



Case Study

ENHANCING EFFICIENCY: A COMPREHENSIVE FLOW AND LEVEL SURVEY CASE STUDY FOR SEWAGE TREATMENT WORKS



INTRODUCTION

Detectronic Ltd was commissioned to conduct a comprehensive flow and level survey at a Sewage Treatment Works (STW) in the UK, serving a population of 3000. With flows transferred to the STW via three end-of-line pumping stations, the objective was to establish a full understanding of the flow control interfaces of the main process and the existing hydraulic performance/response of the site.

IMPLEMENTATION

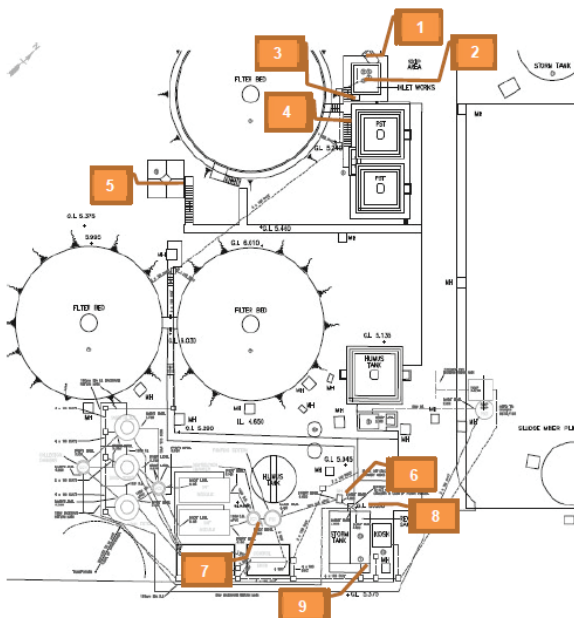
An 8-week flow survey was conducted, capturing data across various dry and wet weather flow conditions. Data was seamlessly transmitted to a cloud-based data management platform, enabling real-time review and analysis. Thirteen monitors were strategically installed across nine locations within the plant, each tailored to monitor specific flow types and installation types.

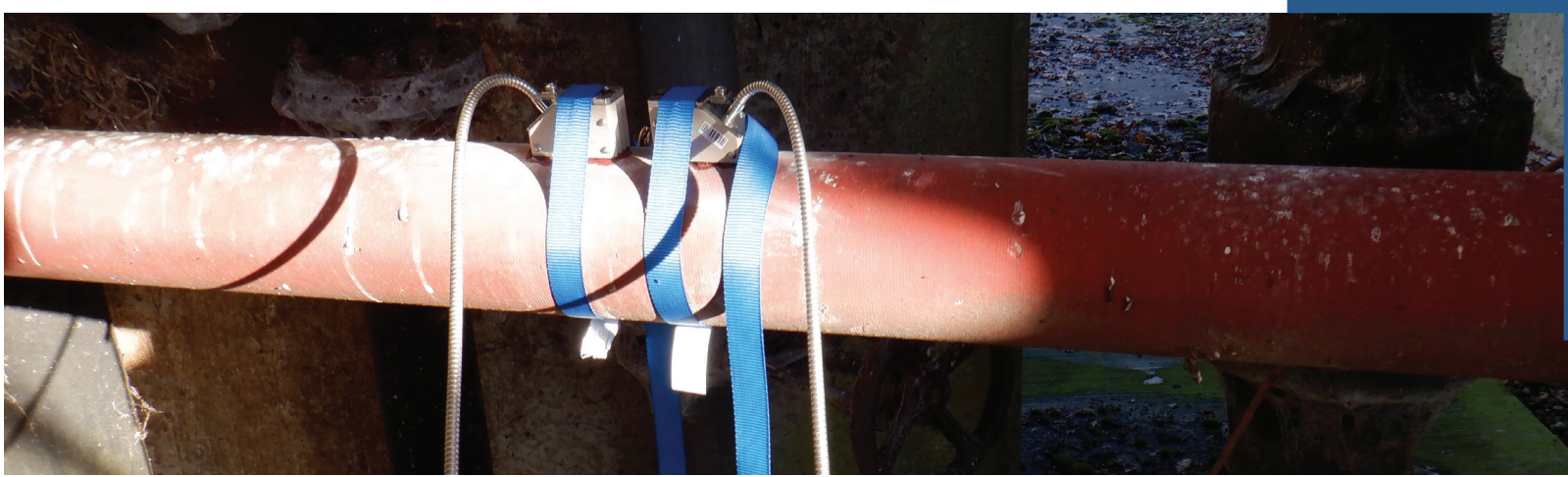
RESULTS

The utilisation of the cloud-based data platform facilitated timely data review and adjustments, optimising survey efficiency. Analysis of the collected data provided insights into the site's interaction with the local sewer network, informing the development of hydraulic and process models. This comprehensive approach not only enhanced understanding but also laid the foundation for improving operational efficiency and performance.

KEY OUTCOMES

1. Enhanced Understanding: The data collected and analysed provided a detailed understanding of flow dynamics and site interaction with the sewer network.





2. Improved Efficiency: Insights gleaned from the survey facilitated the development of hydraulic and process models, paving the way for efficiency improvements.
3. Real-time Monitoring: The cloud-based data management platform allowed for real-time review and adjustments, ensuring accuracy and reliability throughout the survey.



SAF Feeds location

CONCLUSION

Detectronic's comprehensive flow and level survey at the STW exemplifies a proactive approach to optimising sewage treatment processes. By leveraging advanced monitoring technologies and data analytics, the project not only provided valuable insights but also laid the groundwork for ongoing efficiency improvements. This case study underscores the importance of proactive monitoring and analysis in enhancing operational performance within sewage treatment facilities.



Final effluent location



Rising Mains location

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