

Case Study

The Enviro-Care® Beast® Increases This Plants Septage Receiving Capabilities



Overview

An Enviro-Care Septage BEAST® 800 has found a home at the Ralpho Township Sewer Authority plant in Paxinos, Pennsylvania. Ralpho Township is a small community located in Northumberland County, PA, toward the center of the state. There are approximately 3,750 people in the township, which is known for farms, covered bridges and the Knoebels Amusement Resort.

The original Ralpho wastewater plant was built in 1971 and was a traditional activated sludge process. In 1995-96 they upgraded their system to a Dual Basin SBR (sequencing batch reactor) with an aerobic digester and added a septage receiving station.

In 2007 they added a third basin which increased the maximum flow to 819,000 gpd with an average flow 343,000 gpd.

Problem

Ever since the Ralpho plant began accepting septage, they had struggled with a circular-type bar screen to process the septage. Ralpho is located in a sprawling rural community where septic tanks are common. Their septage receiving station received a work out on a regular basis. The original screening equipment had numerous issues including extensive downtime for repairs and material bypass. The debris that was bypassing the screen was so extensive that the plant installed a manual bar rack after the screen in an attempt to collect more of that debris.

Solution

The Enviro-Care representative in the area did a presentation on the BEAST at a regional association meeting in May of 2018. After the presentation, the Ralpho Township Engineer requested more information on the BEAST's capabilities. Based on this additional

Increased Receiving Capabilities

information, the Engineer determined that a BEAST® 800 would fit in the existing building and would provide a far higher capture rate with its perforated plate screen versus bars.

The capacity of the BEAST 800 at 450 gpm fit well with the plant's needs. A BEAST 800 could unload a typical 3,000 gallon tanker in five minutes or less. This was the fast in and out their septage haulers were looking for.

In March of 2019 the BEAST was installed and put into operation. Enviro-Care's Service Manager visited the site to verify the unit operation and fine tune it before the first truck load was processed. He then rode with a septage hauler to pick up 3,000 gallons of septage from a local nursing home that routinely generated a large amount of debris. Arriving back at the plant, the BEAST took the entire flow, averaging over 500 gpm, and peaking at nearly 700 gpm.

Results

Tim Lecker, Chief Plant Operator, is very enthusiastic about the new unit. "The reduction in rags and debris entering the plant has provided us with a significant O&M benefit, and has improved the reliability of us being able to unload trucks much faster, compared to what we previously had. It takes out ALL the trash and the haulers like it too!"

The BEAST was specifically designed for processing the heavy debris found in septage. Its robust design will provide Ralpho with the reliable septage receiving station they need with no downtime and fast truck unloading. With an average flow of 450 gpm, a hauler can be in and out in less than 15 minutes including hook up and without pressurizing.



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