

PROJECT PROFILE

An Affordable Wastewater Treatment Solution for Government Properties

BEE RUN DAY USE AREA, WEST VIRGINIA

Problem A failing sand filter – which treated wastewater from a recreational day-use facility located on the edge of Sutton Lake, West Virginia – required replacement, quickly, before the busy summer season began.

Solution The U.S. Army Corps of Engineers replaced the sand filter with an Orenco AdvanTex® Treatment System, using a fast, no-bid procurement process. In addition, the Corps was able to use the existing NPDES permit allowing direct discharge into Sutton Lake, speeding the process even more.

AdvanTex® System Boasts Quick Start-up

The U.S. Army Corps of Engineers needed a wastewater treatment system to replace a failing subsurface sand filter that serviced a bathroom facility for the Bee Run boat launch and day use area along Sutton Lake in West Virginia. Seasonal usage of the area required a treatment system that could start up quickly when it was “powered on” after the long off-season months (December through May). The Corps also wanted a system that could meet the requirements of the existing NPDES permit – 30/30 BOD₅/TSS – which allowed direct discharge into Sutton Lake following UV disinfection.



Sutton Lake needed a wastewater system that could start up quickly after the off-season and meet NPDES discharge requirements. Photo courtesy of U.S. Army Corps of Engineers.

Commercial — Government Market

Project Summary

BEE RUN DAY USE AREA, WEST VIRGINIA



Design Parameters

- Bathroom facility for picnickers, boaters, and visitors to the marina
- Estimated peak flows: 6,000 gpd

Installation

- Spring 2009

Start-up

- June 2009

Collection System

- Gravity and force main flow from bathrooms to primary tank at treatment site

Treatment

- 12,000-gal. primary tank
- 5,000-gal. recirculation tankage
- 3 Orenco AdvanTex AX100 filter pods
- UV disinfection

Controls

- Orenco TCOM™ remote telemetry control panel

Discharge

- Direct discharge to Sutton Lake under NPDES permit
- Limits: 30 mg/L each, BOD₅ and TSS

BEE RUN DAY USE AREA, WEST VIRGINIA

With an Orenco AdvanTex Treatment System, the Corps found a solution that not only starts up immediately, but also meets the permit's strict discharge requirements. As a general rule, AdvanTex systems regularly produce effluent that meets limits of <10 mg/L BOD₅ and TSS, as well as reduces nitrogen by more than 60%, when properly designed and installed.*

In this case, the selection of AdvanTex simplified installation as well, and the Corps facilities crew at Sutton Lake was able to complete it themselves. The AdvanTex system has few moving parts, and the crew was able to set the modular AX100 filter pods directly on top of the failed sand filter, saving both time and money.

AdvanTex is also easily serviceable and doesn't require advanced operator training. Consequently, the facilities crew has been able to take charge of on-going operation and maintenance of the new treatment plant, in addition to their regular maintenance duties at other recreational sites on the lake.

* NSF® International Standard 40 Evaluation Report, April 2002.
(Evaluation performed by NovaTec Consultants, Inc.)



The AdvanTex pods were installed directly on top of the sand filter site.

For information about Prelos™ Sewer, AdvanTex® Wastewater Treatment, or Orenco Controls™, contact Orenco Systems®, Inc.



800-348-9843 • +1 541-459-4449
www.orenco.com

Data used by Orenco to derive the representations and conclusions contained within this Project Profile were current as of January 2011.