Environmental Programs
Brownfields SRF

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, City of Warsaw, Wastewater Treatment Plant Expansion Project
SRF Project #WW 17 15 43 02

FROM: Tracey R. Trimpe

DATE: December 10, 2018

RE: Green Project Reserve, Business Case Summary

The proposed wastewater treatment plant (WWTP) expansion project will increase the WWTP's average design capacity from 3.9 million gallons per day (MGD) to 6.0 MGD and the peak design flow from 12.0 MGD to 18.0 MGD. The proposed project includes:

- Removing the parshall flume and installing a mag meter on each of the three influent force mains for the following lift stations: Anchorage, Danek and Center Street;
- Adding two aerated grit tanks with air lift pumps after the fine screen;
- Constructing two 85-foot diameter Primary Clarifiers;
- Constructing a Primary Control Building with two primary sludge pumps and scum handling facilities;
- Constructing a 3-cell anaerobic selector tank;
- Modifying the existing oxidation ditches by providing separated mixing and aeration along with adding controls to promote simultaneous nitrification and denitrification;
- Adding a third 90-foot diameter Secondary Clarifier;
- Modifying Sludge Pump Station No. 1 by adding larger non-potable water pumps and an automatic backwash filter;
- Constructing a Sludge Pump Station No. 2 that will house two return activated sludge pumps and a scum pump that will mirror Sludge Pump Station No. 1;
- Replacing the existing Ultra-Violet (UV) disinfection system with a larger 18.0 MGD horizontal open channel system;
- Constructing a Chemical Feed Building that will house two chemical storage tanks and three chemical feed pumps;
- Constructing two 60-foot diameter anaerobic digesters with gas holding covers and a Digester Control Building (DCB) that will house four sludge recirculating pumps and two heat exchangers;
- Installing Cogeneration Equipment that will be located in the Gas Conditioning Room of the DCB, where the digester gas will be diverted to the boiler and/or engine generator to produce electricity;
- Modifying the existing Aerobic Digester No. 3 to a waste activated sludge holding tank;
- Repurposing Aerobic Digesters Nos. 1 and 2 to a septage holding tank and a digested holding tank, respectively;
- Replacing the Belt Filter Press with a Volute Dewatering press that uses a drum to achieve both thickening and pressing of sludge in a single, compact operation;

- Adding a modern Supervisory Control and Data Acquisition System (SCADA) at the WWTP; and
- Constructing a five bay garage for storing utility vehicles.

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 Energy Efficiency (Modifying the existing oxidation ditches by providing separated mixing and aeration along with adding controls to promote simultaneous nitrification and denitrification; Constructing two 60-foot diameter anaerobic digesters with gas holding covers and a Digester Control Building that will house four sludge recirculating pumps and two heat exchangers; and Recycled Material Use (Ductile Iron Pipe and Flyash)) Category.

Conclusions: Based on Post-Bid documentation, the Total GPR for this project is in the amount of $9,307,000.00 ($607,000.00 Engineering + $8,700,000.00 Construction) Total GPR Amount, Energy Efficiency Category. This project is currently under construction and disbursement requests are being submitted to SRF for review/approval.