The Bureau of Reclamation

# WaterSMART Grants: Water and Energy Efficiency Grants

## South Jordan City

## FY 2020

BOR-DO-20-F001

## Secondary Water Metering Project


### Applicant:

South Jordan City
1600 W. Towne Center Drive,
South Jordan, Utah 84095

### Project Manager:

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## Executive Summary

### Applicant Info

*Date:* October 3, 2019

*Applicant Name:* South Jordan City (SJC)

*City, County, State:* South Jordan City, Salt Lake County, Utah

*Project Manager:*

Jason Rasmussen
Public Works Director
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*Project Funding Request:* Funding Category I, $300,000; Total Project Cost, $635,200

### Project Summary

*Specify the work proposed, including how funds will be used to accomplish specific project activities and briefly identifies how the proposed project contributes to accomplishing the goals of this FOA.*

The South Jordan City Secondary Water Metering Project will install 443 secondary water meters on existing residential connections. This project will have a quantifiable sustainable water savings of 174.41 acre-feet.

SJC owns the secondary water distribution system and provides secondary water to about 18 percent of its residents for the purpose of watering lawns and gardens. The secondary water service reduces demand on the public drinking water system, and greatly reduces the peak summer demands on the public drinking water system when irrigation usage is highest. This project is the beginning of SJC's commitment to better understand secondary water usage within its community so that the City can educate its water users and promote water conservation through the implementation of effective practices for reducing water use; while also maintaining the desired look and appeal of South Jordan City.

The proposed project will contribute to the goals of this FOA in the following ways:

- **Conserve and use water more efficiently:** The installation of secondary water meters and significant public involvement and conservation education that SJC will initiate will encourage users to manage and conserve water resources more efficiently. The increased awareness among residential water users on how they can develop sound water use habits and evaluate their water use through monthly meter information will contribute to better water reliability in their communities. The proposed project directly supports the State of Utah's goal of 25 percent reduction in gallons per capita per day (GPCD) by 2025.
- **Water supply reliability for a fast-growing community:** SJC's community is among the fastest growing cities in Utah. While the City welcomes growth and the expansion of its secondary water services, careful and constant conservation practices, such as metering secondary water connections, can mitigate the need for costly and time-

consuming water projects, allowing the City to meet the ever-increasing demands of growth.

## Length of Time and Estimated Completion Date

*State the length of time and estimated completion date for the proposed project.*

This project is ready to move forward as soon as it is awarded, and the agreement signed. An environmental document will be prepared as part of the project, and it is anticipated that a Categorical Exclusion will be approved based on the fact that the project will take place in previously disturbed areas and within existing road alignments. The environmental document will take a minimum of three months following award/contract and notice to proceed. The installation of the meters will require two installation seasons, taking about six months over a two-year time frame to complete. The installation will take place during the irrigation off season (October 15 – April 15). Construction is expected to begin November 2020 and end May 2022 with final reporting and project close-out September 2022. The education and information process will be ongoing with regular public information updates regarding the time and placement of the meters. The project will be completed within the required two-year allowance.

## Federal Facility

*Whether or not the project is located on a Federal facility.*

The proposed project is not located on a federal facility.

## Background Data

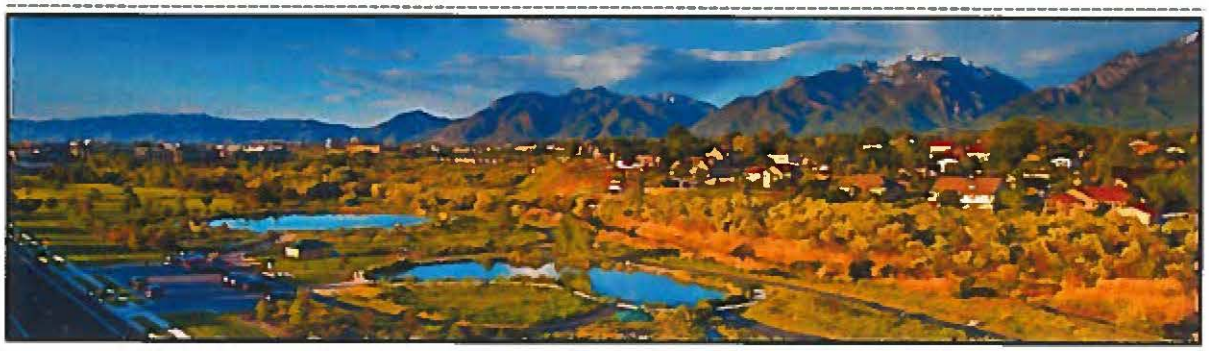


*Image 1 – South Jordan City*

South Jordan City was primarily a rural farming community, but has now become one of the fastest growing cities in the nation. It was voted one of the "Top 20 best places to live in America" in 2010, 2012, and 2014. SJC is located in south central Salt Lake County, Utah, 18 miles south of Salt Lake City. As part of the Salt Lake City metropolitan area, the City lies in the Salt Lake Valley along the banks of the Jordan River between the 9,000-foot Oquirrh Mountains and the 12,000-foot Wasatch Mountains. The City has 3.5 miles of the Jordan River Parkway that contains fishing ponds, trails, parks, and natural habitats. The Salt Lake County fair grounds and equestrian park, 67-acre Oquirrh Lake, and 27 parks are located inside the City. SJC is currently home to nearly 74,000 residents. The City is a hub for all types of recreation, shopping & dining, education, religion, arts & theatre, senior living, hospitality, and transportation. The City prides itself on its aesthetic appeal, including its green parks and lush trees.

SJC owns their water distribution system. Drinking water is provided by Jordan Valley Water Conservancy District (JVWCD) and Central Utah Water Conservancy District (CUWCD). Secondary water is provided from the canals running through the City, which are owned by five private canal companies. These canals have traditionally been used for agricultural irrigation. Now, many residents of the City use this source of water for irrigation of lawns and gardens. SJC also receives some of its secondary water from the diversion of water from the Duchesne River to the Provo River via Deer Creek Dam. Residents have access to secondary water for irrigation, either through the existing City maintained secondary water system or through private irrigation systems. As stated in "Project Summary," the secondary water service reduces demand on the public drinking water system, and greatly reduces the peak summer demands on the public drinking water system when irrigation usage is at its highest.

The current issue SJC faces with unmetered secondary water connections is residents using too much water to maintain their lawns and gardens. In the past, this has resulted in the canal companies shutting off the secondary water supply weeks before the end of irrigation season, forcing residents to turn to culinary water. If this continues to happen, considering the amount of growth that is happening in the City, this could potentially cause a real problem where the City either runs out of water or has to purchase additional water from costly sources; which would ultimately force the City to raise its water rates in a way that won't be affordable for residents.

## Water Supply

*Source of water supply and water rights involved.*

SJC owns secondary water shares in five different private canal companies, including Utah Lake Distributing, Utah Salt Lake Water Users, Welby Jacob Canal, South Jordan Canal, and the Beckstead Canal. The City offers an annual lease of shares to private water users that have access to the water via ditches and other private systems.

The main source of water that feeds the five canals that run through the City comes from Utah Lake. The Jordan River, Utah Lake's only outflow, diverts the water to these five canals via its two dams, Turner Dam and Joint Dam. The City owns a total of 5,771 shares with a potential use of 15,944.62 acre-feet. A breakdown of these shares is outlined in Table 1 below. The City is committed to providing quality secondary water to those residents and businesses that currently have access.

| South Jordan City Secondary Water Shares | | | |
|---|---|---|---|
| Canal | Shares | Acre-Feet | Average Demand (Acre-Feet) |
| Welby Jacob | 2,333 | 2,333 | 1,376 |
| Utah Lake | 680 | 3,474.8 | 1,738 |
| Utah Salt Lake | 737 | 3,382.8 | 522 |
| South Jordan | 718 | 3,546.9 | 1,027 |
| Beckstead | 243 | 993.9 | 331 |

*Table 1 – SJC Secondary Water Shares*

*Current water uses and number of water users served.*
The City currently provides about 18 percent of its residents with secondary water for the purpose of irrigation – watering lawns and gardens.

*Current and projected water demand/potential shortfalls in water supply.*
The City's current secondary water demand is difficult to calculate due to a lack of metering. The numbers given reflect only a maximum estimate of use for areas with access to secondary water, not accounting for those who do not use, or use little, secondary water. Without accurate secondary measurements, the City must rely on engineered estimates that may not reflect the actual use. Also, without metering the secondary system, it is difficult to promote water conservation or hold users accountable for use.

The City is expected to be built-out within the next 20 years. As indicated in Figure 1, growth projections put the population at 95,000 residents in about 10 years with about 90 percent of the City land built-out. The City recognizes that population growth will have an impact on water supply and could eventually incur costs associated with buying additional water from more costly sources. However, conservation efforts such as metering secondary water connections can eliminate this need, allowing the City to keep its rates low.

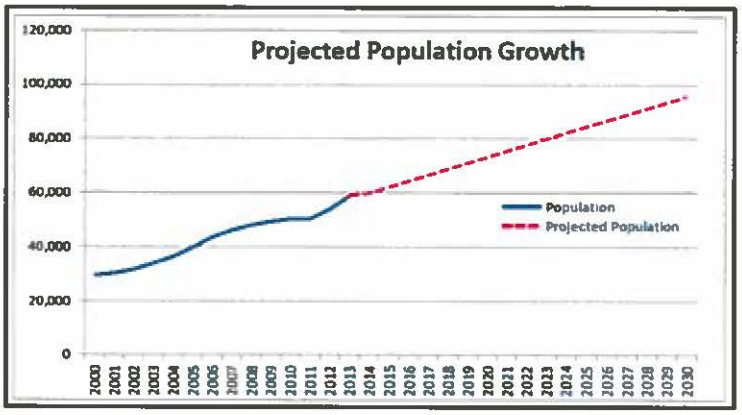


*Figure 1 – SJC Projected Population Growth*

Water from the canals is unreliable. In 2016, low Utah Lake water levels forced the canal companies to stop pumping water from Utah Lake 2-4 weeks earlier than planned, causing residents to turn to culinary water for use on their lawns and gardens. Also, if a canal breaches, the canal company may shut down the supply for a significant time to repair the breach.

*If water is primarily used for irrigation, describe major crops and total acres served.*
The City's secondary water is primarily used for watering residential lawns and gardens.

## Water Delivery System

*Describe the applicant's water delivery system as appropriate. For agricultural systems, please include the miles of canals, miles of laterals, and existing irrigation improvements (e.g., type, miles, and acres). For municipal systems, please include the number of connections and/or number of water users served and any other relevant information describing the system.*

The first phases of SJC's secondary water system were constructed in the 1980s. Then, as neighborhoods were developed in the 1990s, the 2000s, and during the past decade, their secondary system was expanded. There are 19 existing separate systems in the SJC secondary water system as shown in Figure 2 below. Each system was designed individually under varying design standards. Therefore, the systems are not interconnected and include various types of irrigation pipe and pressure ratings. Some of the systems use low-pressure plastic irrigation pipe (PIP). A majority of the piping, however, is higher-pressure plastic pipe C-900, Class 200, or Schedule 40 polyvinyl chloride (PVC). The City has indicated that generally, PIP was installed

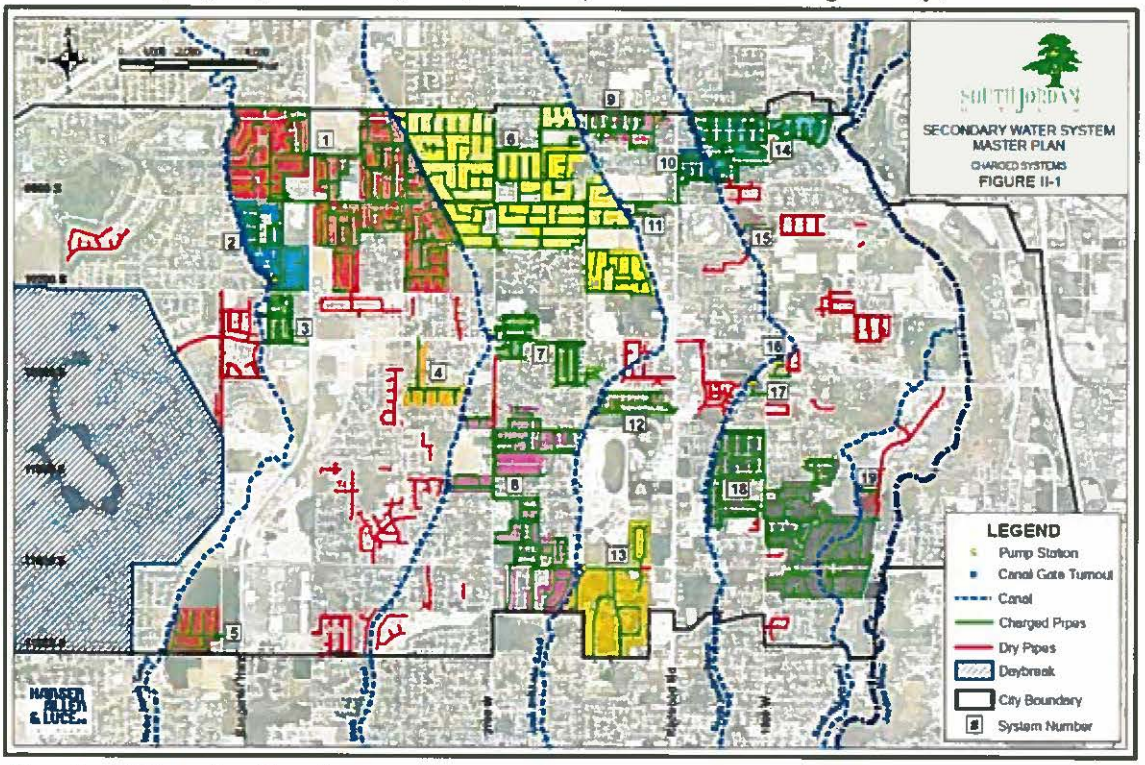



*Figure 2 – SJC Secondary Water System.*

prior to 1990, Class 200 PVC between 1990 and 2000, and C-900 PVC after 2000.

The canal companies are responsible for the conveyance of water and the canal infrastructure that runs through the City. The water is made available through four main canals that run through the City. In addition, the City also owns and maintains the Beckstead Canal, which provides water to irrigate Mulligans Golf Course. The irrigation season is typically April 15 to October 15.

Each of the four major canals have weirs that divert water from the canal to the City's secondary water pipes. The City takes responsibility for water delivery from the canal to the resident's connections and maintains approximately 96 miles of secondary water lines.

### Hydropower/Energy Efficiency

*If the application includes a hydropower component, describe existing energy sources and current energy uses.*

The proposed project does not include a hydropower component.

### Relationship with Reclamation

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

SJC does not currently have any past projects with Reclamation.

## Project Location

*Provide specific information on the proposed project location or project area including a map showing the geographic location. For example, {project name} is located in {state and county} approximately {distance} miles {direction, e.g., northeast} of {nearest town}. The project latitude is {##°##'N} and longitude is {###°##'W}.*

### Geographic Location

The South Jordan City Secondary Water Metering Project is located in Salt Lake County 18 miles south of Salt Lake City. The secondary metering project will take place west of I-15 within South Jordan City. This is a fast-growing community that serves as a suburban type area. For project location and detailed project info, see Attachment A – Project Location Map, and Attachment B – Project Detail Map.

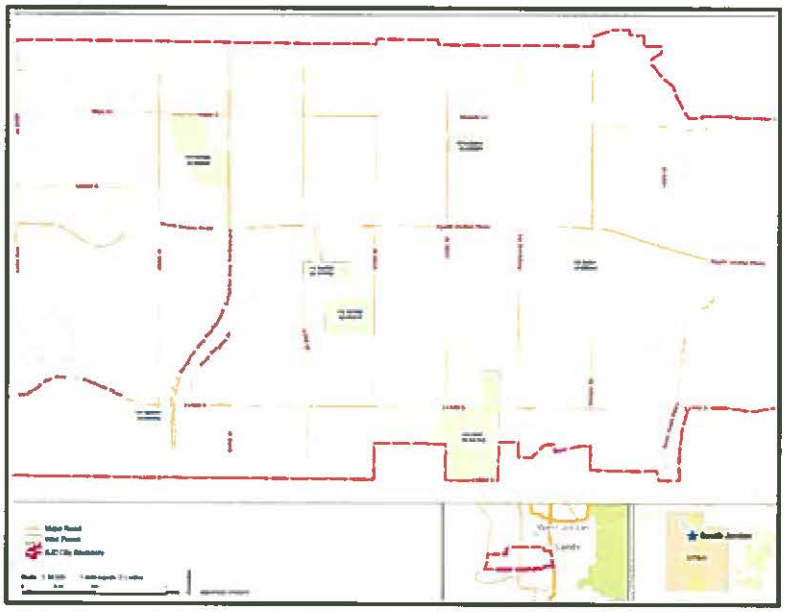


*Figure 3 – South Jordan City Secondary Water Metering Project Location Map*

## Technical Project Description

*Describe the work in detail, including specific activities that will be accomplished. This description shall have sufficient detail to permit a comprehensive evaluation of the proposal.*

SJC currently has 21 pilot secondary water meters used to determine water use in select locations of its service area; otherwise, to date, SJC has not installed any secondary water meters on their existing secondary water system. SJC's primary water savings goal is the State's goal of 25 percent reduction by 2025. In order to obtain this goal, SJC plans to install secondary water meters on all connections within the City's secondary water system, and to educate and inform

users of their water use. The meters will be equipped with endpoints that allow hourly data to be collected using an Automatic Meter Reading (AMR) system that allows continuous data collection.

The project conserves water through secondary water metering, which includes installing 443 end user meters. SJC will purchase the water meters and the AMR radio transmitters for the Project. Prior to construction or disruption to individual yards, a public information campaign will be organized to identify and inform all users who will be affected.

SJC will also provide affected users with the time frame for installation and what benefits will come as a result of having an individual meter on their connection. The contractor will pass out door hangers prior to construction to inform homeowners of their presence in the areas where they will be working, and provide at least 48 hours lead time prior to installation on their parcel.

## E.1. Technical Proposal: Evaluation Criteria

### E.1.1. Evaluation Criterion A – Quantifiable Water Savings (30 Points)

Quantifiable Water Savings

***Describe the amount of estimated water savings.*** *For projects that conserve water, please state the estimated amount of water expected to be conserved (in acre-feet per year) as a direct result of this project.*

For this project, the amount of estimated water savings is 174.41 acre-feet per year.

***Describe current losses.*** *Explain where the water that will be conserved is currently going (e.g., back to the stream, spilled at the end of the ditch, seeping into the ground).*

The water that will be conserved is currently going back into the Jordan River, which eventually drains into the Great Salt Lake.

***Describe the support/documentation of estimated water savings.*** *Provide sufficient detail supporting how the estimate was determined, including all supporting calculations.*

Estimated water savings was determined based on water savings calculations from Regional Secondary Metering Projects completed by Weber Basin Water Conservancy District (WBWCD). Estimated secondary water use for South Jordan City is 1.27 acre-feet per secondary connection, making the estimated secondary use of the proposed connections to be metered 562.61 acre-feet per year (443 x 1.27 = 562.61 acre-feet). The total water supply being considered for the proposed project is 562.61 acre-feet per year.

Municipal Water Metering

a. *How has the estimated average annual water savings that will result from the project been determined? Please provide all relevant calculations, assumptions, and supporting data.*
It is estimated that the proposed project will conserve 174.41 acre-feet per year. This is based on meter data provided by WBWCD for 2012-2018 showing that secondary users in Farmington that have a secondary meter use significantly less water than those who are not metered. Based on the available data (2012-2018) from existing metered end user connections in the Farmington service area, metered end user connections used on average 0.91 AF/connection/yr. During the same time period, WBWCD reported that un-metered secondary connections are estimated to have used on average 1.30 AF/connection/yr. The 1.30 AF/connection/yr. was calculated based on data from main line flow meters delivering water to the area. Figure 4 below shows the secondary water use by year for both metered and un-metered connections using the Farmington service area as the comparison with Woods Cross City unmetered use. On average, metered secondary connections used 0.38 AF/connection/yr. less than unmetered connections.

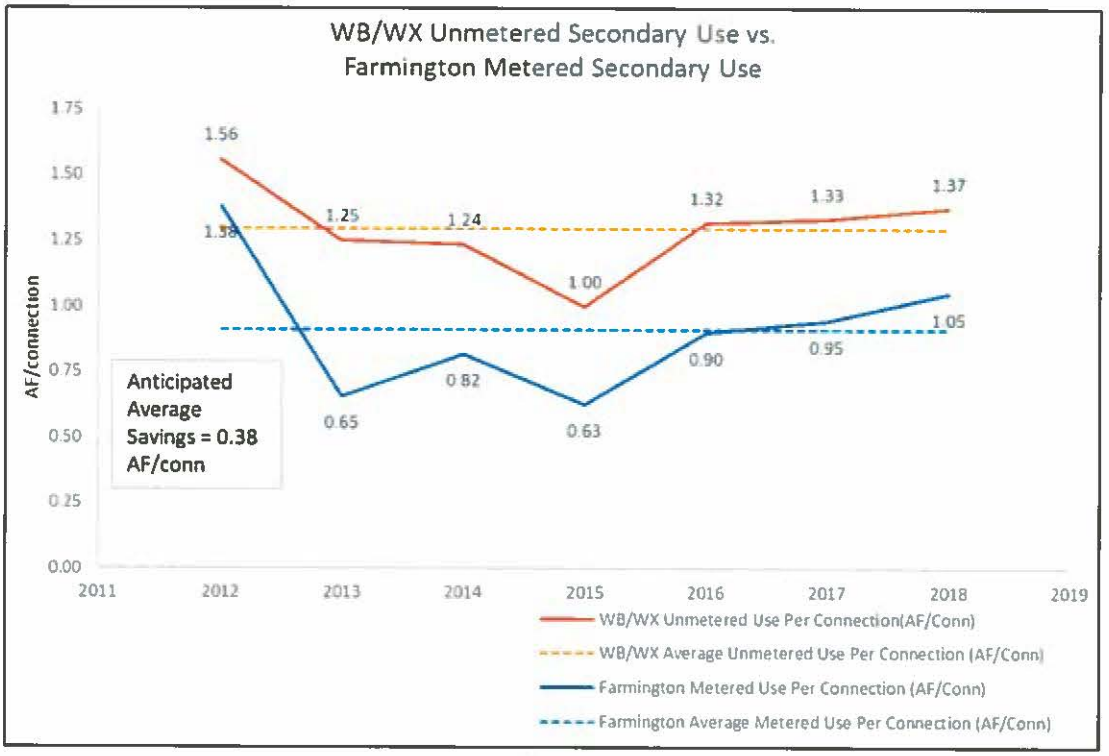



*Figure 4 - Secondary Metered & Unmetered use Comparison*

In addition to the data and calculations provided by WBWCD, and for comparison, SJC determined their own anticipated average secondary water savings based on metered secondary water use using pilot meters throughout the City during 2018 and 2019. Figure 5 shows both unreported and reported pilot meter use for 2018-2019 for SJC.

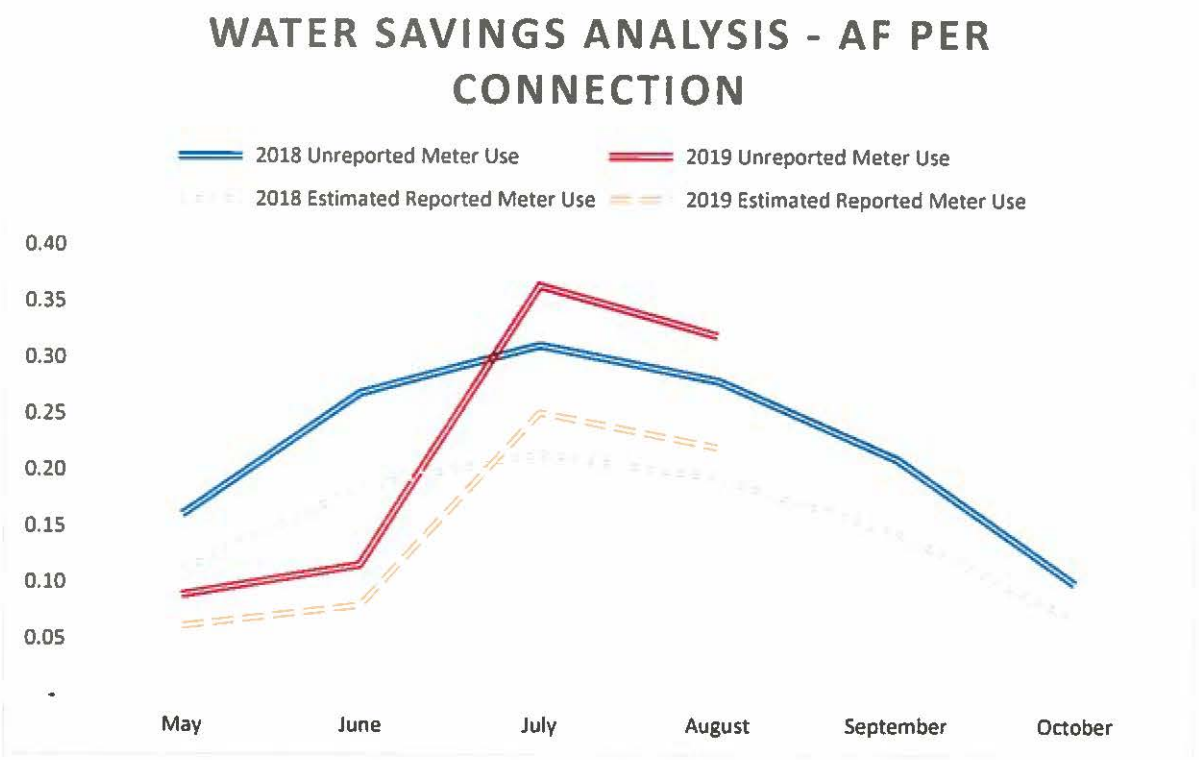



*Figure 5 – SJC Unreported and Reported Pilot Meter Use for 2018-2019*

Based on 2019's unreported meter use, SJC anticipates a water savings of 0.39 AF/connection/yr. Calculations 1 and 2 show the anticipated water savings analysis for the proposed metering project assuming an estimated unmetered secondary water usage of 1.27 AF/connection/yr., and a metered secondary water usage of 0.88 AF/connection/yr. for SJC.

**Calculation 1:** Water Use Reduction for Metered Secondary Connections in SJC

*1.27 AF/conn./yr. - 0.88 AF/conn./yr. = 0.39 AF/conn./yr. water savings*

**Calculation 2:** Anticipated Water Savings for Proposed SJC Meters

*443 new meters x 0.39 AF/conn./yr. savings = 174.41 AF/yr.*

b. *How have current distribution system losses and/or the potential for reductions in water use by individual users been determined?*

Water reductions for residents in the proposed project are based on actual 2018-2019 pilot meter data located within the project area. As was shown in the above calculations, there is an impact from having a meter on a water connection and showing water users what they use. Without usage information from the meter, people assume they are using a reasonable amount of water. However, when the actual usage is known, coupled with help and information on proper landscape water needs, data shows that water use in metered areas has decreased. The calculation for how much each user can reduce usage is based on average use from what has been seen and recorded. SJC is confident that there will be substantial water

savings with each new meter based on the historical data on meters already installed within the Weber Basin service areas.

c. *For installing individual water use meters, refer to studies in the region or in the applicant's service area that are relevant to water use patterns and the potential for reducing such use. In the absence of such studies, please explain in detail how expected water use reductions have been estimated and the basis for the estimations.*

For the proposed metering project, SJC is relying on a secondary water use study done by the Weber Basin Water Conservancy District (WBWCD), which given their experience with installing thousands of meters in residential areas over the past few years, is considered an accurate representation and guide for water use patterns and the potential for meters helping to reducing water use. SJC intends to use the data collected from their own secondary water meters to perform studies similar to the following that can determine meter effectiveness and water use patterns in their own service area:

WBWCD collects data from all meters installed, but to have some consistency over time, they used data from a group of 1,057 meters that have usage records from 2012-2018. Data was collected and compiled in hourly increments to analyze and determine the effectiveness of these 1,057 meters, during the irrigation seasons of the past seven years. In addition to usage data, WBWCD has used mapping technology to identify the parcel size and the area of each parcel that would be considered to be "irrigated area" (everything that is not a physical structure or hardscape surfaces).

On average, customers are using less than the traditional allocation, which is 3 acre-feet per gross acre per year. Average usage compared to estimated need over the seven years shows improvement. Users comply with the volume given them, as the estimated demand shows a significant improvement from 145 percent in 2012 to just 90 percent in 2015, but due to the hot and dry summer of 2016 and 2018, both increased. Table 2 below offers a side-by-side comparison of the 2012-2018 irrigation seasons, again using the metered data group for calculation.

| Water Savings Comparisons | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| Used Gallons | 284,912,371 | 220,146,962 | 205,346,968 | 168,066,551 | 217,748,680 | 236,101,249 | 252,738,705 |
| Used AF | 874 | 675.3 | 629.9 | 515.5 | 667.9 | 724.2 | 775.6 |
| Used AF / Gross Acreage | 2.69 | 2.08 | 1.94 | 1.6 | 2.06 | 2.23 | |
| Landscaped Area | 225.3 | 225.3 | 225.3 | 225.3 | 225.3 | 225.3 | 225.3 |
| Used AF/ Landscaped Area Acres | 3.9 | 3 | 2.8 | 2.3 | 3 | 3.2 | 3.4 |
| Estimated Need (inches) | 30.46 | 29.72 | 24.81 | 22.33 | 28.6 | 29 | 33.7 |
| Average % Used of Est. Need | 153.64% | 121.13% | 135.43% | 123.60% | 124.52% | 132.37% | 122% |
| Average % Allocation Used | 82.44% | 63.70% | 59.41% | 48.62% | 63.00% | 68.31% | 73% |
| Average Allocation per Parcel/yr. | 1.003 | 1.003 | 1.003 | 1.003 | 1.003 | 1.003 | 1 |
| Total Allocation | 1060.171 | 1060.171 | 1060.171 | 1060.171 | 1060.171 | 1060.171 | 1060.2 |
| *This data includes 1,057 meters that have data for 2012-2017 with accurate landscape area. | | | | | | | |

*Table 2 – Water Savings Comparisons*

Each year, the estimated need remains the same because it is based on the historical average reference rates with parcel size. The majority of users exceed the estimated need. The

estimated need is listed on every metered customer's secondary water use report and is almost always less than the allotted amount they have for their parcel. Figure 6 is a sample of a culinary water use report used by SJC that helps water users understand if they are efficient on their water usage or using more than average; and compares customer vs. neighbors and efficient use. The City will provide the same water use comparison report for its metered secondary water customers. A larger sample of the report is found in Attachment C – Sample Secondary Water Use Report.

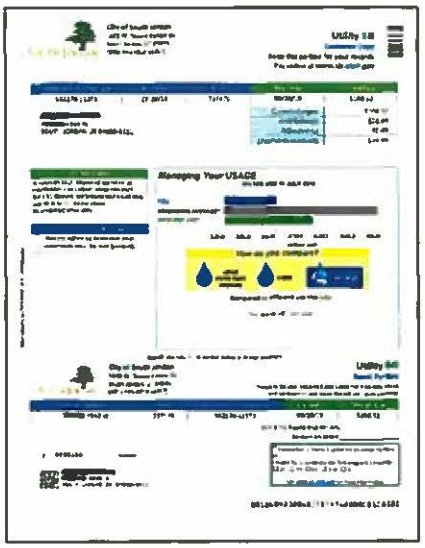


*Figure 6 – SJC Sample Water Use Report*

Having a meter and receiving usage information promotes accountability, and will give users a targeted water use goal that will encourage better water use habits.

d. *If installing distribution main meters will result in conserved water, please provide support for this determination (including, but not limited to leakage studies, previous leakage reduction projects, etc.). Please provide details underlying any assumptions being made in support of water savings estimates (e.g., how leakage will be reduced once identified with improved meter data).*

South Jordan City will not be installing any distribution main line meters as part of this project, only secondary water service meters. With the installation of the secondary water meters, the City will be able to better understand if any water is currently being lost to leaks. If system losses are found, steps will be taken to find and repair leaks.

*Image 2 – Badger E-series Meter with AMR.*

e. *What types (manufacturer and model) of devices will be installed and what quantity of each?*

SJC will install the Badger E-series with AMR for the traditional 1-inch connections. The new AMR system provides usage data in hourly increments. SJC will use the hourly data to track irrigation timing and volume of water used at irrigation times.

f. *How will actual water savings be verified upon completion of the project?*

After the completion of the project, SJC will have water usage data from every meter installed. The data will be in hourly increments from April 15 to October 15. The

data will also include a monthly consumption value. Water savings will not be fully known after just one irrigation year. However, the usage will continue to be gathered every year and comparisons made to show how water use will adjust and decrease over time. It has been proven that simply having a meter installed has helped users realize their over use and alter their behaviors. The historical data shows that most users have been responsive and appreciative of receiving monthly water use statements, and have reduced water usage as a result.

SJC will be able to use historical main line meter data to compare usage from years prior to metering with years following metering. If weather is significantly different between years, evapotranspiration rates can be used to normalize data. Comparing historical water use to use after full implementation of the meter project will more accurately depict what impact the installation of individual meters has on the entire system.

### E.1.2. Evaluation Criterion B – Water Supply Reliability (18 Points)

*Address how the project will increase water supply reliability. Provide sufficient explanation of the project benefits and their significance. These benefits may include, but are not limited to, the following:*

1. *Will the project address a specific water reliability concern? Please address the following:*
    - *Explain and provide detail of the specific issue(s) in the area that is impacting water reliability, such as shortages due to drought, increased demand, or reduced deliveries. Will the project directly address a heightened competition for finite water supplies and over-allocation (e.g., population growth)?*

SJC receives secondary water from five different canals owned by private canal companies. The main source of water that feeds the five canals supplying SJC's secondary water system comes from Utah Lake via the Jordan River. Utah Lake and the Jordan River are impaired waterbodies that suffer many challenges, including drought, evaporation, poor flow and oxygenation, salinity, temperature, algal blooms, and ice flows. Utah Lake loses half its water to evaporation because it is a shallow lake with a large surface area. Utah Lake's water quality/quantity and reliability directly affect the Jordan River, and therefore, SJC's secondary water supply. Without water from Utah Lake and the Jordan River, SJC would be forced to pursue additional water collection from more costly

*Image 4 – Utah Lake Shallow Water & Algal Blooms.*

*Image 3 – Jordan River*

sources in order to sustain its growing community.

Overwatering is another issue that impacts water reliability in SJC. Water users do not understand how much water they are using so they always over water. This project will allow users to know how much water they are using and how much they need to be using. The project will help the City address a heightened competition for finite water supplies and over-allocation by educating and documenting water use for users, guiding them to conserve water that can be used for future growth in SJC.

- *Describe how the project will address the water reliability concern? In your response, address where the conserved water will go and how it will be used, including whether the conserved water will be used to offset groundwater pumping, used to reduce diversions, used to address shortages that impact diversions or reduce deliveries, made available for transfer, left in the river system, or used to meet another intended use.*

SJC is prepared to address the water reliability concerns described above by installing water meters and implementing water awareness education.

Water conserved through this project will be returned to the Jordan River, which is an impaired waterbody due to natural causes, including shallow water, hot summer air temperature, natural thermal discharges, and Total Dissolved Solids (TDS). Although the Jordan River has multiple tributaries from both the east and the west, Utah Lake is its single largest source of flow. This is a problem because Utah Lake is also an impaired waterbody that suffers from many of the same issues as the Jordan River. Much of the water from Utah Lake is diverted within only a few miles of entering the Jordan river, which is then used for agricultural and municipal purposes. Conserving water along the first few miles of the river will benefit the Great Salt Lake, which provides habitat for millions of native birds, brine shrimp, shorebirds, and waterfowl, including the largest staging population of Wilson's Phalarope in the world. Conserved water will also benefit the Jordan River in the following ways:

*Image 5 – Wilson's Phalarope at the Great Salt Lake.*

- Recreation, including boating, wading, fishing, and many others
- Cold and warm water fisheries
- Other wildlife that depend on an aquatic environment, such as waterfowl, shorebirds, and the aquatic organisms in their food chains
- Agricultural irrigation

- *Provide a description of the mechanism that will be used, if necessary, to put the conserved water to the intended use.*
  The proposed project will start the metering process for existing secondary connections in SJC. Meters will help to conserve water, thereby reducing the need to purchase more water to meet the demands of growth.
- *Indicate the quantity of conserved water that will be used for the intended purpose.*
  For this project, the amount of estimated water savings is 174.41 acre-feet/year.

2. *Will the project make water available to achieve multiple benefits or to benefit multiple water users? Consider the following:*
   - *Will the project benefit multiple sectors and/or users (e.g., agriculture, municipal and industrial, environmental, recreation, or others)?*
     SJC's secondary water system only supplies irrigation water to secondary municipal water connections/users for the purpose of watering lawns and gardens. However, conserving this water will make more water available for downstream agricultural users and other municipalities. The water conserved will also benefit the Jordan River and ultimately the Great Salt Lake, which provide several types of recreation, and habitats for millions of native birds, fish, brine shrimp, shorebirds, and waterfowl.
     - *Will the project benefit species (e.g., federally threatened or endangered, a federally recognized candidate species, a state listed species, or a species of particular recreational, or economic importance)? Describe the relationship of the species to the water supply, and whether the species is adversely affected by a Reclamation project.*
       Species from the Jordan River found on the Utah Sensitive Species List include the smooth green snake, the western toad, kit fox, spotted bat, and Townsend's big-eared bat. The endangered June Sucker is common to both Utah Lake and the Jordan River, and the Bald Eagle is occasionally found on the Great Salt Lake. The water savings that will be realized from this project will benefit the species listed above, because it is proven and documented that by allowing for more available water to stay within the habitat areas for longer periods of time, these species are benefited. Low stream flows affect many aspects of the Jordan River. Stable and connecting flows between those habitats are a fundamental requirement for those conservation actions to be successful.
     - *Will the project benefit a larger initiative to address water reliability?*
       The proposed secondary water metering project contributes to a larger initiative of SJC's to achieve the Utah Governor's goal of 25 percent water conservation by 2025. Many cities across the State of Utah have taken on this conservation goal, and SJC intends to do its part to develop projects,

such as the proposed, to encourage its users to manage and conserve water resources more efficiently. Through water use awareness education and conservation, the district will work with its users to reduce water usage that has contributed to a largescale declining of water reliability and conflicts in the area; and by extension, SJC's efforts will contribute to the reduction of water usage throughout the State of Utah.

- *Will the project benefit Indian tribes?*
  No, the project will not benefit Indian tribes.
- *Will the project benefit rural or economically disadvantaged communities?*
  No, the project will serve South Jordan City, Utah, which is not considered to be rural or an economically disadvantaged community.
- *Describe how the project will help to achieve these multiple benefits. In your response, please address where the conserved water will go and where it will be used, including whether the conserved water will be used to offset groundwater pumping, used to reduce diversions, used to address shortages that impact diversions or reduce deliveries, made available for transfer, left in the river system, or used to meet another intended use.*
  Water conserved through this project will be held in Utah Lake longer and used to meet the demands of growth. Unused water supplied to SJC will be returned to the Jordan River to benefit recreation, water fisheries, and agricultural irrigation; and ultimately drained into the Great Salt Lake, which provides habitat for millions of native birds, brine shrimp, shorebirds, and waterfowl.

3. *Does the project promote and encourage collaboration among parties in a way the helps increase the reliability of the water supply?*
   Yes, this project will encourage collaboration among SJC and others with similar conservation goals, such as the State of Utah's Division of Water Resources and Jordan Valley Water Conservancy District, in order to promote regional water reliability, as described below.
   - *Is there widespread support for the project?*
     The Utah Division of Water Resources recently released their Regional M&I Water Conservation Goals report, and one of the key conservation goals identified in this report is "Installing secondary water meters and smart controllers on outdoor irrigation systems." This goal will help further the State's conservation goal. SJC's proposed metering project directly aligns with these goals, and a letter of support for the proposed project from the Division of Water Resources is included in Attachment D – Letters of Support.
   - *What is the significance of the collaboration/support?*
     The State of Utah recognizes that unmetered secondary irrigation connections have been shown to use about 50 percent more water than metered connections.

They seek to eliminate the widespread idea of "free" water that causes so many water users to use excess water above and beyond the needs of lawns and gardens. A new bill (Senate Bill 52) requires that each irrigation system prepare a plan for eventually metering existing connections. The proposed project is the beginning of SJC's efforts to support this bill.

- *Is the possibility of future water conservation improvements by other water users enhanced by completion of this project?*
  SJC's efforts to improve their water conservation by installing meters on existing secondary water connections is a result of the example of and help from the Weber Basin Water Conservancy District. SJC hopes that they too can be an example of water conservation for surrounding communities.
- *Will the project help to prevent a water-related crisis or conflict? Is there frequently tension or litigation over water in the basin?*
  Yes, metered secondary water connections in SJC will encourage residents to use less water to maintain their lawns and gardens, thereby conserving water that can be held in Utah Lake for longer periods of time to prepare for future growth. Higher water levels in Utah Lake will prevent the canal companies from having to shut down water early in the season, as has been done before. It will also eliminate the need to buy additional water from other costly sources, which could result in higher water rates and tension between the City and its water users.
- *Describe the roles of any partners in the process. Please attach any relevant supporting documents.*
  Jordan Valley Water Conservancy District (SJC's culinary water supplier) and the Utah Division of Water Resources are in full support of this project and have provided letters of support, which can be found in Attachment D – Letters of Support.

4. *Will the project address water supply reliability in other ways not described above?*
   No.

### E.1.3. Evaluation Criterion C – Implementing Hydropower (18 Points)

*If the proposed project includes construction or installation of a hydropower system, please address the following:*

The proposed project does not include any hydropower.

### E.1.4. Evaluation Criterion D – Complementing On-Farm Irrigation Improvements (10 Points)

*If the proposed project will complement an on-farm improvement eligible for NRCS assistance, please address the following:*

The proposed project does not include any on-farm improvement.

## E.1.5. Evaluation Criterion E – Department of the Interior Priorities (10 Points)

*Address those priorities that are applicable to your project. Points will be allocated based on the degree to which the project supports one or more of the priorities listed, and whether the connection to the Priority(ies) is well supported in the proposal.*

1. *Creating a conservation stewardship legacy second only to Teddy Roosevelt.*
   On the topic of conservation, Teddy Roosevelt said:

   "Conservation means development as much as it does protection. I recognize the right and duty of this generation to develop and use the natural resources of our land; but I do not recognize the right to waste them, or to rob, by wasteful use, the generations that come after us."

   SJC agrees with Teddy Roosevelt that America's precious water resources must be available and reliable for current and future generations. SJC will take a major step towards ensuring water availability and reliability for current and future generations by not only metering its secondary water distribution, but by educating its users to keep them from overwatering.

   Concern over water conservation is most prevalent in the western United States, and especially in Utah – the second driest state in the nation. Because of drought, water conservation in Utah is something that is taken seriously by water distributors and users throughout the state. The proposed project is an opportunity for SJC and its water users to work together to create goals and sound water use habits. Working towards these goals and implementing better water use habits will protect Utah's water resources and ensure that these resources are made available to sustain current and future water users within SJC.

2. *Striking a regulatory balance.*
   Water conserved by the proposed metering project will be held up in Utah Lake to support growth. Unused water delivered to SJC for secondary water use will be returned to the Jordan River, and eventually find its way to the Great Salt Lake; where it will work to sustain and improve habitats for millions of native birds, brine shrimp, shorebirds, and waterfowl, including recreation, water fisheries, and agricultural irrigation.

3. *Modernizing our infrastructure.*
   Modern meter designs on secondary water systems have proven successful in making many water users more aware of how much water they are really using. Because secondary water supply is commonly charged at a fixed rate, many water users assume that they have the right to an unlimited supply of water. The City hopes that this way of thinking becomes something of the past for their water users.

## E.1.6. Evaluation Criterion F – Implementation and Results (6 Points)

### E.1.6.1. Subcriterion No. F.1 – Project Planning

***Does the applicant have a Water Conservation Plan and/or System Optimization Review (SOR) in place?*** *Please self-certify, or provide copies of these plans where appropriate to verify that such a plan is in place.*

Yes, SJC has a water conservation plan that has been implemented, which was submitted in 2014 to the Utah Board of Water Resources.

*Provide the following information regarding project planning:*

1) *Identify any district-wide, or system-wide, planning that provides support for the proposed project. This could include a Water Conservation Plan, SOR, or other planning efforts done to determine the priority of this project in relation to other potential projects.*

   SJC's 2014 Water Conservation Plan outlines the City's current water conservation goals and presents its existing water conservation efforts:

   **Current Water Conservation Goals**

   ***Secondary Metering:*** The City's water conservation plan includes the need to implement effective secondary water metering to understand actual water use and to promote water conservation education for its water users. As stated in the plan, "Without accurate secondary measurements, the City must rely on engineered estimates that may not reflect the actual use…it is difficult to promote water conservation or hold users accountable for use." Metering secondary water use is a top priority for the City.

   **Existing Water Conservation Efforts**

   ***Water Conservation Program Marketing:*** The City has provided a comprehensive website, http://www.watersmartsojo.org/, focused on educating residents on water conservation. This website is used to give residents the most up to date information and inform residents about the programs that are offered. With one of the highest causes for water waste being overwatering of grass, the City recognizes the need for educating the residents on best practices and the need for conservation. The City has booths at different community and City events to further promote the water conservation program. SJC is confident that data collected from metered secondary water connections will increase the effectiveness of this program.

   ***Public Involvement and Education:*** Metered secondary water connections will also increase the effectiveness of SJC's existing efforts to involve and educate its users regarding water conservation. Currently, the City offers two irrigation workshops a year, one in the spring and another in the fall. These workshops are aimed at providing helpful information about irrigation practices and sprinkler systems, including ways to reduce water use. The City's Water Department also takes time every year as part of National Water Week to visit elementary schools within South Jordan City to help educate fourth graders about the water cycle and water conservation. This program has been well received by parents, teachers, and students.

2) *Describe how the project conforms to and meets the goals of any applicable planning efforts, and identify any aspect of the project that implements a feature of an existing water plan(s).*

Prepare60 was established by the four largest water conservancy districts, including JVWCD and CUWCD – SJC's culinary water suppliers, who created a plan that revolves around three water conservation values:

**Protect what we have**
- Repair and replacement of existing infrastructure
- Watershed and water source protection

**Use it wisely**
- Water conservation – efficient use of a precious resource

**Provide for the future**
- New water sources and development of new infrastructure

SJC strives to place equal emphasis on each of these three values, because combined, they work to maintain a safe, reliable, cost-effective, and sustainable water supply that can meet the demands of future growth. The greatest potential for conservation comes with accountability and end user knowledge of how much water the City and its water users are using. Data collected from secondary water meters will show conservation savings, and will benefit the City and its water users. The collected data can also be used to encourage surrounding areas and other water purveyors to meet similar water conservation goals.

E.1.6.2. Subcriterion No. F.2 – Performance Measures

*Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project (e.g., water saved or better managed, energy generated or saved).*

The performance measures that will be documented and quantified to show the actual benefits upon completion of the project will include water that is saved and/or better managed.

**Water Savings and/or Better Water Management Performance Measures**

The proposed Project will be measured for success by the reading and logging of the data from the installed meters, which will be logged monthly by an AMR system. Once meters are installed, water savings will be quantified using the individual meters, new measures for targeting high use can be developed and implemented, and the direct water savings will be tracked.

All of this will be documented for the water users and sent to them for their information using a secondary water use report similar to the one the City uses for its culinary water users. See Attachment C – Sample Secondary Water Use Report.

### E.1.6.3. Subcriterion No. F.3 – Readiness to Proceed

*Describe the implementation plan of the proposed project. Include an estimated project schedule that show the stages and duration of the proposed work, including major tasks, milestones, and dates.*

**February/March 2020 – November 2020**
Notice of award letter – Feb/Mar 2020
Agreement – July 2020
Environmental document prepared and approved by Reclamation – November 2020

**November 2020 – September 2022**
Commence construction – November 2020
Construction final completion – May 2022
Final reporting and project close-out – September 2022

*Describe any permits that will be required, along with the process for obtaining such permits.*
Possible excavation permits will be required; however, all the construction will take place within the City limits; therefore, SJC will determine if they need to execute a permit.

*Identify and describe any engineering or design work performed specifically in support of the proposed project.*
No engineering or design work has been performed specifically in support of the proposed project.

*Describe any new policies or administrative actions required to implement the project.*
No new policies or administrative actions will be required to implement the project.

*Describe how the environmental compliance estimate was developed. Has the compliance cost been discussed with the local Reclamation office?*
The environmental compliance estimate was developed based on past metering projects completed by Weber Basin Water Conservancy District for the West Bountiful and Woods Cross service areas.

## E.1.7. Evaluation Criterion G – Nexus to Reclamation Project Activities (4 Points)

*Is the proposed project connected to Reclamation project activities? If so, how? Please consider the following:*

- *Does the applicant receive Reclamation project water?*
  Yes, SJC receives Central Utah Project water, and Provo River Project water via a diversion from the Duchesne River to the Provo River.
- *Is the project on Reclamation project lands or involving Reclamation facilities?*
  No, the project is not on Reclamation project lands or involving Reclamation facilities.
- *Is the project in the same basin as a Reclamation project or activity?*
  Yes, as stated previously, SJC receives Central Utah Project water, and Provo River Project water via a diversion from the Duchesne River to the Provo River.

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

  Yes, because SJC receives some of its secondary water from the diversion of water from the Duchesne River to the Provo River, metering secondary water use will help conserve valuable Provo River Project water resources, leaving more water in Deer Creek Dam.

  Also, SJC receives culinary water from the Central Utah Project through CUWCD. During years when secondary water is scarce, due to drought or other complications, the canal companies that supply SJC with secondary water must shut down the canals, forcing residents to turn to culinary water for use on their lawns and gardens. Conserving secondary water resources will help reduce the strain on culinary water resources.

*Will the project benefit any tribe(s)?*
No, the project will not benefit any tribes.

### E.1.8. Evaluation Criterion H – Additional Non-Federal Funding (4 Points)

*State the percentage of non-federal funding provided using the following calculation: Non-Federal Funding divided by Total Project Cost.*

$$\frac{\$335,200}{\$635,200} = \mathbf{53\%}$$

# Project Budget

## Funding Plan and Letters of Commitment

*Describe how the non-Federal share of project costs will be obtained.*

*Identify the sources of the non-Federal cost-share contribution for the project, including:*

- *Any monetary contribution by the applicant towards the cost-share requirement and source of funds (e.g., reserve account, tax revenue, and/or assessments).*
  The City will fund all non-Federal contributions entirely with South Jordan City's Secondary Water fund.
- *Any costs that will be contributed by the applicant.*
  The City's cost share will be coming from their Secondary Water fund.
- *Any third-party in-kind costs (i.e., goods and services provided by a third party).*
  N/A
- *Any cash requested or received from other non-Federal entities.*
  N/A
- *Any pending funding requests (i.e., grants or loans) that have not yet been approved, and explain how the project will be affected if such funding is denied.*
  N/A

*In addition, identify whether the budget proposal includes any project costs that have been or may be incurred prior to award. For each cost, describe:*

- *The project expenditure and amount.*
  N/A
- *The date of cost incurrence.*
  N/A
- *How the expenditure benefits the Project.*
  N/A

## Budget Proposal

*Table 3 – Total Project Cost Table*

| Source | Amount |
|---|---|
| Costs to be reimbursed with the requested Federal funding | $300,000 |
| Costs to be paid by the applicant | $335,200 |
| Value of third-party contributions | $0 |
| **Total Project Cost** | **$635,200** |

*Table 4 – Budget Proposal*

| Budget Item Description | Computation | | Quantity Type | Total Cost |
|---|---|---|---|---|
| | $/Unit | Quantity | | |
| **Salaries and Wages** | | | | **$0** |
| **Fringe Benefits** | | | | **$0** |
| **Equipment** | | | | **$0** |
| **Supplies and Materials** | | | | **$0** |
| **Contractual /Construction** | | | | **$0** |
| 1" End User Secondary Meter | $1,400 | 443 | EA | $620,200 |
| Environmental & Regulatory Compliance | $15,000 | 1 | EA | $15,000 |
| **Third-Party In-Kind Contributions** | | | | **$0** |
| **Other** | | | | **$0** |
| **Total Direct Costs** | | | | **$635,200** |
| **Indirect Costs** | | | | **$0** |
| Type of rate | Percentage | $base | | $0 |
| Total Estimated Project Costs | | | | $635,200 |

## Budget Narrative

*Salaries and Wages*

No SJC Salaries or Wages will be included. All services will be contracted. SJC's staff time will be over and above the cost of the project and will not be counted toward the project cost.

*Fringe Benefits*

No fringe benefits will be required.

*Travel*

No travel will be required.

*Equipment*

Equipment will be part of the contracted portion of the project.

*Materials and Supplies*

Materials and Supplies will be part of the contracted portion of the project and will be documented as required.

*Contractual*

In order to determine unit costs, which are included in the cost estimate for this project, SJC relied upon contract unit prices from similar projects recently completed by the Weber Basin Water Conservancy District for the West Bountiful and Woods Cross service areas.

SJC will bid the construction portion of the project to several construction companies. The contractual costs shown are estimates for each of the components to furnish and install all the equipment. Generally, the low bidder will be selected based on a determination of acceptable qualifications.

Contractual will include installing 443 meters and boxes.

*Third-Party In-Kind Contributions*

No third-party in-kind contributions will be part of the project.

*Environmental and Regulatory Compliance Costs*

The environmental document for this project will be minimal in that all of the metering will be within previously disturbed areas. This cost is included at $15,000, with $5,000 of that to be held back for Reclamation review.

*Other Expenses*

No other expenses will be part of the project.

*Indirect Costs*

No indirect costs will be part of the project.

*Total Costs*

SJC Portion: $335,200 Fed Portion: $300,000 Total: $635,200

## Environmental and Cultural Resources Compliance

*Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.*
The project will require only a minimal level of earthwork to install meters. There will be some excavation of the existing connection to allow for a meter pit to be installed. No animal habitats will be negatively impacted, and work impacts will be very minimal, even to existing landscapes.

*Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?*
SJC is not aware of any impacts concerning threatened or endangered species in this area.

*Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States?" If so, please describe and estimate any impacts the proposed project may have.*
SJC is not aware of any impacts to wetlands in this area.

*When was the water delivery system constructed?*
The first phases of SJC's secondary water system were constructed in the 1980s. Then, as neighborhoods were developed in the 1990s, the 2000s, and during the past decade, their secondary system was expanded.

*Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.*
There will be no significant modifications to the main conveyance system during the installation of the 443 secondary water meters.

*Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.*
SJC is not aware of any building, structures or features that would be impacted or would qualify.

*Are there any known archeological sites in the proposed project area?*
SJC is not aware of any impacts to any archeological sites.

*Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?*
The project will not have a disproportionately high or adverse effect on low income or minority populations.

*Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?*
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 or approvals are required for the proposed project.

## Letters of Project Support

*Include letters from interested stakeholders supporting the proposed project.*

Letters of Support for the proposed project are included in Attachment D and include endorsements from the following entities:

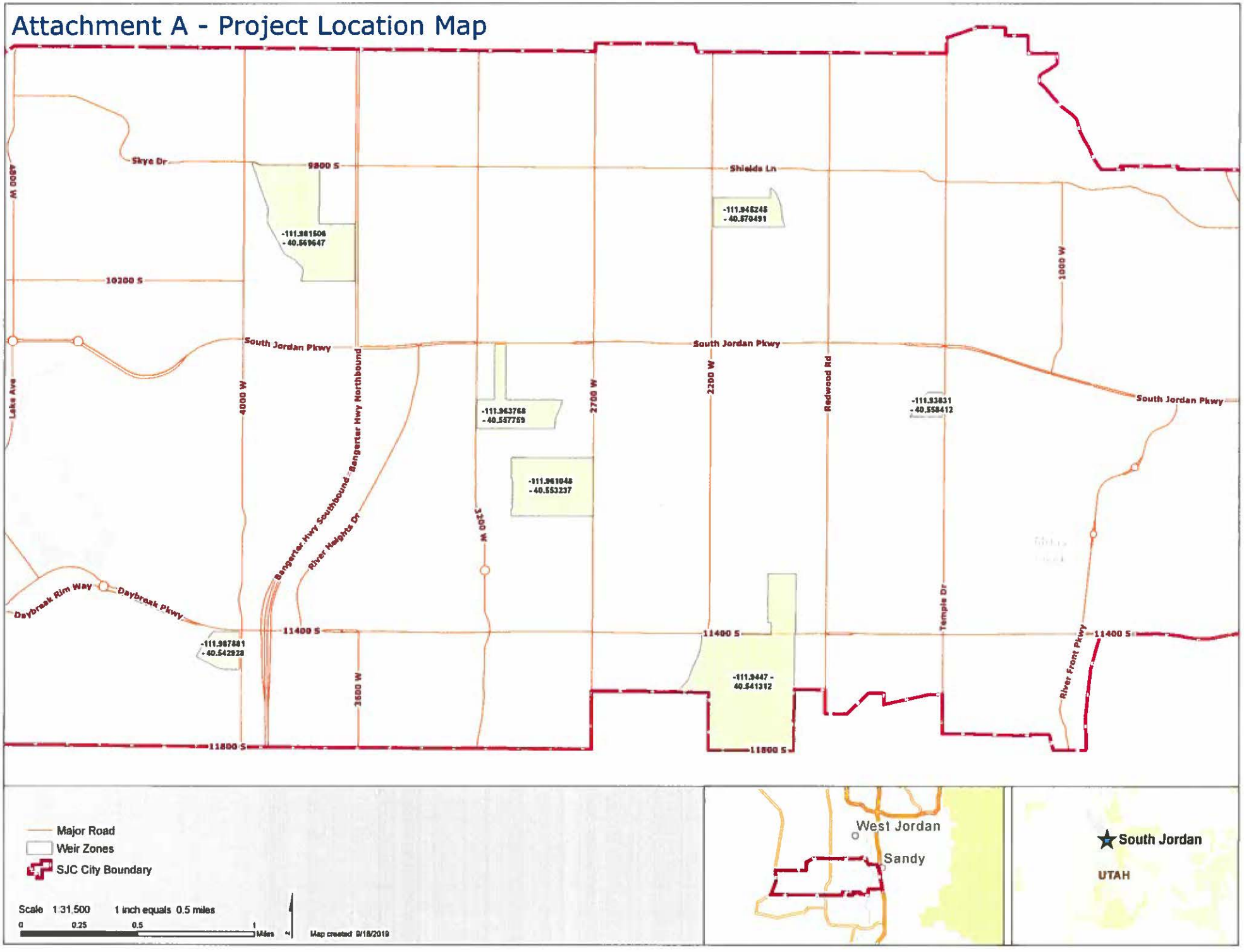
- State of Utah Department of Water Resources
- Jordan Valley Water Conservancy District

## Official Resolution

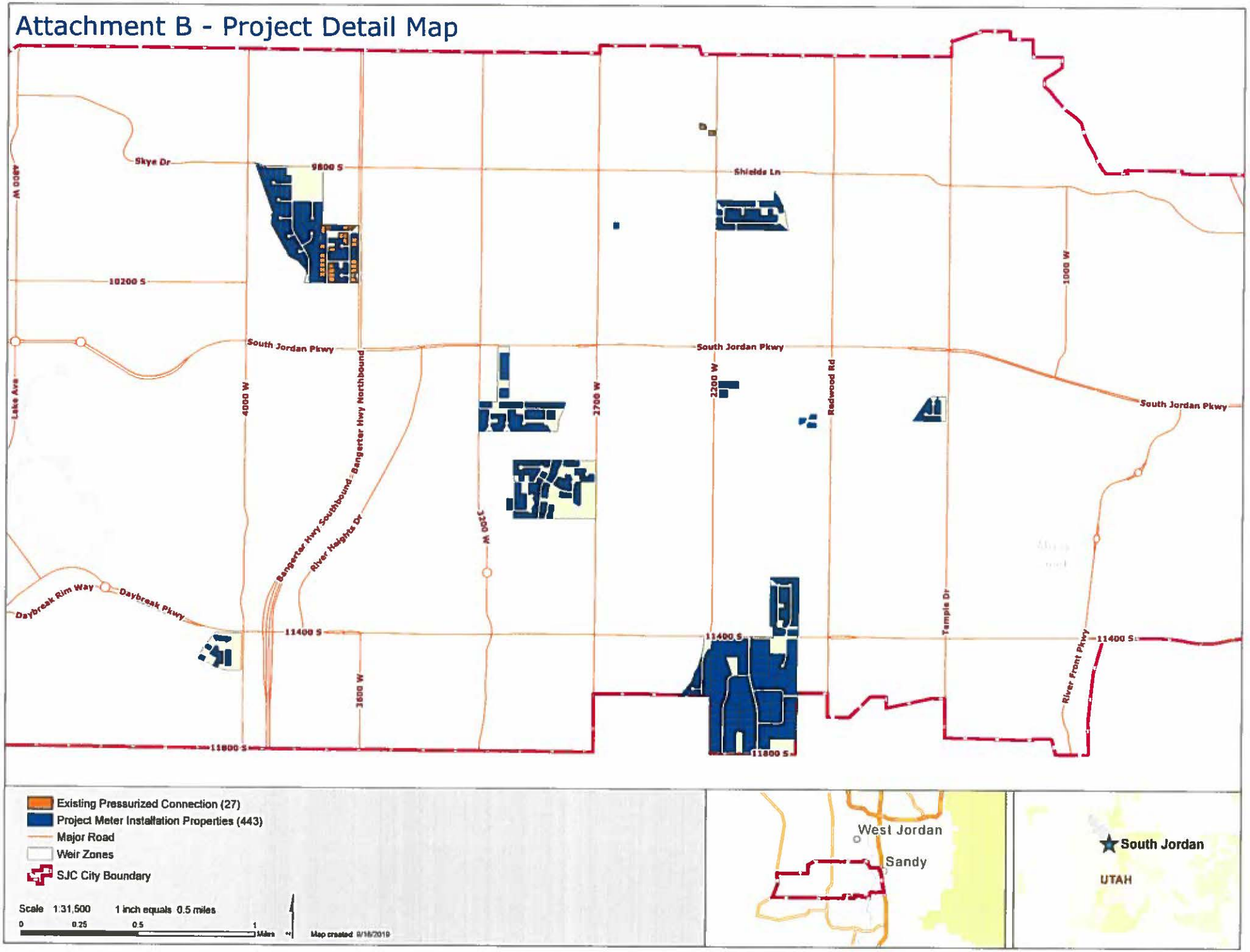
*Include an official resolution adopted by the applicant's board of directors or governing body. The official resolution may be submitted up to 30 days after the application deadline.*

The Official Resolution for the South Jordan City Secondary Water Metering Project will be submitted within 30 days after the application deadline.

# Attachment A - Project Location Map



# Attachment B - Project Detail Map



Attachment C - Sample Secondary Water Use Report

**City of South Jordan**
1600 W. Towne Center Dr
South Jordan, UT 84095
(801) 446-HELP (4357)

## Utility Bill

**Customer Copy**

Keep this portion for your records
Pay online at **www.sjc.utah.gov**

| Account # - Customer # | Bill Date | Bill # | Due Date | Total Due |
|---|---|---|---|---|
| 562178-11373 | 07/20/19 | 737476 | 08/20/19 | $108.52 |

[redacted]
[redacted] 4340 W
SOUTH JORDAN UT 84009-8111

| | |
|---|---|
| Current charges: | $108.52 |
| Prior balance: | $78.94 |
| Adjustments: | $0.00 |
| (Payments received): | -$78.94 |

**City Messages**

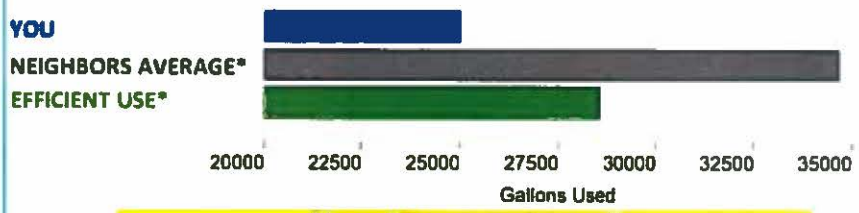
IS YOU CONTACT INFORMATION WITH US UP-TO-DATE? TO UPDATE YOUR CONTACT INFO TO ENSURE IMPORTANT NOTIFICATIONS ARE RECEIVED - PLEASE EMAIL BILLING@SJC.UTAH.GOV

**Delivery Method Message**

You are signed up to receive your statements thru the mail (printed).

### *Managing Your* USAGE

**WATER USE IN JULY 2019**




***How do you compare?***


**Compared to efficient use this July:**

You are an efficient user.

120/1 29332/3537001 0002156 1 I=0000000000

Detach and return the portion below with your payment

**City of South Jordan**
1600 W. Towne Center Dr
South Jordan, UT 84095
(801) 446-HELP (4357)

## Utility Bill

**Remit Portion**

Please write your Account # and Customer # on your check and enclose this portion of the bill with your payment

| Service Address | Bill # | Account # - Customer # | Due Date | Amount Due |
|---|---|---|---|---|
| [redacted] 4340 W | 737476 | 562178-11373 | 08/20/19 | $108.52 |

One-time Round it up for Art: _____

Amount enclosed: _____

# 0002156 I=000000

[redacted] 4340 W
SOUTH JORDAN UT 84009-8111

☐ I would like to Round it up for Art on a monthly basis
Or
I would like to contribute the following to Art monthly
☐ $1 ☐ $3 ☐ $5 ☐ $10 ☐ $_____

See www.sjc.utah.gov for more information

00186042020600737476200000108522

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

# State of Utah
**DEPARTMENT OF NATURAL RESOURCES**

**BRIAN C. STEED**
*Executive Director*

**Division of Water Resources**

September 17, 2019

Jason Rasmussen
Public Works Director
City of South Jordan
1600 W. Towne Center Dr.
South Jordan, UT 84095

Jason,

The Utah Division of Water Resources is pleased to write in support of your grant application to the Bureau of Reclamation Water and Energy Efficiency Grants Program. We applaud your efforts to increase the efficiency of your system and thereby conserve valuable water resources. We understand that this metering project will meter a portion of the secondary water system in South Jordan and will ultimately inform residents through a monthly statement of how much water they are using. This information will provide valuable information that they can then use to adjust watering schedules and conserve water.

The Division recognizes the importance of water conservation and the water saved through these improvement projects will provide benefit to the City of South Jordan and the environment. We strongly support your grant application and the resulting water savings.

Sincerely,

Todd Stonely

Todd Stonely, P.E.
Project Funding Manager

1594 West North Temple, Suite 310, PO Box 146201, Salt Lake City, UT 84114-6201
telephone (801) 538-7230 • facsimile (801) 538-7279 • TTY (801) 538-7458 • *www.water.utah.gov*

JORDAN VALLEY WATER
CONSERVANCY DISTRICT

8215 South 1300 West • West Jordan, UT 84088 • Ph: 801.565.4300 • www.jvwcd.org

**Richard P. Bay,** *General Manager/CEO*
**Barton A. Forsyth,** *Assistant General Manager*
**Alan E. Packard,** *Assistant General Manager*



September 18, 2019

Jason Rasmussen, Public Works Director
City of South Jordan
1600 West Towne Center Drive
South Jordan, Utah 84095

Subject: South Jordan City grant application

Dear Jason,

Jordan Valley Water Conservancy District (JVWCD) is pleased to write in support of your grant application to the Bureau of Reclamation Water and Energy Efficiency Grants Program. We understand the requested grant funds will be used to install meters on an existing pressurized secondary irrigation system. We applaud your efforts to increase the efficiency of your system to conserve valuable water and energy. We understand that this metering project will meter all secondary water supplied to the applicable residents and the City will provide a monthly statement of water consumed. The residents will then have the ability to use this information to adjust watering schedules and conserve water.

JVWCD recognizes the importance of water conservation, which provides economic benefits to water users, and environmental benefits for the region. We strongly support your grant application and appreciate the advancements it will make in water savings and improving water efficiencies in the JVWCD service area.

Sincerely,

Richard P. Bay

Richard P. Bay
General Manager/CEO