

Flygt Concertor eliminates clogging at Cowansville pump station

Groundbreaking pump technology minimizes energy usage, reduces maintenance costs

Cowansville in Quebec, Canada, located 20 miles north of the U.S. border, isn't lacking for charm. The rural small town of 15,000 residents pays homage to its loyalist origins with magnificent buildings and grand Victorian-style residences along Main Street and du Sud Street and in the historic Sweetsburg sector.

Challenge

Despite its small-town charm, Cowansville had an unpleasant wastewater issue. One of the town's pump stations, which receives wastewater from the neighboring municipalities of Brigham and East-Farnham, as well as septic tank sludge from the Enviro-5 treatment center, was experiencing a constant buildup of solids and fat.

The pump station is the fifth largest substation the Cowansville utility operates, with a capacity to pump 350 cubic meters per day (0.092 MDG). Despite the comparably low levels of wastewater, the pump station was faced with frequent instances of clogging due to high levels of debris, including wet wipes, rags and solid materials.

Constant grease accumulation also posed a problem for the pump station, with buildup reaching up to 45 centimeters (18 inches) in as little as three months. As a result, the station was shutting down at four or five times per year so station operators could unclog and clean the pumps.

Solution

In November 2019, the head of Cowansville's fixed assets division approached local Xylem distributor, Pompex, about the town's problematic pump station. In turn, Pompex invited him to attend a seminar organized in collaboration with Xylem on the Flygt Concertor packaged system.

To reduce chronic clogging and allow for reliable, uninterrupted pumping, Pompex and Xylem selected a solution that called for replacing the station's existing pumps with a Flygt Concertor packaged system.

The design of the Concertor pump, which includes a built-in pump reversing program, effectively self-adapts to reduce clogging due to standard debris, such as those created by non-dispersibles, sand and



The Concertor pump is lowered into position.

CUSTOMER: Cowansville, Quebec, Canada

CHALLENGE: A pump station in Cowansville that receives wastewater from neighboring municipalities and the Enviro-5 treatment center, was experiencing frequent clogging and buildup of solids and fat which required cleaning the station multiple times per year.

XYLEM SOLUTION: The town of Cowansville replaced two existing pumps with a Concertor pump package and Flygt MultiSmart Pump Station Controller

sludge. This high operational flexibility was key in addressing the station's ongoing issues with clogs due to flow and modern trash. Additionally, the utility valued the two-year clog-free guarantee the Concertor pump carries.

The solution also included Xylem's MultiSmart Pump Station Controller to simplify its waste and sewage water management processes. MultiSmart is an effective preventative maintenance tool that collects data and issues alarm control system alerts, enabling the utility to prioritize issues that truly require a technician call-out.

Since the installation and commissioning of the new Concertor system in May 2020, there have been no blockages.

"The transition was so smooth," the head of Cowansville's fixed assets division. "It was perfect."

Results

For the last 18 months, the Concertor has operated without disruption and there has been no grease build-up. This has resulted in significant cost savings, as regular maintenance call-outs are no longer necessary. Since the Concertor has been in operation, Cowansville has saved an estimated \$3,600 in maintenance costs, including vacuum truck cleaning, and the pump continues to operate without interruption.



The utility estimates the Concertor pump has saved the town \$3,600 in maintenance costs.



High levels of debris and grease accumulation once plagued the Cowansville pump station.



The pump station has been clog-free since the Concertor system was installed.

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