

Case Study

BWSC, Kent

Flagship CHP biomass plant installs Weholite attenuation system



Weholite Systems

Weholite Surface Water Attenuation System.

Client

Burmester & Wain Scandinavian Contractor (BWSC).

End Customer

Kent Renewables.

Project

Construction of a new CHP biomass plant which will generate circa 27.8MW of green electricity, sufficient to supply up to 50,000 homes.

Purpose

To reduce the region's carbon footprint and reliance on imported fossil fuels.

Brief to SDS

To provide a bespoke surface water management system for this site.

Timing

August 2017.

Project Background Information

The Combined Heat & Power Plant (CHP) provides renewable heat and electricity to Discovery Park, one of Europe's leading Science & Technology Parks, located near Sandwich, Kent.

Any energy not used by the Park's resident businesses and activities is sent to the electricity grid to power homes across the region.

Project Objectives

To ensure the fast and efficient removal of surface water from the site and to ensure its safe dispersal.

Project Requirements

To integrate a surface water attenuation system to store and drain any surface water whilst avoiding ground settlement in the overlying log storage area.

Weholite Product Features

The system comprises of a 6-leg attenuation tank of 2.2 metre diameter HDPE pipe, fitted with fabricated manifolds at each end and fully welded in order to ensure resistance to ground settlement and maintain structural integrity under unique loading conditions. The client also recognised the benefits of the Weholite product's light weight, proven durability, resistance to abrasion and toleration of ground movements.

The product's versatile nature and ability to be delivered from its South Wales factory in a timely manner, in unique sections of pipework, ensured that this project could be delivered in just a two week period, saving the client several weeks on their initial projections.

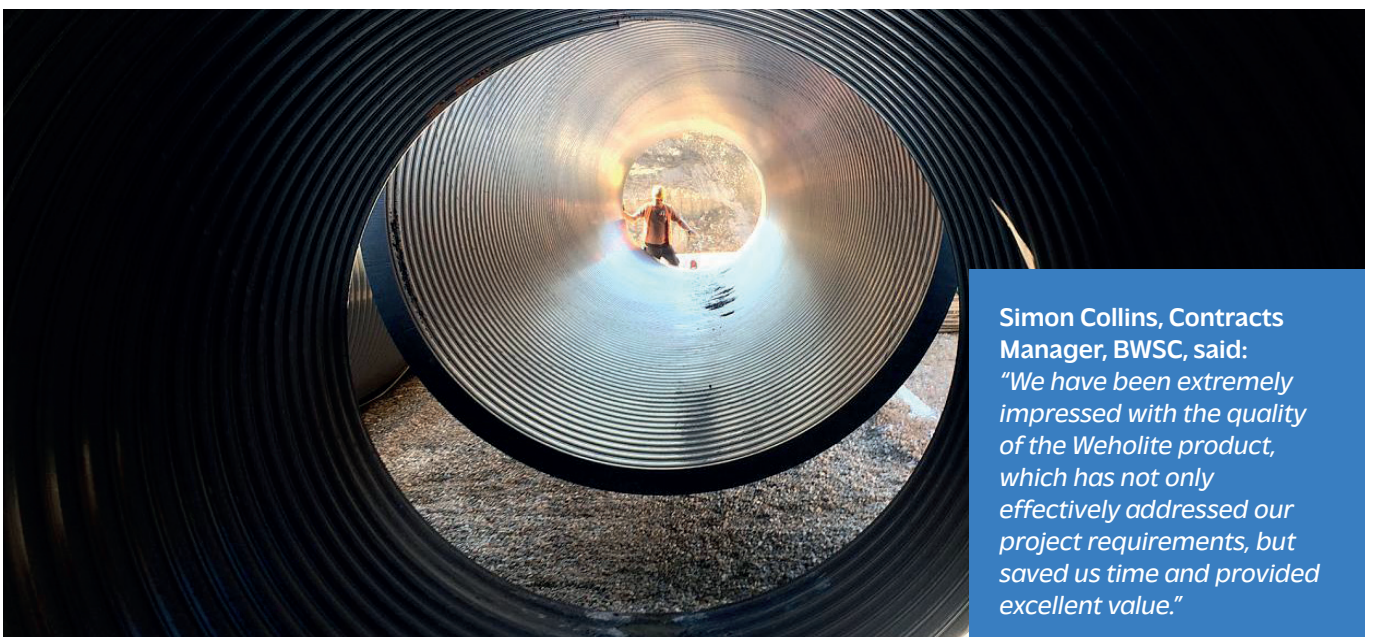
Capacity

The system has the capacity to store up to 940m³ of water.

Issues Overcome

The welded joints ensure that the HDPE pipe becomes a homogenous pipeline, capable of withstanding any ground settlement without compromising its structural integrity.

The material's ability to flex enables the pipe to adjust to different loading conditions, vibrations, stress and soil movements without causing damage to the structure. Positioned under a log storage yard, the system is able to withstand a worse-case load of 420kN on a single wheel of a Liebherr LH50 log loader.



Simon Collins, Contracts Manager, BWSC, said:
"We have been extremely impressed with the quality of the Weholite product, which has not only effectively addressed our project requirements, but saved us time and provided excellent value."