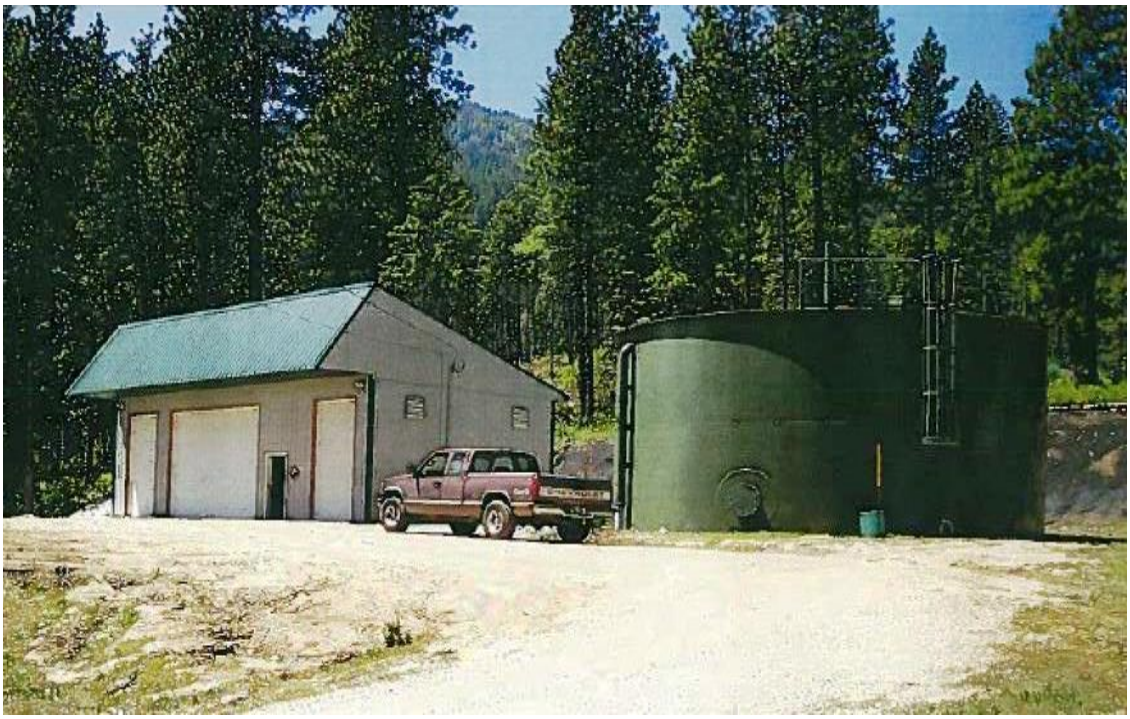
Drinking Water State Revolving Fund Green Project Reserve

- Interim –



Castle Mountain Creeks Owners Association
Lead Service Line Replacement Project
SRF Loan #DW 1704 (pop. 400)
$355,600
Interim Green Project Reserve Justification

Business Case GPR Documentation

REPLACES LEAD SERVICE LINES, FIXTURES, AND APPURTENANCES (Water Efficiency). Business Case GPR per the criteria requirements 2.4-1…*reducing water consumption*; per 2.4-3: *Efficient water use…reducing the amount of energy required by a drinking water system…therefore, there are also energy and financial savings*; also per 2.4-4: *Proper water infrastructure management should address where water losses could be occurring in the system and fix or avert them;* also Business Case GPR per 3.5-1: *Energy efficient…upgrades;* and, per 3.5-5: *Projects that achieve the remaining increments of energy efficiency.* ($231,250).

State of Idaho SRF Loan Program
July 2017

Replacement of Leaking Lead Service Lines[1]

Summary

The leaking water service lines in the Castle Mountain Creeks subdivision by the Owner's Association requires replacement in order to: (i) reduce water losses; (ii) reduce pumping costs; and (iii) provide non-toxic service lines.

- Estimated loan amount = $355,600
- Estimated energy efficient (green) portion of loan = $231,250 (65%)

Background

- The existing pre-1986 service lines in Castle Mountain Creeks subdivision are composed of lead.
- Average day demand is estimated at 167 gallons per day per customer, or approximately 20 gpm.
- The leaking leaded service lines drained the storage reservoirs in excess of total supply > 50 gpm.
- The service lines have been leaking significantly and continually, about 20% of overall supply.

Results

Replacing these lines will result in:

- Saving water, as it has been calculated the existing system currently experiences losses of at least 20%, and
- Saving energy by reducing pumping costs.

Conclusion

- The replacement of leaded service lines with new, unleaded lines saves water by eliminating significant leaking, and saves energy by reducing the amount of pumping required.
- **GPR Costs**: Leaded lines, fixtures, and appurtenance replacement = $231,250
- **GPR Justification**: The replacement of leaking, leaded drinking water service lines as recommended in the Facility Planning Study is GPR-eligible by a Business Case (Water Efficiency) GPR per 2.4-1…*reducing water consumption*; 2.4-3: *Efficient water use…reducing the amount of energy required by a drinking water system…therefore, there are also energy and financial savings*; also GPR per 3.5-5: *Projects that achieve the remaining increments of energy efficiency.*

[1] 4-18-17 Communication with Tim Farrell, P.E., Mountain Waterworks