

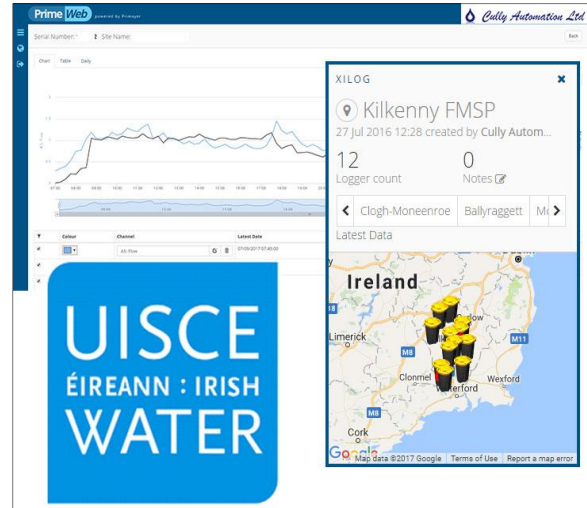


Flow monitoring solution County Kilkenny, Ireland

Introduction

Irish Water identified a significant deficit in flow monitoring and load measurement across various treatment facilities, pump stations and storm overflows. As part of the Environmental Protection Agency (EPA) Urban Waste Water Discharge (Authorisation) Regulations 2007 there is a requirement to provide adequate levels of flow metering and load measurement to enable appropriate assessment of volumes and quality of sewage treated or otherwise discharged from networks.

The initial focus of investment was on the treatment plants where compliance with Urban Waste Water Directive was impacted by lack of appropriate metering infrastructure and plants that were reported to be operating at, or near, design capacity.



Network information available online



PrimeWeb data chart enabling operator analysis of XiLog flow and depth readings

The Challenge

Irish distribution partner, Cully Automation Ltd, were successful in a tender process to design, supply, install, commission and then verify flow monitoring and load measurement at twelve Wastewater Treatment Plants (WWTPs) in County Kilkenny. This project was an essential constituent of Irish Water's national flow monitoring and sampling programme. The full solution involving design plus installation was completed in July 2016.





The Solution

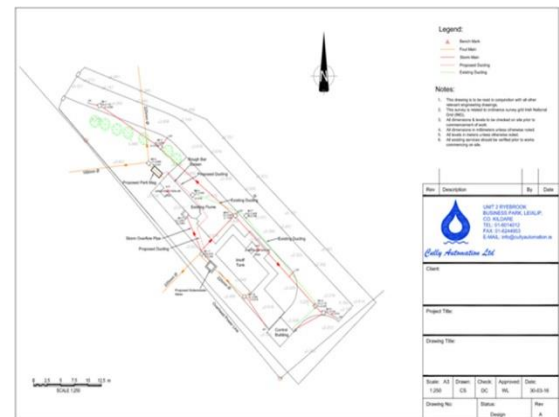
Cully completed a detailed survey of each site to identify the scope of works and record all site-specific information. Once the site was surveyed the site-specific design was completed with a complementary method statement. This ensured that the proposed technical solution was articulated clearly to all stakeholders prior to implementation. Site, flume and seasonal characteristics were considered to select the correct flow measurement equipment for each site. Depending on the site and application a selection of the following were utilised; partially filled pipe electromagnetic flow, multi correlation Doppler, V-Notch weir tank with ultrasonic level, influent and effluent samplers.

The Result

Achieving full compliance to Irish Water's regulatory requirement to implement flow monitoring at its urban waste water plants was crucial to the success of the contract. Cully has made great strides in delivering flow monitoring solutions in partnership with Primayer. This particular flow monitoring solution supported by approximately 171 XiLog+ loggers continues to provide a detailed view of Irish Water's County Kilkenny waste water treatment plants' environment. The depth and flow alarms, set on agreed parameters, allow operators to intercept issues immediately and take remedial action. There has been significant issues highlighted to operators by the PrimeWeb analysis tool. The process is now proactive to ensure regulatory limits are achieved. The robust design is such that long-term ongoing measurement means that this investment will continue to offer value for many years.



Doppler sensor installation



Site design



Multi-correlation doppler sensor installation



Flowmeter installation

“The reliability and resilience of the Primayer’s XiLog+ along with its proven data integrity gave us total confidence to recommend this full monitoring solution to Irish Water. We knew we could deliver what we promised!” Mr David Cully, Cully Automation Limited



Primayer Limited

Primayer House, Parklands Business Park
Denmead, Hampshire PO7 6XP, United Kingdom
T +44 (0)2392 252228 F +44 (0)2392 252235
E sales@primayer.com
www.primayer.com



Information in this document is subject to change without notice.