



**City of Ketchum Drinking Water Project**  
**SRF Loan #DW1601 (pop. 3500)**  
**\$499,000**

**Interim Green Project Reserve Justification**

**Categorical and Business Case GPR Documentation**

CONSOLIDATE WATER SYSTEM AND INSTALL 200 WATER METERS (Innovative and Water Efficient).  
Business Case GPR per 4.1: *...include those that demonstrate new and/or innovative approaches to ...managing water resources in a more sustainable way; and per 4.4-1: State programs are allowed flexibility in determining what projects qualify as innovative in their state based on unique geographical and climatological conditions; also per 4.4-1c: Conventional technology or approaches that are used in a new application in the state; and, in addition, the project conforms to 4.2: Consistent with EPA's Sustainability Policy. (\$499,000)*

# 1. WATER SYSTEM CONSOLIDATION & NEW WATER METERS

## Summary

- The project consolidates two water systems by converting 165 existing water services off the old Ketchum Springs Water System onto the Ketchum Municipal Water System and installing remote-read water meters<sup>1</sup>.
- Loan amount = \$499,000
- GPR portion of loan = 100% (\$499,000) (Engineering estimate)

## Background<sup>2</sup>

- The city is currently served by a water system that consists of the old Ketchum Spring Water (KSW) System and the newer Ketchum Municipal Water (KMW) System. Prior to acquisition by the city, the KSW System was privately-owned and served most of the original town. The KMW System served the remainder of the service.
- The existing KSW system is very old and consists mostly of steel pipe. The system was not properly installed and is buried within the frost line in some places. The city opens frost free hydrants to maintain circulation in pipes.
- Even with circulation, the system is prone to breaks which disrupt service and result in significant water losses.
- In 2006 the city installed new water pipelines to replace the KSW system in the downtown core area, but services were not required to come off the old system and onto the new system. The city currently operates both distribution systems.

## Results

- By entirely abandoning the KSW System which contains the oldest water distribution mains in the city, the city will significantly reduce maintenance costs and save water and power by reducing leakage in the system.
- The city will conserve additional water and power through the installation of 165 water meters on the new service lines.
- The city has unique conditions, is using a conventional approach in a new application in the state i.e. using O&M savings to retire water system debt, and Ketchum's plan is compatible with the EPA Sustainability Policy i.e. *...water infrastructure that is cost-effective over its life cycle, resource efficient... ”*.

## Conclusion

- The reduction in maintenance costs will entirely offset SRF loan payments. Using O&M savings to retire waste system debt is a new application in Idaho. This is a new and sustainable approach to infrastructure management which will serve as a model for other systems in the future.
- In addition, after the SRF loan is paid in full, the utility will save at least \$20,000 per year in maintenance costs.
- **GPR Costs:** Installation of new service lines & 200 water meters = \$499,000 (engineering estimate)
- **GPR Justification:**  
The project is Business Case GPR-eligible<sup>3</sup> (Innovative) per Section 4.1: *...include those that demonstrate new and/or innovative approaches to ...managing water resources in a more sustainable way; and per 4.4-1: State programs are allowed flexibility in determining what projects qualify as innovative in their state based on unique geographical and climatological conditions; also per 4.4-1c: Conventional technology or approaches that are used in a new application in the state; in addition the project conforms to 4.2: Consistent with EPA's Sustainability Policy. The project is also Categorical GPR-eligible (Water Efficiency) per 2.2-2a: Installing any type of water meter in previously unmetred areas if rate structures are based on metered use; and per 2.2-9: Projects that result from a water efficiency related assessments; and (Water Efficiency) Business Case GPR eligible per 2.4-3 Efficient water use often has the added benefit of reducing the amount of energy required by a drinking water system, since less water would need to be treated and transported; therefore, there are also energy and financial savings; 2.4-4 Proper water infrastructure management should address where water losses could be occurring in the system and fix or avert them. This could be achieved...by...replacing aging infrastructure. (\$499,000).*

<sup>1</sup> City of Ketchum SRF LOI, March 2015

<sup>2</sup> City of Ketchum 2010 Municipal Water System Master Plan, JUB Engineers, page 3-6

<sup>3</sup> 2012 EPA Guidelines for Determining Project GPR-Eligibility. Attachment 2.