



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: Official Loan File

FROM: Amanda Rickard

DATE: January 31, 2019

RE: Green Project Reserve (GPR) Business Case
Mishawaka New Drinking Water Storage Tank and Booster Station
SRF Project DW 18 07 71 03

Mishawaka will construct a new 2.0 MG drinking water storage tank, 1,500 gpm booster pumping station, and approximately 1,450 LF of water main piping. The new storage tank will improve storage capacity in the Central Pressure District. The new booster station and water main will provide needed redundancy.

LED outdoor light fixtures will be installed at the storage tank and booster station location to illuminate road and parking areas. Compared to metal halide lighting, LED lighting will decrease required power usage and save approximately \$7,500 over the life of the fixtures. The business case developed by DLZ Indiana was reviewed and found to meet the GPR requirements for the energy efficiency category.

The SCADA system will allow continuous monitoring of the existing and new storage tanks and booster station pumps. The new line shaft pumps will be equipped with VFDs which will allow for flexibility in delivering the appropriate flow rate, which can range between 400 and 1,600 gpm. Compared with constant speed pumping, use of VFDs and SCADA will decrease required power usage and save approximately \$7,700 per year. The business case developed by DLZ Indiana was reviewed and found to meet the GPR requirements for the energy efficiency category.

Ductile iron pipe material for the water main piping is considered to be green material. The pipe supplier certifies that their ductile iron pipe contains as much as 90 percent recycled content. The business case developed by DLZ Indiana was reviewed and found to meet the GPR requirements for the environmentally innovative category.

Lightning protection will be installed on the booster station. Since the site is at the highest elevation in the City of Mishawaka, lightning strikes may be more likely at this location. Compared to the cost of booster station building and equipment repair, the cost of lightning protection could save more than \$240,000. The business case developed by DLZ Indiana was reviewed and found to meet the GPR requirements for the climate resiliency category.

The total GPR cost is \$493,453. Of this, the construction cost based on bids is \$96,790 (energy efficiency components), \$325,000 (environmentally innovative components), and \$5,500 (climate resiliency components). Engineering costs total to \$66,163. Mishawaka closed an SRF loan in the amount of \$13,000,000 on October 29, 2018.