



**Country Club Hills Utilities FY14 Wastewater System
Project
SRF Loan #WW 1402
\$1,641,000**

**Preliminary Green Project Reserve Justification
Business Case GPR Documentation**

INSTALL GRAVITY WASTEWATER TRANSFER SYSTEM, ELIMINATING AN EXISTING LIFT STATION (Energy Efficiency). Business Case GPR per 3.5-3: *projects that cost effectively eliminate pumping stations* (\$975,000).

INSTALL GRAVITY WASTEWATER TRANSFER SYSTEM¹

Summary

- Two miles of 12-inch gravity sewer transfer line and ancillary equipment will be installed to connect the Country Club Hills Estate to the existing Eastern Idaho Regional Wastewater Authority (EIRWWA) interceptor.
- Estimated loan amount = \$1,641,000
- Estimated energy efficient (green) portion of loan = 59.5% (\$975,000)

Background

- Country Club Hills Utilities (CCHU) collects and treats the wastewater for the Country Club Hills and Holiday Hills Subdivisions. The two subdivisions are located in Bonneville County in the Taylor Mountain foothills. The population served is 600 residents.
- The existing treatment facility, constructed in the 1970's, is a two cell total containment facultative lagoon of 3.07 acres.
- CCHU signed a Compliance Agreement with IDEQ to upgrade and improve wastewater facilities by January 2016.
- Due to the unavailability of land, the primary wastewater disposal alternatives are either by gravity flow or pressure flow to the EIRWWA interceptor for treatment at the EIRWWA Oxbow Treatment Plant in Shelley, Idaho.



Results

- Installation of two miles of 12-inch gravity sewer transfer line will make the existing lift station redundant. The pressure sewer/lift station alternative is less expensive from a capital cost perspective (\$119,900); however, due to the considerable energy-savings of eliminating the lift station if the gravity line is installed, the gravity transfer line is the final selected alternative.
- The Interim GPR Justification will compare the more expensive gravity transfer line with the Best Practicable Alternative (BPA). The BPA in this case is the pressure transfer line + lift station. The gravity line costs \$119,900 more than the BPA.
- Therefore, the period of time required to pay-back the \$119,900 difference will be calculated and shown in the Interim GPR Justification i.e. payback period = $\$119,900 \div \text{total energy savings over 40 years}$ due to the elimination of the lift station.

Conclusion

- Selecting the gravity transfer line over the BPA cost-effectively eliminates a pumping station, resulting in the gravity transfer line being GPR-eligible. The Interim GPR Justification will provide calculations and further details; it will be submitted by the loan recipient along with the final design for IDEQ review and approval.
- **GPR Costs:** Installing 2 miles of 12" gravity sewer = \$975,000
- **GPR Justification:** The prioritized replacement of gravity sewer lines by the City as recommended in the Capital Improvement Plan is GPR-eligible by a Business Case per Section 3.5-3² *Projects that cost effectively eliminate pumps or pumping stations.*

¹ Country Club Hills Utilities 2013 Wastewater Facilities Planning Study, by Freiberg Engineering, Jeff Freiberg P.E

² Attachment 2. April 21, 2010 EPA Guidance for Determining GPR Eligibility for FY11 SRF Projects, P.10