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Telephone: 01925 237000
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Our ref: EIR-585
Date: 28/11/2025
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).

Firstly, please allow me to explain how here at United Utilities we monitor the quality of the drinking water to ensure it is safe to drink.

Each day, we collect samples from water treatment works, service reservoirs (storage tanks), and customers' properties. All samples are tested in an accredited laboratory using approved analytical methods to make sure the water quality meets the Water Supply (Water Quality) Regulations 2016. Within these Regulations, there is a comprehensive list of parameters which water companies must monitor for, where to test (e.g. our customers' properties) and the maximum level of each parameter which is acceptable in drinking water. These are known as Prescribed Concentrations or Values (PCVs) or put more simply, the regulatory or legal limit. PCVs are set based on several factors and most exceedances of the regulatory standard would not be considered a risk to health. A full list of the parameters that Water Companies must monitor for, including the PCVs, can be found on the Drinking Water Inspectorate's website by following this link: Drinking Water Standards and Regulations - Drinking Water Inspectorate.

In addition, we have online monitoring of all our water treatment works that continuously check that the water treatment processes are operating to the right standard. Should a monitor detect a slight deterioration in the quality, the water treatment works will shut down before any standards are breached. The shut down sends an alarm to our 24/7 control room. An engineer will be dispatched to the site to investigate and solve any problem before the water treatment works is restarted, ensuring the quality of the drinking water.

The results from our regulatory water quality samples are made available through our website at the following link: https://www.unitedutilities.com/help-and-support/your-water-supply/ . This information is updated on a weekly basis so will always contain the most up to date information for the previous 12 months. If you enter your postcode into the box on this website link, it will provide a report, specific to your local water supply zone. As mentioned above, this includes the results of laboratory analysis of the water we supply. This report also shows you how many samples we have taken for a particular parameter. The number of samples that are required to be taken is set out in the regulations.

Should any of these sample results be above the standard a full investigation is undertaken. As requested, I reviewed the data from the water treatment works supplying water to your area and the water samples taken in your area between January 2023 and November 2025 and there have been no issues identified with the water in your water supply zone.

Please see our responses to your specific requests below:

1. **A full list of chemicals and treatments added to drinking water in the [redacted] postcode area, including but not limited to chlorine, fluoride, phosphates, aluminium sulphate, etc.**

The water supplied to local area (Water Supply Zone 108) comes from local reservoirs in the Burnley area and from the Lake District and is treated at three of our water treatment works. The treatment processes at these sites are very similar. Before it reaches your home, this raw water undergoes a thorough treatment process to ensure it is safe to drink.

At two of the sites, aluminium sulphate (a coagulant) and polyelectrolyte, which acts as a coagulant aid is used, as well as sodium hydroxide or sulphuric acid to adjust the pH of the raw water. This is to ensure the pH is right for the next stage of treatment. During the coagulation process the chemicals bind with all the particles in the raw water to cause them to clump together so that they are easily removed. These particles, including the coagulant chemical, are then removed through the filtration stage. Following filtration, we use chlorine to ensure that any harmful bacteria are made harmless and that the water is safe to drink, this is called disinfection.

The third site takes water that is pre-treated at one of the above sites and further disinfected. At this site, this additional disinfection is carried out, using UV technology. Following disinfection at both sites, phosphoric acid is added in small quantities to the water to reduce plumbosolvency; this means that if the water comes into contact with lead pipes within customer properties it reduces the chance of the lead dissolving into the water that comes into contact with those pipes.

We can confirm that the water supplied to your area is low in naturally occurring fluoride and we do not add fluoride to your drinking water.

In summary the following chemicals are used to treat your drinking water:

- aluminium sulphate
- polyelectrolyte
- sodium hydroxide or sulphuric acid
- chlorine
- phosphoric acid

As mentioned above, the treatment process is controlled automatically, and this ensures that we only use the smallest amount of the chemicals as possible. The amount of chemical we add is dependent on the quality of the raw water and all chemicals that are used in the treatment process have to meet strict requirements that are set out in the relevant British Standards. I have enclosed a fact sheet titled '**Water Treatment Chemicals**' with this response. This lists all the possible chemicals used throughout the treatment process. As per our summary above we do not add every chemical on this list at every one of our treatment sites, but the information will provide additional details on those used to treat the water supplied to your property.

2. Data on microplastics, heavy metals, and any pesticide residues found in water in the last 12 months.

Please refer to '**Appendix 1 - WQ Data -** [redacted]' which includes the heavy metal data for your WSZ and the pesticide data for the water treatment works supplying your property for the last 12 months. Please note, as your area receives water from three difference water treatment works, we have referred to the water treatment works as WTW A, WTW B and WTW C.

When reviewing the attached dataset, it is important to note that all laboratory methods have a Limit of Quantification (LOQ). This means that the method cannot read lower than a certain value. Any results marked as less than the LOQ means that the result is lower than the lowest quantifiable value that the method can detect. In this dataset, results less than the LOQ are marked 'LT'.

As referenced above all of the results from our regulatory water quality samples are made available through our website at the following link: https://www.unitedutilities.com/help-and-support/your-water-supply/ and can be viewed at any time.

We have also provided some further information on the parameters listed in your request below:

Microplastics: All of our water treatment works that treat water from rivers, springs and reservoirs have robust treatment processes in place that are designed to remove particulates from the raw water (which will include microplastics). Conventional drinking-water systems can remove particles smaller than a micrometre through processes of coagulation, flocculation, sedimentation/flotation, and filtration. Water UK research shows that current water treatment processes remove 99.9% of microplastic particles from sources of drinking water. Raw water (untreated water in the environment) contained on average 4.9 microplastics per litre while potable water (water that has gone through a treatment process) contained only 0.00011 microplastics per litre.

Based on the above, there is no requirement to monitor for microplastics in drinking water, but we will continue to be involved in research in this area, as well as development of standardised methods for microplastic analysis. Please refer to the following links for information on research into microplastics by the drinking water quality regulator, the Drinking Water Inspectorate: https://www.dwi.gov.uk/research/completed-research/drinkingwater-treatment/research-on-removal-of-microplastics-by-drinking-water-treatment-processes.

Heavy Metals: as referenced above, the heavy metals results are included in spreadsheet 'WQ Data - [redacted] Low concentrations of naturally occurring heavy metals may be present in all types of drinking and bottled water and when below the relevant regulatory standard do not pose a risk to health. All of the results from your local water supply area are significantly below the water quality standard.

Pesticides: Pesticides are often used on farm, roads and gardens to control insects and weeds, but rainwater washes them off crops or plants and out of the soil. In Britain the use of all pesticides is restricted to approved products and is governed by regulations and codes of practice issued by the Department for the Environment, Food and Rural Affairs (Defra). The UK water supply regulations set maximum permitted levels of these substances in drinking water to ensure the water is safe to drink.

These permitted levels are considerably lower than any associated with health concern. The current standard for drinking water is 0.1µg/l of a particular pesticide. We are required by law to assess

the risk to each water source from pesticides and monitor raw water for those that could be present due to use in the local water catchments. Should any of the results be above the standard an investigation is undertaken that includes further sampling. We also work closely with local farmers to help manage the use of pesticides to reduce the possibility of traces entering water sources. The results of our risk assessment and monitoring demonstrate that the water quality is compliant with the standards.

3. The bacteria/pathogen testing results (E. coli, coliforms, legionella, etc.) for water leaving treatment works and at point of supply.

Please refer to spreadsheet '**Appendix 1 - WQ Data-** [redacted]' for the bacteriological testing results from the Water Treatment Works supplying your property for the past 12 months. As per above, the water treatment works are referenced as WTW A, WTW B and WTW C.

We can confirm that on 26 July 2025 there was a single coliform detection at one of the Water Treatment Works supplying your property. In response to this, a thorough investigation was carried out as detailed above. Resamples taken at the water treatment works and at customer properties in the area confirmed that there were no issues with the wider water supply zone. For awareness, samples are collected daily from this site, and the single failure represents just 0.27% of all tests conducted during that period.

4. Details of any breaches or non-compliances with water quality standards for the area since January 2023.

As mentioned above, 12 months' worth of results from our regulatory water quality samples are made available through our website at the following link: https://www.unitedutilities.com/help-and-support/your-water-supply/. A review of the website confirms that in the past 12 months there has been no exceedances of the regulatory standards in your area. In addition, I have also reviewed our data back to January 2023. We can confirm that during this period of time there were no exceedances of the regulatory standards in your area during this time frame.

As previously noted, a bacteriological failure was detected at one of the sites supplying water to your area on 26 July 2025. This site contributes only around 1% of the overall blend. All subsequent resampling carried out both at the treatment works and at customer properties confirmed that the wider water supply zone remained unaffected and presented no risk to public health.

5. Copies of any internal or external safety assessments conducted on the water supplied to [redacted] properties.

The results from the water quality samples confirm the safety of the water that is supplied to your property, and the results have been discussed earlier in this response.

All our water supplies do have Drinking Water Safety Plan Risk assessments that cover the source to tap supply of drinking water and ensure any risks to raw water are mitigated by water treatment. The Drinking Water Safety plans are kept under review, and should the situation change, then an investigation and monitoring programme would be instigated.

We assess the potential impact of any changes to the system, for example new activity within the raw water catchment, the potential impacts from climate change on raw water quality, or a change to a water treatment chemical. If these assessments identify a particular risk, additional measures would be put in place to investigate that risk further, for example by introducing or increasing monitoring or carrying out further research. There are a number of options for carrying out this research, for example through UKWIR (UK Water Industry Research), OFWAT innovation fund, or company specific research engaging with subject matter experts from both industry and academia.

We also review the guidance documents provided by the World Health Organisation, the Drinking Water Inspectorate, the UK Health Security Agency and key organisations associated with the supply of high quality in drinking water across Europe and Australia. For example, the World Health Organisation undertakes research and provides guidance on chemicals appropriate use and allowable concentrations in drinking water. These assessments take into consideration the proportion that may come from water and other sources, such as food.

The WHO guidance advises on the levels that can be present in drinking water which do not cause concern for human health (4th edition of the drinking water quality guidelines which can be accessed at Guidelines for drinking-water quality: Fourth edition incorporating the first and second addenda (who.int).

In the UK, an Independent Water Quality Advisory Panel has been established that provides recommendations to government on the current water quality standards and any proposals for new standards. We actively review any of these recommendations and assess whether there are any additional measures that we need to take.

In addition, information relating to the safety and regulation of drinking water is available on the DWIs website: What we do - Drinking Water Inspectorate. As the authority responsible for maintaining the DWI list of approved chemicals for use in water treatment, the DWI also undertakes comprehensive environmental assessments to evaluate the potential impacts of these chemicals. By rigorously reviewing the safety, efficiency, and environmental consequences of each substance, the DWI ensures that any chemical permitted for water treatment not only meets strict regulatory standards but also poses minimal risk to the surrounding ecosystem. This thorough assessment process safeguards public health and helps maintain the balance of environmental protection alongside effective water treatment practices. You can read more about their research, and any of their reports here: Research - Drinking Water Inspectorate.

You also requested information relating to the number duration of storm overflow discharges in the Lancashire region. I have attached a spreadsheet titled '**Appendix 2 – Lancashire spill data**' which I hope you will find informative. This includes:

- The asset ID
- The asset name
- The polled duration (the time an EDM monitor records a spill for)
- The polled count (the raw, unvalidated number of spills)

When reviewing this, it is important to recognise that the data being provided is raw, unvalidated data. There are therefore a number of points which you should take into consideration:

- Raw telemetry data should not be treated as validated regulatory Event Duration Monitor (EDM) data due to the potential for sensor malfunctions, data transmission errors or environmental interference (which are rectified when this data is validated). There may also be gaps in the data resulting from instrument failure or maintenance, for example.
- Whilst error codes from sensors are captured and inspected, they may still appear as erroneous data in this raw telemetry dataset, as erroneous and anomalous data will not have been removed.
- As this raw data has not gone through data validation it will likely be different to what is reported annually in our regulatory EDM return.

For awareness, storm overflows are permitted and there are no penalties for overflows operating in accordance with their permits. You can read more about our current storm overflow performance, and our plans to improve this during AMP 8 here: Storm overflow performance | United Utilities

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.