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Telephone: 01925 237000

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Our ref: EIR-552

Date: 21/10/2025

Email: EIRRequests@uuplc.co.uk

Dear [REDACTED]

Thank you for your request for environmental information. We appreciate your interest, and we want to let you know that your request has been carefully considered in accordance with the Environmental Information Regulations (EIR). As your request contained a number of specific questions, this response, restates each part of the request (in bold) and then follows this with our response:

It's great news that both you and the EA are testing the water quality output from the Troutbeck plant. Can you please share with me the results of all of your tests and EA tests for the past ten years? Please can this include all parameters that you were assessing, such as flow, suspended solids, BOD, ammonia, phosphorus, nitrate and pH.

Please see attached a copy of the incoming flow data (Appendix 1), and final effluent sample data (Appendix 2) for Troutbeck wastewater treatment works (WwTW). Please note that a flow meter was only installed at Troutbeck WwTW in July 2025, therefore only able to provide you with a copy of the flow data from 17 July 2025 to 6 October 2025, as prior to this, flow was not measured.

For awareness, all laboratory methods have a Limit of Detection (LOD). This means that the method cannot read lower than a certain value. Any results marked as less than the LOD means that the result is lower than the lowest quantifiable value that the method can detect. In this dataset, results less than the LOD are marked 'LT', and results greater than the highest quantifiable LOD are marked 'GT'.

Additionally, a lot of water quality data is already within the public domain – and is published on the Environment Agency's Water Information Management system, specifically the [Open WIMS](#) platform which provides access to its water quality data for sites like Troutbeck.

It's good news that the plant at Troutbeck is being upgraded. Can you please share with me which model of Fujiclean you will be deploying?

The solution for Troutbeck will include installing two CRX50 units.

Can you be more specific on exactly how the new Fujiclean will bring benefits? I assume you must have some targets to justify the investment. Expected performance data and percentage reductions would be really helpful for phosphorus, nitrogen, ammonium, biochemical oxygen demand and suspended solids, as well as any other criteria you measure. I am aware that you have trial sites with Fujicleans across your region. Please can you provide all the data that you have collected from these trial sites, and compare these

results to the sampling of the current treatment plant?

The full solution at Troutbeck, which includes tertiary solids removal as well as FujiClean, will deliver performance to meet the new permit of 30 mg/l BOD, 45 mg/l SS, 20 mg/l ammonia, 0.5 mg/l phosphorus. All sample data collected as part of the FujiClean trial can be found in Appendix 3.

For awareness, we were interested in trialling the Fujiclean system as it offered high quality effluent with chemical free phosphorus removal for septic tank sites and small wastewater treatment works. The pilot trial data shows good performance of the Fujiclean system even under these scenarios and this combined with operational data from global applications and other formal testing environments gave us confidence to deploy the system in a live environment at Whitegate WwTW, Shropshire. We plan to monitor the performance of our first installation in order to determine suitable further applications.

Some specific points to note are:

- The unit was installed in a temporary, above ground installation for the trial
- The data is split across four distinct testing phases:
 - Seeding and Baseline testing
 - Hydraulic stress testing
 - Phosphorus spiking of crude
 - Storm scenario testing
- The aim of the hydraulic stress testing was to determine the operating limits of the machine and some of the data provided has been collected under stress conditions
- During some testing, the crude phosphorus concentration was artificially increased using sodium dihydrogen orthophosphate. This was conducted to stress test the unit against stronger phosphorus concentrations
- During the storm scenario testing, the flow presented to the unit was increased over a short period to replicate a storm event. This was conducted to understand the impact of a high rate of change in flow on effluent quality

You may wish to view other reports which detail the performance of Certified Small Wastewater Treatment Systems including FujiClean on the British Water [website](#). You may also wish to view the FujiClean UK [website](#) which explains the technology in more detail.

Good news that it will have a lower carbon footprint. Can you be more specific about what this statement means?

Our experience with FujiClean solutions show great opportunity to support out carbon emissions reduction goals, more specifically, this relates to:

- **Chemical-free phosphorus removal** – FujiClean uses electrodes to provide phosphorus removal from wastewater via electro-coagulation, eliminating the need for carbon intensive chemical dosing, which can create a carbon footprint associated with chemical production and transport.
- **Low energy requirement** – FujiClean features low energy blowers compared to some more traditional solutions.
- **Reduced vehicle movements** – the system requires less frequent emptying compared to conventional septic tanks and there are no tanker movements required for chemical deliveries.

- **Compact and modular design** – FujiClean units are small and modular, and provide a number of different treatment process stages in a single unit, making them ideal for full site replacement schemes or new builds. Package plants like this can be installed more efficiently, helping to reduce construction activities on site, leading to embodied carbon benefits and a reduction in vehicle movements.
- **Decentralised treatment** – by enabling excellent treatment performance at small, remote sites, FujiClean reduces the need for long pipelines or pumping stations – both of which are carbon-intensive to build and operate.

We hope that this response answers your request. However, if you're not satisfied with how we've handled it, you can request an internal review. To do this, please write to us at Environmental Information Office, Haweswater House, Lingley Mere, Warrington, WA5 3LP or email us at EIRRequests@uuplc.co.uk, addressing your request to [REDACTED], and explaining why you're unhappy with our response. We'll be very happy to review your request and ensure we've done everything we can to assist you.

Any request for an internal review should be made within 40 working days of receipt of this response, and we will reply within 40 working days from receipt of the request for internal review.

Many thanks

[REDACTED]

We'd love to hear your feedback on how we handled your request! If you have a moment, please complete our short survey [here](#) – your input helps us improve our service.