

Xylem delivers complex bypass pumping solution in record time

In October 2014, construction work began on a new municipal wastewater treatment plant in Mainvilliers, a town in the Eure-et-Loir region of France, located southwest of Paris. The new wastewater treatment plant would replace an existing plant located in nearby Lèves, which had been in operation since 1948. Due to aging infrastructure, the Lèves plant was no longer fit to serve the 160,000 residents from Mainvilliers, Lèves and the surrounding municipality of Chartres. During the final stages of the project, Xylem leveraged its extensive rental fleet to deliver a reliable bypass pumping solution in record time.

A complex challenge

When construction work on the new wastewater treatment plant was reaching completion, the construction company Sade began the challenging task of connecting the existing sewer inlet at the plant in Lèves to the new station in Mainvilliers. The construction work on the old plant's main manifold meant that the incoming wastewater had to be diverted and a temporary bypass pumping solution was needed to allow the pumping station to continue to operate without disruption. Sade called on Xylem to carry out the project.

Xylem proposed a state-of-the-art, environmentally-friendly rental dewatering solution which would offer the quickest turnaround at the lowest cost. Leveraging its extensive European rental fleet, Xylem deployed a team of expert engineers and work on the project began straight away.

Solution

Xylem supplied two Godwin CD225M Dri-Prime diesel pumps along with one Godwin CD400M Dri-Prime pump. The combination of diesel pumps allowed the temporary bypass to operate at maximum efficiency, offering a flexible solution for fluctuating wastewater flow levels. Each Godwin pump was fitted with a variable frequency drive (VFD), allowing operators to control the motor speed to ensure optimum operating efficiency throughout the project.

Customer: Sade

Challenge: To deliver a temporary bypass solution at Lèves Wastewater Treatment Plant

Offer: 2 x Godwin CD225M Dri-Prime pumps;
1 x Godwin CD400M Dri-Prime pump

Results: Temporary bypass pumping operation completed in just one week, facilitates seamless execution of complex sewer connection project



The old treatment plant at Lèves, before construction of the new plant began at Mainvilliers

Xylem also supplied twelve 400 millimeter (mm) pipes, measuring 3 meters (m) in length, to channel the discharge of wastewater away from a nearby river and avoid environmental damage. Xylem's Godwin pumps were equipped with Tier 4 diesel engines which reduce air pollution by minimizing the discharge of particulate matter and nitrogen oxides in the air, as well as providing enhanced engine control and reduced noise.

Results

Working alongside Sade, Xylem were able to deliver the project in just one week, all while minimizing environmental impact and ensuring regulatory compliance. The temporary bypass solution was customized to handle the fluctuating wastewater flow typically received by the old plant at Lèves, allowing for seamless wastewater pumping throughout the duration of the project.

“Xylem’s support during the 15-day bypass operation allowed us to meet the specifications of the project in record time. Drawing resources from its European network of rental hubs, Xylem deployed the necessary equipment and expertise quickly and efficiently, enabling us to deliver a reliable solution to the end-customer while ensuring continuous service. Xylem is a trusted partner and the team was integral to the success of the bypass application.”

Bertrand Pasquier, Head of SADE Normandy



The existing sewer inlet at Lèves is connected to the bypass system as the wastewater is transferred to Mainvilliers



Xylem's Godwin pumps, equipped with Tier 4 engines, minimize air pollution by reducing the discharge of nitrogen oxide, as well as providing enhanced engine control and limited noise pollution