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Warrington WA5 3LP

Telephone: 01925 237000

unitedutilities.com

Our ref: EIR/ID275
Date: 13/02/2025
Email: EIRRequests@uuplc.co.uk

Dear [redacted]

Firstly, I want to apologise for the delay in response, and secondly, thank you for your recent request for information regarding our investment into the storage facility at Ambleside Wastewater Treatment Works (WwTW), and the factors influencing its size. Your request has been considered in accordance with the Environmental Information Regulations 2004 (EIR).

As part of our commitment to improve drainage infrastructure and reducing flood risk and spills to the environment, we have undertaken extensive analysis to determine the appropriate scale of this solution (explained in more detail below), which primarily involves hydraulic modelling. As we gather more information through the ground investigations to date, we may refine or adapt our approach to achieve the best possible outcome. We remain absolutely committed to keeping the community informed as this work continues and as it goes through the necessary planning process.

We have broken down our response into three sections:

- **Network Modelling** – this gives insight into the method taken to establish tank size requirements
- **Options Explored** – this section will demonstrate the different tank size options considered
- **Impact Assessment** – to give you an overview of what impact assessments have taken place and an update on the planning application process

Network Modelling
We have developed solutions for Ambleside to improve storm overflows and meet the regulatory target of an average 10 spills or less per year, by 2030. This work is supported by hydraulic modelling, which is built, verified and applied in accordance with the Chartered Institute of Water and Environmental Management (CIWEM) Codes of Practice for hydraulic modelling. The model is a deterministic mathematical representation of the sewer network.

To account for future capacity pressures, the model has been adjusted to a 2050 planning horizon, incorporating factors such as climate change impacts on rainfall, population growth and urban creep. A ten-year rainfall series, based on historical records and adjusted for climate change, is run through the model to assess future system performance, and determine the necessary solutions to achieve the spill reduction target.

As this process is complex, we would be happy to arrange a meeting to provide further context and explain how we use our models in developing these solutions.

Options Explored

- 5800m3: This was the initial volume estimate based on a model run in 2020. At this stage, there was no allowance for an increase in treatment capacity at the site.
- 22000m3: This volume was determined following updates to the model to better replicate observed performance of the overflow, particularly the long drain down of the catchment. Additional flow was added to the model replicate contributions from overland and/or rainfall induced infiltration. This was an indicative storage volume, and it was not considered to be a viable solution.
- 6000m3: This storage volume was determined at the start of the detailed design phase. By discounting extreme rainfall during 2015 and increasing treatment capacity. This was determined to be a viable option.
- 4500m3: This volume was determined in the detailed design phase. By discounting extreme rainfall during 2015 and ensuring a continuous flow through the site as the tank was drained down. This was determined to be a viable option.

For all volumes considered it was assumed that the tank will be located close to the existing storm storage tank and would fill by gravity with a pumped return.

Impact Assessment

As part of the planning application process, a range of assessments have been carried out, including ecology, arboriculture, flood risk, construction traffic and landscape assessments. There have been some delays in finalising the application, which has affected the timeline for its publication. However, once the planning application is formally registered, all assessments will be made publicly available on the relevant website for transparency and public review.

As mentioned above, we would be happy to arrange a meeting to provide further context and explain how we use our models in developing these solutions. Please let us know if you would be interested, and we will connect you with the relevant contact in the organisation.

Should you consider that we have not adequately complied with our obligations under EIR, you have the right to ask us to carry out an internal review of our response. This can be done by writing to [redacted], Environmental Information Office, United Utilities, Haweswater House, Lingley Mere Business Park, Lingley Green Avenue, Great Sankey, Warrington WA5 3LP. Alternatively, you may find it easier to e-mail us directly on EIRRequests@uuplc.co.uk, quoting the above reference, and your review request will be forwarded on to [redacted].

Any request for an internal review should explain why you wish a review to be carried out, and should be made within 40 working days of receipt of this letter, and we will reply within 40 working days of receipt. If you are not satisfied with the result of the review, you then have the right to make a formal complaint to the Information Commissioner.

Many thanks
EIR Team