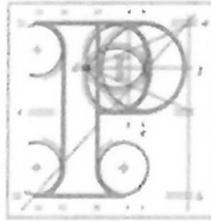


Our Case Number: ACP-323980-25



**An
Coimisiún
Pleanála**

Michael Reidy
50 Monaleen Park
Castletry
Co. Limerick

Date: 26 February 2026

Re: Proposed Water Supply Project for the Eastern and Midlands Region
in the counties of Clare, Limerick, Tipperary, Offaly, Kildare, and Dublin.

Dear Sir / Madam,

An Coimisiún Pleanála has received your recent submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter. Please accept this letter as a receipt for the fee of €50 that you have paid.

The Commission will revert to you in due course with regard to the matter.

Please be advised that copies of all submissions / observations received in relation to the application will be made available for public inspection at the offices of the local authority and at the offices of An Coimisiún Pleanála when they have been processed by the Commission.

More detailed information in relation to strategic infrastructure development can be viewed on the Commission's website: www.pleanala.ie.

If you have any queries in the meantime please contact the undersigned officer of the Commission. Please quote the above mentioned An Coimisiún Pleanála reference number in any correspondence or telephone contact with the Commission.

Yours faithfully,

Eimear Reilly
Executive Officer
Direct Line: 01-8737184

PA04

Teil	Tel	(01) 858 8100
Glaó Áitiúil	LoCall	1800 275 175
Facs	Fax	(01) 872 2684
Láithreán Gréasáin	Website	www.pleanala.ie
Ríomhphost	Email	communications@pleanala.ie

64 Sráid Maoilbhríde	64 Marlborough Street
Baile Átha Cliath 1	Dublin 1
D01 V902	D01 V902

Michael Reidy, B.E, C,Eng MSc. Seumas O'Sullivan B.E. MSc, 50 Monaleen Park, Castletroy Limerick (087 2113394) Case Reference 323980

Observations, by way of objection regarding Uisce Eireann's Application for the Shannon to Dublin Pipeline Project for the Eastern and Midlands Region,

UE are in the very privileged position of having special planning consideration for any of their infrastructural proposals, there is a corresponding responsibility to ensure that the submission is forthright, comprehensive, accurate and without omissions that would influence the decision making process.

Main Reasons for refusal :

The proposal is not in accordance with the proper planning and development both of the River Shannon area and the objective of providing a sustainable water supply to serve the needs of Dublin in the medium and long term.

- (1) The 300,000 m³ per day is simply not available for abstraction in the proposed abstraction location during extended dry periods. The 2% of annual flow that UE circulates is a misnomer. The flow in the Shannon is extremely variable ranging from 800m³/sec in a flood to less than 10m³/sec during dry periods at the abstraction location. Whereas the flow into Lough Derg may be 19m³/sec in dry periods, the river flow out, is less than 10m³/sec at these times, the difference is accounted for due to evaporation/transpiration. The fact that the river outflow from the lake is less than 10m³/sec is proven by the fact that in dry periods the electricity generating turbines are shut down the Lake (Lough Derg) is continuously dropping, even if just slightly, to maintain the 10m³/sec compensation flow over the weir to the old course.

Under these circumstances, the following will happen : The range of height through which the auxiliary man made ESB lake behind the Ardnacrusha Dam is allowed to fluctuate is approx. .45m to preserve embankments, but this is not the operating range, this .45m is further reduced the need to reserve about .15m for emergency at the bottom and a further about .15m at the top to allow for the possibility of a flash flood event. When these limits are approached, according to the ESB draft Contract with UE, the ESB will simply instruct UE to shut down their abstraction.

The auxiliary Impoundment lake behind the ESB Dam at Ardnacrusha, has an area of some 3.6 sq km, If 300,000 m³ per day is abstracted, no additional flow is possible from Lough Derg. The 300,000 abstraction will reduce the level of the area and embankment around the abstraction

point, triggering the instruction for shut off by the ESB once the .15m reduction is arrived at. Resistance to flow within the water body, resistance at embankment sides and wind issues, will mean that it will not be a uniform .15m drop across the full water body, it will be at a taper from the abstraction point back towards the inlet to the artificial lake. In this event there would be two consequences, The inlet level at the top of the artificial lake would not drop and the amount of water available would be at most 3.6 sq km multiplied by .15m divided by 2 to allow for the tapering effect. At an abstraction rate of 300,000m³/day, this would last five to six days, before the ESB cried halt, to preserve embankments. The Dry period or drought in 2018 was some 56 days so the shortfall would be some 15 million m³. This level of raw water impoundment would be required to ensure that the proposed 300,000 abstraction was available to serve Dublin. Even if an auxiliary pipeline were installed in Lough Derg itself, to connect back to Parteen, it would have the same technical issues with drawdown and abstraction issues in summer. UE and the ESB had the opportunity, not only to model this, but to have a physical real test over the many summers it has taken to develop this proposal, by simply allowing an additional 300,000m³ to spill over the weir down the old course of the Shannon in summer, or allow it to go through the turbines to see just exactly what the boundaries of possibilities were and not allow it to get to this stage, where 10 billion euros is proposed to be spent to find out that there is a major issue afterwards. That is find out the hard way. But they did not do this. The fact is it was touch and go in quite a number of periods and the bare compensation flow was all that was available during these periods and no one took the chance to take out the additional 300,000m³/day. An Commisiun Pleanala, are now expected to adjudicate on this proposal without the obvious and available information on its core viability.

Reason no 2 for refusal.

There is an obligation under sustainable environmental , technical and investment evaluation headings, to examine alternatives that might be available. The alternatives that were examined were at the sole choosing of UE and in some instances some dismissed on fairly flimsy grounds. Fundamentally two types of alternatives were examined, alternatives for supply in the East and alternatives with the Shannon. Alternatives in the East.

Rivers in the East, the Liffey, Slaney, Barrow, Boyne, have a combined flow of three quarters that of the Shannon, so the proposed abstraction would be 2.5% of these, using UE's criteria of water amount availability.

Barrow.

The Barrow was originally dismissed by Dublin City Council, the details of such evaluation are part of UE's submission. This rationale was then used to include requirements for Kildare in a Shannon abstraction proposal. However after this the Consultants who were appointed by Kildare Co Co simply went further down the River and found all they needed. So a main plank of the original reason for targeting the Shannon back then proved groundless in retrospect.

Slaney

The Slaney was not considered by Uisce Eireann, despite its rising right adjacent to the Liffey and being just some 20 km at Baltimore from the main abstraction and treatment facility for Dublin at Ballymore Eustace. At this point the flow is probably half that of the Liffey and could have provided a winter backup for the Liffey and optimise the use of the Poulaphuca Reservoir, by a pipeline to Ballmore Eustace. It is also quite obvious that there is no joined up thinking as an obvious solution or at least mitigation to the flooding of the Slaney downstream that is Enniscorthy would be to provide some flood storage in the Glen of Imaal, on state lands. This would work just the same as Poulaphuca acted as a flood defence mechanism for Dublin recently. Flood waters stored in this location would supply Dublin in the Summer also. So the obvious wasn't even considered, despite the fact that there is considerable overlap in consultants between water supply and the flooding remediation reports.

Liffey

The Liffey was harnessed in the 1920's by the construction of Poulaphuca Reservoir. This reservoir is some 18 billion litres in extent, Half the flow of the Liffey, approx. 9m³ per sec, that is the flow from where it rises bar a small compensation outflow as the source of the lower Liffey, was proposed to be set aside to supply Dublin, by this reservoir. As the ESB were paying for the dam, they had the bulk of the water rights. As it stands, there is a considerable difference between the water reserved for Dublin, the space reserved for flood mitigation and the considerable volume fundamentally just used for electricity generation. That volume alone would sort out the supply issue to Dublin, were it to be utilised for

that purpose. Downstream of Poulaphuca, there is an additional abstraction at Leixlip, but fundamentally the Liffey has to be considered two rivers, that above and that below Poulaphuca, as was the original intention, so the question really is how to properly utilise and augment this in accordance with the original intention and not simply dismiss it.

Boyne

The Boyne and indeed in common with all rivers in Ireland have low flow issues in summer. At some stage some impoundment facilities will be required to augment the summer supply. If this were provided, given the fact that for most of the year, bar the summer, the rivers in the east have practically endless capacity, it would be a better use of available resources, financial and otherwise to utilise these and provide summer shortfall storage to bridge the summer shortfall requirements. Indeed interconnectors between the treated water supplies from the rivers of the east would be far more beneficial to serve the half the country's population that live there than bringing a pipeline from Arnacrusa.

The Shannon Alternatives

UE proposed a series of alternatives for abstraction proposals from the Shannon.

The first was an abstraction from Lough Ree. This was rejected on the basis that the maximum amount available would be 60,000m³/day during the summer. The average flow at Athlone is over 94,000 m³ per second, so summertime flow in the Shannon is an issue throughout its length. However, a 60,000 m³/ day abstraction from Lough Ree in Summer and 300,000 for the rest of the year, would allow a raw water pipeline to be laid along the straight road a short distance to Mullingar, used as needs be there, then the rest treated and onwards to Dublin at the terminal treated water reservoir. This would allow the Royal Canal to be topped up from the Shannon as opposed to the Brosna, which is at bare minimum compensation flow during the summer. In turn the Brosna could be restored. Also Lough Ennell, which has been reduced to half its size, could be restored somewhat and used as both flood storage and storage for summer use. The consultants mentioned, in the flood report, that the Callows can flood ever before the water reaches Lough Derg, so it would be important to impound this as much as possible before the Callows flood. In addition to the above, a restored Brosna, could supply Tullamore which is in the Shannon catchment and treated water would flow back to the Shannon thereby with both Mullingar and Tullamore catered for, the

argument for supply to the midlands from the pipeline proposal is obviated as these are the main supply areas, the midlands would be a non-issue.

This solution would have been the optimum one solving the supply issue to Dublin and resolve the other issues raised as underpinning the pipeline proposal. The consultants for the flooding and the water supply would appear to be the same and will, it appears, be implementing the delivery of the Shannon pipeline project throughout beyond this feasibility stage. There needs to be a complete reassessment of this option by them and UE at this stage as it is difficult to imagine why this option was dismissed.

The next option involved an abstraction from the top of Lough Derg This was dismissed, despite the fact that it would have been a far shorter route, on the basis of environmental grounds, the area having special environmental designations, one of the conclusions was that the lake would be without the benefit of the river input in terms of nutrients and presumably oxygenation. This was given without the benefit of proof as to the nature and extent of such enrichment or the effect on a water body 120,000,000 sq metres an average of 7.5m deep in extent by the abstraction of 3.5m³/ second, if any. The option of providing summertime storage, which may have mitigated flooding effects, even if only to some extent, in addition to the other seasonal abstraction was not examined.

Reason number 3 for refusal

The environmental issues associated with Lough Derg are inadequately addressed. It is clear that the real source of whatever can safely be abstracted in the dry season will be from the store of water in Lough Derg. In the original River Basin Management plans, the methodology for determining the effects on a lake were specifically developed in conjunction with the Eastern River Basin Management Planning development process. This would not appear to have been referenced or used in the assessment of the effects on Lough Derg. This is not just an environmental issue alone. Whole populations, tourism industries and future potential usage are interwoven. It is not just an issue of identifying a demand and identifying a source and drawing a straight line on a map. The interdependence of numerous beneficiaries have to be properly identified and catered for, not just for this current need but into the future.

Reason number 4 for refusal

The proposal lacks the required legislative authority for abstraction.

One of the main planks of this application is UE's Water Resource Management Plans. These plans have no statutory basis and their terms of reference and scope are simply UE's no more. Nowhere in the list of legislation referred to does it give the authority to develop Water Resource Management plans, not set out in the Water Acts. They can produce Water Plans, but that is in relation to their specific area of competence and authority. It is necessary that the development of Water Resource Management Plans be subject to clear legislative regulation as regards both authority and responsibility as applies in other jurisdictions. UE in developing these plans have assumed the authority and not accepted responsibility for the water bodies they are abstracting from. For instance, the Shannon is divided down the middle between The Midlands/East and West region, outside of the possibility, however remote, of double counting as Ballinasloe is in the west and Athlone in the Midlands/East, it would be clearly better if the entire Shannon catchment area was considered an entity for planning purposes. Or the whole country taken as one similar to the River Basin Management Plan.

Additionally, the relationship between UE and the ESB needs to be clearly defined as regards responsibility. Reference is made in the application to UE sharing the abstraction at Parteen between themselves and the ESB. The ESB have no power to abstract, nor to allow or share any. They only have the use and return right for generating purposes. They can of course say they need it or not and share it on that basis, but they don't own it to give it away. This would be a reserved function of some other body, which would be identified in legislation.

The whole basis for determining future demand and provisions equally needs to be legislated for. UE have adopted a figure of 121 litres per head per day as a target, whereas the CSO figure currently is 110 litres per head per day, which incidentally is the target used by Thames Water and which also makes a complete farce of the elaborate waste reduction targets. Additionally treating outages, etc that can be stored for in reservoirs as continuous demand warps the actual reality so much so that UE are currently saying that there is a shortfall of 47, 000 m³ per day at present in Dublin, representing about 400,000 people without water, this is nonsense. The industrial demand projection is designed for several equivalents of Aughinish Aluminas over the next twenty five years in addition to normal commercial and industrial demand forecasts. This is clearly not going to happen. That is not to say that the demand won't be there sometime in the future, however dim and distant, but this

application is for what it is and the figures stand up to scrutiny or not. Demand will grow slowly over many years until the day will come when 300,000m³ will be needed and then or well before it, the shortfall in supply will become a critical issue. This will be well after the current regime have been superseded. Nevertheless the application must be adjudicated on the basis of the submission and stated requirement in its full stated need and if proven unavailable should be refused. Also, the necessary abstraction licencing regime needs to be put in place. A planning application in advance of the necessary licence to abstract anticipates the outcome of the licence limits and is therefore premature.

Reason number 5 for refusal.

The proposed pipeline has several take-off points already decided. These will determine the line of the spur pipelines in turn. There will be many if not as much again number of landowners affected by these spur pipelines. These landowners are entitled, at this stage, to know how they are to be affected and not find out piecemeal as time goes on.

Reason No 6 for refusal.

The proposal is not in accordance with the proper planning and development of the Shannon Resource.

The Shannon Estuary is acknowledged as a unique deep water resource for and in Ireland. Fundamentally, the resource is ideal for industrial development involving large transportation by ship. The only place that the necessary water supply for such development is located is precisely where UE intend to have their abstraction for Dublin.

A complete examination of this critical resource needs to be independently undertaken to ensure the optimum and sustainable use of this resource. Undoubtedly large scale impoundment of water will be required anyway to bridge the low summer flow times, The time to address this is at this stage and not let first in go off with the lot. For this the already outlined necessary impoundment for summer storage is needed before the abstraction should even considered for approval.

Given that such impoundment, if provided in the foothills of the Dublin mountains would serve the exact same purpose at a fraction of the cost of the pipeline, and with ready access to the main treatment facility at Ballymore Eustace, it would appear that the supply to Dublin could be achieved at minimal cost to the taxpayer and save the massive construction, land acquisition costs and fees associated with the pipeline.

Reason number 7 for refusal

The application is for a single pipeline carrying treated water, the requirement indicated is for 300, 000m³/day to Dublin and the midlands. In the event of disruption, minor failure or catastrophic failure, there is no fall back position. The worst case scenario is that this happens in summer as there would not be any need for the pipeline for nine months of the year anyway. The backup would normally be some storage, but treated water storage is not practical at this volume so there is no plan to cater for such eventuality. Also, at some stage, a raw water pipeine will be needed to feed into and from a large scale storage reservoir, the pipelines to and from which may have to parallel the current land take. Consequently all such clearly anticipated provisions should be allowed for at this stage and not let it into the future to tell the landowners of this future need.

Reason Number 8

It is admitted and a serious restoration issue, that the fish life, particularly salmon and eels, also birdlife and through invasive species, other aquatic life, have suffered severe decline since the construction of the Ardnacrusha hydroelectric dam on the Shannon. This effect has been exacerbated by the effects of drainage, modern farming practices and many other developments over the years. One of the remedial proposals being considered under the River Basin Management Plan is to increase the compensation flow to the old course of the Shannon to 17m³/sec when the water is available and forego the small electricity generation involved for the difference. The abstraction of 3.5m³/sec for Dublin and an allowance of 1m³/sec for Limerick immediately downstream at Clareville, would mean that the Shannon would have to have a flow of a minimum of 21.5 m³/sec before the planned increase in compensation flow kicks in. This would extend the period of artificial low flows through the old course, the period for which is easily calculated but will negate to an extent the planned for flow variable designed to establish and mimic more cloely a flow variation that would occur in nature.