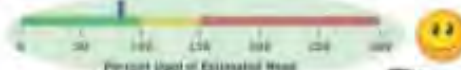
Account Number: 01-001-0001D  
Website Authentication Code: 1235

BOB SMITH  
123 MAIN ST  
ANYTOWN, UT 12345

### SECONDARY WATER USE REPORT



Account Summary	
Water Used This Month	19,779 gal.
Your Water Need Based On Your Landscape Area This Month	23,836 gal.
Your Landscape Area	11,545 (sq. ft.)
Year To Date Use	234,779 gal.
This Month's Percent Of Use To Estimated Need	83%



#### Meters Assigned To Your Account

Meter Number	Previous Read 9/15/2018	Current Read 10/15/2018	Water Used This Month
12345678	269,565	289,384	19,779 gal.



Your landscape area is derived from aerial imagery and encompasses your entire lot according to county records, excluding your home and driveway footprint. Estimated need is calculated based on 20 year evapotranspiration needs of your landscaping.

#### Information:

Due to a hot and dry summer the District will shut off all secondary and irrigation services on October 1, 2018. Please remember to close your personal valve after shutoff.

Every month we have a message for you from the District regarding water supply, education, or tools to help you manage water more efficiently.

Estimated need is unique for every user and is computed based on irrigated area of your parcel and daily weather conditions. This is based on the amount of water needed for a healthy, green, lawn.

Landscape area is calculated using aerial photos of your property.

Example:



To find the percent you have used of your estimated need, divide the water you used this month (top box) with your estimated need (second from top box).

This scale provides the user information regarding their actual use compared to their estimated need for their property for the year.