Dublin North Agglomeration Wastewater Discharge Authorisation Licence Application

Attachment A.1 – Non-Technical Summary

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Attachment A.1 – Non-Technical Summary

1. Introduction

This document is the Non-Technical Summary (NTS) of the Wastewater Discharge Authorisation (WWDA) Licence application for the Dublin North Agglomeration which relates to the proposed Greater Dublin Drainage Project (hereafter referred to as the Proposed Project).

The Proposed Project will form a significant component of a wider strategy to meet future wastewater treatment requirements within the Greater Dublin Area (GDA) as identified in a number of national, regional and local planning policy documents. The Proposed Project will comprise a new Wastewater Treatment Plant (WwTP) at Clonshaugh and associated infrastructure that will serve the projected wastewater treatment requirements of existing and future drainage catchments in the north and north-west of the Ringsend Agglomeration (i.e. catchments currently draining to Ringsend WwTP), up to the Proposed Project's 2050 design horizon. The Proposed Project will therefore protect public health, safeguarding the environment and facilitating social and economic growth to 2050 and beyond.

The contributing catchments that will form the Dublin North Agglomeration are shown in **Attachment B.2.2** Map 1.

1.1 Overview

The Proposed Project will comprise the following interlinked elements, as shown in **Attachment A.1.1** Map 1:

- Proposed WwTP to be located on a 29.8-hectare (ha) site in the townland of Clonshagh (Clonshaugh) in Fingal;
- Sludge Hub Centre (SHC) to be co-located on the same site as the WwTP;
- Proposed orbital sewer route from Blanchardstown to the proposed WwTP at Clonshagh;
- Proposed odour control unit (OCU) at the interface between the rising main and gravity sewer elements of the proposed orbital sewer route;
- Proposed North Fringe Sewer (NFS) diversion sewer to the proposed WwTP;
- Proposed Abbotstown pumping station to be located in the grounds of the National Sports Campus (NSC);
- Proposed outfall pipeline route from the proposed WwTP to the outfall point approximately 1km north-east of Ireland's Eye; and
- Regional Biosolids Storage Facility (RBSF) to be located on an 11.4ha site at Newtown, Dublin 11.

The Proposed Project will be located along the southern fringe of Fingal in north County Dublin, between Blanchardstown and Baldoyle, and in the marine environment off north County Dublin between Baldoyle Bay and Ireland's Eye.

The proposed site for the proposed WwTP is located in the townland of Clonshagh, in Fingal. It is situated in open agricultural land approximately 2.4km south-east of Dublin Airport (Terminal 2) and approximately 500m north of the R139 Road.

The proposed orbital sewer route, which will run from Blanchardstown to Clonshagh, will transfer flows from the existing Blanchardstown drainage catchment, which includes Blanchardstown and its environs, and towns and villages in Meath, including Ashbourne, Ratoath, Kilbride, Dunboyne and Clonee, to the proposed WwTP at Clonshagh. The proposed orbital sewer route will commence in the grounds of Waterville Park, Blanchardstown, where it will intercept the existing Blanchardstown main sewer line, known as the 9C Sewer. From this point, it will be routed through the grounds of Connolly Hospital and the grounds of the NSC to the proposed Abbotstown pumping station, located adjacent to the M50 Motorway. From the proposed Abbotstown pumping station, the proposed orbital sewer route will be routed north of, and generally parallel to the M50 Motorway

to Clonshagh, and will pass south of Dublin Airport complex. The lands along the length of the proposed orbital sewer route are generally open fields, and agriculture is the main land use pattern. The total length of the proposed orbital sewer route will be approximately 13,700m. There are no environmentally designated sites within the proposed orbital sewer route.

The proposed OCU will be located adjacent to the R122 Road at the interface between the rising main and gravity sewer elements of the proposed orbital sewer route.

The proposed NFS diversion sewer will transfer flows in the NFS upstream of the point of interception to the proposed WwTP. It is proposed to intercept the NFS in the vicinity of the junction of the proposed access road to the proposed WwTP with the R139 Road. From this point, the proposed NFS diversion sewer will be routed to the proposed WwTP along the proposed access road. The total length of this diversion sewer will be 600m.

The proposed outfall pipeline route will consist of a land based section (Clonshagh to Baldoyle), a marine section (Baldoyle to Ireland's Eye) and a multiport marine diffuser. The proposed outfall pipeline route (land based section) will commence at the proposed WwTP and will be routed in an easterly direction towards the coast between Baldoyle and Portmarnock. The lands along the length of the proposed outfall pipeline route (land based section) are generally open fields and agriculture is the main land use pattern. There are no environmentally designated sites within the proposed outfall pipeline route (land based section).

The proposed outfall pipeline route (marine section) will commence at the R106 Coast Road, north of Baldoyle, and will be routed in a north-easterly direction across Baldoyle Estuary to the public car park immediately north of Portmarnock Golf Club, where it will turn in an easterly direction and will terminate approximately 1km north-east of Ireland's Eye.

The proposed multiport marine diffuser will be located on the final section of the proposed outfall pipeline route (marine section) and will consist of a number of vertical risers from the proposed outfall pipeline (marine section) to above seabed level. Diffuser valves will be attached onto the vertical risers to allow the treated wastewater to achieve the required initial dilution on discharge to the marine environment.

The total length of the proposed outfall pipeline route will be approximately 11,400m, with the land based section comprising 5,400m and the marine section, including the multiport diffuser, comprising 6,000m.

The coast in the vicinity of the proposed outfall pipeline route (marine section) is characterised by sandy beaches. Water depths in this area range from 0m to 25m Lowest Astronomical Tide. The seabed is gradually sloping eastward and the bottom is sandy in nature with a varying depth to bedrock.

The proposed outfall pipeline route (marine section) will terminate within the Irish Sea Dublin (HA 09) Coastal Water Body as defined under the Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy (hereafter referred to as the Water Framework Directive (WFD)).

The proposed RBSF will be located in the townland of Newtown, Dublin 11. The proposed site is 11.4ha in area, situated adjacent to the R135 Finglas Road and north-east of Huntstown power station. Fingal County Council (FCC) has partially developed the proposed site (i.e. road infrastructure, drainage, power, boundary treatments, access/egress gates to the R135 Finglas Road and some administration buildings) for a waste recycling centre, in accordance with planning permission PLO6F.EL.2045. It should be noted that the RBSF element has been granted planning by An Bord Pleanála (Case Reference Number PA29S.301798), as part of the Ringsend WwTP Upgrade Project in April 2019. Phase 1 and Phase 2 of the RBSF are now under construction.

1.2 Description of the Proposed WwTP

As discussed above, the proposed site for the proposed WwTP is located in the townland of Clonshagh in Fingal.

1.2.1 Proposed Design Basis

Provisional design flows are provided in Table 1 below, using the Proposed Project wastewater treatment capacity of 500,000 PE (population equivalent), which includes domestic, non-domestic and industrial loadings.

Table 1 tabulates the Design Basis using the following typical unit loads: 60g Biochemical Oxygen Demand (BOD) per head per day (BOD/hd/d); 70g Total Suspended Solids (TSS)/hd/d; 12g Total Kjeldahl Nitrogen (TKN)/hd/d; 9g Ammoniacal Nitrogen (AmmN)/hd/d; and 2.5 g/hd/d Total Phosphorus (TP). A maximum week peaking factor of 1.5 is applied to the average daily loadings.

Table 1: Proposed Design Basis

Design Parameter	Design Value	Unit of Measurement
Population equivalent (PE)	500,000	PE
Domestic per Capita Design Flow (G)	0.225	m^3/hd/day (cubic metres per head per day)
Dry Weather Flow (DWF)	112,500	m^3/d (cubic metres per day)
Flow to Full Treatment (FFT)	281,250 3.26	m^3/d m^3/s
Average Dry Weather Flow (ADWF)	140,625	m^3/d
BOD	30,000	kg/d (kilograms per day)
TSS	35,000	kg/d
Ammonia (N)	4,500	kg/d
TKN	6,000	kg/d
TP	1,250	kg/d

1.2.2 Proposed Treatment Standards

It is proposed that the final treated wastewater produced at the proposed WwTP will conform to the standards outlined in Table 2 below.

Table 2: Final Effluent Emission Limits for the Proposed WwTP

Parameter	Emission Limit
pH	6 - 9
Temperature	25°C (max)
BOD_5[1]	25mg/l O_2
COD	125mg/l O_2
TSS	35mg/l
DIN	60mg/l

[1] BOD 5 day limit

In addition, ultraviolet (UV) treatment of the final effluent is proposed to limit Escherichia coli (*E. coli*) levels. The UV treatment system proposed at the WwTP will be designed and operated to achieve a maximum of 20,000 cfu (colony forming units) /100ml (millilitres), with an average concentration in the order of 5,000 to 6,000 cfu/100ml, in the final effluent. At this concentration, there will be no impact on the designated shellfish water. The inclusion of the proposed UV treatment system at the proposed WwTP will provide a combined 99.9% *E. coli* reduction across the entire proposed WwTP (cumulation of primary, secondary, and tertiary treatment processes).

UV treatment will also reduce and control the spikes and variability of the concentrations of *E. coli* discharged from the proposed WwTP, thus providing greater protection to the receiving waters. The UV system will control photo-reactivation (i.e. the process whereby bacteria recover after being inactivated by UV light in the presence of daylight), as the UV treatment reduces the ability of bacteria to photo-reactivate. Furthermore, at the proposed WwTP, the final effluent will not be exposed to daylight for approximately four hours after the UV treatment due to the length of the proposed outfall pipeline route. This will further inhibit the photo-reactivation process.

The extensive modelling studies undertaken on the expected discharge have confirmed that, for the identified proposed outfall location and the emission limit values set out in Table 2 and UV treatment of the final effluent, the receiving water will meet good status criteria and will meet the environmental quality objectives for coastal water nutrients levels. The modelling studies have also confirmed that:

- The Proposed Project will have a negligible impact on the water quality of the coastal waters off County Dublin;
- The Proposed Project will have no impact on achieving the goals of the Water Framework Directive (i.e. maintaining good status in all water bodies);
- The proposed discharge location will not negatively impact any designated bathing waters; and
- The Proposed Project will have a negligible impact on the quality of shellfish waters.

1.2.3 Indicative Design

A range of different treatment processes are currently available which would satisfy the treated wastewater requirements for the proposed WwTP, including:

- Conventional Activated Sludge Plant (ASP);
- ASP in Sequencing Batch Reactors (SBR);
- Submerged Attached Growth Processes (e.g. Biological Aerated Flooded Filters);
- Integrated Fixed Film Activated Sludge Processes (e.g. IFAS); and
- Aerated Granular Sludge (AGS).

Three preliminary indicative layouts for the proposed WwTP have been developed for the site based on a conventional ASP plant (as shown in **Attachment B.2.2** Map 2), a SBR plant and an AGS plant (as both shown in **Attachment B.2.5**).

1.2.4 Preventative Design Measures

The identification, control and management of risk is an integral part of the design and assessment process throughout all stages of the Proposed Project's life cycle. The Proposed Project will be designed, built and operated in line with current international best practice and guidelines.

The measures embedded into the design to prevent unintended discharges include:

- Three power supply sources (electricity, natural gas and biogas). The Proposed Project will be capable of running off any single one or off a combination of sources. A backup generator will also be provided at the proposed Abbotstown pumping station;

- The proposed WwTP is designed to accommodate a planned maintenance regime whereby an individual treatment unit can be taken offline for maintenance without impacting treatment capacity;
- All pumps will be installed in duty / standby configurations to act as a backup in case of pump failure;
- A telemetry system will be installed that will allow operators to control the flows passed forward from the proposed Abbotstown pumping station and the existing Ballymun pumping station. In the event of a problem at the proposed WwTP, flows from the two pumping stations can be slowed or stopped, with the large storage volumes available in the network mobilised to retain flows. This storage volume allows for a period of 6 hours at average flow for problems to be rectified. Alarms will also be installed to warn of any issues/failure. At the same time Uisce Éireann's emergency response plan would be activated;
- Appropriate watertight pipeline materials for the safe transfer of wastewater will be utilised during the construction of all pipelines, and pipelines will have a limited number of joints to minimise potential leaks;
- The rising main will be pressurised and will be fitted with a pressure monitor that will stop flows in the event of a burst along the proposed orbital sewer route. A flow meter will be included in the proposed Abbotstown pumping station and at the inlet works for the proposed WwTP. This will aid in the early detection of any potential leaks or bursts along the proposed orbital sewer route.

Therefore, an unintended discharge to the marine environment as a result of a total failure of the WwTP cannot occur.

1.2.5 Operation of the Proposed WwTP

The WwTP will be operated by a private service provider on behalf of Uisce Éireann under an Operation and Maintenance Contract. The WwTP will be manned 24 hours a day, 7 days a week.

The normal Operational Phase of the Proposed Project and its constituent elements will be fully automated and will be monitored, controlled and managed from the control centre location at the proposed WwTP. The proposed WwTP will be operated by a private service provider on behalf of Uisce Éireann under an Operation and Maintenance Contract. The proposed WwTP will also be added to the new Uisce Éireann 24-hour manned Operations Management Centre, which went live in 2022, for monitoring and escalation of critical alarms.

1.3 Description of Proposed Flow and Load Diversions to the New WwTP

As discussed above, the Proposed Project will provide an additional 500,000 PE of treatment capacity, primarily to augment the existing treatment capacity provided at Ringsend WwTP. To mobilise this capacity, it is necessary to divert flow and load out of the Ringsend catchment to the proposed WwTP. The critical drainage sub-catchments located in the northern and western areas of the Ringsend catchment, which have been examined for potential flow and load diversion to the proposed WwTP. They compromise of:

- The existing catchment and future residual catchment of Ringsend WwTP;
- The Blanchardstown (9C Sewer) sub-catchment of the Ringsend WwTP (includes the towns and villages of Ashbourne, Ratoath, Kilbride, Dunboyne and Clonee in Co. Meath);
- The North Dublin (North Fringe Sewer (NFS) and North Dublin Drainage Scheme Sewer) sub-catchment of Ringsend WwTP; and
- The South Dublin – Lucan/Clondalkin (9B Sewer) sub-catchment of Ringsend WwTP.

The detailed review of treatment capacity requirements in the GDA indicates that diversion of the Blanchardstown (9C Sewer) catchment, inclusive of flows transferred to it from Leixlip WwTP, and the NFS

sub-catchments located west of the proposed WwTP will provide the necessary diversions from the Ringsend catchment to maintain the loading on Ringsend WwTP below 2.4 million PE at all stages up to the design year horizon of 2050.

1.4 Description of the Proposed Outfall Pipeline Route and Discharge Location

The proposed outfall pipeline will be routed out to sea for approximately 6km before terminating at the discharge location in the Irish Sea Dublin (Hydrometric Area (HA09)) (IE_EA_070_0000) (Grid reference: ING: 319492.13E, 241950.30N), approximately 1km north-east of Ireland's Eye. The proposed outfall pipeline will operate as a pressurised gravity sewer. This Irish Sea Dublin coastal water body is of Good status (2016-2021) and is Not at Risk under the Water Framework Directive of failing to meet its target of maintaining Good status by 2027. The trophic status of this coastal water body is unpolluted.

The proposed multiport marine diffuser will consist of a number of vertical risers from the proposed outfall pipeline above seabed level. Diffuser valves will be attached onto the vertical risers to allow the treated wastewater to achieve the required initial dilution on discharge to the marine environment.

2. Environmental Assessment of Discharges

An Environmental Impact Assessment (EIA) has been carried out for the Proposed Project and the 2018 Environmental Impact Assessment Report (EIAR), as supplemented by the 2023 EIAR Addendum have been included as **Attachment B.5.1** and **Attachment B.5.2** of this WWDA licence application, respectively.

The EIA process provides a valuable opportunity to reduce potential environmental impacts through design refinement, and this has formed an integral part of the design process for the Proposed Project.

Environmental constraints and issues have been identified through consultation, extensive environmental surveys and technical assessments. The information gathered has informed decision-making throughout the design process, providing opportunities to address potentially significant impacts at an early stage, for example by the refinement of the pipeline alignment or by the incorporation of mitigation measures embedded into the design.

The 2018 EIAR, as supplemented by the 2023 EIAR Addendum (refer to **Attachment B.5.1** for the 2018 EIAR and **Attachment B.5.2** for the 2023 EIAR Addendum), present the results of the assessment of likely significant effects for the Construction Phase and the Operational Phase of the Proposed Project. The design, which has been developed for the Proposed Project, forms the current indicative design. This indicative design will be used by the future contractor(s), that will be appointed by Uisce Éireann, to prepare the detailed design for the construction of the Proposed Project. The future contractor delivering the Proposed Project will address and meet the requirements of the 2018 EIAR and the 2023 EIAR Addendum.

Predicted environmental impacts associated with the operation of the proposed outfall pipeline on marine water quality and marine biodiversity are discussed in Chapter 8, 9 and 10 of the 2018 EIAR (refer to Attachment B.5.1 of this licence application), and supplemented by Chapter 8A, 9A and 10A of the 2023 EIAR Addendum (refer to Attachment B.5.2 of this licence application). Cumulative impacts and environmental interactions are discussed in Chapter 23 of the 2018 EIAR (refer to Attachment B.5.1 of this licence application) and supplemented by Chapter 23A of the 2023 EIAR Addendum (refer to Attachment B.5.2 of this licence application). A summary of these assessments is provided below.

2.1 Marine Water Quality

The assessment for marine water quality considered the potential impacts to marine water quality through the Operational Phase of the Proposed Project.

The assessment used mathematical modelling to look at the discharge of treated wastewater through the outfall pipeline to the sea. The area of the sea in which the treated wastewater will be discharged to has a water quality which is classified as 'Good' quality. There are eight stretches of beach in the surrounding area designated as protected bathing water beaches, two of which currently hold Blue Flag status in 2024 (Velvet Strand in Portmarnock and Balcarrick, Donabate). The detailed modelling assessment is found in Chapter 8 in Volume 3 Part A of the 2018 EIAR (**Attachment B.5.1**), as supplemented by Chapter 8A in Volume 3A Part A of the 2023 EIAR Addendum (**Attachment B.5.2**).

The extensive mathematical modelling undertaken to replicate the Operational Phase shows that, apart from the actual mixing zone at the discharge point, the 'good' status criteria of the sea where the outfall pipeline will be located, will be maintained. The extensive modelling studies have also confirmed that:

- The Proposed Project will have an Imperceptible impact on the water quality of the coastal waters off County Dublin;
- The Proposed Project will have no impact on achieving the goals of the WFD (i.e. maintaining good status in all water bodies);
- The proposed discharge location will not negatively impact any designated bathing waters or Blue Flag Beaches; and
- The Proposed Project will have an Imperceptible impact on the quality of shellfish waters.

2.2 Biodiversity (Marine)

The assessment for marine biodiversity considered the potential impacts on the flora and fauna found on the sea bed, marine mammals, marine birds, fish, plankton and water quality during the Operational Phases.

A number of specialist surveys have been carried out to establish the current status of the marine environment within and adjacent to the Proposed Project. These surveys included walkovers, sea bed ecological surveys, seabed shape and feature studies, underwater noise monitoring, direct and remote surveys of underground features, water quality sampling and bird surveys.

There are 19 European protected sites within 10km of the GDD Project. European protected Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) within 5km of the Proposed Project include:

- Baldoyle Bay SAC / SPA;
- Howth Head SAC / SPA;
- Malahide Estuary SAC / SPA;
- North Dublin Bay SAC;
- North-West Irish Sea SPA;
- Ireland's Eye SAC / SPA;
- Rockabill to Dalkey Island SAC; and
- North Bull Island SPA.

Chapter 9 (Biodiversity (Marine)) and Chapter 10 (Biodiversity (Marine Ornithology)) in Volume 3 Part A of the 2018 EIAR (refer to **Attachment B.5.1**), as supplemented by Chapter 9A (Biodiversity (Marine)) and Chapter 10A (Biodiversity (Marine Ornithology)) in Volume 3A Part A of the 2023 EIAR Addendum (refer to **Attachment B.5.2**), assessed the potential impacts of the Proposed Project on wider marine ecology and ornithology. Appropriate mitigation measures for impact reduction have been incorporated into the project proposal, including design-stage. Computer modelling of the discharge of treated wastewater from the marine discharge point, as reported in Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR (refer to **Attachment B.5.1**), as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum (refer to **Attachment B.5.2**), showed that there will be no impact on marine flora or fauna. The assessments undertaken to inform these chapters of the 2018 EIAR and 2023 EIAR Addendum, along with the computer modelling, determined that with the implementation of these measures, of no significant remaining negative impacts are anticipated for the Proposed Project.

Along with the 2018 EIAR, as supplemented by the 2023 EIAR Addendum, a revised 2023 Natura Impact Statement (NIS) (refer to Attachment D.2.1), have been carried out in line with the requirements of the European Union (EU) Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive) to assess potential negative impacts on European sites in the vicinity of the Proposed Project (the Revised NIS has been included as **Attachment D.2.1** of this WWDA licence application).

The Revised NIS for the Proposed Project has considered the potential for Likely Significant Effects arising from the Proposed Project that would have the potential to adversely affect the integrity of any Natura 2000 site, with regard to their qualifying interests and conservation objectives. The marine outfall pipeline of the Proposed Project will run under the Baldoyle Bay SAC and SPA in a tunnel. The length of the marine outfall beyond Velvet Strand to the marine diffuser (4,800m) will pass through the North-West Irish Sea SPA, and a 1,300m section of the marine outfall pipeline and the marine diffuser will be located in the Rockabill to Dalkey Island SAC. The same 1,300m section will lie to the north of Ireland's Eye SPA and SAC and south of Lambay Island SAC.

The potential for direct, indirect and in combination impacts affecting the above designations has therefore been assessed in the Revised NIS. The appraisal undertaken in the Revised NIS has been informed by project-

specific site investigations and specialist reporting with reference to the ecological communities and habitats potentially affected by the Proposed Project, in order to provide a scientific basis for evaluations.

As outlined above, measures for impact reduction have been incorporated into the project proposal, including design-stage avoidance, in addition to mitigation measures proposed in the Revised NIS for the avoidance and reduction of impacts on the qualifying interests and conservation objectives of the designated Natura 2000 sites within the study area.

With the implementation of these measures, the Proposed Project will not result in direct, indirect or in combination impacts which would have the potential to adversely affect the qualifying interests / special conservation interests of the Natura 2000 sites within the study area with regard to the range, population densities or conservation status of the habitats and species for which these sites are designated (i.e. conservation objectives).

The Revised NIS therefore concluded, beyond reasonable scientific doubt, that the Proposed Project with the implementation of the prescribed mitigation measures will not give rise to significant impacts, either individually or in combination with other plans and projects, in a manner which adversely affects the integrity of any designated site within the Natura 2000 network.

2.3 Cumulative Impacts and Interactions

The assessment of environmental impacts associated with the Proposed Project considered interactions between environmental aspects, for example interactions between traffic and air quality, and cumulative impacts with other developments.

The cumulative impact assessment considered the way in which an environmental resource, such as surface water, could be impacted by more than one development. The impacts from other developments may potentially overlap or act in combination with the Proposed Project, leading to potentially more significant environmental impacts than if the impacts were considered in isolation.

The assessment considered potential cumulative impacts from a number of different project types within 20km of the Proposed Project. All other developments assessed, will not result in potential significant cumulative impact in-combination with the Proposed Project, with the implementation of the mitigation measures for the Proposed Project, as outlined in the 2018 EIAR and supplemented by the 2023 EIAR Addendum (refer to **Attachment B.5.1** and **Attachment B.5.2**). The implementation of these mitigation measures will avoid or reduce the majority of the identified potential cumulative impacts to an acceptable level.

3. Environmental Incident Response Plan

An Environmental Incident Response Plan will be developed by the appointed contractor/operator of the proposed WwTP, in consultation with the emergency services and other relevant third parties, and will be submitted to Uisce Éireann for approval. The Environmental Incident Response Plan will contain Incident Response Procedures which will outline the detailed procedures for dealing with any potential emergency and shall include the following:

- Initial response procedures;
- List of emergency numbers;
- Records and sharing of records with prescribed bodies;
- Training; and
- Emergency response equipment list on-site.

The Environmental Incident Response Plan will ensure that resources necessary to make safe and/or deal with situations in the first instance are available to respond to emergencies at all times during the Operational Phase. It will also ensure that suitably qualified personnel ('Duty Officers') will be available at all times to

manage the response of the contractor/operator to emergencies. A schedule of the telephone numbers for Duty Officers shall be provided to an Garda Síochána and other relevant authorities so that contact can be made with the Duty Officers at all times.

4. Proposed Monitoring of Discharges

Monitoring of the influent to the WwTP, and the effluent from the WwTP, is proposed to be undertaken monthly at the inlet chamber to the WwTP, and at the final effluent chamber of the WwTP, as indicated on Map 2 of **Attachment B.2.2**.

Monitoring of the receiving waters is proposed to be undertaken monthly at the locations indicated on Map 4 of **Attachment B.2.2**.