

CASE STUDY

Wastewater treatment for an Adventure Park

REWATEC | **CALONA**



QUICK FACTS

Application

Zip World Tower, South Wales, UK

Requirements

- A system that could cope with flow fluctuations and unexpected peaks
- A design that could manage concentrated wastewater streams
- Alkali dosing to meet the strict ammonia consent

Solution

Rewatec sequencing batch reactor (SBR) and Calona below ground storage tank

SITUATION

Zip World – a leading leisure company that specialises in providing unique and exhilarating adventures for the public, came to Premier Tech with a request for a new wastewater treatment system that could satisfy their specific requirements.

As the business is situated outdoors in the Rhigos mountain range, Zip World experience seasonal fluctuations and peaks (sometimes unexpected) in visitors, which their previous wastewater system could not manage. The large space required for their current “dysfunctional” system and the continuous emptying of the tank itself, also posed a challenge.

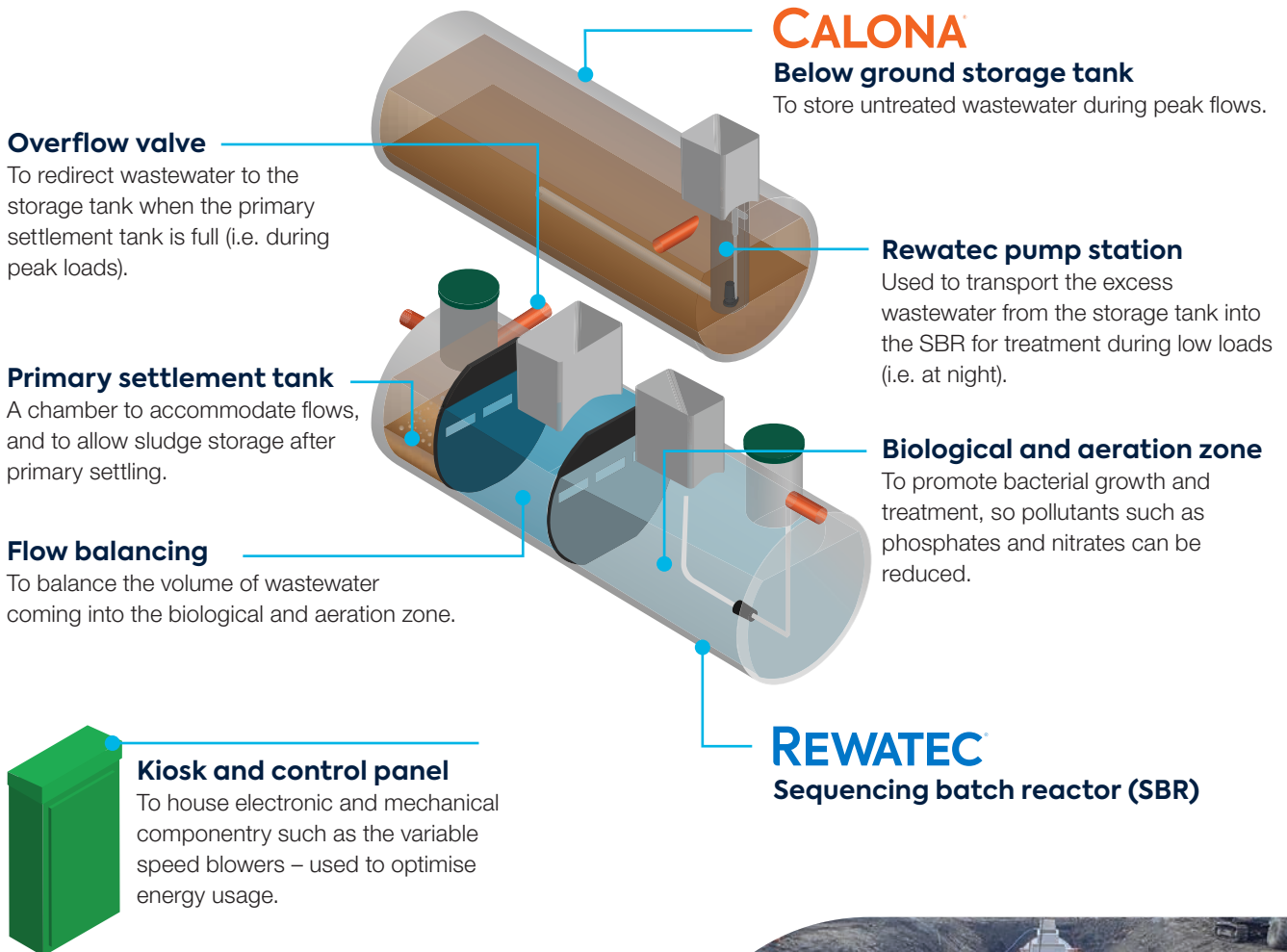
Due to the number of café's, restaurants and toilets on site, the wastewater that was generated was extremely concentrated, with very high levels of BOD and Ammonia (> 1200mg/L and 200mg/L respectively). As such, the consent for this system required the removal of BOD and Ammonia to a level higher than 98% for both pollutants (to reach < 5mg/L).

SOLUTION

After consulting with the experts at Premier Tech, a system comprising of a Rewatec SBR GRP sewage treatment plant – to meet the specific discharge consent for the expected flows, and a Calona below ground storage tank – to store wastewater during unexpected peak flows, were installed via our partners WCI Water & Wastewater Engineers.

In addition, due to the environmental sensitivity of the area, the system was also designed so that it could be configured for the biological removal of total Nitrogen including nitrates and total Phosphorus including phosphates, should regulations be tightened in the future.

The Rewatec SBR and Calona below ground storage tank are manufactured from robust GRP material. The set up and associated features for this particular project are outlined below:



CONTACT US

Premier Tech provide expert consulting and bespoke solutions to meet the exact needs of our customers and professional partners. Talk to one of our experienced in-house engineers to discuss your project requirements today.



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