

A photograph of industrial equipment at a wastewater treatment plant. On the left is a large black cylindrical tank with red pipes and blue valves. To the right is a complex system of red pipes, blue valves, and metal frames. In the foreground, there are several black and yellow striped safety bollards. The background shows a clear sky and some trees.

Site upgrade works at Market Drayton Wastewater Treatment Plant

OnSite was contracted by Severn Trent Water (STW) to carry out site upgrade works at Market Drayton Wastewater Treatment Plant as part of a newly established Batch X Direct Delivery Model. This included the installation of a new chemical dosing plant and the construction of a tertiary solids removal (TSR) system and associated equipment.

The additional treatment plant will meet the strict Environment Agency regulations by bringing phosphate, ammonia and iron levels down and filtering out any contaminants to clean the water before sending it back out to watercourse.



Scope of works

The project involved civil, mechanical, and electrical works, including:

- **New ferric dosing system:** A critical component for managing phosphorus levels in treated water, ensuring compliance with regulatory standards.
- **Installation of TSR plant and pump station:** This included setting up the infrastructure to support sludge treatment and pumping, optimising the facility's operational efficiency, installing dirty and clean backwash tanks for improved filtration system maintenance and comprehensive backwash pipework for transferring backwash water within the plant.
- **Electrical infrastructure:** New motor control centre panels and local control panels were installed to manage and monitor operations across the facility. Extensive Telemetry and Cabling was installed to support SCADA connectivity, enabling real-time monitoring and control.
- **Site enhancements:** Additional work included new roads, footways, and utility service realignments, along with modifications to existing storm tanks to increase capacity and operational resilience.
- **Sustainable procurement:** OnSite processes not only achieve cost-effectiveness but also support broader environmental and social goals, making the project beneficial for the company, community and environment.



Project challenges

OnSite's expertise in asset replacement and refurbishment within wastewater industry was put to full test as the installation and commissioning timescales were cut down to several weeks. The tight timescales meant that normal design then build procedures had to be adapted to achieve the regulatory date. The design was phased to allow elements of the construction work to commence while other design works were run in parallel, and weekly collaborative planning sessions helped drive the programme along with early engagement of the supply chain.

Initial investigations failed to show that the ground was heavily congested with utility services and that the original plant location was not suitable for construction of permanent equipment. The only area suitable was outside the works on an old waste disposal site. Following a redesign, the area was utilised by use of steel tubular piles and the installation of a concrete raft base.

The construction of the additional treatment plant on a live site meant that a large part of the works had to always remain accessible and OnSite worked closely with the operational team to ensure that they could access the treatment works in times of emergency.



Project outcomes

- Achievement of regulatory date for our client
- Total transparency from a contractor and client perspectives
- Collaborative integrated way of working throughout delivery, including shared problem solving and utilising each other's resources when required

The project was completed safely with no lost time injuries or RIDDORs, a testament to the collaborative, integrated way of working between STW, OnSite and the supply chain throughout the delivery of this Batch X project.

The OnSite logo, featuring a stylized blue 'S' icon followed by the word 'nSite' in a grey sans-serif font, with a small 'TM' trademark symbol.

Want to read more?

Established in 1977, OnSite is part of SSI Services (UK) Ltd, a division of South Staffordshire Plc and has grown through strategic acquisition and organic expansion to become one of the UK's leading providers of specialist contracting services.

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