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## **SUBMISSION TO THE COMMISSION FOR REGULATION OF UTILITIES ON**

**The Review of Irish Water's proposed approach to the Water Supply Project for the Eastern and Midlands Region**

21<sup>st</sup> June 2019



## **Introduction to An Fóram Uisce**

An Fóram Uisce (the Water Forum) was established in June 2018 in accordance with the provisions of Part 5 of the Water Services Act 2017. An Fóram is the only statutory body representative of all stakeholders with an interest in the quality of Ireland's water bodies. An Fóram consists of 28 members including representatives from a wide range of organisations with direct connections to issues relating to water quality and also public water consumers. Approximately 50 different organisations were involved in the nomination of members.

## **CRU Review of Irish Water's proposed approach to the WSP.**

An Fóram welcomes the appointment of the Commission for Regulation of Utilities (the CRU) by Mr. Eoghan Murphy, T.D., Minister for Housing, Planning and Local Government to carry out a review of Irish Water's proposed approach to the Water Supply Project for the Eastern and Midlands Region (the WSP) and notes the terms of reference in relation to same, including its own consultative role.

An Fóram has given a significant level of consideration to the proposed WSP and the rationale underpinning its need. This report sets out An Fóram's approach and concerns arising from same. Having gone through this process, An Fóram is agreed on the need for an additional water supply provision for Dublin on the scale proposed in the WSP project. While it actively supports increased focus on water conservation, on tackling the leakage and unaccounted for water problem in the city, it believes that these measures alone or in combination will not deal with the fundamental structural problem of Dublin's water supply-namely its excessive reliance on a single source. Accounting for 85% of Dublin's water, the Liffey is a critical artery supporting all aspects of life in the capital city. A disruption to this source could have potentially catastrophic effects on the city and the need to spread risk to at least one other major source is paramount.

## **An Fóram's approach to the Review**

The proposed WSP has been the subject of consideration within An Fóram on a number of occasions since its statutory establishment in June 2018 and indeed prior to the announcement of the CRU's Review. During that time, An Fóram received presentations from Irish Water with regard to its proposals on a number of occasions and also invited Ms. Emma Kennedy to address An Fóram. A special meeting of An Fóram was convened in

November 2018 at which presentations were received from Irish Water and Ms. Kennedy with specific reference to water demand and supply within the Greater Dublin Area, alternative options, the WSP and environmental issues and concerns.

Having regard to the strategic importance of the project, its projected costings and the many issues associated with same, An Fóram considered it necessary to seek independent expertise with an international perspective in order to properly advise on the many issues associated with the project. To this end, An Fóram appointed Ms. Nelly Maublanc to provide the required advices (Ms. Maublanc's biographical note and the terms of reference for her study are attached). Ms Maublanc carried out her review in the Spring of 2019 and presented her preliminary findings to An Fóram in April 2019 after which her final report was submitted, a copy of which is attached to this submission. An Fóram has shared Ms. Maublanc's report with Irish Water and has received feedback from Irish Water in relation to same, a copy of which is also attached to this submission.

### **The WSP**

It is recognised that this proposed project is complex, is of enormous scale and is multi dimensional in terms of its engineering, commercial, environmental and general economic considerations. It is also acknowledged that the very protracted lifespan of the project (over a period of 20 years) gives rise to a situation where parameters shift and the relevant data bases can change with continuous updating. Given this complexity and scale, uncertainty and confusion are inevitable and the onus on Irish Water to mitigate such uncertainty is increased. Public confusion can hinder the delivery of key infrastructural projects and it is incumbent on the promoters of such projects to ensure clarity and transparency thus leading to a greater level of trust.

As a consequence of these issues, a range of uncertainties and confusion have arisen in relation to basic information pertaining to demand, supply and solutions. An Fóram hopes that the current Review will assist in clarifying these issues and result in a better understanding of critical information and proposed solutions. Further, the projected costings are of such a scale as warrant detailed examination and critical analysis prior to embarking on the implementation of any solution.

### **Key considerations**

An Fóram understands that there are a number of key considerations in relation to any water supply project, particularly one as strategically important as the proposed WSP. Central to same is the identification of emerging demands for water, assessment of current and future demand, addressing leakage and conservation issues, building in resilience and security and considering the range of alternative options.

**(i) Emerging demands for water**

It could not be considered that Ireland is a water stressed country. However, many of our critical water services are in poor condition and require significant investment. Investment in water services infrastructure is provided for in the National Planning Framework which states that *‘Investment in water services infrastructure is critical to the implementation of the National Development Plan. The current Water Services Strategic Plan by Irish Water will be updated in the light of the policies in the National Planning Framework addressing the requirements of future development, while also addressing environmental requirements such as obligations under EU Water Framework Directive mandated River Basin Management Plans’.*

In addition to this, there are challenges presented by the growth in demand. The projected growth of the Dublin Region, as provided for in the National Planning Framework, presents a real and immediate challenge in terms of water supply. The NPF provides for same stating that *‘A new long-term water supply source for the Eastern and Midland Region, which includes the Dublin Water Supply Area (DWSA), is needed by the mid-2020s, to provide for projected growth up to 2050 and contribute to resilience and security of supply for the region. This requires infrastructure provision to be guided and prioritised in a manner that can benefit the greatest possible number of areas within the country’*

In addition to these challenges, there are emerging uncertainties in relation to year round supply where, in recent years, issues of flooding, summer drought and severe weather events present additional burdens on an aged infrastructure.

As stated in the opening paragraph, it is the considered view of An Fóram that the challenge in relation to meeting the water demand in the Greater Dublin Area is pressing and must be addressed as a matter of urgency.

**(ii) The supply and demand balance**

Clearly, the accurate assessment of demand projections is of utmost importance as it serves to determine the extent of need and thus the scale of response. It must be predicated on accurate data, appropriate analysis and cross checking, based on international best practice, to ensure that the outcomes can be relied upon.

It is appreciated that this is not an easy task and has been made more complicated by the fact that Irelands public water supply services have only been amalgamated under Irish Water since 2014. The availability and accuracy of historical data present problems to Irish Water in its modelling and make it difficult to project future demand with confidence.

While recognising these constraints, An Fóram is concerned with the differences in terms of approach, methodologies and outcomes in relation to assessing current demand and

projecting future demand arising from Irish Waters own reports. The main issue in relation to projections for growth in non-domestic consumption to 2050 appear to be the manner in which the strategic allowance component is assessed as is evidenced in Ms. Maublanc's report and Irish Water's response.

A further issue of concern is the use of a variety of parameters to define the supply and demand balance and confusion that has arisen as a result of same. Projected demand must be accurately assessed so as to provide for:

- peak usage - to address the variability of demand on a daily, weekly and seasonal basis;
- headroom – to address security and backup in the event of a serious incident e.g. treatment plant outage, pollution incident, drought etc. and;
- strategic allowance – to provide for an increase in demand which is more than was anticipated.

It is important that the projected demand is accurately assessed in order to provide for expansion and resilience but yet ensuring that projections are not inflated above what is reasonable.

Given this level of disagreement, it seems apparent that the level of demand has yet to be properly determined. It is understood that Irish Water intends to update the Project Need Report later this year. It is imperative that this update is published at the earliest possible date which will assist in accurately assessing the level of demand which in term will assist in determining the scale of the solution.

### **(iii) Leakage and conservation measures.**

The issue with regard to leakage detection and elimination is one that has become centre stage in the debate concerning this project. An Fóram is concerned that while the current level of leakage is known to be high in this country, Irish Water has advised that it is not possible to precisely determine same pending the completion of the implementation of District Metering Areas. It would be important that the most up to date information is fed into the current Review in relation to same.

In addressing the issue of water loss, it is important to differentiate between the concepts of unaccounted for water and leakage. Having opted for one or other of these metrics, an agreed baseline can be established for the on-going measurement of water loss generally and of leakage specifically.

In terms of the management of leakages, there are concerns that Irish Water's programme is not sufficiently ambitious and that the continuation of a high level of water loss to leakage is not acceptable from environmental or economic perspectives. Further, it is very difficult

to run a successful conservation programme encouraging consumers to reduce use, fix leaks and use water wisely when the loss at the public side is so significant. Ms. Maublanc's report refers to international comparisons with countries/cities such as Scotland, Malta and Lisbon which have shown that it is possible to achieve greater savings within a shorter timeframe than that planned by Irish Water *'using a combination of means including improved data management to speed up leak detection (e.g. Scottish Water achieved 96% District Metering Area coverage), pressure management, new operational organisation, regulatory pressure etc. thus showing that infrastructure renewal is not the only solution to leakage. A strong focus from the leadership/management and dedicated resources appear to be key factors of success'*. To conclude, An Fóram understands that while a more effective and ambitious leakage detection programme is required, it will be just one of a number of courses to be pursued in meeting Dublin's water needs. Leakage reduction will reduce water demand but, even at its most ambitious will not, on its own, address the issue of water security and water resilience in Dublin.

#### **(iv) Building in Resilience**

The issue of water resilience refers to the capacity of a supply to withstand major disruption. It requires that:

- supplies and infrastructure are resistant to damage or interference;
- operational capacity is sufficient and reliable to meet with normal and peak demand;
- a viable alternative is in place should any major plant become temporarily redundant;
- effective arrangements are in place to ensure an adequate and effective response to service outages and;
- Disruption to water supply is kept to a minimum and can be restored to normal within a reasonable timeframe.

It is An Fóram's view that the resilience of Dublin's water supply is an area of immediate concern which needs to be addressed as a matter of urgency. The Liffey is the primary source of Dublin's water supply, providing all the water both to the Poulaphuca and Leixlip water treatment plants. Varty reservoir, which is contiguous to the Liffey's catchment, completes the supply system. There are clearly significant risks here in such singular dependency and the case for spreading this risk over wider range of sources is pressing and urgent. Added to this concern is the fact that the main treatment plants are at or close to maximum capacity and so there is very little buoyancy to cope with peak demand or a situation where one of the plants is taken out of operation. Therefore, there is an immediate requirement to ensure that the headroom between production capacity and demand be increased and that an alternative supply is found which is independent of the River Liffey.

It is also suggested that the integration of any new supply into the existing network is of utmost importance as same will provide service resilience in a zone much wider than the Dublin Area and make the chosen resolution(s) more cost effective, benefitting a significant proportion of Ireland's population.

**(v) Identifying alternative options.**

An Fóram considers that any agreed solution must ensure that (i) the headroom between production capacity and demand in the Greater Dublin Area be increased and (ii) that an alternative supply is found which is independent of the River Liffey.

While understanding that the WSP meets with both of these objectives (and indeed potentially provide a similar security along the benefitting corridor) and is of the view that while other approaches and initiatives are also desirable, the arguments re headroom and resilience are overwhelmingly in favour of sourcing an additional and major alternative supply.

This is not to say in concentrating on the WSP as the main response to the Greater Dublin Area water demand, emphasis should not also be placed on delivering on environmental protection measures including demand reduction, leakage management and conservation measures which are all essential elements in the context of integrated catchment management.

An Fóram has also considered what other alternatives might be available in relation to same, particularly those that would meet with service considerations and also deliver in terms of environmental best practice. These options included groundwater options, desalination technology, and rainwater collection systems. It is understood that each of these options has limitations, which are set out in Ms. Maublanc's report. However, An Fóram has made recommendations in relation to a number of associated issues further in our submission.

It should be noted that An Fóram did not carry out a review of the 10 options considered by Irish Water in the context of the Shannon project and is not therefore in a position to comment on same.

**Public confidence and accountability**

The importance of public confidence in relation to the resolution of this strategically important issue is of great concern from a wide range of perspectives. Taxpayers will require good value for money in relation to the selection and delivery of solution(s). Environmental concerns centre on the importance of leakage reduction, the impact of proposed solutions on water sources (rivers, lakes, groundwater etc) and energy efficiency. Businesses and homes require confidence in the continuity, security and quality of supply

which is essential to their everyday life and business development. Consumers outside of the region will also require reassurance that the investment will support, rather than undermine, the development of services in rural towns and villages as well as cities outside of Dublin. An Fóram is concerned that such reassurances are either not in place and/or are not being adequately and effectively communicated.

### **Environmental concerns**

There are concerns within An Fóram in relation to a range of environmental issues. An Fóram understands that the CRU has not been requested to address such issues which, it is understood, will come under the scope of an EIA and the planning process and therefore has not included its concerns with regard to same. However, there are underlying issues from an environmental and water sustainability perspective which An Fóram considers should be taken into account in reaching a solution(s).

In understanding the requirement for a significant alternative water source, An Fóram considers that Irish Water, in partnership with the DHPLG, should invest in a range of actions aimed at reducing demand to a sustainable level and incorporating a range of measures including:

- The further development of new technologies and alternative environmentally sustainable supplies e.g. rainwater harvesting.
- A sustained public awareness campaign in relation to the management of household demand which would lead to a sustained reduction in demand (as evidence during the drought in summer 2018).
- The development of a national grant aided scheme to assist in the retrofitting of water saving devices in homes and businesses.
- Revision of building regulations to ensure that current best practice is incorporated in same.

### **Public Engagement**

A number of concerns have been raised by the members of An Fóram in relation to accessibility to information and up to date data on this project:

- It is accepted that there are a number of reports presented by Irish Water. However, it is considered that it has been very difficult for members of the public and indeed stakeholders to meaningfully engage in the consultation process due to the volume, complexity and technical nature of much of the information that has been provided. As the Statutory Body representing the multiple stakeholders with an interest in Ireland's water services and water environment, An Fóram is tasked with ensuring that the public is adequately informed, conversant with and engaged in the key decisions concerning all aspects of the management of Ireland's waters. Underpinning an engaged citizenry

there must be coherent, comprehensive and usable evidence available to the public such that meaningful conversations between utilities and the citizenry can occur.

- A further concern has arisen from the response of Irish Water to Ms. Maublanc's report (dated 12<sup>th</sup> June , copy of which is attached) where it is stated that 'it is conceded that some relevant information that could further assist this review may not yet be in the public domain and this information is provided here.'
- It is understood from Irish Water's response that an updated Project Need Report is due to be published later this year along with Irish Water's National Water Resource Plan. Clearly both reports will contain up to date information which is pertinent to this Review and An Fóram would request that the CRU provide information on how it intends to accommodate same within the current Review.

An Fóram would request that these issues be addressed in the Review in order to assess if the consultation processes undertaken by Irish Water comply with the requirements of the Aarhus Convention.

### **Conclusion**

An Fóram is satisfied that this Review of the proposed WSP by the CRU is warranted and would like to thank the CRU for this opportunity to submit in relation to same. The concerns of An Fóram in relation to the project and associated issues have been set out in this submission. An Fóram would like to re-iterate its understanding that there is both an immediate and long term issue with regard to the provision of an adequate, secure and resilient water supply to the Greater Dublin Area and its early resolution is imperative for that area and also for the Country as a whole.

An Fóram hopes that its views will be of assistance and is available to assist further in relation to this Review.

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