



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, City of Bluffton, Pump Station Controls, SRF Project # WW14 18 90 01

FROM: Jack Fisher

DATE: December 15, 2014

RE: Green Project Reserve (GPR), Business Case

Summary:

- The proposed project includes a new headworks facility with mechanical screening and grit removal, new covers for the digesters, and a new mixer for primary digester #2. Additionally, this project includes influent flow monitoring, added controls to operate the pump stations more efficiently, and added controls to distribute flow more effectively to primary treatment. The discharge piping from Pump Station #1 and #2 to primary treatment is interconnected.
- The estimated Total Project Cost is \$5,644,000, which is the same amount as the State Revolving Fund Loan.
- Estimated GPR portion cost of loan associated with the installation of an electric actuator cost is **\$24,395**. This cost consists of **\$21,213** for construction and **\$3,182** for planning and design. This represents approximately 0.4 % of the estimated loan amount.
- Installation of an electric actuator to close an existing sluice gate to Pump Station #1 during dry weather flows. All dry weather flows would be diverted to Pump Station #2. This will also lead to a demand reduction as peak demand will be reduced when one pump station runs in lieu of two.

Conclusions

- Assuming influent flows are diverted evenly to both pump stations (2.3 MGD), the annual power costs to run Pump Station #1 and #2 is approximately \$15,500.
- By directing all dry weather flow (2.3 MGD) to Pump Station #2, the annual power costs to run Pump Station #2 is approximately \$7,000. During wet weather flows in excess of 6.0 MGD, Pump Station #1 will be brought back on line.
- By directing all dry weather flow to Pump Station #2, the city will save approximately \$8,500 per year of 55% of the total energy requirements during dry weather flow. The electric actuator would be considered categorical since it will achieve an energy savings greater than 20%.

