



Submission

Submitter:	Mr. Thomas Deegan
Organisation Name:	Ballymore Eustace Trout & Salmon Anglers Association
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Application

Applicant:	Uisce Éireann
Reg. No.:	D0063-02

See below for Submission details.

Attachments are displayed on the following page(s).

From: [Thomas Deegan](#)
To: [Licensing Staff](#)
Subject: Blessington WWDL review D0063-02
Date: Thursday 11 September 2025 09:22:20
Attachments: [Blessington WWTP discharge20250904_180916.mp4](#)
[ReplyUsubBlessington WWDLReviewD0063-02.docx](#)

Hi at Licencing @EPA

Please find attached Ballymore Eustace Trout and Salmon Anglers' Association submission re Blessington WWDL D0063-02 review and video clip Blessington WWTP discharge 20250904_180916 .

Regards,
Thomas Deegan
Hon. Sec. Ballymore Eustace TSAA

D0063-02 Uisce Éireann – Blessington Agglomeration

Submission with Video

received on 11 September 2025 from

Mr Thomas Deegan, Ballymore Eustace Trout and Salmon Anglers' Association

To view the video, please access the video file via the attachment pane referring to [EPA's guidance document](#)

Ballymore Eustace Trout and Salmon Anglers' Association

Environmental Protection Agency
Licensing Staff

[REDACTED]
[REDACTED]
[REDACTED]
11th September 2025

Re: Blessington WWDL review D0063-02

Dear Inspector,

On behalf of Ballymore Eustace Trout and Salmon Anglers' Association I wish to make the following submission in response to Uisce Éireann's **Water Quality Impact Assessment Blessington WWTP Addendum**

REGULATION 16 COMPLIANCE REQUIREMENTS

On the 5th October 2021 the EPA requested Irish Water "1. The primary discharge location for the Blessington agglomeration is situated between the Poulaphouca Dam, which impounds Blessington Lake, and the Golden Falls Dam, which balances discharges from the Golden Falls lake. Provide flow data for the receiving waterbody in the vicinity of the primary discharge point showing a constant minimum flow of 1.5m³/s at all times."

On the 17th February 2025 and on the 1st April 2025 the EPA requested further information from Uisce Éireann to "6. Provide confirmation, including supporting documentation, that demonstrates there will be a constant flow maintained in the vicinity of the discharge in the future to facilitate adequate mixing" and "1. Provide evidence, including consideration for flows at the primary discharge point, to demonstrate the receiving waterbody is not impacted by the waste water discharge." Respectively.

Uisce Éireann has not provided the information requested by the EPA but instead have conjured up smoke and mirrors to conceal the truth that there is no constant minimum flow of 1.5 m³/s at all times in the vicinity of the Blessington WWTP discharge.

The present EPA Blessington Agglomeration WWDL D0063-01 and its Emission Limit Values (ELV's) are based on the lie that there is a constant minimum flow of 1.5m³/s at the primary discharge point.

I have take extracts from the WQIA Blessington WWTP Addendum (black text) and responded (red text) and for clarity followed the sequence of the addendum.

"Uisce Éireann Water Quality Impact Assessment Blessington WWTP Addendum"

The fact that the Cover Photo shows Inniscarra Dam and Reservoir, Co Cork which has nothing to do with Blessington WWTP discharge into Golden Falls Lake shows how out of touch Uisce Éireann is with the Poulaphouca/ Golden Falls Dams and Reservoirs locations.

1 Background

Excerpt "The additional river flow data shows that flows through Golden Falls Reservoir are highly complex, and the minimum pass-forward flow of 1.5 m³/s which is required downstream of this structure (and which is calculated as a weekly average) may not be continuously maintained at all times in the River Liffey upstream of the dam."

A constant minimum flow of 1.5m³/s pass the Blessington WWTP discharge point is required at all time. EPA request “Provide flow data for the receiving waterbody in the vicinity of the primary discharge point showing a constant minimum flow of 1.5m³/s at all times.”

Flows into and through Golden Falls Lake/Reservoir are not complex. Uisce Éireann are straight away trying to ‘muddy the water.’

Flows into Golden Falls Lake/Reservoir

Email correspondence from EPA Inspector N. Byrne dated 20th November 2018 to Ballymore Eustace TSAA states inter alia;

“Data from the ESB. I requested flow data from the ESB (see attached) for Poulaphouca Dam and Golden falls lake (see data attached). The flow data refers to the time period from June 2017 to June 2018. Based on the data received plus discussion with the ESB, I noted the following: ----- · Flow from Poulaphouca power station is not continuous. Flows from the turbines is very high (~37m³/s) compared to the flows out of Golden falls where the minimum flow is 1.5 m³/s. Therefore the flows from Poulaphuca power station occur intermittently but at much higher volumes to balance the water outflows from golden falls. From a review of the data, typically it flows for 1 hour a day on week days and doesn’t flow on weekends. This information will be forwarded to the EPA’s catchments team for consideration when rivers are being reclassified.”

(Pages of data not submitted here but submitted with earlier submission)

Comment; This equates to a flow into Golden Falls Reservoir pass the Blessington WWTP discharge point for 5 hours out of a total 168 hours per week or no flow for 97% of the time. It is a clear demonstration that Golden Falls Lake/Reservoir is an unacceptable discharge location for the recently upgraded 9000 P.E Blessington WWTP?

“Section 4 sets out revised water quality calculations which take account of the complex flow regime.”
How can you carry out water quality calculations when there is zero flow pass the WWTP discharge point?

2.1 Site Location and Flow Controls

Blessington WwTP discharges to a short section of the Liffey_040 river waterbody, ca. 910 m downstream of Poulapouca hydro-electric power station dam, and ca. 1.5 km upstream of Golden Falls hydro-electric power station dam (Figure 2-1). The discharge is located ca.147 m upstream of the inflow of the Liffey_040 to the Golden Falls Reservoir lake waterbody.

Again, there is an attempt to deceive. Poulaphouca Dam and Poulaphouca hydro-electric power station are two separate constructions 450 metres apart. Note that Uisce Éireann never show the location of Poulaphouca Power Station. This is a deliberate attempt to deceive people into believing that the Dam and Power Station is a combined location.

Blessington WWTP discharges into Golden Falls Lake/Reservoir approximately 300 metres downstream of Poulaphouca Power station, which only releases water intermittently into the Lake /Reservoir .

There is no River flowing from the back of Poulaphouca Dam through Poulaphouca Gorge into Golden Falls Lake/Reservoir. Since the Liffey Scheme of the 1940’s, water is only released through the Gorge when the Power Station is not available. Poulaphouca Gorge section is wrongly designated as a river in EPA maps.

To say that “The discharge is located ca. 147 metres upstream of the inflow of the Liffey_040 to the Golden Falls Reservoir lake waterbody.” , is a total fabrication, a figment of someone’s imagination from looking at maps rather than visiting the location to access reality. The discharge is into Golden Falls Lake/Reservoir (an impoundment) with a very intermittent water inflow and not into a river of constant minimum flow.

“Flows from Poulaphouca Reservoir into Golden Falls Reservoir are variable, with periods of low flow interspersed with periods of much higher flow.”

Flows from Poulaphouca Reservoir into Golden Falls Reservoir vary from no flows for long periods interspersed with shorter periods of high flows.

“Flows are released from both dams via a combination of flow through turbines (used to generate electricity) and compensation valves (used to maintain levels in Golden Falls Reservoir and flow in the River Liffey downstream). A conceptual model of flow through the system is shown in Figure 2-2”

(If the water level in the Reservoirs is high they can also ‘spill’ water through the Dam gates, i.e. a third method.)

ESB is a commercial organisation. Operating the turbines at Poulaphouca Power Station generates finance for the company. Therefore, from a commercial point of view it makes sense to operate the turbines as often as possible in preference to releasing water through the compensation valves at Poulaphouca Dam or spilling through the Dam gates, both of which bypasses the turbines.

Also, when Golden Falls Reservoir is being fed through the turbines, the water level in the Reservoir varies considerably. When the water level drops in the Reservoir the large flows from the turbines refill the Reservoir in a short time.

When the compensation valves in the Poulaphouca Dam are used to maintain water in Golden Falls Reservoir i.e. when the turbines are unavailable, the flow is usually balanced with the flow out of Golden Falls Dam to maintain the River Liffey flow. Hence, generally, a constant water level is maintained in Golden Falls Lake/Reservoir when the compensation valves in Poulaphouca Dam are used.

Flows into Golden Falls Reservoir are usually through the turbines at Poulaphouca Power station and occasionally through the compensation valves in the Dam (or spilled through the gates) when the Power Station is unavailable. The flow from Golden Falls Reservoir into the River Liffey is usually through the compensation valves and occasionally through the turbine or spilled through the Dam gates.

The conceptual model shown in figure 2-2 is designed to mislead as it gives the impression that the turbines and Dam at Poulaphouca are in the same location and that there is a continuous compensation flow from Poulaphouca Dam into Golden Falls Reservoir.

In addition to flow from Poulaphouca Reservoir, Golden Falls dam receives inflow from a small topographic catchment of 8.0 km². The large impoundment of Poulaphouca Reservoir will also locally increase groundwater levels and transport, with emergence within Golden Falls Reservoir downstream likely to further contribute to flow volumes in this reservoir.

Uisce Éireann are really scraping the bottom of the barrel here. The flow volumes through Golden Falls Reservoir are measured by the ESB releases from Golden Falls Dam. If you want to know the further contribution to flow volumes through Golden Falls Reservoir just subtract the flow volumes released from Poulaphouca Reservoir from the flow volume release from Golden Falls Reservoir into the Liffey.

As Blessington WWTP discharges into the upper end of Golden Falls Reservoir, the further contributions enter the Reservoir downstream of the discharge point and do not contribute to flow volumes past the discharge point.

2.2 Flow Statistic Calculations

Once again, Uisce Éireann have conjured up the smoke and mirrors to hide the real time operations at Poulaphouca Dam and Poulaphouca Power Station.

As stated above during normal day to day operations water is released into Golden Falls Lake/Reservoir through the turbines at Poulaphouca Power Station with no flow through the compensation valves in Poulaphouca Dam.

Flows into Golden Falls Lake/Reservoir

Email correspondence (during the planning application to upgrade Blessington WWTP to 9000P.E.) from EPA Inspector N. Byrne dated 20th November 2018 to Ballymore Eustace TSAA states inter alia;

“Data from the ESB. I requested flow data from the ESB (see attached) for Poulaphouca Dam and Golden falls lake (see data attached). The flow data refers to the time period from June 2017 to June 2018. Based on the data received plus discussion with the ESB, I noted the following: ----- · Flow from Poulaphouca power station is not continuous. Flows from the turbines is very high (~37m³/s) compared to the flows out of Golden falls where the minimum flow is 1.5 m³/s. Therefore the flows from Poulaphouca power station occur intermittently but at much higher volumes to balance the water outflows from golden falls. From a review of the data, typically it flows for 1 hour a day on week days and doesn't flow on weekends. This information will be forwarded to the EPA's catchments team for consideration when rivers are being reclassified.”

So typically during the weekdays there is no flow into Golden Falls Lake/Reservoir pass the Blessington WWTP discharge point for 23 hours per day. During this time the water level in the Reservoir drops sufficiently to allow the ESB to generate for another hour the following day and at weekends the when there is no turbine flow, the water level drops further, allowing the turbines to operate and fill up again. During these periods when the turbines are 'off load' there is no flow through the compensation valves and therefore no flow into Golden Falls Lake/Reservoir, i.e. no flow for what is mis-designated as River Liffey _040. If there was a compensation flow, the water level in Golden Falls Reservoir would not drop sufficiently to allow the ESB to operate the turbines and generate finance.

Using mean flows covers up the reality that there is no flow into Golden Falls Lake/Reservoir pass the Blessington WWTP for typically 97% of the time. Even using mean flows it cannot cover up the fact that “The flow duration curves still show that there is zero flow from Poulaphouca Reservoir for 20% of the time, and that the Q95 flow from this Reservoir is therefore 0 m³/s.”

In dealing with aquatic life, or the health of the many recreational users of Golden Falls Lake/Reservoir, real time dilution flows have to take precedence over daily mean flows.

2.3 Reconciling Flow Volumes

“The water quality calculations in Section 4 require assessment of water volumes available for dilution.”

Once again the smoke and mirrors are in use. Cumulative inflows to Golden Falls Lake/Reservoir enter the Reservoir downstream of the Blessington WWTP discharge and are recorded as part of the flows into the Liffey from Golden Falls Dam/Power station. As stated previously, typically for 95.8% of weekdays and 100% of the time at weekends there is no water flow pass the Blessington WWTP discharge point into Golden Falls Lake/Reservoir for dilution of the discharge.

3 Ambient and Effluent Quality Data

“Additional ambient water quality and effluent quality data are now available which were recorded subsequent to submission of the previous 2023 Water Quality Impact Assessment. The updated datasets are discussed in this Section.”

Uisce Éireann would like us all to forget the history of the effluent quality from the Blessington WWTP discharge and its negative effect on the ambient water quality for good reasons. (Has anything changed-See some photographs of discharge later, not the easiest location to access to take photographs or video clips)

3.1 Effluent Flow and Quality Data

From Figure 3-1: Blessington WwTP Effluent Daily Flow Timeseries (2018-2025) it appears that Uisce Éireann want us to forget about the past and deal with the Effluent Flow and Quality Data from the recently constructed Blessington 9000P.E. WWTP despite the fact that the current EPA Blessington WWDL D0063-01 is for 6000 P.E.

It would appear from the data provided that apart from the ammonia concentrations in the effluent, the BOD, Orthophosphate and Total Phosphate are below the ELV specified in the Blessington 6000 P.E. WWDL D0063-01 (based on a lie that the discharge is into a constant minimum flow of 1.5m³/s) and which is now being reviewed.

Figure 3-5: Effluent Concentrations of Ammonia from Blessington WwTP.

Figure 3-5 clearly shows that the Blessington WWTP has a history of non compliances with its EPA WWDL ELV for Ammonia and that this is starting to reappear despite the recently upgraded 9000 P.E. WWTP.

“Concentrations of ammonia were lower throughout 2023 and to mid-2024, however for a period following October 2024 elevated ammonia concentrations were present in the influent to the WwTP and resulted in elevated ammonia concentrations in the effluent which remained until early 2025. The cause of the ELVs exceedances were due to shock loads to the WwTP,”

Figure 3-5 shows that the recently upgraded Blessington WWTP is non compliant with its ammonia ELV from September 2024 until March 2025 a period of 7 months “the source of which was investigated but not identified.” Therefore Uisce Éireann are not in a position to know if these elevated ammonia concentrations in the influent to the WWTP will not reappear periodically and which the recently upgraded WWTP cannot cope with.

While the effluent concentration provided by the data might give the impression that everything is fine for BOD, Orthophosphate and Total Phosphate, recent visual inspections of the effluent at the discharge point into Golden Falls Lake/Reservoir tells a completely different story.

Most forms of aquatic pollution are first detected by visual inspection. Visual inspections of the Blessington WWTP discharge are only possible when the water level in the Golden Falls Reservoir is lowered to its pre Liffey Hydro Electric Scheme river level. This happens periodically to allow the ESB to carry out maintenance work on Golden Falls Dam. This is presently the position, the Reservoir water level has been lowered or ‘dewatered’ as described by the ESB, so we are back to the pre Liffey Scheme river conditions.

The ESB are releasing water through the compensations valve at Poulaphouca Dam. Water is now flowing like the pre Liffey Scheme Liffey, through Poulaphouca Gorge, over the Poulaphouca Waterfall and making its way as a river to Golden Falls Dam and into the Liffey proper downstream.

At this stage the ESB are balancing the flows through the compensation valves at Poulaphouca Dam and Golden Falls Dam.

This will all change back again when the maintenance work on Golden Falls Dam is completed and the Reservoir is filled again to ESB operations level. The intermittent operation of the turbines will then control the water flow into the Golden Falls Reservoir.



Blessington WWTP Discharge 10th August 2025 10.30hrs



Blessington WWTP discharge 12th August 2025



Blessington WWTP discharge 16th August 2025 1813hrs



Blessington WWTP discharge (frame from video) 25th August 2025



Blessington WWTP discharge 1st September 2025 1820 hrs



Blessington WWTP discharge 4th September 2025 1810 hrs



Blessington WWTP Discharge location in relation to Poulaphouca Power Station approx. 300 metres upstream. Between Poulaphouca Dam and Golden Falls Dam is now behaving like a pre Liffey Scheme river while work is being carried out at Golden Falls Dam.

The photos and video clips of the Blessington WWTP discharge into Golden Falls Lake/Reservoir look anything but healthy or compliant and beg the question as to how the daily sample for analysis is collected?

3.2 Ambient Quality Data

“Ambient water quality is monitored at three locations close to the Blessington WwTP discharge point (Figure 3-6). There are two monitoring points in the Liffey_040 river section, upstream and downstream of the primary discharge point for Blessington WwTP discharge point, and a third water quality monitoring point within Golden Falls Reservoir.”

All the sampling points, RS09L010390, LS090016804400010 and RS09L010384 shown in Figure 3-6: Water Quality Sampling Points at Blessington WwTP Discharge Point are within the Golden Falls Lake/Reservoir. There is no constant river running into Golden Falls Lake/Reservoir.

“Data from RS09L010390 and LS090016804400010 were used to inform the 2023 Water Quality Impact Assessment, however water quality monitoring at RS09L010384 only commenced in January 2023 so data from this location were not available to inform that report. The report used data taken from a point close to the N81 road bridge over the Liffey_040 near Poulaphouca Reservoir as an indicator of upstream water quality, however data from this location are no longer recorded.”

Up until January 2023 samples were taken “from a point close to the N81 road bridge over the Liffey_040 near Poulaphouca Reservoir as an indicator of upstream water quality”. How anyone managed to sample this dangerous almost inaccessible location is a mystery. Also the fact that most of the time all that was sampled was what seeped into the Gorge from the steep banks on either side which was unrepresentative of upstream water quality as there is no constant minimum flow river from the back of Poulaphouca Dam.

The sample point RS09L010384 which commenced in January 2023 is approximately 100 metres downstream of Poulaphouca Power Station. Personally, I would not like to be sampling from a boat in this location if the ESB operated the turbines and released a tsunami of up to 80 million litres of water per second into the Lake Reservoir while I was in that location.



The other lake samples RS09L010390 and LS090016804400010 also have to be taken using a boat to access the sampling locations. I believe it is not a coincidence that Lawpro do not sample lakes.

Also, please note that Uisce Éireann never show the location of Poulaphouca Power Station which is 450metres distant from Poulaphouca Dam and on the opposite side of the N81 road. They do show the location of the 110kv substation but not the Power Station which controls the flow into Golden Falls Lake/Reservoir most of the time?

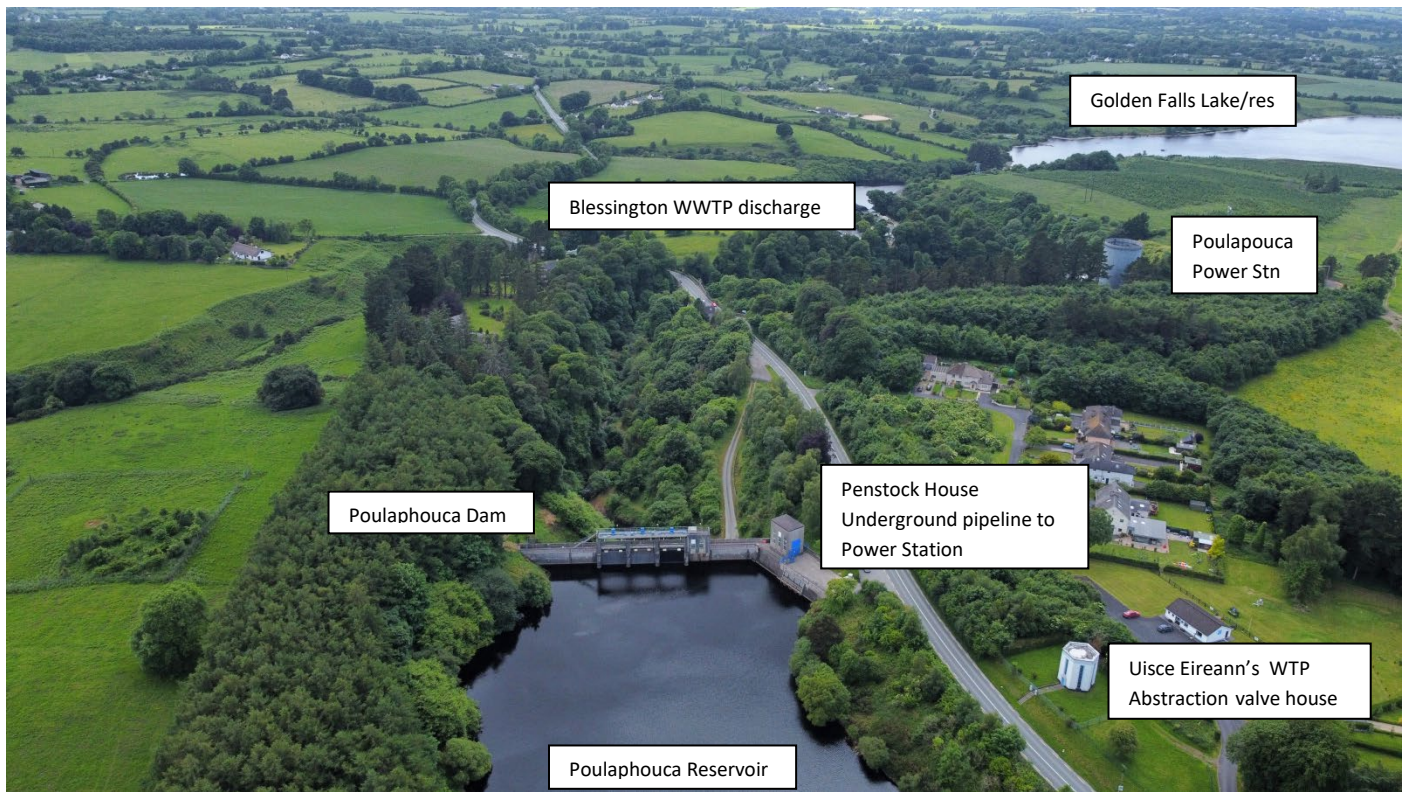


Image shows Poulaphouca Dam in relation to Poulaphouca Power Station etc.

Although not mentioned in the Uisce Éireann Unsolicited Additional Information - Reg18(3)(b) Response WQIA received by EPA dated 29th August 2025, as a lifelong resident of Ballymore Eustace and living within a kilometre of Golden Falls Dam, I feel it is incumbent on me to mention the health and safety aspects regarding monitoring and sampling the Blessington WWTP discharge into Golden Falls Lake/Reservoir and the ambient.

The operation of Poulaphouca and Golden Falls Dams and Power Stations is controlled from Turlough Hill Power Station 20 km away, so the operators may not be aware of the sampler's location on Golden Falls Lake/Reservoir.

When it comes to ambient water quality in Golden Falls Reservoir, I would prefer to believe what the visual appearance of the Blessington WWTP discharge along with the algae blooms that appear in the Reservoir tell me and not mean concentrations calculated over long periods of time,

Also, looking at the images of the Blessington WWTP discharge into Golden Falls, is there a need for a daily *Ecoli* count to warn recreational users of the Lake/Reservoir, anglers, water skiers, swimmers etc. if there is a health risk?

4 Water Quality Impact Assessment Calculations

4.1 Methodology

Not applicable, since there is no constant minimum flow pass the Blessington WWTP discharge point in Golden Falls Lake/ Reservoir, there is no constant minimum assimilation of the discharge.

Natural catchment inflows and subsurface water transport enter the Reservoir downstream of the Blessington WWTP discharge point and therefore are not relevant.

4.2 Results

Not applicable since they are based on a false premise.

5 Mass Emissions

Equation 5-1: Calculation of River Assimilative Capacity.

Q_r = mean river flow = There is no river, therefore 0 m³/s at the Blessington WWTP discharge point for long periods. Assimilative Capacity = 0

6 Conclusion

Not applicable, based on a false premise.

Finally and in conclusion may I add:

The Blessington WWDL D0063-01 is based on the lie that the Blessington WWTP primary discharge is into a constant minimum flow of 1.5m³/s.

An EPA Inspector has put the record straight regarding flow into Golden Falls Lake/Reservoir - "From a review of the data, typically it flows for 1 hour a day on week days and doesn't flow on weekends."

A Bord Pleanála Inspector dealing with the upgrading of Blessington WWTP to 9000P.E. said "I have very strong concerns that the proposed development represents a short term iterative response to an ongoing and serious issue, with local under-capacity in wastewater treatment leading to the increased use of an outfall which seems suboptimal in terms of modern requirements." (my highlighting)

"The proposed works seem primarily intended to address existing overloading and to provide scope for relatively short term future growth in the town. I would be concerned that this represents an inappropriate approach to ongoing problems with what I would consider to be a suboptimal solution to disposing of the effluent to allow for both the protection of the water catchment and allow for reasonable projections of future growth for Blessington." (my highlighting)

"---having regard to the cumulative impact of other developments in the area and the uncertainty over whether the capacity is enough for more than short term needs for Blessington, I would consider the approach of the applicants to be questionable." (The Inspector recommended refusal but unfortunately the Board overruled the Inspector and believed the false data supplied by Uisce Éireann)

Uisce Éireann have failed to provide what was requested by the EPA Inspector (a) Provide flow data for the receiving waterbody in the vicinity of the primary discharge point showing a constant minimum flow of 1.5m³/s at all times.

(b) Provide confirmation, including supporting documentation, that demonstrates there will be a constant flow maintained in the vicinity of the discharge in the future to facilitate adequate mixing.

(c) Provide evidence, including consideration for flows at the primary discharge point, to demonstrate the receiving waterbody is not impacted by the waste water discharge.

Ballymore Eustace Trout and Salmon Anglers' Association respectfully appeal to the Environmental Protection Agency to declare Golden Falls Lake/Reservoir an unacceptable location for the Blessington 9000 P.E WWTP discharge.

Yours Sincerely,

Thomas Deegan
Honorary Secretary