

MEMO

To: Project File, Rushville CSO Treatment Facility and WWTP Improvements Project - Phase 2
SRF No. WW10 06 48 02

From: Jack Fisher

Date: December 18, 2013

Re: Green Project Reserve, Business Case

A Business Case was prepared by Donohue & Associates, Inc. for the City of Rushville's CSO Treatment Facility and WWTP – Phase 2. The Business Case addressed (1) the replacement of three aeration blowers with three high efficiency blowers controlled by variable frequency drives [VFDs] (2) three new submersible centrifugal pumps for the Wet Weather pump station controlled by VFDs, and (3) eight light emitting diode (LED) lights for exterior lighting at the Grit Facility. **Based on a review of the Business Case it was determined that the aeration blowers with VFDs, the submersible centrifugal pumps with VFDs and the LED lights all qualify under the category for energy efficiency.**

The assessment that each of these components qualifies under the category of energy efficiency is based on the following:

1. The new high efficiency aeration blowers with VFDs when compared to the existing constant speed blowers will use approximately 58 percent less energy.
2. The three new submersible centrifugal pumps with 50 hp drives using VFDs when compared to a soft start with manual bypass for the new Wet Weather Pump Station will use approximately 28 percent less energy.
3. The eight LED lights when compared to metal halide lights will use approximately 71 percent less energy.

The capital cost for the green project components is \$644,242 based on \$564,742 for construction and \$72,500 for planning and design.

The total State Revolving Fund Loan amount will be \$4,890,400.