



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: Official Loan File

FROM: Amanda Rickard

DATE: April 10, 2017

RE: Green Project Reserve (GPR) Business Case
Huntertown Wastewater Treatment Plant
SRF Project WW 14 24 02 01

After Huntertown constructs a new wastewater treatment plant and effluent force main, they will no longer send their wastewater flow to Fort Wayne. The WWTP project includes several green components, as described below.

Disinfection with chlorine/sulfur dioxide requires water to create a vacuum for chemical injection. By using a UV system in lieu of chlorine/sulfur dioxide for disinfection, more than five million gallons of water will be saved annually. Sludge dewatering with belt filter press technology requires much more wash water than centrifuge technology due to how the units are cleaned. By using a centrifuge in lieu of belt filter press for sludge dewatering, almost 14 million gallons of water will be saved annually. By using a non-potable water reuse system at the new WWTP, several processes including washing the equalization tank will regularly save potable water use. The business case developed by Engineering Resources Inc. was reviewed and found to meet the GPR requirements for the water efficiency category.

Pump motors, blower motors, and aeration drive motors will be equipped with VFDs, which allows for significantly reduced motor run times. The VFDs, combined with the plant's new SCADA system, are cost-effective and reduce energy use which qualifies these as green components. The business case developed by Engineering Resources Inc. was reviewed and found to meet the GPR requirements for the energy efficiency category. In addition, the aerated sludge holding tank will be equipped with high efficiency blowers with VFDs, which will provide 30% energy savings. Therefore, the blowers are categorically eligible under the energy efficiency category.

The oxidation ditch with Smart BNR technology will allow the Huntertown WWTP to meet stringent discharge limits, and will also save energy. The technology will remove phosphorus biologically, nitrify, and reduce total nitrogen via the use of de-nitrification. The technology is expected to address water quality issues, although the actual performance has not been demonstrated

in Indiana. Therefore, the oxidation ditch with Smart BNR system qualifies under the environmentally innovative category.

The total GPR cost is \$3,800,385. Of this, the construction cost based on bids is \$789,500 (water efficiency components), \$742,000 (energy efficiency components), and \$1,750,000 (environmentally innovative components); and engineering cost is estimated at \$518,885. Huntertown closed an SRF loan in the amount of \$16,150,000 on December 15, 2016.