United Utilities Water Limited
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Lingley Green Avenue
Great Sankey
Warrington WA5 3LP

Telephone: 01925 237000
unitedutilities.com

Our ref: EIR-725
Date: 20/03/2026
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 the request contained a number of specific questions, we have grouped and responded to these information request in four three main categories:

1. DNA testing and wastewater treatment.
2. Ultraviolet disinfection.
3. Treatment capability and discharges from Brampton WwTW
4. The impact of growth within the catchment.

To ensure that we provide a clear and comprehensive response to your information requests in each of these categories, we start our response by providing some background and contextual information. We then restate your specific information requests (in italics) and provide our specific responses to each of these requests.

1. DNA testing and wastewater treatment.

Background and Context:

Water quality in the environment is the responsibility of the Environment Agency (EA). Where appropriate, and where required, UU support the EA to carry out additional testing at designated bathing sites, including the use of DNA analysis.

The referenced article was reporting the use of DNA testing to distinguish between the sources of potential pollution in the River Kent. DNA analysis was used to apportion the impact of wastewater discharges from agricultural and other sources. The presence of human DNA indicates where the water in the river is of human origin and is likely to have been collected via the sewerage system, whereas the presence of animal DNA would indicate agriculture as a source – for example run off from riverside fields.

The nature and presence of DNA does not indicate whether a pollution incident has occurred and does not indicate the severity of any pollution, it is only used to confirm the likely source of the water.

Fragments of human DNA are guaranteed to be present in all discharges from wastewater treatment facilities, as all human wastewater is collected and treated through these facilities. Even where the wastewater is treated to the highest possible standards, fragments of DNA are still present in the treated wastewater. Equally, the presence of animal DNA does not indicate a pollution from

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agriculture.

To assess for the presence and impact of pollution in water courses, the Environment Agency undertake water quality testing across a wide range of analyses, and their assessment of water quality for all controlled waters is available publicly at their Catchment Explorer website (England | Catchment Data Explorer).

In addition, where any discharge into a controlled water contributes towards water quality at designated bathing sites, they will monitor and analyse the water for bacteria which are important for human health. Where appropriate, they will use DNA analysis to distinguish between the likely sources of the potentially harmful bacteria.

Specific responses to individual information requests:

In January 2026, the BBC carried a news article relating to Staveley and Kendal wastewater treatment works relating to DNA testing results and the installation of UV filters or not – "Water works 'significant source' of river pollution", Water works 'significant source' of River Kent pollution - BBC News.

- *Is DNA testing carried out at or near Brampton wastewater treatment works? If yes, where? If not why not?*

All domestic wastewaters contain human DNA, United Utilities (UU) therefore, does not routinely analyse the wastewater arriving at or leaving its wastewater treatment works using DNA analysis. DNA testing is not carried out near Brampton WwTW, as the discharge from the works does not contribute towards water quality at designated bathing sites and these tests would not provide any additional information on the performance of the works.

2. Ultraviolet disinfection.

Background and Context:

Disinfection of wastewater is used to deactivate and/or destroy bacteria which may be present in treated wastewater. Disinfection is required in some permits that area issued by the EA, predominantly those which can impact upon designated bathing water, and UU constructs and operates its disinfection assets in line with these permitted requirements.

Ultraviolet (UV) disinfection is one method of disinfection, whereby ultraviolet light is passed through the treated wastewater, and the energy from the ultraviolet light disrupts the bacteria, rendering it harmless.

UU is generally supportive of local campaigns for the designation of new bathing waters, subject to the criteria laid out by Defra. Where such a designation is made by the Secretary of State, UU will bring forward investment plans to meet any new permitting requirements for the associated wastewater treatment plants.

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Specific responses to individual information requests:

- *Can you confirm Kendal wastewater treatment works have UV filters.*

Yes, I can confirm that Kendal WwTW does have UV filters.

- *Can you confirm Staveley wastewater treatment works does not have UV filters.*

Yes, I can confirm that Staveley WwTW does not have UV filters.

- *Does Brampton wastewater treatment works have UV filters? If not why not?*

Brampton WwTW does not discharge into a designated bathing water and so its permit does not require disinfection. Therefore, ultraviolet disinfection assets are not installed, nor required at Brampton.

- *What might be the typical or estimated cost of installing UV filters at Brampton wastewater treatment works or for a similar sized facility?*

The costs of installing and then subsequently operating UV systems need to be developed based upon a bespoke design that reflects each individual WwTWs specific wastewater and treatment requirements. In some cases, in addition to the construction of the UV process itself, the overall scheme could also require significant investment on new pipework, pumping arrangement, power supplies and potentially even land purchase, as such we are unable to provide an estimated cost.

This approach is in line with Regulation 12(4)(a) of the EIR, which states that a public authority may refuse to disclose information to the extent that it does not hold the information at the time a request is made.

3. Treatment capability and discharges from Brampton WwTW

Background and Context:

Water companies manage and operate three types of assets that can have a discharge to a watercourse:

- Wastewater treatment works (WwTW), which can have three types of discharge:
  - A final effluent discharge for the treated effluent from the works
  - A discharge from an overflow at the inlet to the works, which controls the flows rate to the works, to protect the operation of the works, and
  - A discharge from storm tanks, which are off line tanks, designed to hold excess flows arriving at the works.

Water for the North West

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- Combined sewer overflows (CSO's), which are designed to protect the downstream sewer network from flooding in periods of high flow, by discharging excess storm water, and
- Wastewater pumping stations (WwPS), which can have two types of discharge:
  - A CSO, which controls the flows that needs to be pumped on from the station, by discharging excess storm water, and
  - An emergency overflow (EO), where the pumping station is required to pass forward all flows arriving at the station and the overflow is only designed to work in an emergency, such as loss of power to the site or pump failure.

More details of the purpose and operation of wastewater assets can be found on our website via this link: Wastewater services | United Utilities

All of these assets and the discharges from these assets, operate under permits that are set by the Environment Agency. In principle, these permits are designed to protect river water quality and ensure that the discharges from our assets do not cause pollution, violate water quality standards, or harm aquatic life. With the specific requirements set out in each permit needing to ensure that the watercourse, and the discharges to it, comply with all relevant environmental regulations, which have been progressively improving over time.
For WwTW, the permit conditions reflect the size and nature of the receiving water course as well as the incoming flows and "load" to the works. The load to a works is usually being measured in terms of "Population equivalent", which measure the household or domestic population in the catchment plus the equivalent load from any traders in the catchment. Typically, a WwTW permit will include consent conditions, for the flow rates that the works needs to treat and the maximum concentrations of various potentially polluting substances within the treated effluent that is discharged from the works.

For CSO's and WwPS, the permit conditions also reflect the nature of the receiving watercourse and the flow and load arriving at the asset. Typically, these consents will specify a minimum flow rate that needs to be passed forward rate to the downstream network, before any discharges can occur and, in some case, other factors such as storage volumes and nature of the screening.

United Utilities is responsible for the choice and size of the specific treatment processes that are installed at individual WwTW. With many WwTW having had new process stages added, or existing processes extended as a result of new environmental legislation or growth within the catchment.

The nature and capabilities of the processes at any WwTW, need to be sufficient to ensure that it can consistently comply with its consent conditions, in both the short and longer term. We, therefore, continually monitor the performance of our WwTW and CSO's to assess the potential risks against each of their consent conditions.

We use this information to both ensure that the assets are being operated and maintained effectively and to identify any potential risks to future compliance as a result of both actual and proposed future growth and development within the catchment. With the results of this analysis being used to develop and implement improvement schemes at these sites, in advance of the growth occurring and

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the works potential becoming unable to comply with its consent conditions.

Specific responses to individual information requests:

Can you please advise of, in litres per hour or litres per day or an equivalent or similar measure of:

- *The maximum sewage processing capability of Brampton WwTW,*

Brampton WwTW treats the load from a population equivalent of 5,470 people and receives and treats a flow rate of up to 133l/s.

The flow arriving at Brampton WwTW, arrives in one of two main sewer lines, one from Brampton and one from Irthington.

The flow from Brampton is controlled by a CSO, which has a consent that requires 101l/s to be passed forward to the WwTW, before any discharges occur.

The flows arriving from Irthington are pumped to Brampton WwTW by a WwPS, this station is required to pass forward all the flows that arrive at the station and has pumps that are able to pass forward up to 32l/s to Brampton WwTW.

What is the average sewage processing capability of this Brampton WwTW on a dry weather day, i.e. when there is no rainfall from roadways, etc entering the Brampton combined sewer network

The measured "dry weather flow" for Brampton WwTW, in 2025 was 1360.2 m3/day. This value is below the DWF in the consent for Brampton, which is 1520 m3/day and demonstrates that there is still some available capacity at the WwTW.

- *Typical household sewage estimates used – note this may include differing values dependent upon property size or household size (number of persons)*

Although we do not directly measure the volume of flow from individual properties, on average we estimate that the typical volume of household sewage is 144 litres, per person, per day. On this basis, the population equivalent of Brampton WwTW (5,470 people), would generate a flow of approximately 800,000l/d, which is slightly less than 10l/s.

- *What is the storage capacity of Brampton WwTW to hold 'excess' sewage and water input at times of heavy rainfall. I presume all Combined Sewer input to the Brampton WwTW passes through a storage system in order to even out the incoming flow.*

The flows arriving at Brampton WwTW are controlled by either a CSO or WwPS, with Brampton WwTW then being required to treat all the flow that arrives at the site. Therefore, there is no requirement for any online or offline storage at the WwTW.

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For additional, information, we completed an investigation of the upstream CSO in March 2023, using the "storm overflow assessment framework" (SOAF) that has been agreed with the EA. This concluded that, although the overflow did discharge on a relatively frequent basis, there was relatively little environmental impact and there were no cost beneficial improvements that could be undertaken. As a result of this we have not currently installed any additional storage at the CSO.

It is however worth noting that we will, be undertaking improvements at this overflow to meet the spill reduction targets that are set out with in the governments SODRP. Our 2025 to 2030 programme of work to reduce spills from overflows, was agreed with Ofwat and the EA as part of the 2024 price review process and this did not include for any work at the Brampton CSO, with the exact timing of this work still to be agreed.

In addition, there is no specific additional storage capacity provided at the WwPS, although the wet well within pumping stations, does provide a storage volume that is used to manage variations in incoming flows to the works.

4. The impact of growth within the catchment

Background and Context:

United Utilities is a statutory consultee for Local Plans that councils use to direct development and identify the preferred locations for new housing and other types of developments. As a statutory consultee, we work with local authorities to ensure that issues with water and wastewater infrastructure are reflected in the planning decisions and that our longer term plans for our infrastructure, reflect the agreed development plans.

Whilst the location of specific new development proposals is a matter for the local planning authority, and we are not a statutory consultee on these applications, we do work closely with local authorities to provide comments on applications for planning permission, where we think it is necessary to protect the impact on our assets and our customers.

Our comments must, however, reflect our statutory obligations as a regulated water company, one of which is that we must allow new connections to our network. Whilst we cannot stop development from occurring, we do review applications for planning permission and provide comments where necessary. These comments include recommending planning conditions to control the approach to drainage and seeking to secure foul only connections to the public sewer wherever possible. Foul only connections are important as they help to keep the impact on our wastewater network assets to a minimum, as surface water flows can be much larger than foul flows.

Any comments that we or other affected parties make on planning applications can be viewed on the local councils website or are available via the following link: Find your local planning authority - Find your local planning authority - Planning Portal.

As part of this review process, we assess the potential risks that these developments could have on

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the ability of our assets to continue to comply with their consent conditions. The results of this are used to develop regional investment programmes, which allow us to invest at our assets before the risk to compliance become too high.

Specific responses to individual information requests:

A few years ago, Story Homes completed a 91 property development off Carlisle Road, planning application 17/0869 with no change to the capacity of the Brampton WwTW.

In Brampton we now have the following new developments in the Cumberland Council planning system (Carlisle section) which will impose a greater sewage load on Brampton WwTW:

23/0204	*Land between the A6071 (Newcastle Road) and Station Road, Brampton CA8 1ES*	*76 properties*
23/0454	*Land to the south of Greenhill, Brampton, Carlisle CA8 1SU*	*60 properties*
25/0139	*Land at Greenfield Lane north of Garth House, Greenfield Lane, Brampton*	*112 properties*
25/0533	*Land at Carlisle Road, Brampton*	*219 properties*

So, a total of 467 properties.

- *Can you please advise of what sewage throughput increase you are expecting through Brampton WwTW as a result of these additional developments?*

We recognise that there is substantial development planned for the Brampton WwTW catchment. As a result of this we have undertaken a detailed review of the site, which has confirmed that the existing growth has been able to be accommodated without any impact upon consent compliance, and that the anticipated additional growth within the catchment for the 2025 to 2030 period, should also be able to be accommodated, without an unacceptable increase in risk.

As a result of this, we are not currently planning to implement any enhancement work in Brampton in the 2025 to 2030 period, although we will continue to keep the asset under review and will invest at the asset in advance before, any increased flows and loads would create an unacceptable risk to future compliance.

In specific response to your request about the expected throughput increase from these developments, this will depend upon the extent that the developments can be drained on a foul only basis. However, as set out above, on average we estimate that the typical volume of household sewage is 144 litres, per person, per day. Therefore, assuming that on average the 467 properties would have two and a half occupants, this would generate an increased flow of approximately 170,000 l/day or about 2 l/s.

Brampton WwTW has a history of overflowing (data from United Utilities):

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Date & Source	*No of spills*	*Hours*
2024 EDM return	*25*	*15:54:00*
November 2024 start stop data	*16 entries*	*20.0 hours approx.*
December 2025 start stop data	*14 entries*	*11.0 hours approx.*

- *What will be the impact on the ability of Brampton WwTW to handle the existing roadway type rainfall onto the Brampton Combined Sewage system? Surely there will be an increase of overflow discharges (spills), and if so, what are your expectations?*

We work with local planning authorities to ensure that when developments do occur, the flow entering the combined sewerage system is restricted to the foul flows from the properties only and to ensure that as much of the surface water is drained to local watercourses, as is possible.

As set out above the current dry weather flow arriving at Brampton WwTW, is significantly lower than the consented dry weather flow for the works and as such we anticipate that the WwTW will be able to accommodate the increase in flow without any undue risk to consent compliance.

The Brampton CSO also has consent that requires 101l/s to be passed forward to the WwTW, before any discharges occur, therefore, the indicative increase in flows from the new developments (c 2 l/s) would generate a relatively modest increase in the base flow to the overflow.

We will however, continue to actively monitor the performance and risk levels at these assets to ensure any necessary action is taken to ensure that they can continue to comply with their consent conditions.

Note that on 6 February 2026, Cumberland Council announced "Catchment changes unlock housing opportunities across Carlisle and Eden area" Catchment changes unlock housing opportunities across Carlisle and Eden area | Cumberland Council, which will allow many new developments to moved forward.

- *What are United Utilities plans for increasing the throughput and processing capacity and storage capacity of Brampton WwTW?*

As set out above we work closely with all of the councils within the region, including Cumberland Council and will seek to influence both, their longer-term planning decisions and their ongoing planning approvals to minimise the impact on our assets.

We will, however, continue to monitor the anticipated scale and phasing of any future development and will co-ordinate this with the delivery of any improvement works that would be necessary to ensure that our assets are able to continue to comply with all the requirements set out within their permits.

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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
EIR Team

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.