

Sewage Source Exposed and Remediated

When our client noticed pollution in the watercourse running through their private property, they approached Envireau Water's expert team to help determine the source of the contamination and find a solution to the issue.



The Challenge

Our client was experiencing ongoing issues with foul smelling and unsightly dirty water in a watercourse running through their private property.

The source of the contamination needed to be determined in order to find a solution to the issue, but with the site being located in a heavily urbanised area, there were numerous potential sources. The watercourse is situated within a local sewerage network which relies upon the operation of several combined sewage outfalls (CSOs) during storm events. This was expected to be the most likely cause of the pollution.



The Envireau Way

Our expert team began by thoroughly assessing the hydrology of the site which enabled them to understand the frequency of contamination incidents and the possible sources and routes of pollution. Installation of an In Situ AquaTroll 600 and an ISCO flow meter enabled an understanding of flow patterns in the watercourse and key trends in water chemistry that allowed our experts to devise a detailed programme of monitoring. The programme consisted of intensive water sampling targeted at specific periods when water input was expected and the collection of water samples to enable analysis for chemical parameters attributed to several different dirty water sources. As the water was suspected to contain a sewage component, parameters that could be affiliated with untreated domestic sewage were included in the analysis suite.



Meticulous analysis of the field data enabled our team to provide a strong evidence base that untreated sewage was entering the watercourse. Scrutiny of both short and long-term data showed there was potential for occasional pollution events because of CSOs upstream of the site, but they were not the source of pollution that was occurring daily.

In light of the findings, our team initiated consultations with the local sewerage undertaker and regulators to establish a suitable course of action. Discussions succeeded in ensuring the watercourse was included within the local sewerage undertaker's next Asset Management Planning (AMP) cycle. The local sewerage undertaker also committed to intrusive investigations that identified an area within the network that contained a significant number of cross-connections from private properties and were previously unknown to the authorities.



The Result

The comprehensive investigation undertaken by our team enabled the frequency of contamination incidents to be understood and the source of pollution identified. The robust data set, combined with our strong liaison skills, enabled effective discussion with the local sewerage undertaker and the Environment Agency, resulting in the watercourse being placed onto the next AMP cycle. This will result in a long-term improvement in the quality of water within the watercourse whilst in the meantime, our client's water quality will continuously improve as cross-connection issues are remediated.



Need our help?

Envireau Water specialises in designing and installing monitoring schemes to provide robust data sets. Our expert team has the skill set to analyse data and identify root causes of pollution. Working collaboratively with local sewerage undertakers and regulators allows the optimal solution to be pursued, ensuring issues are dealt with properly and in a timely manner.

If you need support email us at info@envireauwater.co.uk or give us a call on 01332 871 882.



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