



Submission

Submitter:	Miss Marie Ryan
Organisation Name:	Health Service Executive
Submission Title:	Environmental Health Service Consultation Report
Submission Reference No.:	S011249
Submission Received:	28 July 2023

Application

Applicant:	Uisce Éireann
Reg. No.:	D0034-02

See below for Submission details.

Attachments are displayed on the following page(s).



Environmental Health Service
Dublin South East City
Adelaide Chambers
Peter Street
Dublin 8

Tel: 4493255

Date: 20/07/2022

Our Reference: ID2584
Report To: Environmental Licensing Programme
Office of Environmental Sustainability
Environmental Protection Agency
Johnstown Castle Estate
Co. Wexford

Type of consultation: Waste Water Discharge Application

Current EPA Authorisation Register Number: D0034-02

EHIS Reference number: 3192

Applicant: Irish Water, Colville House, 24-26 Talbot Street, Dublin 1

Location of development: Ringsend ,Dublin

Dear Sir/Madam

Please find enclosed the HSE consultation reports in relation to the above proposal. If you have any queries regarding any of these reports, the initial contact is Marie Ryan Principal Environmental Health Officer, who will refer your query to the appropriate person. The EH service response to the proposal is in the attached consultation report. All commitments to future actions including mitigation and further testing have been taken as read and all data results have been accepted as accurate. No additional investigations / measurements were undertaken. This report refers only to those sections of the documents which are relevant to the HSE.

All correspondence or any queries with regard to this report including acknowledgement of this report should be forwarded to Marie Ryan at the details above.

Yours faithfully,

A handwritten signature in cursive script that reads "Marie Ryan". The signature is written in black ink and is positioned above a horizontal line.

Marie Ryan
Principal Environmental Health Officer



Environmental Health Service
Dublin South East City
Adelaide Chambers
Peter Street
Dublin 8

Tel: 4493255

Environmental Health Service Consultation Report

(as a Statutory Consultee under the Planning and Development Acts 2000 (as amended) & Regulations made thereunder)

Report to: Environmental Protection Agency, PO Box 3000, Johnstown Castle Estate, Co. Wexford

Date: 20/07/2023

Type of consultation: Waste Water Discharge Application

Current EPA Authorisation Register Number: D0034-02

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Applicant: Irish Water, Colville House, 24-26 Talbot Street, Dublin 1

Location of development: Ringsend ,Dublin

General Comments

Details of the application were circulated to HSE stakeholders on 23/05/2023.

- Emergency Planning – Brendan Lawlor
- Estates – Helen Maher/Stephen Murphy
- Director of National Health Protection – Eamonn O' Moore
- CHO – Martina Queally



Proposed Development

Wastewater from the Greater Dublin Area (which includes Dublin City and County, parts of Kildare, Meath) has been treated in Ringsend Waste Water Treatment Plant (WwTP), located at NGR 320155E, 233586N, since 1906. Ringsend WwTP discharges treated wastewater into the Lower Liffey Estuary via an outfall located ca. 1km from the facility at NGR 321073E, 233814N.

Built in 2005, the current WwTP is the largest in Ireland and was designed to cater for a population equivalent (p.e) of 1.64 million.

The WwTP, which provides over 40% of Ireland's wastewater treatment capacity, is currently overloaded and is not in compliance with the EU's Urban Wastewater Treatment Directive (UWWTD). The peak week collected load received at Ringsend WwTP in 2022 was 2,207,592 p.e. Discharges from the Greater Dublin Area agglomeration are currently authorised under Waste Water Discharge Licence (WWDL) D0034-01. Following a Waste Water Discharge Authorisation examination by the EPA in June 2021, it was recommended that a Waste Water Discharge Authorisation (WWDA) application be prepared and submitted to the EPA for determination. It was considered that the current WWDL does not satisfy the environmental requirements of the WWDA Regulations as amended, and that a WWDA review was required.

Upgrade works are taking place on a phased basis to increase the capacity of the WwTP in the Greater Dublin Area agglomeration to facilitate population growth within the agglomeration. Uisce Éireann is currently working to provide infrastructure to achieve compliance with the UWWTD for a p.e of 2.1 million in the second half of 2023. The upgrade works at Ringsend WwTP are expected to take until the end of 2025 to fully complete. This WWDL review relates to the completed WwTP which will be able to treat wastewater for up to 2.4 million p.e (with a Peak Daily Design in the order of 3.3 to 3.4 million p.e) while meeting the Emission Limit Values (ELVs) as set out in this licence review and in compliance with the UWWTD / Water Framework Directive (WFD) requirements.

Refer to EIA- Section 3 below and Attachment B.8 for details on the upgrade.

This report only comments on Environmental Health impacts of the proposed development and the adequacy of the submitted documentation from the viewpoint of the Environmental Health Service (EHS).

Assessment of principle and description of the Project

Principle: The principle of the project is considered satisfactory, particularly as it will improve the quality of wastewater.

Description: The description of the project is considered to be satisfactory.



History

Wastewater from the Greater Dublin Area has been treated in Ringsend WwTP, located at NGR 320155E, 233586N, since 1906. Built in 2005, the current WwTP is the largest in Ireland and was designed to cater for a population equivalent (p.e) of 1.64 million. Ringsend WwTP discharges treated wastewater into the Lower Liffey Estuary via an outfall located ca. 1km from the facility at NGR 321073E, 233814N.

Assessment of Later Consents Required

The Waste Water Discharge Authorisation under the European Union (Waste Water Discharge) Regulations 2007 to 2020, specify that a 'combined approach' in relation to licensing of waste water works must be taken, whereby the emission limits for the discharge are established on the basis of the stricter of either or both, the limits and controls required under the Urban Waste Water Treatment Regulations, 2001, as amended, and the limits determined under statute or Directive for the purpose of achieving the environmental objectives established for surface waters, groundwater or protected areas for the water body into which the discharge is made.

The design of the WwTP is greater than 15,000 p.e and is therefore in line with Article 4 of the directive, "Member States shall ensure that urban waste water entering a collecting system shall before discharge be subject to secondary treatment or an equivalent treatment for all discharges from agglomerations of more than 15,000 p.e". The upgraded WwTP provides for secondary treatment, with N & P removal. The ELVs as set out in this licence review for the upgraded WwTP give effect to the principle of the Combined Approach as defined in Waste Water Discharge (Authorisation) Regulations, 2007 to 2020 in that they accommodate the Urban Waste Water Regulations and the relevant designations / status of the receiving waterbodies.

Future changes to the agglomeration boundary

Uisce Éireann currently has works at construction stage to transfer excess flow and load via a pumping station from Leixlip WwTP (Lower Liffey Valley D0004-02) to the Blanchardstown (9C Sewer) catchment. This arises as a result of a projected treatment over capacity at Leixlip WwTP and an inability to further expand Leixlip WwTP beyond its current treatment capacity. Flows from an industrial area and a number of residential properties in the Lower Liffey Valley Agglomeration (D0004-02) will be diverted to the 9C Sewer and forwarded to Ringsend WwTP for treatment. In the long term it is proposed to construct a new WwTP as part of the Greater Dublin Drainage Project (GDD Project) in the townland of Clonshaugh in Fingal. The GDD Project is to augment the existing treatment capacity at Ringsend by the provision of the new WwTP (once construction is completed). It is proposed following the completion of the construction and commissioning of the GDD Project, that the flows from the 9C



Sewer west of the M50 will be forwarded to the new GDD WwTP. To mobilise the capacity required for the new GDD WwTP, it will be necessary to divert flows from some of the existing drainage catchments served by Ringsend WwTP. The GDD Project will serve the projected wastewater treatment requirements of existing and future drainage catchments in the north and north-west of the Ringsend agglomeration up to the 2050 design horizon of 500,000 p.e. The proposed flow transfer from the Ringsend collection network to GDD will include flows from the 9C Sewer west of the M50 (including flows from the Meath towns and villages of Ashbourne, Ratoath, Kilbride, Dunboyne & Clonee) and the partial diversion of flows from the North Fringe Sewer. The WWDL Application for the GDD Project, when submitted, will provide further details of the transfer loads and timescales. Attachment within EIA- B.2.5 Map 7 which illustrates in shaded format, the likely extent of transfer of the Ringsend catchment to the related Greater Dublin Drainage (GDD) Agglomeration. This is indicative transfer only as is based on best current information and subject to change.

Assessment of Public Consultation & Non-Technical Summary

Consultation would have been undertaken for each planning application stage.

Assessment of Consideration of Alternatives

The alternative would be to change nothing and keep using the existing infrastructure without upgrading, this would have a significant impact for the water quality in the receiving water body.

The assessment of whether a likely impact will have significant effects on a European site is based European Commission guidance (2001) which recommends the use of key indicators which can include the site's conservation objectives. Where it is determined that a likely impact will have a significant impact on a European site, an Appropriate Assessment must be progressed. The precautionary principle must also be applied in determining significance of an impact. Where the significance of an impact cannot definitively be ascertained based on the information available it is required to progress to Appropriate Assessment i.e. the project cannot be screened out unless there is certainty that no significant effects are will occur.

Air

The most likely impact on air quality is from potential foul odour arising from wastewater treatment and, in particular, dewatering of wastewater sludge on-site. Air quality in the area of the WWTP and its effect on nearby residents in respect of Public Health Nuisance will have been part of the planning permission assessment undertaken by the County Council.

Noise

The effects of noise in respect of WWTP operation will have been addressed at the planning assessment stage and all mitigation measures should be adhered to in full.



Assessment of Description of Physical Environment

The Ringsend WwTP was non-compliant with the ELVs set in the WWDL in 2022 and does have an observable negative impact on the water quality in the near field of the discharge and in the Liffey and Tolka Estuaries. The primary discharge from the WwTP does not have an observable negative impact on the Water Framework Directive status in the Liffey Estuary and Dublin Bay (Source: TRaC Data 2022). Refer to Attachment EIA D.2.3.

It should be noted that other potential causes of deterioration in water quality relevant to this area are upstream riverine pollutants, combined sewer overflows, exfiltration from sewers and misconnections to surface water sewers in the large urban agglomeration.

It is considered that the provision of the upgraded WwTP with N & P removal and the resultant improvements in nutrient loading to the receiving waterbodies, will contribute to the WFD Objectives being met / maintained in the receiving waterbodies.

There are several designations within the vicinity of the primary discharge from the Greater Dublin Area Agglomeration. The primary discharge enters directly into the Liffey Estuary which is identified as a Nutrient Sensitive Area (N and P limited) in accordance with the UWWTD 91/271/EEC on Urban Waste Water Treatment and S.I. No. 254 of 2001, S.I. No. 440 of 2004 and S.I. No. 48 of 2010. The Tolka Estuary Nutrient Sensitive Area (N limited in summer and P limited in winter) is located ca. 1km north of the primary discharge location. Based on these designations, along with the fact that the p.e of the agglomeration is greater than 100,000, the existing TP ELV of 1mg/l and TN ELV of 10mg/l is proposed to be maintained. There are two bathing waters in Dublin Bay designated under EU Directive 2006/7/EC and Bathing Water Quality Regulations, S.I. No. 79 of 2008 which are in the vicinity of the primary discharge.

These are Dollymount Strand and Sandymount Strand. Dollymount Bathing Water Area is located ca. 1.8km north east of the primary discharge and was classified as achieving Good Water Quality in 2021 based on the assessment of bacteriological results for the period 2018 - 2021. Sandymount Bathing Water Area is located ca. 1.5km south west of the primary discharge and was classified as achieving Sufficient Water Quality in 2021 based on the assessment of bacteriological results for the period 2018 - 2021. A Bathing Water Profile was prepared for Dollymount Strand in 2021 which identified that during exceptional circumstances (e.g., heavy rainfall / overflows from the storm tank / mechanical breakdowns), the Ringsend WwTP discharge may contain elevated levels of microbiological contaminants which could pose a “High” risk.

Pumping station failures / malfunctions at Clontarf, Vernon Avenue and Kilbarrack were identified as posing a “High” risk. Storm Water Overflows were also identified as posing a “Moderate risk. A Bathing Water Profile was prepared for Sandymount Strand in 2022 which identified that during exceptional circumstances (e.g., heavy rainfall / overflows from the storm tank / mechanical breakdowns), the Ringsend WwTP discharge may contain elevated levels of microbiological contaminants



which could pose a “High” risk. Pumping station failures / malfunctions at Ailesbury Pumping Station were also identified as posing a “High” risk.

Storm Water Overflows were identified as posing a “High” risk. The provision of upgrades to the WwTP alongside the provision of UV disinfection process during the bathing season will assist in alleviating the risks which are currently assigned to the water quality at Dollymount Strand and Sandymount Strand.

There are no designated shellfish areas within Dublin Bay. The closest designated shellfish area is Malahide Shellfish Area, which is located ca. 10.5km north east of the primary discharge point. The water quality model prepared for the 2018 planning application predicts that the plume will disperse away from the discharge point and dilution will occur within short distances of the outfall. The reduction in nutrient levels is too low to impact on shellfish species in the area outside the North and South Walls. Updated water quality modelling is being completed at the time of this Review Application and will be forwarded on to the Agency.

There are no designated salmonid river bodies upstream or downstream of the primary discharge location. The water quality model prepared for the 2018 planning application predicts that the reduction in nutrient levels is too low to impact on fish species in the area outside the North and South Walls.

Conclusions

- An opportunity to provide enhanced wastewater treatment (i.e. wastewater treated to at least tertiary standard and disinfected using UV or equivalent before discharge) exists which must be considered given the quality of the receiving waters’ status. Please note close to this area is used for Bathing water and the application has been reviewed with this in mind. The discharge point as noted in the licence application is close to two bathing waters, which are routinely sampled. We note the outfall point is the same/a similar distance to the bathing locations as the current situation and discharge will have undergone secondary treatment.
- The Environmental Health Service recommends that a complaints procedure is implemented and that a member of staff is designated as a point of contact to deal with any complaints or queries received from members of the public in relation to the WWTP facility.
- The operator should develop a system for recording and responding to complaints from the public regarding fugitive noise and or odour emissions from the WWTP or from any component. It is recommended that records of complaints received are included in annual monitoring results reported to the EPA.
- It is recommended that an Odour Management Plan is implemented and that regular unannounced odour audits of the plant are undertaken.
- Emission Limit Values and monitoring frequencies specified in the EPA licence shall be strictly adhered to ensure the maintenance of groundwater quality and the protection of public health.



- It is recommended that the routine monitoring, maintenance and repair of all plant, equipment and pipework is included as a condition of the license. This should include the discharge pipe and the non- return flap valve.

Yours Sincerely

A handwritten signature in black ink that reads 'Eve Smith'. The signature is written in a cursive, flowing style.

Eve Smith
Environmental Health Officer
Environment/Climate Change, Network Support Unit (NSU)

*** All correspondence or any queries with regard to this report including acknowledgement of this report should be forwarded to Marie Ryan PEHO, Health Service Executive, Adelaide Chambers, Peter Street, Dublin, D08 DKT9**