

ATTACHMENT A.1.1 NON-TECHNICAL SUMMARY

1. Introduction

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. 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 **Section 3** below and **Attachment B.8** for details on the upgrade works.

Refer to **Attachment A.1.2** for the area of interest and **Attachment B.2.1** for a map of the Greater Dublin Area agglomeration.

2. Description of the waste water discharges from the waste water works serving the agglomeration

Uisce Éireann has a number of programmes (e.g., Infrastructure Projects and Programmes, Drainage Area Plan (DAP) Programme, Storm Water Overflow (SWO) Assessment & Monitoring Programme) in order to assess SWOs. Under these programmes, Uisce Éireann has verified the grid reference locations of SWOs and Emergency Overflows (EO). The verified grid reference locations are detailed in this licence review application.

Discharge Scenario as per D0034-01

Please refer to the original licence application (and Technical Amendment B / Clerical Amendment C) for details of the existing discharges permitted under D0034-01.

Discharges as per Subject Matter of Licence Review

Primary Discharge (SW001):

The primary discharge from the Ringsend WwTP will remain at the existing primary discharge location at NGR 321073E, 233814N.

Secondary Discharges:

There will be no secondary discharge point associated with the waste water works. It should be noted that the existing S4 Fingal secondary discharge at Doldrum Bay is to be decommissioned and repurposed as a Storm Water Overflow, with Emergency Overflow in the event of pump failure. These works are expected to be completed by the end of 2024 subject to successful completion of all statutory processes.

Overflows:

There will be 385 no. overflows associated with the Greater Dublin Area agglomeration. Refer to **Attachment C.1: Discharges and Monitoring** for details of all overflows associated with this licence review.

Refer to **Attachment B.2.2: Map 4** and **Map 5** for the location of the proposed discharges.

3. Description of the wastewater works and associated waste water treatment plant

Works as per D0034-01

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.

Refer to the original licence application (and Technical Amendment B / Clerical Amendment C) for further details of the existing Waste Water Treatment Works (WwTW) as per D0034-01.

Works as per Subject Matter of Licence Review

This WWDL review relates to the completed WwTW 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 ELVs as set out in this licence review and in compliance with the UTWWTD / WFD requirements.

Planning permission was granted for the WwTP upgrade works in 2012 (An Bord Pleanála - 29N.YA0010, as amended) and 2019 (An Bord Pleanála - PA29S.301798). The upgrade is being progressed in stages to ensure that the plant continues to treat the wastewater to the current treatment levels throughout the delivery of the upgrade. The project comprises four key elements and underpinning these is a substantial programme of ancillary works:

1. Provision of additional secondary treatment capacity with nutrient reduction (400,000 p.e), including;
 - a) Provision of an additional Expansion Lift Pumping Station (ELPS).
 - b) Modifications to the existing Intermediate Lift Pumping Station (ILPS) to control and distribute flows.
2. Upgrade of the 24 existing secondary treatment tanks to provide additional capacity and nutrient (including Nitrogen) reduction *via* AGS Technology, by converting 8 upper deck tanks to AGS and converting 16 tanks to Hybrid AGS units, which is essential to protect the nutrient-sensitive Dublin Bay area;
3. Provision of a new phosphorous recovery process within the confines of the existing WwTP to extract phosphorus from the sludge liquors; and
4. Expansion of the WwTP’s sludge treatment facilities to match the increase in wastewater treatment capacity:
 - a) Additional sludge thickening and dewatering facilities.
 - b) Upgrading of one of the thermal hydrolysis streams to provide additional thermal treatment capacity.
 - c) A new anaerobic plug flow sludge digestion process to ensure the digestion of all additional sludge.
 - d) Integration of the thermal dryer such that 3 units can be operated together.

Ancillary modifications include the following elements:

1. Installation of an additional screw pump in existing inlet pump structure.
2. Upgrade of the UV system to increase disinfection capacity during the bathing season, to match the increased hydraulic throughput.
3. An electrical upgrade which consists of installation of an additional combined heat and power (CHP) engine which will generate electricity from the biogas generated on site. Load shedding will also be implemented which will manage the peak power use on the site and ensure that the maximum import capacity from the ESB is not exceeded.
4. The use on a permanent basis of a vehicular entrance off Pigeon House Road, and associated landscaping.
5. New bypass connection from final effluent culvert to existing connection to storm tanks. This is to facilitate maintenance of the main treated effluent culvert.
6. The various elements of the project, as listed above, will include:
 - a. Interconnecting pipework, pumps and valves and associated chambers.
 - b. Provision for upgrades of electrical, instrumentation and control systems (including SCADA).
 - c. General equipment upgrades.
 - d. Reconfiguration, where relevant, of internal site roads and underground utilities.

The upgraded WwTP has been designed to meet the ELVs as provided in **Table A.1.1** below..

Table A.1.1 – WWDL Review Proposed ELVs

| Parameter | Proposed ELVs |
|-----------|---------------|
| BOD | 25 mg/l |

| Parameter | Proposed ELVs |
|--------------------------------------|-------------------|
| COD | 125 mg/l |
| Suspended Solids | 35 mg/l |
| Total Phosphorus | 1 mg/l |
| Total Nitrogen | 10 mg/l |
| Toxicity | 5 TU |
| <i>Escherichia coli</i> ¹ | 100,000 MPN/100ml |
| pH | 6.0 - 9.0 |

Note 1: ELV for *Escherichia coli* proposed to only apply during the Bathing Season (1st June to 15th September).

The water quality model prepared for the 2018 planning application is currently being updated to account for the latest available data and to include additional modelling scenarios (i.e., mass emissions limits and upper tier limits scenarios).

The updated modelling and impact assessment reports will provide scientific evidence to support the proposed Mass Emission Limits and condition 2 upper tier limits (as well as the above proposed ELVs). Upon completion, the results of the water quality modelling and updated impact assessment reports will be forwarded to the Agency, at which time Uisce Éireann will confirm the proposed mass emissions ELVs and condition 2 upper tier limits. Note: The proposed concentration ELVs are as per table above.

Wastewater arriving at the upgraded WwTP will receive secondary treatment with Nitrogen and Phosphorus removal to comply with the proposed ELVs. A UV disinfection process will also continue to be provided during the bathing season.

All flows arriving at the WwTP are monitored continuously and recorded by the electromagnetic flowmeters.

The proposed primary discharge ELVs 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 status and objectives of the receiving waterbodies (i.e., Liffey Estuary Lower / Liffey Estuary Upper / Tolka Estuary / Dublin Bay / Dollymount Strand bathing water / Sandymount Strand bathing water).

The design of the upgraded WwTP is greater than 15,000 p.e and therefore in line Article 4 of the Urban Waste Water Treatment 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 pe*". In line with the above, the upgraded WwTP provides for secondary treatment.

Refer to **Section 2** above for details of the overflows.

Refer to **Attachment B.8** for further details on the phased upgrade works.

4. Description of the features and measures, if any, envisaged to avoid, prevent, or reduce and, if possible, offset the significant adverse effects on the environment

Uisce Éireann are committed to ensuring that water services infrastructure operates in a manner that supports the achievement of the water body objectives under the Water Framework Directive, and their obligations under the Birds and Habitats Directives.

The WwTP upgrade works have been designed to cater for a biological load of 2.4 million p.e (Peak Daily Design 4,350,000 p.e) (by 2025). Secondary treatment with Nitrogen and Phosphorous removal is provided to ensure that the treated effluent discharge does not have a significant adverse effect on the receiving aquatic environment, and that all relevant legislative requirements are complied with (see **Attachment B.6:** Compliance with EU Directives & National Regulations and **Attachment D.2.1:** Impact Assessment Report, May 2023).

Design measures to prevent deleterious discharges from the agglomeration include the below:

- 52 no. out of 101 no. assessed SWOs meet the definition of 'Storm Water Overflow' as per Regulation 3 of the European Union (Waste Water Discharge) Regulations 2007 to 2020 and the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995. Refer to **Attachment B.8:** Improvement Programme for further details.
- Provision of 6 no. open stormwater tanks with a combined storage volume of 62,100m³ of storm storage at the WwTP.
- Provision of backup generators and bunded fuel tanks at the Ringsend WwTP.
- At the WwTP, a standby pump will activate automatically upon failure of duty pump.
- At all Pumping Stations, a standby pump will activate automatically upon failure of duty pump.
- Alarms for WwTP fed to SCADA with alarms sent to operators.
- An Emergency Response Plan and Procedures, Operation and Maintenance Procedures for all equipment will be in place and implemented by the appointed plant operator, as required.

Refer to **Section C.2** for further details of the proposed measures to prevent any unintended discharges to the receiving waterbodies.

5. The proposed technology and other techniques for preventing or, where this is not possible, reducing discharges from the wastewater works

Refer to **Section C.2** and **Point 4** above for details of the proposed measures to prevent any unintended discharges to the receiving waters.

6. Description of the receiving waterbody

There are several receiving waters hydrologically linked to the primary discharge (SW001). Details on these waterbodies are provided in **Table A.1.2** below.

Table A.1.2 – Waterbodies Hydrologically Linked to the Primary Discharge

| Receiving Waterbody | Type of Waterbody | WFD Status 2016 – 2021 (where applicable) | WFD Risk (3 rd cycle) (where applicable) | Bathing Water Status 2021 (where applicable) | Trophic Status 2018 - 2020 (where applicable) |
|---------------------------------------|-------------------|---|---|--|---|
| Liffey Estuary Lower (IE_EA_090_0300) | Transitional | Moderate | At Risk | Not applicable | Intermediate |

| Receiving Waterbody | Type of Waterbody | WFD Status 2016 – 2021 (where applicable) | WFD Risk (3 rd cycle) (where applicable) | Bathing Water Status 2021 (where applicable) | Trophic Status 2018 - 2020 (where applicable) |
|--|-------------------|---|---|--|---|
| Liffey Estuary Upper (IE_EA_090_0400) | Transitional | Good | Review | Not applicable | Potentially Eutrophic |
| Tolka Estuary (IE_EA_090_0200) | Transitional | Poor | At Risk | Not applicable | Eutrophic |
| Dublin Bay (IE_EA_090_0000) | Coastal | Good | Not at Risk | Not applicable | Unpolluted |
| Dollymount Strand (IEEABWC090_0000_0400) | Bathing | Not applicable | Not applicable | Good | Not applicable |
| Sandymount Strand (IEEABWC090_0000_0300) | Bathing | Not applicable | Not applicable | Sufficient | Not applicable |

The Greater Dublin Area agglomeration is spread across three Hydrometric Areas (HA):

- Nanny-Delvin (HA 08)
- Liffey and Dublin Bay (HA 09)
- Ovoca-Vartry (HA 10)

SWOs in the Greater Dublin Area agglomeration are identified as a significant pressure in fourteen (14 no.) 'At Risk' waterbodies in the draft 3rd cycle Catchment Reports (2021) for HA 08 and HA 09. It is not identified as a significant pressure in the draft 3rd cycle Catchment Report (2021) for HA 10. Refer to **Table A.1.3** for details.

Table A.1.3: At Risk Waterbodies identified as being under significant pressure by the Greater Dublin Area agglomeration SWOs in the draft 3rd cycle Catchment Reports

| Hydrometric Area | Waterbody | 2016-2021 Ecological Status |
|-------------------|-----------------|-----------------------------|
| Nanny-Delvin (08) | Broadmeadow_010 | Poor |
| | Broadmeadow_020 | Poor |
| | Ward_020 | Moderate |

| Hydrometric Area | Waterbody | 2016-2021 Ecological Status |
|--------------------------|---|-----------------------------|
| | Ward_030 | Moderate |
| Liffey & Dublin Bay (09) | Tolka Estuary | Poor |
| | Camac_040 | Poor |
| | Dodder_050 | Moderate |
| | Liffey_180 | Poor |
| | Liffey_190 | Poor |
| | Santry_010 | Poor |
| | Santry_020 | Poor |
| | Tolka_050 | Poor |
| | Tolka_060 | Poor |
| | Grand Canal Basin (Liffey and Dublin Bay) | Good |

However, in the draft 3rd cycle catchment assessments for HA 08 and HA 09, it is noted that the upgrades are included in Uisce Éireann's Capital Investment Programme.

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). 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.

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.

The primary discharge enters directly into the Liffey Estuary which is identified as a Nutrient Sensitive Area (Nitrogen (N) and Phosphorous (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 no designated salmonid river bodies upstream or downstream of the primary discharge location.

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 a number of European sites within the primary outfalls zone of influence or within 10km of the WwTP. All of these European sites are located wholly or partially within Dublin Bay, they include:

- South Dublin Bay and River Tolka Estuary SPA (site code 004024) (*ca.* 0.2km East)
- South Dublin Bay SAC (000210) (*ca.* 0.2km East)
- North Bull Island SPA (004006) (*ca.* 1.8km North East)
- North Dublin Bay SAC (000206) (*ca.* 1.8km North East)
- Howth Head SAC (000202) (*ca.* 6.6km North East)
- Howth Head Coast SPA (004113) (*ca.* 9.1km North East)
- Dalkey Islands SPA (004172) (*ca.* 9km South East)
- Rockabill to Dalkey Island SAC (003000) (*ca.* 6.2km East)

The pNHAs and NHAs within the surrounding environment include:

- South Dublin Bay pNHA (000210) (*ca.* 0.2km East)
- Dolphins, Dublin Docks pNHA (000201) (*ca.* 0.6km West)
- North Dublin Bay pNHA (000206) (*ca.* 1.1km North East)
- Howth Head pNHA (000202) (*ca.* 6.6km North East)
- Grand Canal pNHA (002104) (*ca.* 3.2km West)
- Royal Canal pNHA (002103) (*ca.* 3.8km West)

Ramsar sites within the surrounding environment include:

- North Bull Island (*ca.* 4km North East)
- Sandymount Strand/Tolka Estuary (*ca.* 1.2km South)
- Baldoyle Bay (*ca.* 8.4km North East)
- Broadmeadow Estuary (Malahide) (*ca.* 13.6km North)

Refer to **Attachment B.5** for a copy of the Environmental Impact Assessment Report (2018) and **Attachment D.2.2** for a copy of the Natura Impact Statement (2018) for further details on the receiving environment.

7. Description of the likely significant effects of the discharges on the environment

Refer to **Attachment B.5** for a copy of the Environmental Impact Assessment Report (2018) and **Attachment D.2.2** for a copy of the Natura Impact Statement (2018) for further details on the effects of the operational discharges on the environment.

As mentioned above, water quality modelling, based on the latest available data, to assess the impact of the discharge from the upgraded WwTP on the receiving waterbodies is currently being carried out. Upon completion, the results of the water quality modelling will be forwarded to the Agency.

Along with the above results, an addendum to the 2018 EIAR and NIS will be forwarded to the Agency in order to inform this WWDL review.

8. Measures planned to monitor discharges into the environment

Effluent Monitoring:

It is proposed that treated effluent from Ringsend WwTP will be sampled and analysed (using the standard method of analysis) as follows:

Table A.1.4 – Proposed Effluent Monitoring Regime

| Parameter | Units | Monitoring Frequency | Sampling Method | Analysis method/Technique |
|--------------------------------------|----------------|----------------------------------|-----------------|---|
| pH | pH Units | Daily | Continuous | pH Meter and recorder |
| cBOD | mg/l | Fortnightly | Composite | Standard Method |
| COD | mg/l | Fortnightly | Composite | Standard Method |
| Suspended Solids | mg/l | Fortnightly | Composite | Standard Method |
| Total Nitrogen (as N) | mg/l | Fortnightly | Composite | Standard Method |
| Total Phosphorus (as P) | mg/l | Fortnightly | Composite | Standard Method |
| Metals and Organic Compounds | mg/l | Annual | Composite | Standard Method |
| <i>Escherichia coli</i> ¹ | MPN/100ml | Biannual (During Bathing Season) | Grab | Standard Method |
| Intestinal enterococci ¹ | CFU/100ml | Biannual (During Bathing Season) | Grab | Standard Method |
| Toxicity | TU | Annual | Composite | Standard Method |
| Visual Inspection | Not applicable | Daily | Not applicable | Sample and examine for colour and odour |

| Parameter | Units | Monitoring Frequency | Sampling Method | Analysis method/Technique |
|-----------|--------------------------|----------------------|-----------------|----------------------------------|
| Flow | m ³ /24 hours | Continuous | Online | On-line flow meter with recorder |

¹: ELV / monitoring for *Escherichia Coli* and Intestinal Enterococci only apply during the Bathing Season (1st June to 15th September).

Ambient Monitoring:

It is proposed that ambient monitoring and analysis will be carried out upstream and downstream of the primary discharge. Refer to **Attachment B.2.2**: Map 6 for the location of the ambient monitoring points.

Table A.1.5 – Proposed Ambient Monitoring Parameters

a) Marine Monitoring

| Parameter | Units | Monitoring Frequency | Analysis method/Technique |
|------------------------------------|-------|----------------------|---------------------------|
| Temperature | °C | Ten samples / year | Standard Method |
| Dissolved Oxygen | % | Ten samples / year | Standard Method |
| BOD | mg/l | Ten samples / year | Standard Method |
| Salinity | PSU | Ten samples / year | Standard Method |
| Dissolved Inorganic Nitrogen | µg/l | Ten samples / year | Standard Method |
| Total Oxidised Nitrogen | µg/l | Ten samples / year | Standard Method |
| Molybdate Reactive Phosphate (MRP) | µg/l | Ten samples / year | Standard Method |
| Ammonia | µg/l | Ten samples / year | Standard Method |

b) Shore Sampling

| Parameter | Units | Monitoring Frequency | Analysis method/Technique |
|-------------------------|-----------|-------------------------------|---------------------------|
| <i>Escherichia coli</i> | MPN/100ml | Monthly during bathing season | Standard Method |
| Intestinal enterococci | CFU/100ml | Monthly during bathing season | Standard Method |

9. Hours during which the wastewater works is supervised or manned and days per week of this supervision

Due to the scale, complexity and nature of the Ringsend WwTP facility, operation and maintenance staff are required to be on site on a 24 hour/7-day basis. At present, there is a staff complement of ca. 50 including process, operations and facilities engineers, mechanical fitters, electricians, general employees, administration, and management staff. There are two operating shifts per day with changeover at 8am and 8pm. It is expected that there will be a marginal increase in overall staff numbers when the plant upgrade is complete to ca. 65.

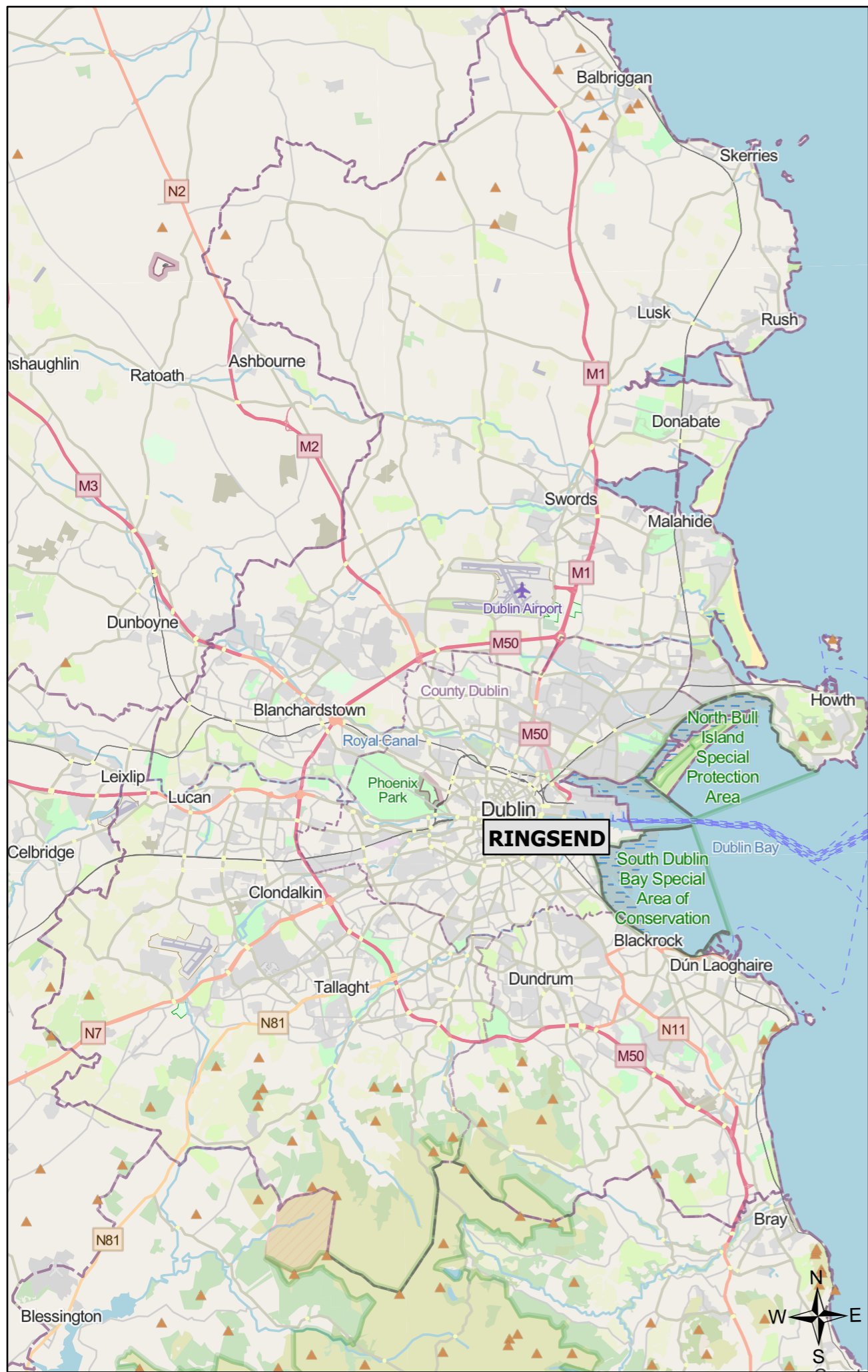
10. In the event of a review application, state the grounds for which this review application is being made

Following an examination of the Ringsend WWDL in June 2021, the EPA concluded that the WWDL does not satisfy the environmental requirements of the WWDA Regulations 2007 regulations, as amended. The reasoning for their conclusion and recommendation for a review of the current WWDL D0034-01 was based on the following:

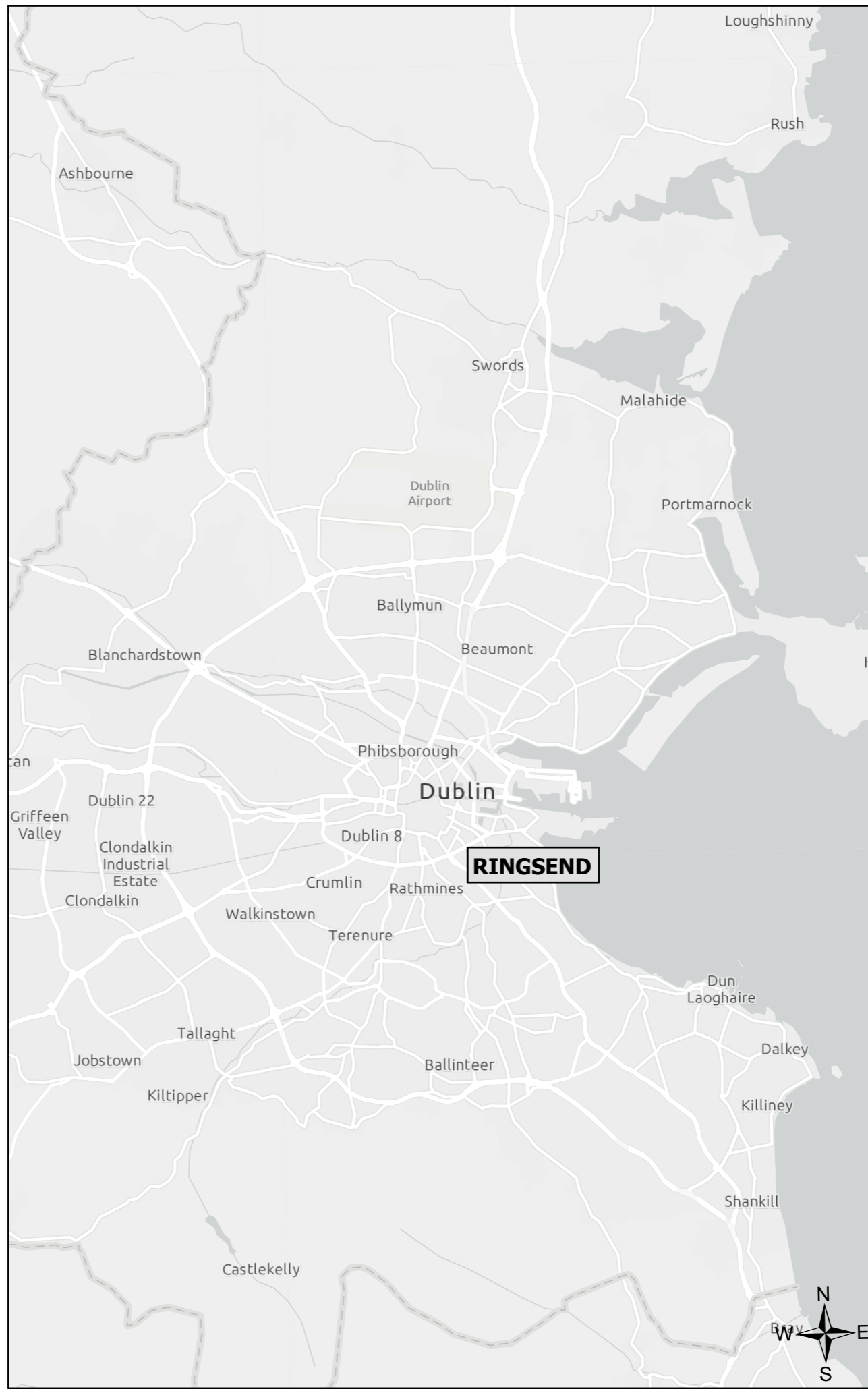
1. The licence was granted over 3 years ago.
2. There has been a material change in the content or extent of the discharge to which the licence relates, as a result of additional storm water overflows since the grant of the licence.
3. Planning permission has been granted for development works associated with the licence.
4. The agglomeration is included in Uisce Éireann's (formerly Irish Water) investment plan.
5. Non-compliance with:
 - Upgrade of the waste water treatment plant and ancillary works, as set out in Schedule C: Specified Improvement Programme, by 22/12/2015;
 - Upgrade of the storm water tank at the waste water treatment plant, as set out in Schedule C: Specified Improvement Programme, by 22/12/2015;
 - Emission limit values in Schedule A: Discharges and Discharge Monitoring.

In addition, Uisce Éireann has concluded that a review of the current WWDL is required due to the following key changes:

- Changes to the agglomeration boundary.
- Increase of the collected p.e within the agglomeration since the original WWDL was issued.
- Inclusion of additional overflows.



RINGSEND LOCATION MAP - 1:200,000



RINGSEND LOCATION PLAN - 1:150,000

NOTES:

Light Gray Base: Esri, Inc. HERE, DeLorme, Foursquare, METNAGA, USGS
 OpenStreetMap, Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri
 Light Gray Reference: Esri, Inc. HERE, DeLorme, Foursquare, METNAGA, USGS

SIGNED: _____

PRINT NAME: _____

POSITION: _____

DATE: _____

FOR UISCE ÉIREANN

| Rev | Date | Description | Drn | Chk | App |
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DISCHARGE LICENCE

CLIENT: **UISCE ÉIREANN**
 Colvill House,
 24-26 Talbot Street,
 Dublin 1
 Tel. 1890 278 278 Web. www.water.ie

PROJECT: **GREATER DUBLIN AREA
 AGGLOMERATION WASTE WATER
 DISCHARGE
 LICENCE APPLICATION**

TITLE: **MAP 1
 AREA OF INTEREST**

SCALE: AS SHOWN DRAWN: R. Clarke
 DATE: 06/03/2023

ATTACHMENT: **A.1.2**