

Beckley Sanitary Board

Beckley, West Virginia



Savings Information

\$400,000 per year revenue guarantee

Project Size

\$13.2 million

Project Background

The Beckley Sanitary Board (BSB) has provided wastewater treatment services to the City of Beckley, West Virginia, and the surrounding areas for more than 80 years. In 2015, BSB decided to partner with Energy Systems Group (ESG) to implement improvements at its 8 million gallon per day Piney Creek Wastewater Treatment Plant, a facility that had not seen major upgrades since the 1990s.

Strategies & Solutions

Where others might have seen only a laundry list of repairs at the Piney Creek facility, BSB's leadership and the ESG team saw opportunity. The plant's existing digesters, which were only at 20 percent capacity, had sufficient room to accept hauled-in organic waste, which could create a new source of revenue to pay for needed infrastructure improvements. Moreover, this new revenue, along with funds from a retiring existing revenue bond, would enable BSB to undertake the project without a required user rate increase to local citizens.

Construction to retrofit the Piney Creek facility for BSB's new high-strength organic waste co-digestion program was completed in October 2019. The treatment plant is now able to process up to 45,000 gallons per day of organic waste. ESG is managing the organics program and guarantees BSB an annual minimum amount of revenue from organics receipt of \$400,000.

Key Installed Technologies

- Organics resource recovery, including a new receiving station
- Full rebuild of the existing anaerobic digester complex
- New biosolids dewatering, storage, and conveyance system
- Aeration system improvements, including a high efficiency blower and new fine bubble diffusers
- New UV disinfection system
- New vortex grit removal units and grit classifier
- New SCADA plant control system
- Replacement of electrical system in headworks building
- Lighting, mechanical, and HVAC system improvements
- Associated controls, and mechanical and electrical systems improvements

