

Products Highlight

PuraACE™

Aerated Cleaning of Effluent

Puralinity™

Passive pH Biobuffer

AeroCell®

Open Cell Foam Biofilter

Project Structure

Name:

Bayside Travel Centre

Owner:

Paqtnkek Mi'kmaw Nation

Project Manager/Engineer:

Hatch Ltd.

General Contractor:

Lindsay Construction

Civil Subcontractor:

Francis J Boyle Construction

Three Products Make One Creative Solution

Overview

The Bayside Travel Centre in Afton Station, Nova Scotia, required a specialized onsite treatment system that could be built quickly. This travel centre is a new rest stop off of Trans Canada Highway 104 that features a gas station, convenience store, restaurants, small casino, and restrooms with showers.

The engineering team needed to find a solution that could be produced quickly and treat their effluent onsite to the standards required by the local government. Anua had the perfect solution to their problem.



Situation

The construction of the Bayside Travel Centre had gone smoothly right up until the managing engineer was notified that the town had decided that this project could no longer tap into the sewer line that was part of the original site plan. This was a big problem because the project was on a tight timeline and could not afford any major delays.

The engineers quickly reached out to a local wastewater treatment company who came up with a plan. However, they could not produce a viable treatment system until "early summer" 2020 and the Bayside Travel Centre was slated to open in March of 2020.

The engineers reached out to Sansom Equipment Ltd of Nova Scotia to find other manufacturers who could meet their strict deadline. Sansom called Anua, which had the perfect solution and knowledge to solve the problem at hand.

Technical Details

Products Used:

- (6) PuraACE
- (1) Puralinity 30"
- (10) AeroCell IM1530

Influent:

- Hydraulic – 6,500 GPD
- Organic – 48.5 lbs BOD⁵/Day (22 kg)

Effluent:

- BOD⁵ – 30 Mg/L
- TSS – 30 Mg/L

Tank Sizes:

- Primary – 4,200 gal
- Flow Equalization – 5,400 gal
- Pre-Aeration Tanks (2) – 2,400 gal ea.
- Clarifier – 2,400 gal
- Lift Station (Dosing Tank) – 5,400 gal

Solution

Anua recommended a multi-stage treatment solution utilizing PuraACE, Puralinity, and AeroCell. The original site plans did not leave much room for a system, but Anua was creative and used these three systems in concert to ensure Bayside could meet its treatment needs within the small footprint.

The ingenuity, flexibility, and speedy production of Anua's engineering and manufacturing teams were pivotal to the completion of this project on schedule during the cold winter months.

The customized Anua solution using standard products was perfect for this particular application and as a result, the planning, designing, manufacturing, and delivery were all completed on time and Bayside opened without issue in early March of 2020.

Results

The engineers are extremely happy with the system and with his experience with Anua. Here's what he had to say about it:

"The project had some last-minute changes to specification that required a complete overhaul of the on-site sewage disposal system late in construction. I spoke with Anua and their local supplier, Sansom Equipment, the week prior to Christmas with what seemed like an impossible deadline. Both provided incredible support during the design validation process, which was completed in time to have equipment on-site with installation underway within four weeks of that first call. Sean from Anua supported the work at every step, fielding questions quickly from our design team and local contractors installing the system. The support was pro-active and Sean provided input throughout that saved time and prevented potential operational issues."



More on the System:

The solution consists of a large primary septic tank, flow equalization, six **PuraACE** high strength pretreatment pods, clarifier with sludge return, dosing tank for ten **IM1530 AeroCell** open cell foam biofilter pods, and a **Puralinity** passive pH biobuffer basin. The grease interceptors serving two fast food restaurants were already in place. The system is designed to treat highly variable flows and heavy loads of high strength wastewater with little operational oversight. The system discharges into a gravel bed with no reserve area.

