

Schodack Landing - Community finds Cost-Effective Solution to Sewer Needs with Orenco Effluent Sewer & AdvanTex® Treatment System

Project Summary

Schodack Landing, a hamlet of 67 homes just south of Albany, New York, needed to replace its collection of failing septic systems. The need had been well documented over the last 30 years with public health concerns noted as far back as 1973 indicating frequent and significant amounts of sewage exposed at ground levels. A number of engineering reports were done over the years but each plan to fix the problem was rejected as being too costly, or politically unfeasible. After receiving a consent order from the state to fix the problem, the Town of Schodack engaged J.K. Fraser & Associates to find a workable solution that the town could afford. After Jeff Budrow P.E. of Fraser attended a seminar where Wastewater Technologies, Inc. (WTI) presented on concepts and benefits of decentralized wastewater management, WTI was asked to provide assistance in developing an alternative approach to solving Schodack's sewage problems.

WTI developed a detailed design brief and cost estimate that proposed the use of an Orenco STEP collection system and a central AdvanTex® Treatment System that was presented to and approved by the Town. Once the town gave the go ahead, WTI continued to work closely with Fraser by providing "value engineering" throughout the design and permitting process. This resulted in numerous areas where cost savings were achieved by reducing unneeded system redundancy, eliminating unnecessary "big-pipe" type components, and incorporating smart controls that enabled operation of the system to be automated and remotely monitored.

Once construction was underway, WTI continued to provide "value engineering" and identified \$40,000 in material cost savings by redesigning the UV Disinfection Assembly. The General Contractor had limited experience with decentralized equipment, so WTI worked closely with them to oversee and assist with the installation. At WTI's recommendation, the Treatment System and the Force Main were completed first, which allowed each STEP System to come online as soon as installed. This helped reduce time needed for each dwelling hookup and contributed to completing the construction a month and a half ahead of schedule.

Rather than just supply the equipment for the project, WTI worked closely with all involved parties throughout all phases of the project to ensure the system was cost-effective, was installed successfully and on time, and that it is operated and maintained properly on an ongoing basis.

Treatment System Overview

- Collection System:** New Orenco STEP Collection Tanks with Simplex STEP System controls. Transfer of effluent by pressurized force main to central treatment site.
- Central Treatment:** AdvanTex® Textile Filter Treatment System with five (5) AX100 Filter Pods. Orenco TCOMM® remote telemetry controls. 25,000 gallon Fiberglass Recirculation Tank. Salcor UV Disinfection Units.
- Final Discharge:** Direct Discharge to Schodack Creek - a tributary to the Hudson River.



Project Partners

- Facility Owner:** Town of Schodack, NY
- Project Engineer:** J.K. Fraser & Associates
- Engineering Consultant:** Wastewater Technologies, Inc.
- General Contractor:** W.J. Keller & Sons Construction
- Equipment Vendor:** Wastewater Technologies, Inc.
- STEP Systems:** Orenco Systems - STEP Equipment
- Treatment System:** Orenco Systems - AdvanTex®
Salcor - UV Disinfection
Containment Solutions - 25,000 gal. Fiberglass Recirculation Tank
- Regulatory Authorities:** Rensselaer County DEP, NYSDEC

Project Facts

- Location:** Schodack Landing, New York
- Installation Date:** Summer of 2008
- Project Cost:** \$1,600,000 - Includes all costs - installation & equipment - force main, tanks, STEP & treatment equipment, engineering, permits, and 1-yr Operation & Maintenance Contract.
- Cost per EDU:** Approximately \$21,000 per Dwelling
- Design Flow:** 25,000 Gallons Per Day
- # of Dwellings:** 67
- # of EDU's:** 75



Wastewater Technologies, Inc.
Sustainable Solutions for Onsite Wastewater Treatment