

# City of Genesee Water Meter Replacement for Water Conservation and Billing Accuracy Utilizing Automated Meter Reading Meters



City of Genesee  
140 E Walnut St  
PO Box 38  
Genesee, ID 83832

Public Works Director  
Dustin Brinkly  
PO Box 38  
Genesee, ID 83832  
[dustin@cityofgenesee.com](mailto:dustin@cityofgenesee.com)  
Phone: 208-285-1621

## **Table of Contents**

- Executive Summary – Page 3
- Project Location – Page 4
- Technical Project Description – Page 5
- Project Benefits – Page 6
- Planning Efforts Supporting the Project – Page 7
- Project Implementation – Page 7
- Nexus to Reclamation – Page 9
- Presidential and Department of the Interior Priorities – Page 9

## Executive Summary

January 9, 2025

City of Genesee  
Genesee  
Latah  
Idaho

The City of Genesee is a Category A applicant. We are a municipality with a public owned community water system servicing a population of 1044 residents with 440 water connections.

The City of Genesee, located in Latah County, Idaho, will upgrade the existing manually read water meters with AMR water meters for the approximately 440 connections the city currently serves. The existing meters vary in age and condition, approximately 40% of the meters in service are over 30 years old. Typical service life of meters is 15 – 20 years after which accuracy begins to degrade due to wear on moving meter parts resulting in the meter registering less water than is being used.

The annual water loss in 2024 was 13.2% totaling \$42,625 in lost revenue. A large portion of this loss can be attributed to the age of the meters. New AMR meters would enable the City to accurately bill customers all 12 months of the year. Due to snow and freezing temperatures the current meters boxes are insulated in October each year and not read until they are unpacked in March, this results in wasted water due undetected leaks during winter months when the system is vulnerable to freezing.

The benefits of this project include accurate meter readings that sync with our existing utility billing software, capturing lost revenue, reducing billing errors, increasing water conservation, and ensuring equitable utility billing practices for the City of Genesee. Resources previously expended manually reading meters and processing billing will now be focused on upgrades to aging infrastructure in other portions of the water distribution system. The ability to read meters in winter when broken pipes, due to freezing, is likely, allows for early detection of leaks that may end up in catastrophic water loss if not detected until the spring thaw.

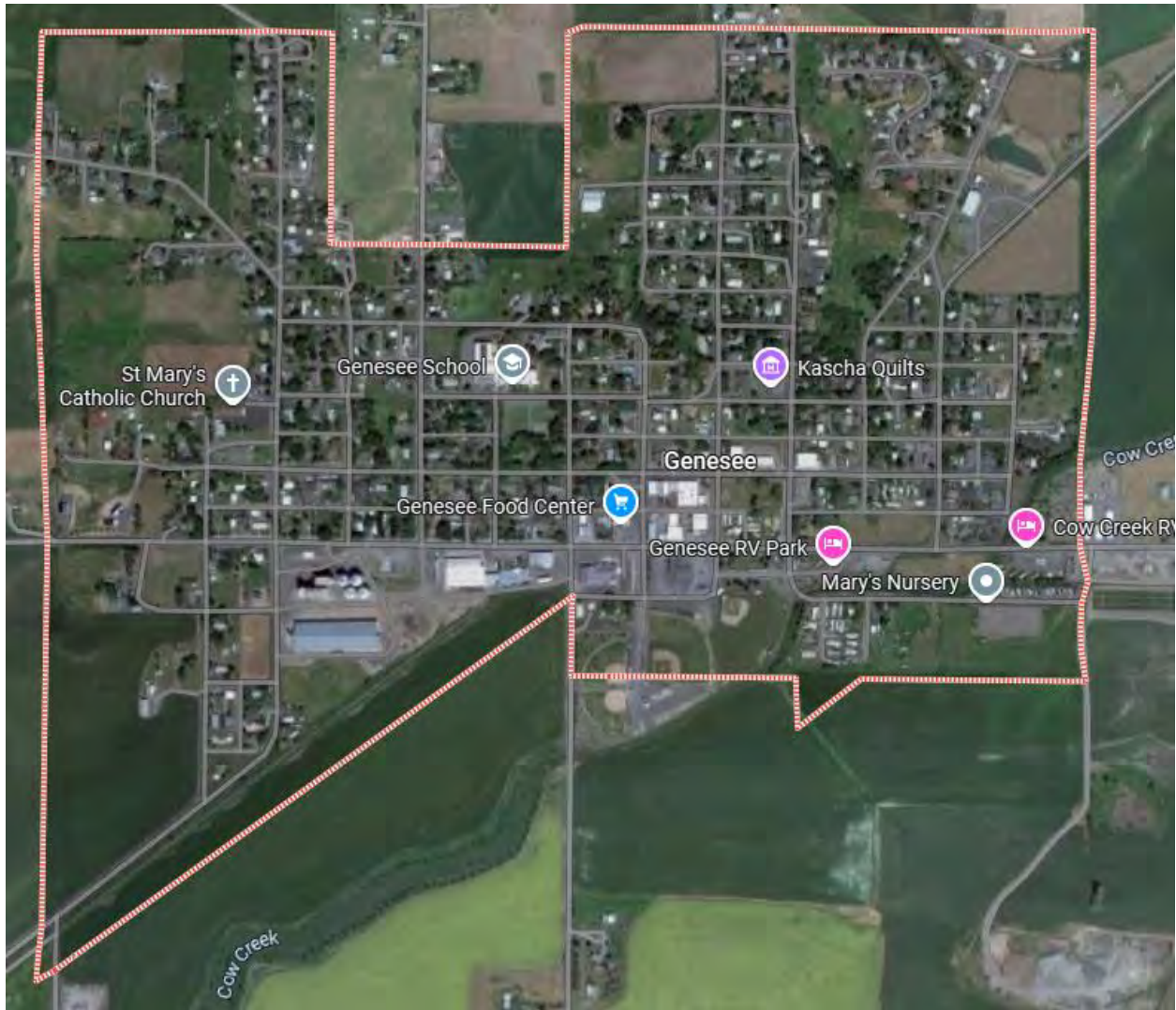
This project meets the meter replacement goal identified in the State approved Water Facilities Plan that was completed in 2021.

This project is estimated to begin April of 2026, and to be completed by December of 2026.

This project is not located on a Federal facility.

## Project Location

The City of Genesee Water Meter Replacement Project is located in Latah County, Idaho in the city of Genesee, Idaho. The project latitude is 46.5507° N and the project longitude is 116.9254° W.



## Technical Project Description

City of Genesee Water Meter Replacement for Water Conservation and Billing Accuracy Utilizing Automated Meter Reading Meters project will consist of replacing 367 - 3/4" direct read water meters and 65 - 1" direct read water meters with new Mueller water meters equipped with Automated Meter Reading (AMR) technology and all necessary radio, receiver, and software components for a fully functioning automated meter reading system. Below is a list of the new components that will be purchased to complete the project.

367 - 5/8" x 3/4" Mueller Model 420 Bronze PD Water Meters

65 - 1" Mueller Model 452 Series Magnetic Drive PD Water Meters

432 - Mueller MSW-NODE5-1P-05 Radios to store data and transmit data to transceiver

1- Mueller Infrastructure Network Mobile Transceiver Model MS-MNMMOBILE-HW-KIT with 2-way MI. node, AMR transceiver hardware kit for remote datalogging, antenna and cables.

1-Mueller Systems Route Management Software Suite (including installation and 1 day of remote staff training)

The City of Genesee has received quotes from Consolidated Supply for the purchase of the above items and been assured they will be available for the project. When shipped, the meters and appurtenances will be stored in a secure, climate-controlled shop owned by the city.

City maintenance staff will install the meters in existing water meter pits. We anticipate minimal construction impact (some minor hand excavation to expose meter connections), no special tools or large equipment will be required. Water customers will be notified 24hrs in advance of the meter replacement, that their water service will be turned off for approximately 1 hour for installation. A two-man crew will dig with shovels to expose and inspect meter setters for the installation. If setters and/or valves need to be replaced, that work will be performed while the water service is turned off and the pipes are exposed. The old meter will be removed, and the new AMR meter and radio node will be installed. A total of 4 hours of labor per meter is expected.

The transceiver and antenna will be permanently installed on a city owned service truck by the City of Genesee maintenance crew. The software supplier will install the software on the desktop PC at City Hall and provide training for the City Clerk.

## **Evaluation Criteria**

### **A. Project Benefits**

The City of Genesee Water Meter Replacement for Water Conservation and Billing Accuracy Utilizing Automated Meter Reading Meters project will improve efficiency of the city's water management by ensuring accurate delivery and measurement of the water supply from the wells to each residence. This will reduce water waste by allowing for early detection of leaks so they can be promptly fixed. By reducing water lost to leaks we will be able to reduce excess usage, especially in the summer months when residents are irrigating their lawns and gardens. Genesee has a history of water supply struggles. The city has remedied this issue in recent years by drilling a new well into the Grande Ronde aquifer and is working on drilling a second well to meet redundancy requirements. However, due to our experience with water shortages, we are doing everything we can to protect our water sources while providing our citizens with the ability to use water responsibly.

Replacing the manually read water meters with AMR water meters will conserve water and make billing more accurate for our customers. Our billing rates are based on usage, so accurate meter readings are essential for equitable billing practices. This enables our customers the to conserve water and reduce out of pocket expenses that are based on their metered water usage.

Because many of the meters are more than 50 years old, there are regular calls for repairs or replacement of the meters. By replacing all meters with the AMR meters we will reduce the number of calls due to leaks at the meter and it will save on labor costs associated with manually reading all of the meters. These labor hours can then be used to benefit the residents of Genesee in other meaningful ways, such as water distribution improvements, road and street improvements, and parks and recreation trail maintenance and enhancements. By failing to replace these meters soon, the city will increasingly lose more water due to undetected leaks and inaccurate meters. In the past, reduced efficiency of the wells has led to water restrictions during peak usage months. By catching leaks before they become catastrophic, we can continue to provide unrestricted access to clean fresh drinking water to our citizens.

The broader implications of this project are protecting the shared water source in the Grande Ronde. The nearby cities of Moscow, Pullman, and Lewiston draw from the same aquifer, so preventing water loss due to inaccurate meters and undetected leaks will help preserve this precious resource for the surrounding communities. Idaho has been in a state of drought for many years. Water is our most precious and scarce resource. Protecting it is one of the most important considerations for any community to care about. Every drop counts.

## B. Planning Efforts Supporting the Project

In 2021, the City of Genesee paid for a Water Facilities Plan to be developed by Mountain Water Works. This extensive document was created to help the city identify drinking water projects of highest priority within the area that is currently serviced by the City of Genesee's water system. The City of Genesee was able to identify several areas of high priority for managing and conserving our water resources. Of highest priority was the drilling of two new wells to provide the quantity and quality of water needed to support our community. Once the new water sources were secured, the next priority identified revolved around water distribution to the residents.

Project TD-9 in the Water Facility Plan was identified as a meter replacement project for customer connections. Many of the current meters are over 50 years old and well beyond their useful life. It was estimated in the Water Facility Plan that over 200 meters are in dire need of replacement. The age of the meters is the leading cause of repair, maintenance, and inaccurate meter reads. The existing plan proposed the city increase water user rates to provide enough surplus to replace at least 20 meters per year. However, it acknowledges the current meters being used in the City of Genesee are not able to be read during the winter due to the need to pack them to protect from the freezing temperatures. This leads to leaks going undetected for up to 5 months each year and can lead to a large loss of water. Due to the imminent need of securing a safe a productive water supply for the city, the water meter project was listed as level 3 priority. Now that the other needs have been met, or are in the process of being completed, the City of Genesee feels it is time to direct our attention toward finishing the goals identified in the Water Facilities Plan by replacing the water meters.

## C. Project Implementation

The City of Genesee Meter Replacement project will begin as soon as the meters can be unpacked in the spring of 2026. This project is estimated to require 1728 man hours to complete. With multiple personnel assigned to implementation of the meters, we expect to complete the installation within 6.5 months from the beginning of the project.

The estimated project timeline is as follows:

Procure Meters and associated Hardware	11/1/2025	12/31/2025

Begin Meter/Radio Installation	4/1/2026	10/15/2026
Install Transceiver in Service Truck	4/15/2026	
Upload Software on City Hall Server	4/25/2026	
City Staff Training	4/26/2026	
Project Complete	10/31/2026	

The projected costs associated with this project are as follows:

Personnel		Notes
Labor	\$55,037.00	Estimated labor cost for 2 hours per meter x 2 maintenance personnel
Fringe Benefits	\$23,587.00	
Equipment		
Setters/Valves/Boxes	\$18,000.00	Estimated costs for new boxes and setters for meters
Meters	\$120,805.00	This covers 367 - 5/8" and 65 - 1" meters and 432 nodes
Mobile AMR Receiver/Software/Training	\$8,068.00	1 mobile 2 way transceiver, 1 software package and training
Connection Fittings	\$1,880.00	Estimated cost for fittings to build meter connections

All of the meters are on existing city right-of-way property and will not require any special permits for installation to begin. The city owns the tools required for meter replacement and city employees will be performing the labor to remove the old meters and install the new meters. A city-owned truck will be outfitted with the transceiver and city owned computers will have the software installed on them. This project will not require any engineering to complete.

The City of Genesee has not contacted Reclamation regarding this project due to the minimal disturbance required to complete the meter replacement. The AMR meters are going to replace existing meters and will not require extensive disruption of the surrounding environment.

#### **D. Nexus to Reclamation**

The City of Genesee Water Meter Replacement project is not directly connected to a Reclamation project. However, the water conservation achieved through the water meter replacement will indirectly benefit the efforts of managing the water resources in the Columbia-Pacific Northwest Region.





### D.2.2.3. Budget Narrative

The budget for the City of Genesee Water Meter Replacement for Water Conservation and Billing Accuracy Utilizing Automated Meter Reading Meters is as follows:

Personnel		Notes
Labor	\$55,037.00	Estimated labor cost for 2 hours per meter
Fringe Benefits	\$23,587.00	
Equipment		
Setters/Valves/Boxes	\$18,000.00	Estimated costs for new boxes and setters for meters
Meters	\$120,805.00	This covers 367 - 5/8" and 65 - 1" meters and 432 nodes
Mobile AMR Transceiver/Software/Training	\$8,068.00	1 mobile 2 way transceiver, 1 software package and training
Connection Fittings	\$1,880.00	Estimated cost for fittings to build meter connections

**Personnel:** The City of Genesee will be assigning 2 maintenance personnel to the installation of the new AMR meters. They will work as a team to complete the installation of the meters. We have estimated labor and benefits costs according to the median wages of the maintenance personnel. The total anticipated cost for labor and benefits for this project is \$78,624.

#### Equipment:

**Setters/Valves/Boxes** – These will be replaced on an as-needed basis for the installation of the new meters. We anticipate this costing approximately \$18,000.

**5/8” Meters** – The City of Genesee will be purchasing 367 of the 5/8” AMR meters. A current quote from Consolidated Supply prices those at \$160.09 each for a total cost of \$58,753.03.

**1” Meters** – The City of Genesee will be purchasing 65 of the 1” AMR meters. A current quote from Consolidated Supply prices those at \$298.34 each for a total cost of \$19,392.10.

**Hersey MSW Nodes** – All new meters will be outfitted with one of these nodes. We will order a total of 432 nodes. A current quote from Consolidated Supply prices these nodes at \$98.75 each for a total cost of \$42,660.

**Mobile AMR Transceiver Hardware Kit**– The mobile AMR transceiver will be installed on a city owned truck and will transmit data to a city owned laptop. The current quote from Consolidated Supply for the mi.net m transceiver, antenna, power and comms cables, and mini handheld mi.node m install tool is \$6932.

**AMR Mobile Software Suite and Training** – This will be installed on a computer in City Hall and training and integration will be provided to the City Clerk. The current quote from Consolidated Supply for Mueller Systems Route Management Software (EZ Reader, EZ Mobile, and EZ Profiler), mapping, and 1 day of remote training is \$8068.

**Meter Connection Fittings** – These fittings may not be necessary for all meters being replaced. The current estimate from Ferguson Waterworks for fittings for both the 1” and 5/8” meters is a total of \$1880.

### **Total Project Cost**

The total anticipated project cost is \$227,377. Of this total, \$125,000 of federal funding will be used for the direct cost of meters, the transceiver, and software. The remaining \$102,377 will be paid by the City of Genesee and will cover the remaining equipment cost and the labor and benefits required for the duration of the installation.



January 10, 2025

United States Bureau of Reclamation  
Attn: Ms. Nickie McCann  
Denver, CO 80225  
nmccann@usbr.gov

Re: WaterSMART Small Scale Water Efficiency Projects Grant Application

To Whom It May Concern:

Idaho Rural Water Association (IRWA) is an association of drinking water and wastewater utility systems whose mission is to provide technical assistance, training, and a strong representative voice for the benefit of Idaho's drinking water and wastewater utility systems. IRWA represents over 350 drinking water and wastewater utility systems throughout the state. Our field staff support nearly every community in Idaho through technical assistance and training on a regular basis.

Across Idaho, we see rural communities struggle with the challenge of maintaining aging and failing infrastructure. As you are aware, Idaho's rural communities are the fabric of Idaho, and they play a large role in making Idaho a desired place to live, work, and play. I am writing today to express IRWA's support for the City of Genesee's water meter replacement project for water conservation and billing accuracy utilizing automated meter reading meters.

The City of Genesee has made great strides toward improving their water system and ensuring their residents have access to safe drinking water. The project to replace their aging water meters with automated meter reading meters falls in line with the rest of the system improvements they have been making and will be an asset to their community.

The potential impact of this project is significant. By accurately tracking the amount of water being billed to customers they will be able to find more ways to implement water conservation initiatives within their city and will be able to detect and repair leaks swiftly to reduce water loss. I believe this program will make a significant impact on this community.

Thank you for supporting water conservation projects. We appreciate your consideration in providing much needed support for the City of Genesee's drinking water project.

Sincerely,

A handwritten signature in cursive script that reads 'Shelley Roberts'.

Shelley Roberts  
Chief Executive Officer



January 9, 2025

Subject: WaterSMART Small Scale Water Efficiency Projects grant application

Idaho Department of Environmental Quality (DEQ) is in support of the City of Genesee and their Water Meter Replacement for Water Conservation and Billing Accuracy Utilizing Automated Meter Reading Meters project. The City of Genesee has made great strides toward improving their water system and ensuring their residents have access to safe drinking water. The project to replace their aging water meters with automated meter reading meters falls in line with their DEQ approved drinking water facility plan resulting in another helpful assist for their community.

The potential impact of this project is significant. By accurately tracking the amount of water being billed to customers they will be able to find more ways to implement water conservation initiatives within their city and will be able to detect and repair leaks swiftly to reduce water loss and prevent contamination.

I believe this program will make a significant impact on this community. Thank you for considering the City of Genesee's application.

Please contact DEQ with any questions at (208) 799-4370, or by email at [hannah.erickson@deq.idaho.gov](mailto:hannah.erickson@deq.idaho.gov).

Sincerely,

A handwritten signature in black ink that reads "Hannah Erickson".

Hannah Erickson  
Water Quality Engineer

c: AJ Maupin, DEQ  
2009ABM4902

#### **D.2.2.4. 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.**

The Water Meter Replacement project will cause minimal disturbance to the surrounding environment. The replacement of meters will require a small amount of digging around the existing meter boxes to gain access to the meters. The crew will work to disturb only the amount of soil necessary to complete their task. They will be using shovels and hand trowels to achieve this. Proper care will be taken to ensure as much of the soil as possible will be placed back into the area it was dug from. This should cause very little impact to the surrounding air, water, or animal habitats.

- **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?**

The City of Genesee is not aware of any species listed as a Federal threatened or endangered species that will be affected by the meter replacement project.

- **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.**

There are no wetlands or surface waters inside the project boundaries.

- **When was the water delivery system constructed?**

The City of Genesee’s water delivery system was constructed around 1900.

- **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.**

This project will not result in any modification of or effects to any irrigation systems.

- **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. Notice of Funding Opportunity No. R24AS00059 50**

This project will not affect any building listed on the National Register of Historic Places.

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

There are no known archeological sites within the proposed project area.

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

The proposed project will not have a disproportionately high or adverse effect on low income or minority populations. The project may actually benefit low income or minority populations by ensuring accurate meter readings to improve utility billing accuracy.

**• Will the proposed project limit access to, and ceremonial use of, Indian sacred sites or result in other impacts on tribal lands?**

The proposed project will not affect any tribal lands.

**• 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?**

The proposed project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species in the area.

**D.2.2.5. Required Permits or Approvals**

The City of Genesee Meter Replacement Project will not require any permits or approvals because all of the work will be done on existing City meter services and in City right of way.

**D.2.2.6. Overlap or Duplication of Effort Statement**

The City of Genesee Meter Replacement Project does not have any overlap with any other projects applied for or being completed by the City of Genesee.

**D.2.2.6. Conflict of Interest Disclosure Statement**

**Applicability**

The City of Genesee will comply with State and Federal regulations regarding the procurement of supplies, equipment, construction, and services to avoid any conflicts of interest with the completion of this project.

**Notification**

The City of Genesee has no known conflict of interest for this funding request.

January 10, 2025

Bureau of Reclamation mail services  
Attn: NOFO Team  
Denver Federal Center  
Bldg. 67, Rm. 152  
6th Avenue and Kipling Street  
Denver, CO 80225

Dear NOFO Team:

I am writing to support the City of Genesee (City) Idaho's application for the Bureau of Reclamation WaterSMART Small-Scale Water Efficiency cost-share funding opportunity. The City's project, known throughout its application as the "Water Meter Replacement for Water Conservation and Billing Accuracy Utilizing Automated Meter-Reading Meters Project" (Project) is the next proactive step that the City is taking to provide long-term, systemwide efficiencies in water management.

Over the past several years, the City has made great strides toward improving the public drinking water system, ensuring residents have access to safe and reliable drinking water. The Project will replace aging and broken water meters with automated reading meters. Non-functional meters fail to report water use contributing to poor data about water consumption, non-revenue water loss, and overall poor water resources management. In addition, loss practices are placing undue stress on source, treatment, and distribution components, increasing the likelihood of early failure.

Effective and "smart" water metering will allow the City to detect irregular or unexpected high-water use and take immediate corrective action to prevent excessive wasted water. The smart meters will improve the City's ability to communicate with customers about water use, including any irregularities, enabling customers to view and understand water usage better, and make conservation changes to support water source reliability.

The City is committed to implementing water efficiency goals that include improved data collection, leak detection and repairs, realignment of rate structures to encourage water efficiency to institutionalize water sustainability practices. This project is "shovel-ready", requiring only resources to close the funding gap, making this project a reality.

In closing, I appreciate consideration to support the City with a cost-share funding opportunity. If cost-share funding can be secured, the City will be able to complete meter installations, supporting long-term best management practices for the community.

Sincerely,  
**Merrick & Company**



Ryan Rehder, P.E.  
Project Manager  
[ryan.rehder@merrick.com](mailto:ryan.rehder@merrick.com)

Employee Owned



PO Box 9906 Boise, ID 83707



Tel: +1 208 780 3990



[hello@merrick.com](mailto:hello@merrick.com)  
[www.merrick.com](http://www.merrick.com)

# Genesee Joint School District No. 282

P.O. Box 98 • Genesee, Idaho 83832

Phone (208) 285-1161

FAX (208) 285-1495

**Trustees:**

Jim Hermann, Zone 1

[jhermann@sd282.org](mailto:jhermann@sd282.org)

Lynne Haley, Zone 2

[lhaley@sd282.org](mailto:lhaley@sd282.org)

Kelley Porter, Zone 3

[kporter@sd282.org](mailto:kporter@sd282.org)

Harlan Zenner, Zone 4

[hzenner@sd282.org](mailto:hzenner@sd282.org)

Alan Krick, Zone 5

[akirck@sd282.org](mailto:akirck@sd282.org)

**Superintendent:**

Wendy J. Moore

[wmoore@sd282.org](mailto:wmoore@sd282.org)

**Secondary Principal:**

Kelly Caldwell

[kcaldwell@sd282.org](mailto:kcaldwell@sd282.org)

**Elementary Principal:**

Heather Kirk

[hkirk@sd282.org](mailto:hkirk@sd282.org)

**Counselor:**

Kelly Thompson

[kthompson@sd282.org](mailto:kthompson@sd282.org)

**Business****Manager/Clerk:**

Melissa Lindquist

[mlindquist@sd282.org](mailto:mlindquist@sd282.org)

**Registrar/Dep Clerk:**

Carly Stutzman

[cstutzman@sd282.org](mailto:cstutzman@sd282.org)

**School Secretary:**

Amanda Evans

[aevans@sd282.org](mailto:aevans@sd282.org)

January 9, 2025

RE: WaterSMART Small Scale Water Efficiency Projects grant application

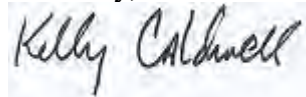
I am writing in support of the City of Genesee and their City of Genesee Water Meter Replacement for Water Conservation and Billing Accuracy Utilizing Automated Meter Reading Meters project.

The City of Genesee has made great strides toward improving their water system and ensuring their residents have access to safe drinking water. The project to replace their aging water meters with automated meter reading meters falls in line with the rest of the system improvements they have been making and will be an asset to their community.

The potential impact of this project is significant. By accurately tracking the amount of water being billed to customers they will be able to find more ways to implement water conservation initiatives within their city and will be able to detect and repair leaks swiftly to reduce water loss.

I believe this program will make a significant impact on this community. Thank you for considering the City of Genesee's application.

Sincerely,



Kelly Caldwell

Secondary Principal, Genesee Joint School District 282

[kcaldwell@sd282.org](mailto:kcaldwell@sd282.org)

208-285-1162 ext 4117

# Genesee Joint School District No. 282

P.O. Box 98 • Genesee, Idaho 83832

Phone (208) 285-1161

FAX (208) 285-1495

**Trustees:**

Jim Hermann, Zone 1

[jhermann@sd282.org](mailto:jhermann@sd282.org)

Lynne Haley, Zone 2

[lhaley@sd282.org](mailto:lhaley@sd282.org)

Kelley Porter, Zone 3

[kporter@sd282.org](mailto:kporter@sd282.org)

Harlan Zenner, Zone 4

[hzenner@sd282.org](mailto:hzenner@sd282.org)

Alan Krick, Zone 5

[akirck@sd282.org](mailto:akirck@sd282.org)

**Superintendent:**

Wendy J. Moore

[wmoore@sd282.org](mailto:wmoore@sd282.org)

**Secondary Principal:**

Kelly Caldwell

[kcaldwell@sd282.org](mailto:kcaldwell@sd282.org)

**Elementary Principal:**

Heather Kirk

[hkirk@sd282.org](mailto:hkirk@sd282.org)

**Counselor:**

Kelly Thompson

[kthompson@sd282.org](mailto:kthompson@sd282.org)

**Business****Manager/Clerk:**

Melissa Lindquist

[mlindquist@sd282.org](mailto:mlindquist@sd282.org)

**Registrar/Dep Clerk:**

Carly Stutzman

[cstutzman@sd282.org](mailto:cstutzman@sd282.org)

**School Secretary:**

Amanda Evans

[aevans@sd282.org](mailto:aevans@sd282.org)