

Clean Water State Revolving Fund Green Project Reserve

- Final -



South Park Estates Wastewater Facility Project **SRF Loan #WW 2002 (pop. 75)** **\$220,000**

Final Green Project Reserve Justification

Categorical GPR Documentation

- RELINING TOTAL RETENTION LAGOON (Water Conservation). Business Case (Innovative) per Section 4.4-1: *State programs are allowed flexibility in determining what projects qualify as innovative in their state based on unique geographical or climatological conditions;* and 4.4-1b: *Technology or approach that is not widely used in the State, but does perform as well or better than conventional technology/approaches at lower cost. (\$220,000).*

RELINING WASTEWATER RETENTION LAGOON

Summary

- South Park Estates upgrades existing wastewater disposal lagoons. This project expanded and lined the second cell.
- Loan amount = \$220,000¹
- GPR Costs = New lagoons = \$220,000 (Final)
- Green portion of loan = 100%

Background

- Seepage testing the Estate's two wastewater lagoons showed the first cell passed, but the second cell failed badly. It was leaking more than twice the allowable limit.
- While specific impacts were undetermined, seepage from the Estates' leaking wastewater lagoon had the potential to negatively impact water quality in the Eastern Snake River Plain sole source aquifer.
- In addition, with drinking water wells nearby, there was concern for contamination of drinking water.

LAS GPR Justification ²

- The chosen alternative, to line the existing treatment lagoon with an impermeable membrane, results in the total evaporation of effluent.
- The project reduces lagoon seepage to below acceptable levels and reduces the potential negative impact to groundwater quality.
- The chosen alternative is a zero-discharge solution. The total evaporation of treated effluent as a final disposal alternative performs better than both conventional technologies, as well as non-conventional decentralized alternatives.
- The chosen alternative is the most sustainable in that it maintains the low-maintenance characteristics of the current system.
- Staying with an all-evaporation system also means the current classification of the system as a "VERY SMALL WASTEWATER SYSTEM" is not elevated.
- An effluent discharge permit is be required.



Conclusion

- The total evaporation system was chosen over more conventional alternatives because it is the most cost-effective and results in the greatest positive benefit to groundwater and to surface water quality.
- **GPR Costs Identified:** Effluent Evaporation System = \$220,000 (Final)
- **GPR Justification:** Business Case (Innovative) per Section 4.4-1: *State programs are allowed flexibility in determining what projects qualify as innovative in their state based on unique geographical or climatological conditions;* and 4.4-1b: *Technology or approach that is not widely used in the State, but does perform as well or better than conventional technology/approaches at lower cost.*

¹ FY20 SRF WW Loan Agreement #2002

² 1-30-20 Email, M. Hill PE, Keller Engineers – K McNeill PE IDEQ