

Case Study

DELCORA County – Chester PA Selects The BEAST® Screening System for their FOG Receiving Station



Problem

The original receiving station had cylindrical bar-type screens which were ineffective in screening FOG waste and handling high rate unloading. In August 2017, the Authority decided to upgrade the receiving station with a more effective screening system that could shorten truck unloading times, increase debris capture, avoid clogging of the pumps, and reduce maintenance requirements.

Overview

The Delaware County Regional Water Quality Control Authority (DELCORA) is a municipal authority with an almost 50 years history of successfully treating wastewater for approximately 500,000 customers in 42 municipalities in Delaware and Chester Counties in Pennsylvania.

Since 1973, DELCORA's Western Regional Treatment Plant has served as a regional leader in both domestic and industrial wastewater treatment. The plant and collection system handle over 35 million gallons of wastewater every day. DELCORA also operates a truck waste receiving program which takes in a high volume of fats, oils, grease (FOG), accepts and treats food processing waste, domestic septic, leachate, industrial and municipal sludges. The ability to blend FOG waste with the other sludges has created a richer fuel for the incinerators, and will ultimately result in lower fuel costs.

Solution

DELCORA's Western Regional Treatment Plant started a pilot testing program to find a more efficient screen for the FOG Receiving Station at the facility and the BEAST was selected to participate.



Selected the BEAST® Screening System

During the month-long demonstration, Enviro-Care provided two weeks of onsite support for installation, commissioning, and training. After the test, DELCORA personnel reported these results:

- Shorter offload time from FOG hauler trucks (gravity and pressurized),
- The BEAST was able to handle high flows from a wide variety of FOG waste and heavy solids,
- Captured and discharged rocks without an up stream rock trap,
- Higher debris capture.

Results

In December 2017, the Delaware County Regional Water Quality Control Authority ordered two FOG BEAST 1400 screening systems from Enviro-Care. Installation and start up was completed in February 2019. In the first 9 months of operation, DELCORA noticed a dramatic reduction in maintenance costs as a direct result of removing inorganic material from the truck waste before that material entered the plant.



A heat exchanger using incinerator scrubber water allowed for a low cost hot water spray system. This has provided an added side benefit and has assisted in the overall maintenance efficiency for the BEAST.

The DELCORA facility is well on its way toward meeting its goals of:

- Leading the industry in environmental compliance,
- Reducing turnaround time for their customers,
- Reducing maintenance costs,
- Increasing the competitiveness of their receiving program.

