

Flow and load survey at Thames Water's Mogden Sewage Treatment Works (STW)

Aqua Enviro has recently completed a detailed flow and load survey at Thames Water's Mogden Sewage Treatment Works (STW), situated next door to Twickenham Stadium, the 'Home of England Rugby'. This survey commissioned by MWH incorporated over 60 sample points, producing 1600 samples, analysed for over 7000 determinands during the 11 day survey period. Flow monitoring was provided throughout the works to allow comprehensive performance data to be obtained.

Mogden STW is the second largest sewage treatment works in the UK, treating wastewater from nearly 2.0 million population equivalents and a catchment area of approximately 160 square miles. Plant monitored at the works included five banks of Primary Settlement Tanks, five banks of Activated Sludge with associated Final Settlement Tanks. Sludge thickening processes and anaerobic digesters are also monitored with sludge cake and return liquors collected off-site from a nearby dedicated dewatering facility. Aqua Enviro's dedicated site team integrated seamlessly with both Thames Water Operational Staff and Contractor partners on site to deliver the flow monitoring and analysis programme throughout the works.

Aqua Enviro provided a fully managed site service, installing flow-monitoring and sampling equipment at strategic locations throughout the STW during a two-day setup period. Health and safety was managed in direct liaison both with Thames Water's operational and engineering staff. Works were completed during the Rugby World Cup 2015 which created additional challenges, not least site access constraints during match days.

Rowland Minall (Operations Manager, Aqua Enviro) said,

"Working with Thames Water on this interesting and challenging project was a fantastic opportunity and our team of site staff, laboratory staff and project managers have successfully delivered an excellent project".

Tregan Ru (Senior Engineer from Thames Water), responsible for driving the Sampling Project said

"I've been incredibly impressed with the team, in so far as their ability to quickly gain a reasonably good understanding of a complex works, their rapid response to minor operational changes on site and willingness to adjust the sampling plan to ensure the best outcome. Rowland and his team have fully embraced Thames Water's safety culture and completed the site work with Zero incidents, Zero harm and Zero compromise. I look forward to receiving the results and final report".



Data from the study will be used by MWH and Thames Water to complete a calibrated dynamic model (Biowin) of the wastewater and sludge treatment processes. The model will be used for simulating potential process changes, optimising the works to gain Capex and Opex benefits throughout AMP6 and beyond. This is one of the continuing efforts Thames Water makes to increase efficiency and keep bills affordable for customers.

For more information about Aqua Enviro's services please contact Business Development Manager Paul Lavender on 01924 242 255 or email paullavender@aquaviro.co.uk

At Aqua Enviro, we can help our clients reduce their costs and meet their sustainability targets through water reduction and reuse, resource recovery and process optimisation. We achieve this through our range of comprehensive services around environmental sustainability which include consultancy, laboratory trials and analysis, process engineering and research.

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