



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, South Whitley, Wastewater System Improvements, SRF Project #WW11 16 92 01

FROM: Jack Fisher

DATE: November 4, 2011

RE: Green Project Reserve (GPR), Business Case

Summary:

- South Whitley's National Pollutant Discharge Elimination System permit required them to prepare a Combined Sewer Overflow - Long Term Control Plan (CSO -LTCP), since they have a combined sewer system with three active CSOs. The project proposes replacing the existing 12-inch interceptor with a new 24-inch and upgrades to the wastewater treatment plant (WWTP) that include: a new influent pump station, a headworks building (including fine screening, grit removal, and flow metering), a flow splitter and metering structure, the conversion of an existing unused aeration basin to a CSO basin (including disinfection, settling, dechlorination, flow metering, a basin flushing system, a method of detaining flows above the WWTP peak flow and releasing flow back to the influent lift station, a new CSO 004 outfall structure, and replacing the existing blowers and diffusers. In addition, the chlorine contact basin will be enlarged and a new disinfection building will be built to house the new chlorine and sodium dioxide equipment as well as install a new emergency backup generator.
- Estimated State Revolving Loan Fund Amount: \$2,980,000
- Estimated Green portion of the loan associated with the wastewater improvements are: \$18,500 (\$13,500 for Construction and \$5,000 for Non-Construction Costs). The Green portion represents 0.6% of the estimated SRF Loan amount.

Conclusions:

- The use of variable frequency drives for the blowers being used to provide air for the two aeration tanks, aerobic digester and the return activated sludge pumps will provide an estimated 44% reduction in energy and therefore shall be considered categorical with greater than 20% energy savings under the category for energy efficiency. The anticipated annual energy savings is approximately \$23,000. The energy payback period is anticipated to be approximately 9.5 months.