

# CASE STUDY

## An Affordable Wastewater Collection and Treatment Solution for Municipalities

### SCHODACK LANDING, NEW YORK

#### Problem

Schodack Landing, a town of 67 homes just south of Albany, New York, was under a consent order to replace its failing septic systems. A gravity collection system that would deliver the waste to a nearby town was rejected as too costly.

#### Solution

An Orenco Effluent Sewer with treatment provided by an AdvanTex® textile packed bed filter, also manufactured by Orenco, was installed in the summer of 2008. "Value-engineering" by Orenco's equipment dealer kept the project costs low.

Schodack Landing, south of Albany, New York, is a small waterfront community of 75 parcels spread over 74 acres. In addition to residences, the district includes a church, post office, and fire station.

The community's wastewater needs were served by individual onsite systems, but lots are small, soils are poor, and slopes are steep. Since 1973, complaints of surfacing sewage and odors had been commonplace.

Over the years, consulting firms had proposed three solutions: 1) gravity collection to a local treatment system, 2) gravity collection pumped to a neighboring village's treatment system, three miles distant, and 3) effluent sewer to a recirculating sand filter. The community rejected all these options as either costing too much money or requiring too much space.

Finally, facing a consent order from the state, the town engaged J.K. Fraser and Associates, which approached Wastewater Technologies Inc. (WTI), an Orenco Dealer, for assistance in developing alternative solutions to Schodack's wastewater problems.

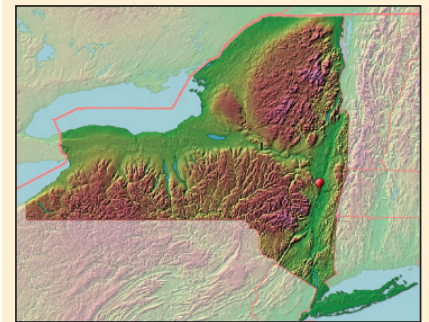
Working with designer Jeffery Budrow, P.E., WTI developed a design brief and feasibility estimate for an Orenco Effluent Sewer (STEP collection system) and an AdvanTex® AX100 recirculating textile filter. The proposed system was both affordable and compact. In addition, it incorporated Orenco's TCOM programmable control panels with telemetry monitoring to reduce the operator's daily onsite involvement and therefore reduce O&M costs.

Construction was phased to minimize delays. By constructing and starting up the treatment facility first, the contractor could then install

### Compliance Market

#### Project Overview

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#### Design Parameters

- 67 dwellings
- 75 EDUs

#### Start-up Date

- 2008

#### Total Project Cost

- \$1.6 million. Included installation and equipment costs for tanks, force mains, STEP equipment, and treatment equipment; engineering services; permits; and one-year O&M contract

#### Funding Source

- Grants and interest-free loans from USDA and NYSEFC (New York State Environmental Facilities Corporation)

#### Primary Treatment

- STEP collection with 1,500-gal tanks

#### Secondary Treatment

- 25,000-gal. fiberglass recirc tank
- Five AX100 pods
- TCOM® telemetry control panel

#### Dispersal

- Direct discharge to Schodack Creek, a tributary of the Hudson River

#### Operation

- First year by WTI; subsequently by Town of Schodack

#### AdvanTex Effluent Quality

- BOD<sub>5</sub> 7 mg/L; TSS 5 mg/L

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the collection lines and immediately connect the on-lot STEP systems as the equipment was installed. As a result, the project was completed approximately a month and a half ahead of schedule.

Financing consisted of grants from USDA's Rural Development program and the New York State Environmental Facilities Corporation (NYSEFC), as well as 30-year interest-free loans from NYSEFC.

"The best selling point for AdvanTex is the small footprint and the fact that it is a good neighbor, with no odors," Budrow said. Orenco's AdvanTex and TCOM technology, together with the guidance and assistance of WTI, provided the town with a solution that fit its budget, its space, and its maintenance capabilities.

**Compliance  
Market**

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For more information about Orenco Effluent Sewers and AdvanTex® Treatment Systems, contact Orenco Systems®, Inc., at 800-348-9843.



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