



Green Innovation Grant Program (GIGP) No. 204

CWSRF Project No. C8-6409-02-70

Village of Lyons

Project Name: Water and Wastewater System Green Improvements

DEC Region: 8 County: Wayne

Type of Financing: American Recovery and Reinvestment Act (ARRA) Green Innovation Grant Program

Estimated Total Project Cost: \$607,310.00

Recommended GIGP Award Amount: \$546,575.00

Local Share: \$60,735.00

Other Funding Sources: \$0.00

Project Category: Clean Water SRF. Energy Efficiency.

Project Description:

This project integrates a variety of improvements to the Village of Lyons wastewater treatment plant and the water treatment plant to achieve greater energy efficiency, create renewable energy and manage stormwater with green infrastructure. The improvements include rainwater harvesting, a green roof, solar units, energy efficient lighting, an HVAC upgrade, automated dissolved oxygen (DO) sensors, variable frequency drives (VFD), and pipeline leak detection equipment.

Project Summary:

The applicant will make various improvements that meet the GIGP criteria. Green Infrastructure projects include a rainwater harvesting system and installation of a green roof. Energy efficient improvements include: installation of energy efficient lighting which will reduce energy use for lighting by 40-60%; solar units which will provide almost 15% of the facility's current electric needs; a new 93.3% efficient boiler will be installed with a hydronic system for heat exchange to reduce heating and cooling demands by 10%, and automated dissolved oxygen (DO) sensors combined with variable frequency drives (VFD) will be installed to reduce aeration energy demand by up to 25%. The pipeline inspection equipment will be used to identify leaks and will result in water conservation.

This project is categorically eligible for GIGP financing in three categories per the United States Environmental Protection Agency's (EPA's) "Guidance for Award of Recovery Act Funding to State Revolving Funds " (pages 42 - 44) dated March 2, 2009:

1. Energy Efficiency. Categorically eligible projects use "improved technologies and practices to reduce the energy consumption of water quality projects ...or produce clean energy used by a treatment works." This project follows the example in IV. a. "Energy efficient retrofits and upgrades to pumps and treatment processes," IV. b. "Leak detection equipment for treatment works," and IV. c. "Producing clean power for section 212 treatment works on site (wind, solar, hydroelectric, geothermal, biogas powered combined heat and power)."
2. Water Efficiency. Categorically eligible projects use "improved technologies and practices to deliver equal or better services with less water. Through the reuse of rainwater for equipment cleaning and irrigation, this project meets the EPA criteria, in particular examples: V.b. "Implementation of water harvesting and reuse programs or projects", V.e. "Reclamation, recycling and reuse of existing rainwater", and V.f. "Collection system leak detection equipment".

3. Green Wet Weather Infrastructure. Categorically eligible projects "manage and treat stormwater and [...] maintain and restore natural hydrology by infiltrating, evapotranspiring, and capturing and using stormwater" and include "the preservation and restoration of natural landscape features, such as forests, floodplains and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed. On the local scale green infrastructure consists of site and neighborhood specific practices such as bioretention, trees, green roofs, porous pavements, and cisterns." Rainwater harvesting is included in example V.b. "Implementation of water harvesting and reuse programs or projects".

This project includes a green roof which is example V.c. "Implementation of wet weather management systems for parking areas which include: the incremental cost of porous pavement, bioretention, trees, green roofs, and other practices that mimic natural hydrology and reduce effective imperviousness..."

EPA guidance issued on June 22, 2009, the "Green Project Reserve Business Case Principles and Questions and Answers" (pages 8-9; questions C 3 and 4) states that "the entire cost for the green [stormwater] roof is eligible including structural changes necessary to support the additional weight of the green roof."

Funding Summary:

The applicant will provide the 10% match.

SEQR Findings:

The project is a type II action pursuant to 6 NYCRR sections 617.5 (c) 1 and 617.5 (c) 7 maintenance or repair involving no substantial changes AND construction or expansion of a primary or accessory /appurtenant non residential structure or facility involving less than 4000 square feet.

Construction Schedule:

<u>Description</u>	<u>Construction Start</u>	<u>Construction Completion</u>
Village of Lyons	December 30, 2009	December 30, 2010
Water and Wastewater System Green Improvements		