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, Collection System Improvements, High Priority I/I Reduction Project – Phase IIA

SRF Project #: WW 12451603

FROM: Richard J. Ziemba

DATE: March 13, 2013 (Final)

RE: Green Project Reserve, Business Case

Summary

1. The Crown Point Collection System Improvements was approved on October 5, 2012. The project consists of the construction of approximately 25 feet of 12-inch storm sewer, approximately 252 feet of 10-inch sanitary sewer; approximately 834 feet of 8-inch sanitary sewer, manhole lining, manhole frame and cover replacement, installation of manhole chimney seals and cure-in-place (CIPP) lining of various sanitary sewers throughout the Crown Point collection system. The city's collection system experiences storm water entering the existing collection system through infiltration /inflow (I/I) sources. The project will reduce I/I from the collection system and reduce the amount of treated flow at the city's waste water treatment plant (WWTP). The reduction of treated flow at the WWTP will reduce the energy costs for pumping the waste water to the treatment plant through a series of pump stations as well as at the treatment plant. Therefore, the collection system improvements were considered under the energy efficiency category. Green Project Reserve (GPR) descriptions and a business case was developed and presented by Commonwealth Engineers, consulting engineers for the City in the appendices of the preliminary engineering report (PER). The business case was fully developed during and after the project was bid.

2. The city conducted an overall flow monitoring program during the previous year to determine the amount of I/I in the collection system. It was estimated that approximately 35% of the total flow to the WWTP can be attributed to I/I related sources. The average daily flow to the WWTP is 4.38 million gallons per day (MGD). The I/I reduction that can be attributed to these collection system improvements is estimated to be 42,000 gallons per day or 15.33 million gallons per year. The projected annual energy savings is estimated to be $10,732. The actual as-bid cost for the installation of the collection system improvements $1,095,354. The as-bid GPR components were $850,456. The GPR engineering costs was $146,087.

3. **The total as-bid GPR including engineering costs is $996,543.** Crown Point closed on a SRF loan on February 14, 2013 in the amount of $1,550,000.

Conclusions

1. The business cases were reviewed by internal staff and found to be in accordance with meeting the GPR requirements for the energy efficiency category.