



Press Release

13 April 2018

Bluewater Bio Limited

(“BwB” or the “Company”)

South West Water to install Bluewater Bio’s HYBACS process to upgrade its Newquay sewage treatment works in Cornwall

HYBACS selected in response to significant seasonal load increase at treatment plant

Bluewater Bio Limited, a leading provider of treatment solutions to the water industry, is pleased to announce that South West Water Limited (“SW Water”) has selected Bluewater Bio’s enhanced activated sludge process, HYBACS[®], to upgrade Newquay Sewage Treatment Works (STW). The site, which serves Newquay, Crantock and Porth, has a catchment area covering a major tourist destination with popular beaches. Built in the 1990’s, the existing plant treats a resident population equivalent (PE) of approx. 55,000, however during the busy summer months the works can receive an additional 40,000 – 50,000 PE, especially during the busy Boardmasters¹ festival during mid-August.

The upgrade at Newquay will include the installation of four SMART[™] Units to convert the existing conventional activated sludge process into a HYBACS configuration, BwB’s proprietary – **HYBrid ACtivated Sludge** – process. By the simple installation of SMART[™] units upstream, far greater biological loads can be treated within the existing aeration volume and the seasonal demand increase economically addressed. Furthermore, the rapid settlement characteristics of the HYBACS mixed liquor further alleviates any downstream overloading of the clarifiers.

The existing works at Newquay consists of primary settlement, an oxidation ditch with a small selector tank and two final clarifiers. The highly seasonal demand increase is an annual challenge for South West Water’s operations teams where populations can double over a bank holiday weekend. The original works was designed to cater for modest amounts of load fluctuations but preparing a biological process for a rapid change in load remains a significant operational challenge. By addressing the rate limiting biological step, namely Hydrolysis, HYBACS is able to

¹ www.boardmasters.com

more rapidly respond to these changes than other biological solutions and therefore makes it an ideal solution at Newquay.

The SMART units themselves are assembled and tested offsite in accordance with the principles of Design for Manufacture and Assembly (DfMA). This reduces the duration and risks associated with site work and ensures factory quality QA. South West Water's delivery partner Tecker will construct the pumping arrangements in such a manner that the units can be fully installed off-line meaning that treatment process remains fully functional during construction.

Fergus Rooksby, Commercial Director of Bluewater Bio, commented: "We look forward to working with South West Water in helping them alleviate the seasonal demand increase at their Newquay sewage works. HYBACS will provide a significant uplift in treatment capacity within a relatively short timescale, without impacting on the works. HYBACS' ability to increase capacity swiftly and simply, with minimal operator intervention makes it an ideal solution for SW Water and their delivery partners. Additionally, the scalability of the process means that SW Water can promptly and effectively respond to any changes in seasonal population volume, and therefore loading, into the works."

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For further information or to arrange a briefing, please contact:

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About Bluewater Bio

Bluewater Bio is an award winning global specialist in technologies for cost-effective water & wastewater treatment. Headquartered in London, Bluewater Bio's range of best in class technologies have been deployed at over 80 sites globally.

Next generation proprietary technologies

With several fully commercialised technologies proven at utility scale, complemented by an active New Product Development pipeline, Bluewater Bio's capabilities now include:

- HYBACS® (enhanced activated sludge process)
- FilterClear™ (high throughput multi-media filtration)
- CFIC™ (second-generation moving bed bioreactor)
- GHG-Tox® (nitrification and greenhouse gas monitoring)
- NeoTech™ (highly efficient UV system)
- Operational & Maintenance services (supporting a population equivalent of c. 1 million)
- World Class R&D team, based at Cranfield University, UK

Bluewater Bio's growing technology portfolio is focused primarily on the rapid upgrading, optimisation and monitoring of water and wastewater treatment plants.

The company has a particular emphasis on reducing:

- Capital, operational and compliance costs
- Energy & chemical consumption
- Physical & environmental footprint
- Greenhouse gas emissions
- Construction and commissioning times

Bluewater Bio not only develops its own innovations but also scours adjacent markets for complementary IP, licence opportunities and partnerships.

Through this aggregation strategy, Bluewater Bio aims to be the natural choice for cost effective treatment, re-use and monitoring provision across the water, wastewater and process industries.