



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 Crown Point, LTCP Improvements Project, SRF Project # WW16 08 45 05

FROM: Jack Fisher

DATE: January 18, 2018

RE: Green Project Reserve (GPR), Business Case

Summary:

- The City of Crown Point had to comply with the terms of their State Judicial Agreement with the Indiana Department of Environmental Management, which included the development of a Long Term Control Plan (LTCP). The LTCP consisted of various improvements projects including the evaluation of the city's collection system and wastewater treatment plant's (WWTP's) response to both a 1-year, 1-hour and 10-year, 1-hour statistical storm events.
- As part of the LTCP improvements project, an energy savings project consisting of the incorporation of dissolved oxygen (DO) control loops and a new turbo blower operating at 90% efficiency for the aeration system at the WWTP.
- Updated XPSWMM system model that identified several sewer basins with extreme wet weather flow conditions. This required a focused infiltration & inflow (I&I) improvements project, which will reduce I&I to be treated at the WWTP. Upon completion of the I&I improvements project, post construction monitoring which will include flow metering and an updated XPSWMM will be required. This will afford a refinement to the model in confirming the effectiveness of the I&I Improvements project.
- Estimated State Revolving Fund Loan Amount is \$6,899,900.
- Estimated GPR portion cost of loan associated with these projects is **\$1,076,702** and **\$82,811** for planning and design costs for a total of **\$1,159,513**. This represents 17 % of the estimated loan amount. These GPR projects fall under the category of **energy efficiency**.

Conclusions

- The I&I improvements are estimated to achieve a 20% reduction in annual energy usage, which equates to an annual savings of \$9,719. This would be considered categorical.
- The DO control loops are estimated to achieve a 30% reduction in annual energy usage, which equates to an annual savings of \$84,000. The new turbo blowers are estimated to achieve a 5% reduction, which equates to an annual energy savings \$14,282.