

Various State Grant Applications:

Grant Program: NYSDEC Water Quality Improvement Project (WQIP)

Project: WWTP Improvements Project - Sludge Processing Improvements

Total Project Cost: \$ 38.4M

Grant Request: \$ 10.0M (Max Amount)

Match Required: \$ 2.5M (25%)

Project Description: This WQIP application is for the Phase 1 Improvements and the installation of a Fats, Oil and Grease (FOG) receiving/treatment facility. Phase 1 (contracts A and B) will include improvements to ACWPD's North Plant Sewage Sludge Incinerators (SSI) and ancillary systems needed to satisfy the current NYSDEC Order on Consent and ensure long term air emission compliance. In addition improvements to ACWPD's North Plant solids handling systems, including the installation of new combined sludge pumps and thickening equipment, as well as sludge tank mixers will be constructed. The Fats, Oil and Grease receiving system will allow ACWPD to direct these waste streams to a dedicated treatment system. This will eliminate FOG going directly to the headworks and into the primary settling tanks. FOG that passes through the primary settling tanks can impact the effluent quality of the wastewater that is discharged in to the Hudson River. Installation of this system will mitigate that risk to effluent to effluent quality.

Grant Program: NYSDEC Water Quality Improvement Project (WQIP)

Project: Capital Improvement Plan – North Plant Mechanical Screens and Grit System

Total Project Cost: \$ 18.7M

Grant Request: \$ 10.0M (Max Amount)

Match Required: \$ 2.5M (25%)

Project Description: This WQIP application is for the replacement of the North Plant headworks mechanical screens and installation of a new grit removal system. ACWPD analyzed and prioritized projects as part of a Capital Improvement Plan (CIP) and recommends upgrading the mechanical bar screens and grit removal system in the North Plant within the next five years. The mechanical bar screens frequently become blinded during wet weather events and new bar screens are proposed to protect downstream treatment processes. The existing grit removal system is at the end of its useful life and the grit removal technology is antiquated compared to conventional grit systems. The proposed project would construct a new baffled vortex grit chamber. The upgrades to these plant unit processes would improve the performance of downstream processes and results in better operation during wet weather events

Grant Program: NYSEFC Green Innovation Grant Program (GIGP) & Commercial & Industrial Carbon Challenge

Project: Sludge Processing Improvements (FOG Receiving Station)

Total Project Cost: \$ 8.5M

GIGP Grant Amount: \$ 3.0 M (Max Amount)

Carbon Challenge: \$ 2.14M (Calculated based on CO savings)

Project Description: The proposed project involves the construction of a new Fats, Oil and Grease (FOG) waste receiving station at the ACWPD North Plant. The receiving station will contain a hydronic separation system, which generates a biofuel product from FOG waste that can be used as a substitute heating fuel or as biodiesel feedstock. This project has numerous benefits, the first being the production of biofuel from a sustainable wastestream. The FOG processing system also utilizes a portion of the produced biofuel to fuel a hydronic heating system eliminating the need for supplemental natural gas. Additionally, the process will significantly reduce the amount of FOG waste that is processed through the wastewater treatment plant and reduce energy demands and sludge production volumes. The system would also provide a central location for community restaurants and similar facilities to properly dispose of the FOG waste thereby reducing grease loads to local sewer systems and potential sewer overflows due to grease blockages.

Grant Program: NYSERDA Commercial & Industrial Accelerated Efficiency Program

Project: Sludge Processing Improvements Phase 1B

Total Project Cost: \$ 7.2 M

Grant Amount: \$ 3.6 M (Max Amount 50% of project cost)

Project Description: The proposed project involves the installation of a new large bubble air sludge mixing system that is approximately 75% more energy efficient than the existing system and new sludge thickening technology that is more energy efficient and cost effective to operate.