



State Revolving Fund Loan Program  
an Indiana Finance Authority Environmental Program

100 North Senate Avenue, Room 1275  
Indianapolis, Indiana 46204  
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**MEMORANDUM**

**TO:** Project File, Town of Newburgh,  
Epworth Road Medical Corridor Sanitary Sewer Expansion,  
SRF Project # WW14 25 87 05

**FROM:** Jack Fisher

**DATE:** January 5, 2015

**RE:** Green Project Reserve (GPR), Business Case

**Summary:**

- New trunk sewers, a sanitary lift station and dual force mains are being constructed in response to the planned medical district and supporting health facilities in the Epworth Road Corridor. The project is part of the Warrick County Medical District Master Plan for medical facilities campus and related health services planned for the area. Additionally, existing residential and commercial users presently on septic systems in the area will be provided with necessary sanitary sewer service to allow abandonment of their existing septic systems.
- Components must be sized to transport peak demands, although average demands are typically less. Key operational parameters, such as flow rates, can be used to control equipment to increase efficiency and minimize electrical demand. Supervisory Control Data Acquisition and Data (SCADA) is a system to monitor and control the pump motors using remote terminal units (RTUs). A SCADA system is being installed as part of the new lift station for this purpose. Pump motors are the highest electrical demand at a lift station, the use of SCADA to control pump operation is the focus of this analysis. The SCADA system will process the collected data and adjust the variable frequency drives (VFDs) for the motors, increasing or decreasing the power accordingly.
- Estimated State Revolving Fund Loan Amount is \$5,254,530.
- Estimated GPR portion cost of loan associated with the construction of the Epworth Road Medical Corridor Sewer Expansion is **\$16,000** and **\$25,000** for planning and design costs for a total of **\$41,000**. This represents 0.78 % of the estimated loan amount.

**Conclusions**

- With the installation of the SCADA system and the VFDs, which qualifies under the energy efficiency category, the pump motors will only draw the amount of electricity necessary to match the station inflow. This allows the motors to use approximately 55.2 % less energy. This equates to a cost savings of \$11,425 per year.

