



State Revolving Fund Loan Program  
an Indiana Finance Authority Environmental Program

100 North Senate Avenue, Room 1275  
Indianapolis, Indiana 46204  
www.srf.in.gov

**MEMORANDUM**

TO: Project File, Town of Kirklin, Water System Improvements  
SRF Project #DW 18 09 12 02

FROM: Tracey R. Trimpe

DATE: December 15, 2018

RE: Green Project Reserve, Business Case Summary

The Town of Kirklin, Water System Improvements Project includes improvements to water supply, treatment, storage, and distribution systems, which are described as follows:

Water Treatment Plant (Contract 1)

- Demolition of existing ozone generation equipment and associated chemical feed piping, ozone contact tanks, vertical pressure filters and associated piping;
- Demolition of existing chlorine gas feed system and associated chemical feed piping;
- Replacement of existing raw water meters;
- Installation of new finished water meter;
- Installation of one (1) new induced draft aerator and bypass piping;
- Installation of one (1) new detention tank and bypass piping;
- Installation of two (2) high service pumps with VFD's (**GPR**);
- Installation of three (3) pressure filters with anthracite/greensand media;
- Installation of air wash blower (**GPR**), with associated backwash control valves;
- Installation of new backwash waste trough with weir and drain piping to existing sanitary sewer;
- Installation of phosphate and sodium hypochlorite feed systems;
- Construction of an addition to the existing plant to house new pressure filters, high service pumps and controls;
- Replacement of existing plumbing, HVAC, and electrical systems;
- Installation of a new emergency power generator;
- Upgrading of existing auto-dialer system;
- Installation of a new restroom, mechanical room, a dedicated laboratory area and a new (future) chemical feed room; and
- Modification of existing yard and in-plant piping (**GPR**).

Water Supply (Contract 1)

- Cleaning/rehabilitation of existing Wells #1 and #2;
- Replacement of pumps and VFDs (**GPR**) in Wells #1 and #2;
- Construction of new well house for Well #2, with associated electrical and heating equipment; and
- Modification of existing yard and in-plant piping (**GPR**).



#### Water Storage Tank (Contract 2)

- Re-coating of the existing 150,000 gallon elevated water storage tank;
- Retrofitting of all ladders with safety climb devices;
- Interior sealing of valve vault;
- Installation of new active tank mixing system; and
- Installation of new flapper valve on pipe overflow.

#### Water Distribution (Contract 3)

- Installation of approximately 350 linear feet of water main (Adams Street);
- Replacement of approximately ten (10) hydrants/valves;
- Replacement of approximately 330 existing service meter pits; and
- Installation of approximately 330 new radio read service meters and base system (**GPR**).

Based on Post-Bid documentation, the GPR for this project includes the following amounts:

Contract 1 = \$166,286.00 (\$15,000.00 Engineering + \$151,286.00 Construction) Total GPR Amount, broken down into the following GPR categories: **24% Water Efficiency (\$39,908), 31% Energy Efficiency (\$51,549), and 45% (\$74,829) Environmentally Innovative**

Contract 2 = GPR not applicable to Contract 2.

Contract 3 = **\$224,803.75** (\$19,000.00 Engineering + \$205,803.75 Construction) Total GPR Amount: 100% **Water Efficiency GPR category.**

Contract 3 Meter Purchase = **\$90,135.00** (\$5,900 Engineering + \$84,235.00 Meters) Total GPR Amount: 100% **Water Efficiency GPR category.**

Total GPR is in the amount of approximately \$481,224.75. This project is currently under construction and disbursement requests are being submitted to SRF for review/approval.

A Business Case, for the project listed above, was reviewed by internal staff and found to be in accordance with the SRF GPR requirements for the Water Efficiency (Contract 1 filter air-wash backwash components and Contract 3 water meter replacement), Energy Efficiency (Contract 1 well and high service pumps and VFDs), and Environmentally Innovative (Contract 1 recycled ductile iron pipe and fittings) categories.

#### **Conclusions**

- Estimated GPR portion cost of loan associated with Category 1 and 3 under the category of **Water Efficiency** is **\$354,846.75**.
- Estimated GPR portion cost of loan associated with Category 3 under the category of **Energy Efficiency** is **\$51,549**.
- Estimated GPR portion cost of loan associated with Category 3 under the category of **Environmentally Innovative** is **\$166,286**.