# City of Centerville, UT - Municipal Metering Project

FY21 WaterSMART: Small-Scale Water Efficiency Projects

City of Centerville, UT

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### **Executive Summary**

Date: March 18, 2021

Applicant Name: City of Centerville, UT

Category: A – Local Government with Water Delivery Authority

City, County, State: City of Centerville, Davis County, Utah

Project Length: 12 months

Project Located on Federal Facility: No

### Project Summary

The City of Centerville, located in Davis County, will install 462 new Sensus water meters and radios on three residential water supply routes. The upgrade to new radios will allow the City to receive water meter reads wirelessly via radio signal, replacing the current practice which requires staff to drive to each meter to receive a read. The new mag meters will be an upgrade from the existing and outdated multi-jet meters, allowing for more accurate continuous flow readings and include a feature to notify the City when water backflow occurs which results in water quality concerns. Combined, the new meters and radios will allow for the City to provide better customer service by being able to notify customers if there are leaks or if they are experiencing high-water usage. The installation will curb water loss by providing more accurate water data, which will help reduce high water usage and promote water conservation. The project will also save the City labor and associated costs, as it will eliminate the need for personnel to drive to each meter to receive data, which currently requires approximately 403.50 labor hours a year.

The project is proposed to begin February 2022 and is estimated to be completed within 12 months. The project does not require permits or engineering, and there will be no ground disturbance.

### **Project Location**

The City of Centerville is located in southeastern Davis County, Utah. The project will take place on Routes 1, 2, and 3 of the City's residential water routes. The project center latitude and longitude are 40°56′52.6956″ N and 111°53′4.9092″ W. A map of the project area and of the residential water routes are found in attachment 1 and 2.

### **Project Description**

The City of Centerville is seeking to improve its ability to accurately monitor and appropriately bill for municipal water use. Existing municipal multi-jet meters on homes within the City are between 25 to 35 years old and are frequently in need of repair and provide inaccurate water consumption measurements. As a result of the outdated technology, as well as weather conditions 6 months of the year, City staff only measure municipal meters between the months

of April and October and then estimate the consumption for the remainder of the year. The City is seeking to improve its water management practices by purchasing 462 new Sensus iPERL Smart Water Meters and 462 Xylem FieldLogic Handheld Device radios. The new radios will provide the City inbound and outbound access to water measurement and ancillary device diagnostics via radio signal. The new iPERL Smart Water Meters are more sensitive to water flows, resulting in more accurate reads, and the new meters are able to determine water flow externally without additional equipment. The installation of meters and radios will be led by two of the City's Water Operators, with additional assistance provided by the Water Supervisor. Each meter and radio installation will take approximately 40 minutes and is easy to install. There is no extra training needed or required for the City's current employees. Each installation will have very limited impacts to water usage at each property, and at most users will have limited access to their water for approximately 5 minutes.

The City is planning to improve the totality of the water supply's metering technology in order to conserve more water, and the installation of new meters and radios on Routes 1, 2, and 3 is the beginning of this process. Following the success of the installations on Routes 1, 2, and 3, the City is planning to invest in the same improvements along the rest of the residential routes.

### **Evaluation Criteria**

### Evaluation Criterion A – Project Benefits

Describe the expected benefits and outcomes of implementing the proposed project. What are the benefits to the applicant's water supply delivery system? If other benefits are expected explain those as well.

The proposed water meter and radio installation will aid the City in identifying system losses resulting in a more efficient water delivery system. The City sees an estimated current water loss percentage of 10.23%, or 51,245 gallons, per year, as referenced in the Utah Public Water Supply Use Form for 2020 (Attachment 3). The City expects the current water loss data to greatly decrease with new meters and radios and help to ensure that higher users pay their share of costs. The reduction in water loss will also allow the City to conserve more of its groundwater, which is used for water supply if all the City's purchased surface water becomes low.

Additionally, the new meters and radios will be more reliable, requiring fewer maintenance and replacement calls. The new meters will allow the City to keep track of high or low flows, and also alert residents if water has moved backwards, an important water quality feature which we currently do not have. In addition to the alerts, the new radios will give identifying factors to locate where the water source is facing an issue, increasing the efficiency of the City's response.

The proposed water meter and radio installations will encourage and facilitate water conservation by the City and provide customers a more equitable cost allocation which can help water providers to secure future water supplies. Water metering is generally considered an

effective water management tool, helping customers better understand their water use and how they can use the resource more efficiently. Under existing conditions, the City reads municipal meters monthly from April through October and then estimates consumption for the remainder of the year. Meter reading is currently limited between April and October because snow is a prohibiting factor and existing radios cannot read meters through snowbanks.

Another benefit of the project is that the City will no longer require staff to drive to each meter to record water data, reducing the City's current car pollution. This will also result in labor and cost savings for the City due to the reduction in required staff hours. These trips require approximately 403.50 hours of labor a year (Attachment 4). These hours will be able to be redirected to higher priority projects and customer service activities.

### Extent to which the proposed project improves overall water supply reliability

The proposed project, and anticipated water conservation benefits, will help in reducing water overdraft from the Weber Basin Conservancy District, which the City purchases surface water from each year to meet water supply demand. The new meters are less likely to require maintenance or replacement, resulting in fewer service interruptions for customers. Also, personnel hours normally spent reading, repairing, or replacing old meters will be redirected to other priority projects and functions to help improve overall system reliability.

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

The proposed project will result in water conservation at the local level by allowing the City and customers to follow water usage, be mindful of use patterns, and become rapidly aware of problems, leaks, and water losses at the household level much more closely and accurately. Benefits will be realized at the regional level by providing more accurate meter read data to the Weber Basin Conservancy District to encourage conservation in the region, and it will also help to prevent water overdraft in the basin located in the neighboring County of Layton, Utah.

# Extent to which the proposed project will increase collaboration and information sharing among water managers in the region

The City of Centerville collaborates with the Weber Basin Water Conservancy District on the region's water conservation goals and plans. Tracking water usage and potential reduction with more accurate water meters will result in more accurate data to be shared with the Weber Basin Water Conservancy District in the region's water conservation efforts and planning.

## Any anticipated positive impacts/benefits to local sectors and economies (e.g., agriculture, environment, recreation, tourism)

The City's current water loss percentage stands at 10.23% a year. Reducing water use and unnecessary losses will improve and promote water conservation throughout Centerville – critically important as Centerville, along with other cities and regions in the U.S., deal with climate change and prolonged drought conditions. According to the <u>National Integrated</u>

<u>Drought Information System</u>, 100% of people in Davis County are affected by drought, and the driest year to date in 127 years occurred in 2021. Drought affects every individual and business in the City of Centerville, and drought resiliency will continue to play an important role in the City's ability to attract and retain businesses. The installation of new meters and radios will also reduce the City's air pollution, as staff currently drives to read each meter, improving their regional environment.

Extent to which the project will complement work done in coordination with NRCS in the area (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.

This project is a municipal metering project and does not have a nexus to NRCS or farm efficiency efforts.

Evaluation Criterion B – Planning Efforts Supporting the Project Does the proposed project implement a goal or address a need or problem identified in the existing planning effort?

The proposed project aligns with the City of Centerville's Water Conservation Plan which sets a goal to reduce the City's water usage from 88.3 to 70 gallons per person per day. The installation of new water meters, with better measuring technology, will allow the City to notify residents of high usage and potential leaks with the goal of reducing their usage to align with the City's conservation goals (Attachment 5).

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

The City of Centerville's Water Conservation Plan focuses on a "plan to increase the efficiency of water use" to reduce the overall water usage in the City (Attachment 5). Water conservation and increased efficiency of water usage have been the highest priorities in the City's Water Conservation Plan since 2015. The proposed project has been determined as a priority for this plan because accurate water metering and reads will contribute significantly and measurably to the reduction of water consumption and usage through more accurate water usage data.

### Evaluation Criterion C - Project Implementation

Describe the implementation plan for the proposed project. Please include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates.

The proposed project is to begin in February 2022 with an estimated completion date of 12 months. There will be no permits required, no engineering or desk work needed, and no ground disturbance.

Date	Milestones
February 2022	Begin purchasing the meters and radios.
March 2022	Begin installation of the new meters and radios on the existing Route 1.
	(Depending on weather this may be pushed back.)
April 2022	Begin installation of the new meters and radios on the existing Route 2.
May 2022	Begin installation of the new meters and radios on the existing Route 3.
August 2022	Finalize and complete the installation of all 462 meters and radios.
February 2023	Complete project installation and project closeout

#### Installation

The project will install 462 new meters and 462 new radios on the existing Routes 1, 2, and 3 within the City of Centerville. The work will include:

- Installation of 462 water meters
- Installation of 462 radios
- Disinfection of piping
- Restoration of work area

Construction and inspection services will be performed by City staff. Project management tasks will include public outreach, submittal and schedule review, and contract oversight.

### Project Closeout/Final Reporting

Final closeout and reporting will take place after all meters and radios are installed and inspected. Project closeout will include processing project payment, completing the notice of completion to accept the project, and final financial and performance reports to meet the grant requirements.

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

Permits are not required to install the municipal meters.

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

This project will replace outdated and inaccurate municipal meters with new and improved meter technology and does not require engineering or design work.

Describe any new policies or administrative actions required to implement the project.

City personnel are trained on meter installation and no additional administrative or policy action items are required.

Describe the timeline for completion of environmental and cultural resource compliance.

The project will not disturb the ground and therefore it is not anticipated that environmental or cultural resource compliance will be required.

Was the timeline for completion of environmental and cultural resource compliance discussed with the local Reclamation office?

The City did not reach out to the local reclamation office regarding environmental and cultural resources compliance.

Evaluation Criterion D – Nexus to Reclamation Is the proposed project connected to a Reclamation project or activity?

While the City does not receive Reclamation water, the proposed project is in line with the approach and goals of Reclamation in terms of water conservation and drought resiliency. In addition to the overall goals and programs administered by the Bureau, several specific programs, including the WaterSMART Drought Resiliency and Efficiency programs, provide funding for municipal projects such as water meter installation and upgrading.

Will the project benefit any tribe(s)?

No

# Project Budget Funding Plan

The total municipal meter and radio installation project is anticipated to cost \$149,581.35. The City is requesting \$74,790.675 in federal funds to support the project. The City of Centerville is committed to providing the required 50% match to support the municipal meter and radio project through in-kind staff time and cash match. In-kind match totals \$10,383.52 and will be derived through staff time installing the meters and project management. The remaining \$64,407.15 will be cash match from the City's Water Enterprise Fund. The City's Water Enterprise Fund is currently slated for a rate increase and will generate between \$400,000 and \$600,000 a year for water related projects. Currently, the Water Enterprise Fund has \$180,000 in fund balance and is projected to increase to \$240,000 by the end of the year (June 30, 2021). By June 30, 2022, the City projects that balance will increase to \$640,000 approximately.

Funding Sources	Amount
Costs to be reimbursed with the requested Federal Funding	\$74,790.675
Costs to be paid by the applicants	\$74,790.675
Total Project Funding	\$149,581.35

### **Budget Proposal**

Budget Item Description	\$/unit	Quantity	Quantity Type	Total Cost			
Salaries and Wages							
Water Supervisor	\$30.53/hr	25	Hourly	\$763.25			
Water Operator	\$17.42/hr	308	Hourly	\$5,365.36			
Fringe Benefits							
Water Supervisor	\$19.03/hr	25	Hourly	\$475.75			
Water Operator	12.27/hr	308	Hourly	\$3,779.16			
Contractual							
N/A							
Equipment							
Meters/Radio	\$139.080/each	462	Each	\$64,254.96			
Radio	\$162.214/each	462	Each	\$74,942.87			
Supplies and Materials							
N/A							
Third-Party In-Kind Contributions							
N/A							
Environmental and Regulatory Compliance Costs							
N/A							
TOTAL DIRECT COSTS	\$149,581.35						
Indirect Costs							
N/A							
TOTAL ESTIMATED PROJECT	\$149,581.35						

### **Budget Narrative**

### Salary and Wages

The City of Centerville's Water Supervisor will be responsible for project management and grant reporting requirements. The effective rate for the Water Supervisor is \$30.53/hour. The Water Supervisor has budgeted approximately 25 hours over the duration of the grant to procure the equipment, oversee meter installation and prepare grant reports.

The City of Centerville's Water Operators will be responsible for the installation of the new water meters and radios. The City has two Water Operators who are trained in installing the requested meters. The effective hourly rate for our Water Operators is \$17.42/hour. Based on experience it takes approximately 40 minutes to install each meter so a total of 308 hours will be spent installing the 462 meters.

### Fringe Benefits

The fringe benefits related to the project are of the Water Supervisor (\$19.03/hour) and Water Operator (\$17.89/hour) include health, dental, and life insurance with fix contributions based on insurance type selected by the employee, and retirement benefits which are full employer contribution based on the year the employee began employment. This also includes payments made by the City on the employee's behalf for Social Security, Medicare, unemployment insurance, and workers compensation.

Travel

N/A

Contractual

N/A

### Equipment

The City received quotes from vendors to estimate the total cost to purchase the new meters and radios on 462 homes. Installation costs are not included in this quote as City staff will be responsible for implementing the project. Mountain Contractors Supply Group provided a quote (Attachment 6) that totaled \$301.23 per installation. This cost is broken down to \$139.080 per Sensus iPERL meter and \$162.214 per meter radio.

### Materials and Supplies

N/A

Third-Party In-Kind Contributions

N/A

**Environmental and Regulatory Compliance Costs** 

Environmental Compliance costs are not anticipated as the project does not involve any groundwork.

Other Expenses

N/A

**Indirect Costs** 

N/A

### Environmental and Cultural Resources Compliance

Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

No, the proposed project will not impact the surrounding environment.

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?

No.

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.

No.

When was the water delivery system constructed?

The water delivery system for the City of Centerville was constructed in 1950, and the City has continually updated waterlines since 1989.

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.

No.

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.

No.

Are there any known archeological sites in the proposed project area?

No.

Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?

No.

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

Statement about required permits and approvals needed as well as timing to secure them.

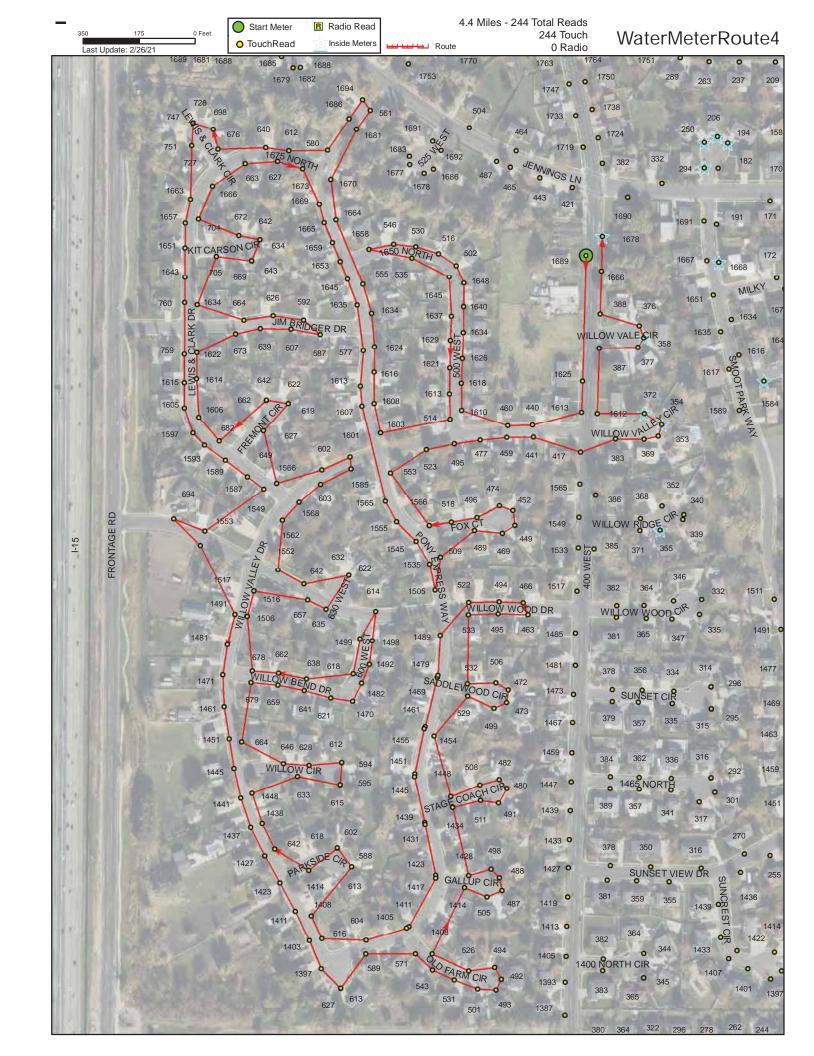
The project will not require any permits and/or approvals.

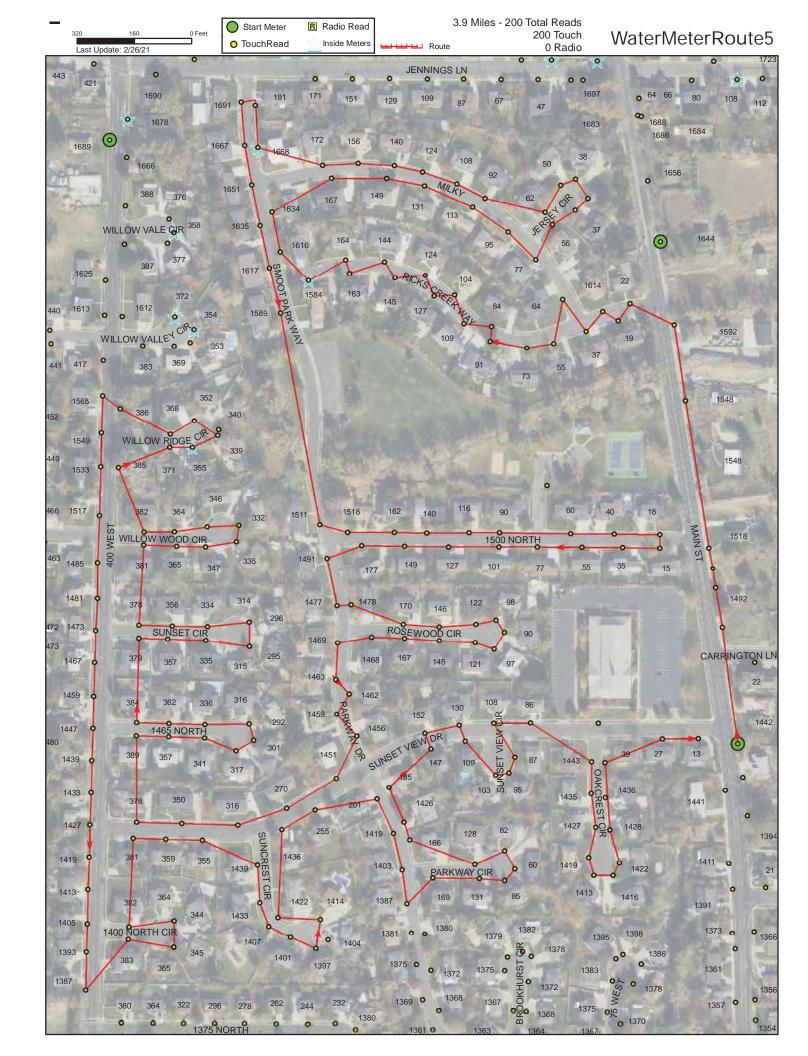
### Official Resolution

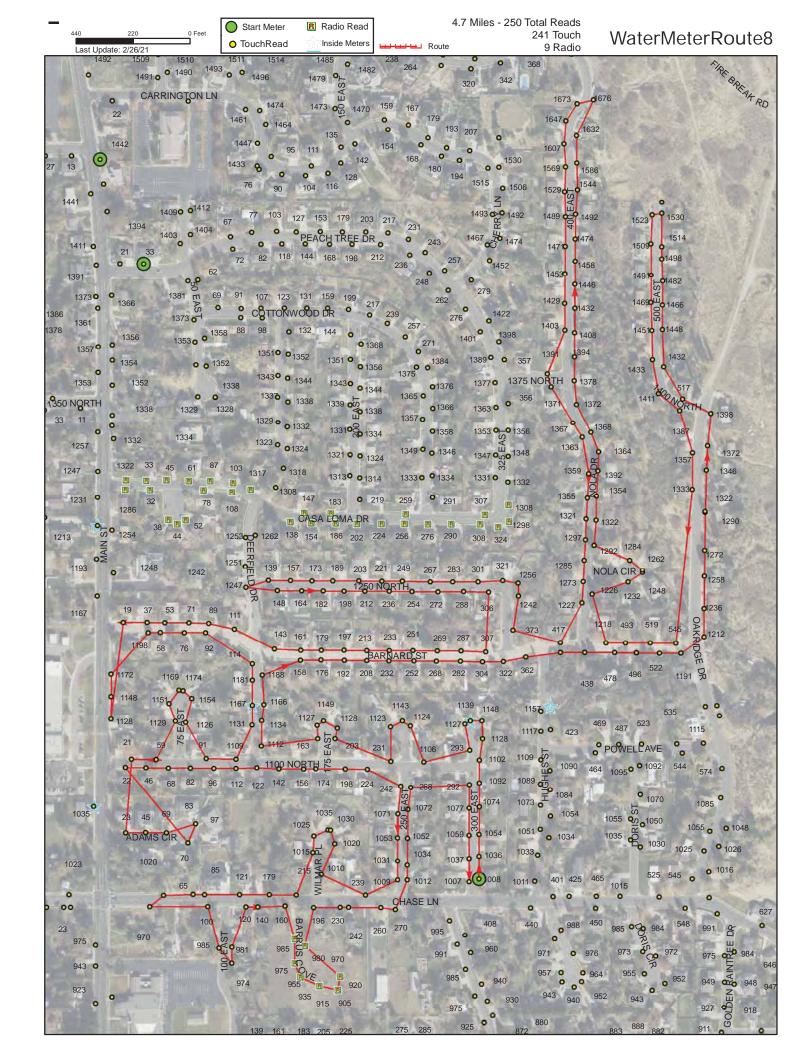
Attached is the Official Resolution of Support approved by the City of Centerville on March 16, 2021 (Attachment 7).

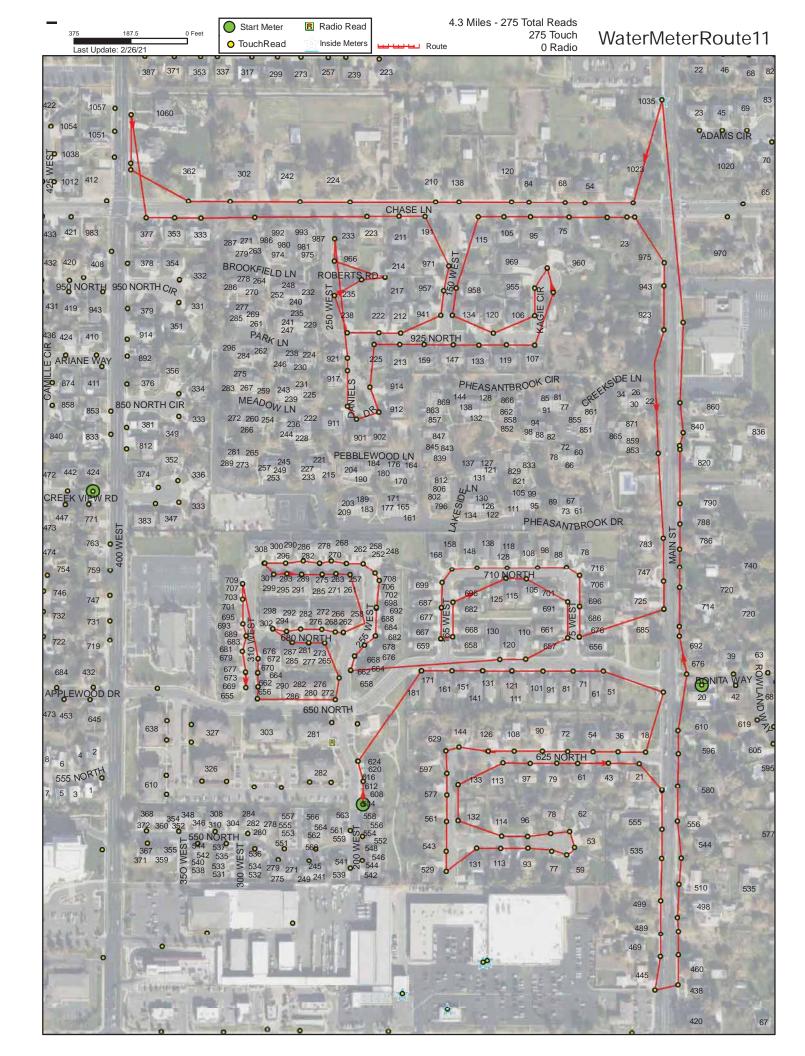
### Unique Entity Identifier and System for Awards Management

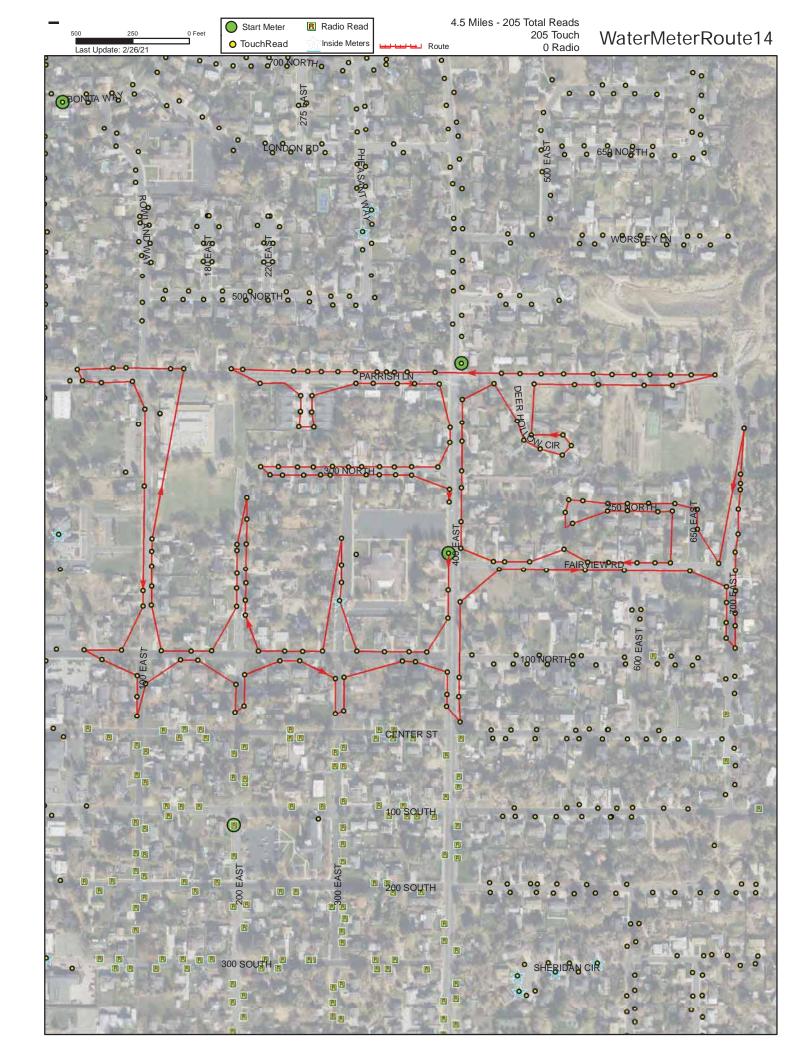


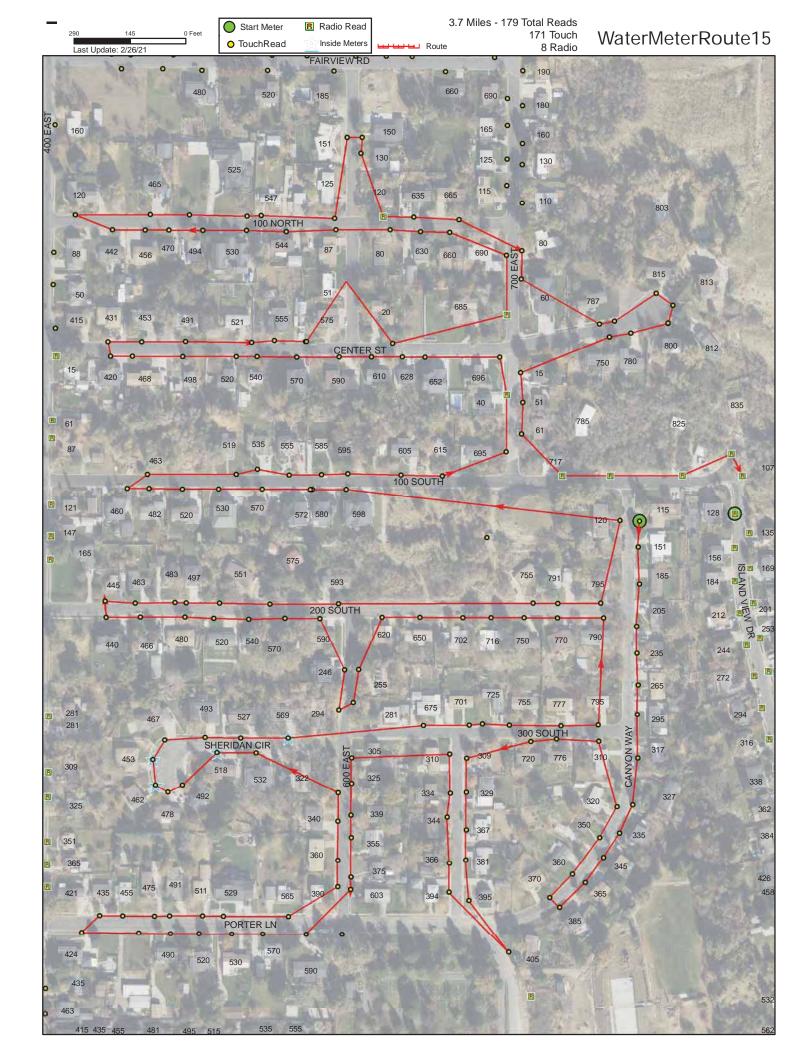








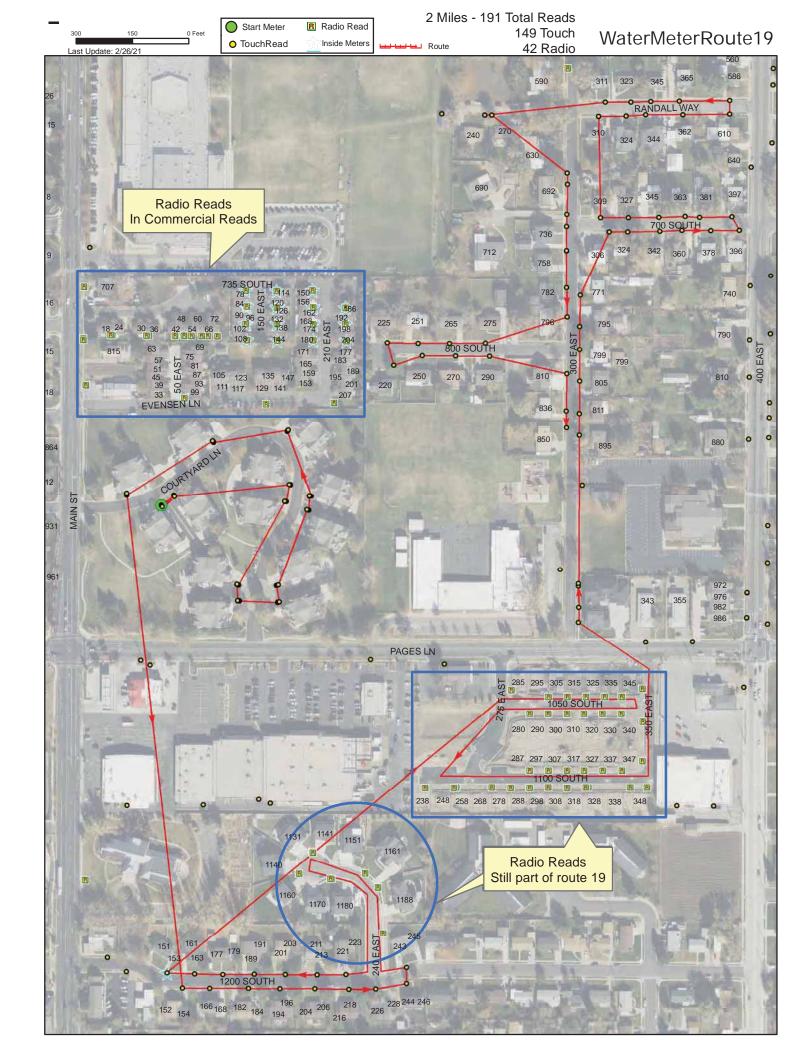














### RESOLUTION NO. 2021-13

A RESOLUTION AUTHORIZING THE SUBMITTAL OF A FINANCIAL ASSISTANCE APPLICATION TO THE BUREAU OF RECLAMATION FOR INSTALLING WATER METERS AND RADIOS; AUTHORIZING THE CITY COUNCIL TO EXECUTE ALL NECESSARY APPLICATION DOCUMENTS; AND AUTHORIZING THE SUBMISSION OF THIS APPLICATION

WHEREAS, the City of Centerville, Utah ("City") desires to improve water monitoring and management of its entire service area; and

WHEREAS, the project involves installing water meters and radios on targeted residential and commercial building ("Project"); and

WHEREAS, the City's Water Management Plan and Ordinances recognize the need for monitoring water use and using water efficiently; and

WHEREAS, the U.S. Bureau of Reclamation (USBR) has announced the availability of funds for small-scale water efficiency projects through FY 2021 WaterSMART Grants: Small-Scale Water Efficiency Projects; and

WHEREAS, said funding is intended to conserve and use water more efficiently and accomplish other benefits that contribute to water supply reliability in the western United States; and

WHEREAS, said funding includes grants at reasonable terms; and

WHEREAS, the City will comply with all applicable laws and regulations relating to the project, including applicable provisions of the National Environmental Policy Act ("NEPA") prior to implementation of the Project; and

WHEREAS, various documents are required to be filed with the USBR related to the FY 2021 WaterSMART Grants: Small-Scale Water Efficiency Projects application.

### NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF CENTERVILLE CITY, STATE OF UTAH, AS FOLLOWS:

- Section 1. Support and Authorization. The City Council supports the FY 2021 Water SMART Grants: Small-Scale Water Efficiency Projects grant application. The City Council hereby authorized the submittal of a financial assistance application with the USBR for the meter and radio Project. The City Council authorizes the Mayor and/or City Manager to sign all necessary Project application documents.
- Section 2. <u>Severability Clause</u>. If any section, part, or provision of this Resolution is held invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of this Resolution, and all sections, parts and provisions of this Resolution shall be severable.

Section 3. <u>Effective Date</u>. This Resolution shall become effective immediately upon its passage.

PASSED AND ADOPTED BY THE CITY COUNCIL OF CENTERVILLE CITY, STATE OF UTAH, ON THIS 16<sup>th</sup> DAY OF MARCH, 2021.

ATTEST:

CENTERVILLE CITY

Janet S. Denison, City Recorder

Mayor Clark A. Wilkinson

### CERTIFICATE OF PASSAGE AND EFFECTIVE DATE

According to the provisions of the U.C.A. § 10-3-719, as amended, resolutions may become effective without publication or posting and may take effect on passage or at a later date as the governing body may determine; provided, resolutions may not become effective more than three months from the date of passage. I, the municipal recorder of Centerville City, hereby certify that foregoing resolution was duly passed by the City Council and became effective upon passage or a later date as the governing body directed as more particularly set forth below.

JANET S. DENISON, City Recorder

DATE: Mer. 16.2021

EFFECTIVE DATE: 16 day of Marca, 2021.

