

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).

Your request

Please can I be provided with access to the real-time monitoring data that is being collected by the new water quality sondes that have been installed in Windermere.

Our response

The data referenced in your request is being collected as part of the EnvAct_INV2 Continuous Water Quality Monitoring Investigations (Inland Complex environments).

This investigation is a time limited, industry-led research and evidence-gathering activity, established to test the suitability of different monitoring locations, equipment, parameters and methodologies for inland complex receiving waters that may be influenced by storm overflows and wastewater treatment works discharges. Its purpose is to inform the design of future monitoring installation programmes in later AMP periods, rather than to provide an operational or regulatory monitoring dataset.

The monitoring undertaken under this investigation is therefore:

- Exploratory and trial based in nature
- Subject to ongoing refinement, validation and interpretation
- Focused on assessing monitor performance, siting effectiveness, data quality and limitations
- Not intended to represent real-time environmental status or compliance reporting

This investigation will help us understand how real-time monitoring across different inland complex environments could effectively be deployed in AMP9 and beyond.

At this moment in time there is no publicly accessible platform with live data feeds. The data requires appropriate contextualisation and quality review before it can be interpreted meaningfully. As such, we are unable to provide you with this in line with Regulation 12(4)(a) of the EIR as we do not have a publicly available platform.

However, to support transparency and engagement, we will:



Water for the North West

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- Provide the raw data captured to date, with appropriate caveats regarding its investigatory and unvalidated status; and
- Proactively provide subsequent raw data on a quarterly basis for the duration of the investigation.

This data will be made available as raw datasets, accompanied by clear explanation of its purpose, limitations and the fact that they are being collected solely to inform future monitoring strategies and installation programmes.

Any future public dissemination of live or operational data would be considered only once monitoring approaches have been finalised, formally implemented, and commissioned under an agreed regulatory and governance framework in a future AMP period.

As above, please take the following important points into account when reviewing the data:

- **Accuracy** - accuracy of sensors is as per supplier data sheet, noting that these are accuracies and not uncertainties. All sensors can be impacted by application and environmental factors whereas the stated accuracy results are typically achieved against traceable standards.
- **Maintenance** - all equipment will be maintained in accordance with manufacturer recommendations.
- **Sensors** - most sensor technologies used are those typically found in systems utilised by the Environment Agency, UKCEH and FBA amongst others. Typically, these are used for studies but also align with the recent Environment Act Section 82 requirements. In addition, fluorescent/optical technologies will be tested, however, these will need to be trained to local samples over a period of time to better understand their performance.
- **Ammonium** - ammonium is monitored utilising Ion Selective Electrodes (ISE) which have a stated accuracy of +/-2mg/L. In addition, ammonia is derived from ammonium, pH and temperature readings.
- **System Errors** - where a revealed error occurs in the system this will be flagged automatically through the system. Unrevealed errors (coating, interference, drift, environmental etc) can sometimes be detected through the data however the trial will look to discover what is possible.
- **Random Data Spikes** - random spikes in data can happen and these have to be understood from a statistical perspective to determine whether they are genuine spikes or not.
- **Biofouling** - the systems is designed to try to reduce and detect this where possible. Routine maintenance will involve thorough cleaning to remove any biofouling.
- **Equipment location** - the buoys have been located initially to try and triangulate data points near known UU discharge locations. Part of the investigation is to better understand whether this is appropriate and, if not, to determine how best to monitor such discharges or the limitations of doing so.
- **Sample depth** - the sensors are point measurements and are set to monitor at a depth of 1m. That means they are not monitoring at other depths within Lake Windermere.
- **Wireless Communications** - communication from the buoys will be via the local cellular network. Whilst coverage in the areas was excellent during the survey, this can be impacted by maintenance, weather and traffic on the network beyond the control of trial participants.



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This may result in some data not being transmitted/received at the allotted time.

- **Data Backfill** - in the event of communication issues, on the next connection any previously missed data will automatically be backfilled to the system.
- **Data Evaluation** - data will be reviewed on an ongoing basis. Some initial validation will be applied with appropriate flags.

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



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.