

Case Study

Microscreen trialled to ensure compliance at rural works

Challenge

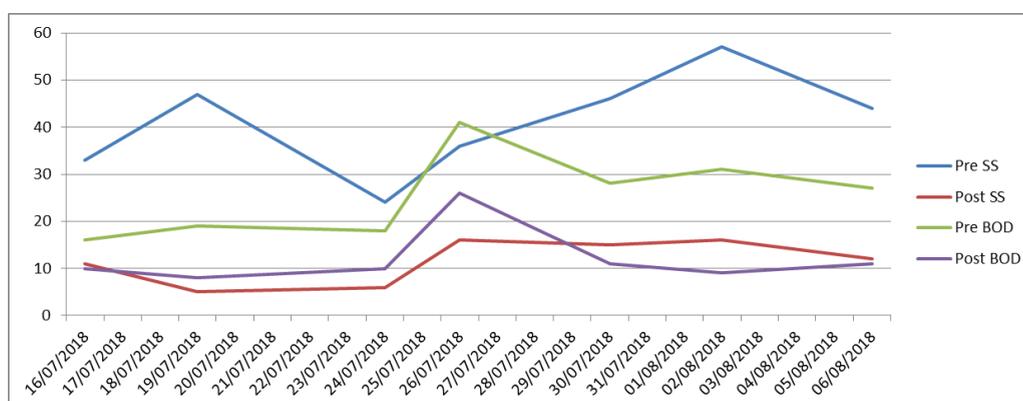
Increased flow at Scottish Water's Ancrum wastewater treatment works, which discharges into the adjacent River Ale, meant that the existing final settlement tank had become slightly undersized for the needs of the site.

Solution

To ensure environmental compliance at Ancrum wastewater treatment works in the Scottish Borders, WPL quickly provided a Clic-Clo Microscreen as a hire-trial solution. Starting in July 2018, the trial took place over a nominal three-month period and regular samples were taken to ensure removal of biological oxygen demand (BOD) and suspended solids (SS) to meet standards for discharge set by the Scottish Environmental Protection Agency.

Following the installation, the Borders and the rest of the UK experienced an unprecedented dry spell which had a significant impact on wastewater treatment at Ancrum. The weather meant the required retention time and solids load increased, so the screen was operating under extraordinary conditions, however the microscreen continued to be highly effective to help meet stringent discharge consent standards.

The graph (below) shows the reduction in BOD and SS from samples taken after Microscreen filtration. The data shows that the WPL Clic-Clo Microscreen is highly effective in keeping the site compliant for discharge to the adjacent River Ale.





Following the trials, Scottish Water decided the WPL Clic-Clo Microscreen offered the best solution for Ancrum wastewater treatment works and made a purchase.

Ian Storie, asset planner wastewater, Scottish Water, said, “Operating and maintaining our wastewater treatment works to reduce the likelihood of pollution and protect the natural environment is one of our priorities. The success of this trial with WPL, especially under the challenging hot weather conditions experienced in the summer, opens up the treatment options available to help meet discharge standards at our rural sites.

“In fact the trial was so successful that we have purchased the unit to make the installation permanent.” He told how there were a number of sewage treatment works across Scotland that occasionally require additional treatment to polish final effluent and assist with BOD compliance.

Value to client

The utility has committed to improvements based on three principles: robust scientific evidence that discharges are having an impact; that the proposed investment offers a clear benefit and that investing in assets is the most sustainable way of achieving the required environmental outcome. Once the key principles have been passed all the available options are investigated to identify the solutions.

Scottish Water is publicly owned company, answerable to the Scottish Parliament and the people of Scotland. It provides 1.34 billion litres of drinking water every day and takes away 847 million litres of wastewater daily.



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