Uisce Éireann
Teach Colvill
24-26 Sráid Thalbóid
Baile Átha Cliath 1
D01 NP86
Éire

Irish Water
Colvill House
24-26 Talbot Street
Dublin 1
D01 NP86
Ireland

T: +353 1 89 25000
F: +353 1 89 25001
www.water.ie

Environmental Licensing Programme

Office of Environmental Sustainability

Environmental Protection Agency

PO Box 3000

Johnstown Castle Estate

Wexford

30/03/2022

IW ref: LT0553

Re: Ballyvourney Ballymakeery WWDL Application; Reg. No. D0299-02 – Reg. 18(6)(b) Notice

Dear Inspector,

In response to the Regulation 18(6)(b) request for information notice dated 03rd March 2022, please see below relevant information addressing the request.

Please find enclosed an Environmental Impact Assessment (EIA) Screening Report, which concludes that there is no significant and realistic doubt in regard to the likelihood of significant effects on the environment arising from the proposed development and it is considered that an EIA is not required for the authorisation to which this application relates.

I trust the above is satisfactory and please contact me if you have any queries in relation to this.

Enclosed – EIA Screening Report

Yours sincerely,

Peter Keegan

Peter Keegan

Wastewater Strategy

Irish Water Report

Environmental Impact Assessment Screening as part of the Ballyvourney/Ballymakeera Waste Water Discharge Licence Review Application D0299-02

Contents

1. Introduction

In accordance with Regulation 18(6)(b) of the European Union (Waste Water Discharge) Regulations 2007 to 2020, the EPA have concluded, based on a preliminary examination, that there is significant and realistic doubt in regard to the likelihood of significant effects on the environment arising from the proposed development (*i.e.*, the operational discharges from the Ballyvourney/Ballymakeera agglomeration in so far as they relate to the risk of environmental pollution of the receiving waters, the Sullane River (Sullane_030).

The Agency has requested Irish Water to submit the information specified in Schedule 7A of the Planning and Development Regulations 2001, as amended, for the purposes of a screening determination. In accordance with Regulation 18(7), the Agency have requested that the Schedule 7A information:

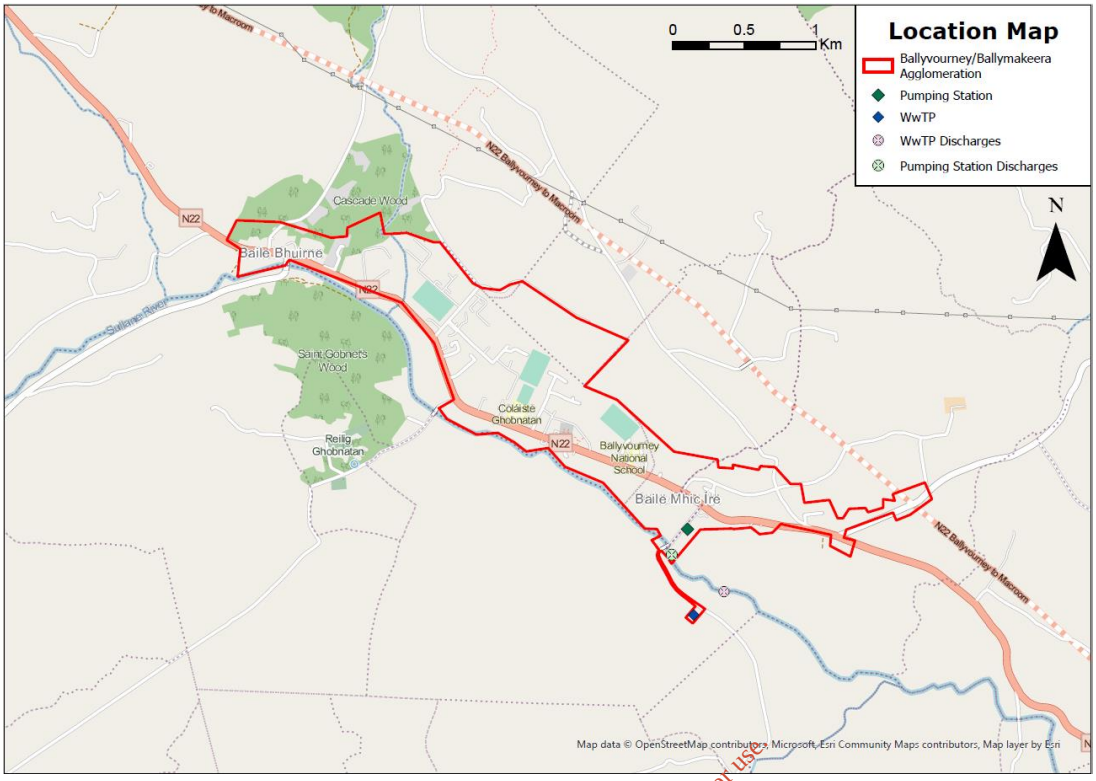
a) shall be accompanied by any further relevant information on the characteristics of the proposed development and its likely significant effects on the environment including, where relevant, information on how the available results of other relevant assessments of the effects on the environment carried out pursuant to European Union legislation other than the Environmental Impact Assessment Directive have been taken into account; and
b) may be accompanied by a description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment of the development.

Sections 2 to **6** of this Screening Report provide the relevant Schedule 7A information, and **Section 7** of the Report provides the assessment of the criteria set out in Schedule 7.

2. Ballyvourney / Ballymakeera Agglomeration Operational Discharges

Ballyvourney and Ballymakeera are two contiguous settlements located approximately 15 km northwest of Macroom on the main N22 Cork to Killarney Road and are the largest settlements located within the Muskerry Gaeltacht region.

The objective of the Ballyvourney/Ballymakeera upgrade project was to design and construct a new WwTP, rising main and new outfall pipeline, and upgrade the pumping station to serve the agglomeration of Ballyvourney/Ballymakeera and to meet the current WWDL - Licence Register Number: D0299-01 granted to Irish Water in accordance with the Waste Water Discharge (Authorisation) Regulations (S.I. No. 684 of 2007) (now S.I. No. 214 of 2020) on the 9th October 2015.



.

Figure 1: Ballyvourney and Ballymakeera Agglomeration Location

New WwTP

The new Ballyvourney/Ballymakeera WwTP is located at NGR 121316E, 076048N and is a tertiary treatment plant (oxidation ditches and disk filter), designed to treat 2,600 p.e (design horizon to 2046). At the time of submitting the WWDA application, based on existing loads (2020), the projected 10-year load was 968 p.e.

The new WwTP has been completed and has been fully operational since the 9th September 2021.

The new WwTP consists of the following :

- New Inlet Works
    - Fine Screens
    - Coarse Screened Bypass
    - Vortex Grit Removal
    - Flow Measurement
    - Storm Overflow
    - Storm Holding Tank
- Secondary Treatment from 2No. Oxidation Ditches
- Secondary Settlement by 2No. Radial Flow FSTs
- Chemical Dosing for Phosphorus Removal
- Tertiary Treatment by Disk Filter
- Picket Fence Thickener including Sludge Storage
- New Outfall

Upgraded Pumping Station

The project involved upgrading the existing Ballymakeera Pumping Station at NGR 121295E, 076419N. Previously, the wastewater from the west of Ballymakeera village, including

Ballyvourney, gravitated to a septic tank, whilst the remaining sewage from the east of the village gravitated to Ballymakeera Pumping Station, from where it was pumped to a septic tank *via* a rising main. Following the decommissioning of the septic tank, all flows are now diverted to the Pumping Station by gravity. The previous pumps have been removed and replaced with pumps each capable of transferring the 10-year Formula A flow of 39L/s to the new WwTP site. A new rising main, sized to carry the 30-year Formula A flow of 47.4l/s, has been installed from the Pumping Station to the new WwTP.

The overflow from the Pumping Station has been designed to function and operate as below:

- Activate during a complete mechanical/electrical failure of the Pumping Station.
- Activate when flows greater than Formula A (approx. 7 dry weather flow (DWF)) arrive at the pumping station.
- The following design measures were incorporated into the design to prevent deleterious discharges from the overflows include:
- Standby pump activates automatically upon failure of duty pump.
- Provision for the connection of a mobile power generator facility in the event of power failure.
- Upgraded mechanical screen - Overflows will be screened to 6 mm in all directions before discharging to the river.
- Upgrade of pump capacity from 15.7l/s to 39 l/s, i.e., Formula A flow as set out in the DoEHLG Procedures and Criteria in Relation to Storm Water Overflows 1995, ensuring discharges occur during periods of high rainfall, which allows for increase dilution of discharge in receiving waterbody.

The pumping station upgrade works were completed on 29th March 2021.

Operational Discharges

Primary Discharge (SW001)

The primary discharge from the new WwTP discharges to the Sullane River at NGR 121449E, 076147N *via* a 280mm outlet pipe. The primary discharge is monitored continuously and recorded at the electromagnetic flowmeters which are installed at the WwTP.

The proposed effluent standards for the new WwTP are tabled below which shall ensure that the discharge from the WwTP contributes to maintaining the High status of the Sullane_030.

Table 1.0 - Effluent Standards for New WwTP (as per D0299-01 ELVs)

Parameter	ELV	Units
pH	6-9	pH units
BOD, 5 days with Inhibition (Carbonaceous BOD)	25	mg/l
COD-Cr	125	mg/l
Suspended Solids	35	mg/l
Ammonia-Total (as N)	1.5	mg/l
Ortho-Phosphate (as P)	0.8	mg/l

These ELVs were set by the EPA and as detailed in **Appendix D.2.1** *Impact Assessment Report* of the WWDA application will ensure that potential effects on the receiving water body are strictly limited and controlled and will ensure the compliance with standards and objectives established for associated protected areas in accordance with relevant legislation, including the Water Framework Directive.

Storm Water Overflows (SW002 & SW003)

There is 1 no. SWO from the new WwTP (SW002). Upon activation this will discharge to the Sullane River *via* the primary discharge outfall at NGR 121449E, 076147N.

There is 1 no. SWO (SW003) from the Pumping Station which is connected to a combined sewer that discharges to the Sullane River at NGR 121225E, 076310N.

Both overflows have been designed in compliance with the definition of '*Storm Water Overflow'* as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007, as amended and the criteria as set out in the DoEHLG '*Procedures and Criteria in Relation to Storm Water Overflows'*, 1995.

Any overflow event will be monitored and recorded at the electromagnetic flowmeters which have been installed at the WwTP and Pumping Station.

Emergency Overflows (SW004):

SW004 from the Pumping Station will only operate in an emergency event (*e.g*., prolonged power outage). SW004, when activated, will discharge *via* the same combined sewer as SW003 (NGR 121225E, 076310N).

The design of the overflows from the WwTP and Pumping Station will significantly reduce the likelihood of untreated water entering the receiving watercourse.

3. Key Measures to Avoid/Prevent Significant Adverse Effects

The Waste Water Treatment Works at Ballyvourney/Ballymakeera has been designed and incorporates the following key measures to prevent unintended discharges to the Sullane River (Sullane_030):

- The Ballyvourney/Ballymakeera primary effluent discharge (SW001) has been designed to meet the standards to satisfy all relevant regulatory requirements including the Surface Water Regulations (S.I. No. 77 of 2019) and the Urban Wastewater Treatment Regulations (S.I. No. 254 of 2001).
- SWOs (SW002 and SW003) have been designed in compliance with the definition of *'Storm Water Overflow'* as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007, as amended and the criteria as set out in the DoEHLG '*Procedures and Criteria in Relation to Storm Water Overflows'*, 1995.
- Provision of 195m^3 of storm storage at the WwTP.
- Provision of 12.4m^3 of storm storage at the Pumping Station.
- At the Pumping Station a standby pump will activate automatically upon failure of duty pump.
- The provision for the connection of a mobile power generator facility at the Pumping Station in the event of power failure.
- Upgraded mechanical screen at the Pumping Station which will ensure that overflows will be screened to 6 mm in all directions before discharging to the river.
- Upgrade of pump capacity from 15.7l/s to 39 l/s*, i.e*., Formula A flow as set out in the DoEHLG Procedures and Criteria in Relation to Storm Water Overflows 1995, ensuring

discharges occur during periods of high rainfall, which allows for increase dilution of discharge in receiving waterbody.

- All alarms will be linked to level measurement to alert to any spillage and will be linked to SCADA with alarms sent to operators in the result of an emergency event.
- Connection for temporary generator. Uninterruptible Power Supply (UPS) backup for telemetry/plant controllers.
- 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.
- All operators will be fully familiar with all operational plans and procedures pertaining to the plant and network *etc.*
- All flows will be monitored continuously and recorded at the electromagnetic flowmeters which will be installed at the WwTP.

4. Compliance with EU & National Legisation

The effluent discharge standards (*i.e.,* Proposed ELVs: BOD 25mg/l, Total Ammonia 1.5mg/l, Ortho-P 0.8mg/l, COD 125 mg/l, Suspended Solids 35mg/l) and the operational design of the overflows from the upgraded Pumping Station and new WwTP, will ensure that the discharges from the agglomeration contribute towards maintaining the High WFD status of the Sullane River (Sullane_030) in accordance with the European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019 (S.I. No. 77 of 2019), and will ensure that there is no environmental risk posed to the receiving water environment as a result of the discharges from the agglomeration.

The operation of the new WwTP is expected to have a positive impact in terms of reduction in the levels of nutrients being discharged into the Sullane River. The discharge activities will not cause a deterioration in the chemical status in the relevant receiving waterbody.

In summary, the Ballyvourney/Ballymakeera WwTW has been designed to ensure that the emissions from the agglomeration will comply with, and will not result in the contravention of, EU and National legislation. Please refer to **Attachment B.6** *Compliance with EU Directives / National Regulations* of the WWDA application, as submitted to the EPA on the 23rd December 2021, for further confirmation of same.

5. Description of the Receiving Water Environment

Ballyvourney/Ballymakeera WwTP discharges to the Sullane River (Sullane_030). Sullane_030 is within the Lee Cork Harbour and Youghal Bay Catchment (Hydrometric Area 19). This catchment includes the area drained by the River Lee and all streams entering tidal water in Cork Harbour and Youghal Bay and between Knockaverry and Templebreedy Battery, Co. Cork, draining a total area of 2,153 km². The largest urban centre in the catchment is Cork City. The other main urban centres in this catchment are Ballincollig, Macroom, Carrigaline, Crosshaven, Blarney, Glanmire, Midleton, Carrigtohill, Cobh, Passage West and Belvelly.

The draft 3rd Cycle Catchment Report (2021) for this hydrometric area, determined that for river waterbodies excess nutrients remain the most prevalent issue, along with morphology, organic pollution, and hydrology. Pressures identified affecting the greatest number of waterbodies within

hydrometric Area 19 include hydromorphology, followed by agriculture, urban run-off, urban wastewater, domestic waste water, forestry, mines and quarries, and industry.

The Sullane_030 is High Status and Not at Risk. There are no identified significant pressures for the Sullane_030.

The Biological quality rating (Q Value - 2004 to 2020) within this stretch of the Sullane_030 (RS19S020200, Sullane - Br d/s Douglas R confl) is also High (Q4-5).

The Sullane_030 waterbody trends (at Br d/s Douglas R confl, downstream of the operational discharges) for Ortho-P for 2013-2018 are Downwards (*i.e*., decreasing concentrations); however, for Ammonia no trend is noted (*i.e.,* approximately maintaining concentration levels). For 2013-2018, both Ammonium and Ortho-P are noted as High under WFD status.

Recent ambient monitoring data (Jan 2019-July 2021) for Sullane_020 upstream and Sullane_030 downstream is shown in the Tables below.

Table D.2.1 - Ambient Monitoring – Upstream of the Primary Discharge Location at RS19S020170 (*Data Source: EDEN Compliance Data)*

Parameter	pH	BOD	Ortho-P (mg/l)	Total Ammonia (mg/l)	DO (mg/l)	DO(%sat)	Temp (°C)
Number of Samples	11	11	11	11	11	11	11
Max result	7.5	2.5	0.026	0.029	42	107.3	20.2
Min result	7.1	0.5	0.004	0.006	1.25	96.1	6.7
Average result	7.36	1.318	0.010	0.0144	7.95	101.2	12.8
Mean High EQS *		**≤1.3**	**≤ 0.025**	**≤0.04**			
Overall compliance with relevant EQS (High Status)		**No**	**Yes**	**Yes**			

*Mean High status under S.I. No. 77 of 2019
Note: Where data was reported as less than the limit of detection, LOD/2 was applied.

Table D.2.2 - Ambient Monitoring – Downstream of the Primary Discharge Location at RS19S020200

Parameter	pH	BOD	Ortho-P (mg/l)	Total Ammonia (mg/l)	DO (mg/l)	DO(%sat)	Temp (°C)
Number of Samples	11	11	11	11	11	11	11
Max result	7.6	2.7	0.019	0.055	13	103.1	19.9
Min result	6.5	0.5	0.006	0.015	1.25	92.4	6.7
Average result	7.35	1.25	0.010	0.0270	5.16	99.9	12.6

Parameter	pH	BOD	Ortho-P (mg/l)	Total Ammonia (mg/l)	DO (mg/l)	DO(%sat)	Temp (°C)
Mean High EQS *		**≤1.3**	**≤ 0.025**	**≤0.04**			
Overall compliance with relevant EQS (High Status)		**Yes**	**Yes**	**Yes**			

*Mean High status under S.I. No. 77 of 2019
Note: Where data was reported as less than the limit of detection, LOD/2 was applied.

Based on ambient monitoring results upstream and downstream of the discharge for the period between January 2019 to July 2021, the mean concentration for Ammonia and Ortho-P are within the required EQSs for High status. In terms of BOD, the upstream mean concentration is slightly above mean EQS, however the downstream concentration is below the required mean EQS for High status. The operational standards will ensure that the operational discharges from the agglomeration contribute towards maintaining High status of the Sullane River in accordance with the European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019 (S.I. No. 77 of 2019).

Although the Sullane River is not designated as a *Margaritifera* First Order River, Freshwater Pearl Mussel (*Margaritifera margaritifera*) have been recorded, both upstream and downstream of the discharge. ELVs of 0.8 mg/l for Ortho-P, 1.5 mg/l for Ammonia and 25 mg/l for BOD have been put in place to ensure compliance with the High status standards set in European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended (now S.I. No. 77 of 2019). These ELVs have been set by the EPA taking account the sensitivity of the receiving River with particular reference to the Freshwater Pearl Mussel (*Margaritifera margaritifera*) and came into effect on the 31st December 2015 under D0299-01.

There are no salmonid waterbodies, nutrient sensitive waters or drinking water abstraction points within the region of or relevance to the Ballyvourney/Ballymakeera agglomeration.

There are no European sites immediately downstream of the operational discharges. The nearest European site downstream is the Cork Harbour SPA which is located *ca.* 68 km downstream of the agglomeration. Due the distance of this site from the operational discharges, and the large dilution capacity of downstream waterbodies, it is considered that there is no likelihood of significant effects from the operation discharges on the Qualifying Interests of this sites (including *ex-situ* species). St Gobnet's Wood SAC (Site Code: 000106) and Mullaghanish to Musheramore Mountains SPA (Site Code: 004162) are located *ca*. 1.5 km to the northwest, and *ca.* 1.3 km northeast of the discharge points respectively. The operational discharges have no hydrological connectivity with these two sites. The Gearagh SAC and SPA are both approximately 9.8 km away from the operational discharges. They are located on the River Lee, but upstream of the confluence with the Sullane River. The Blackwater River SAC and Killarney National Park, Maggillycuddy's Reeks and Caragh River Catchment SAC are approximately 11.9 km and 8.5 km north of the operational discharges, respectively. These sites are not hydrologically connected to the Ballyvourney/Ballymakeera operational discharges. An Appropriate Assessment (AA) Screening Report has been produced separate to this EIA Screening Report, to assess potential effects on European sites. The AA Screening concluded that there were no likely significant effects on any European sites arising from the operational discharges, either alone or in-combination with other plans or projects. A Stage 2 '*Appropriate Assessment'* under Article 6(3) of the Habitats Directive 92/43/EEC is not required. Refer to **Attachment D.2.2** of the WWDA application for a copy the AA Screening Report.

There are 9 pNHAs and 1 NHA within 15 km of the WwTP, the closest of which is St. Gobnet's Wood (*ca.* 1.5 km north-east of the WwTP). The St. Gobnet's Wood pNHA comprises terrestrial woodland habitat that is located on the Sullane River upstream from the discharge and as such there is no pathway for potential impacts. No potential ecological pathway exists by which any other NHA or pNHA could be affected by the operational discharges.

Based on the above it is considered that there is no environmental risk posed to the receiving water environment as a result of the discharges from the agglomeration.

6. Waste Assimilative Capacity

A WAC calculation was carried out by the EPA inspector in 2015 using the mean background concentration of each parameter in the receiving water and the design capacity of 1,600 p.e. ELVs of 0.8 mg/l for Ortho-P, 1.5 mg/l for Ammonia and 25 mg/l for BOD were set to ensure compliance with the High status standards set in European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended (now S.I. No. 77 of 2019). These ELVs take of account the sensitivity of the receiving River with particular reference to the Freshwater Pearl Mussel (*Margaritifera margaritifera*). These limits came into effect from the 31/12/2015, as per D0299-01.

To inform this licence review, using the ELVs as per D0299-01, a WAC calculation was completed using the actual background concentration based on January 2019 to June 2021 ambient monitoring data and the EPA Flow Estimation of 0.26 m^3/s (EPA Estimated 95%ile Flow at Station 19055 (Up to 2018)).

Based on the actual background concentration, the WAC calculations, carried out using the maximum WwTP design p.e. of 2,600 (rather than the projected 10-year load of 968 p.e), showed that there would be sufficient assimilative capacity in the receiving water, the Sullane River, to receive the flows and loads associated with the new WwTP.

Table 1.0 - WAC for 2,600 p.e (WwTP Design – Design Horizon to 2046)

Parameter	Upstream River Conc Note 1	ELV	Contribution from Primary Discharge (mg/l)	Predicted D/S Conc (mg/l)	Relevant Standard (mg/l) (High Status)
BOD	1.318	25	0.635	1.919	<2.2 Note 2
Ortho-P (MRP)	0.0144	0.8	0.020	0.030	<0.045 Note 2
Total Ammonia	0.0100	1.5	0.038	0.052	<0.09 Note 2

Note 1: Based on grab sampling carried out between 2019-2021.
Note 2: European Union Environmental Objectives (Surface Waters) (Amendment). Regulations 2019 (S.I. No. 77 of 2019)

For completeness **Table 2** below provides the WAC calculations based on the projected 10-year load of 968 p.e.

Table 2.0 - WAC for 968 p.e. (projected 10-year load)

Parameter	Upstream River Conc Note 1	ELV	Contribution from Primary Discharge (mg/l)	Predicted D/S Conc (mg/l)	Relevant Standard (mg/l) (High Status)
BOD	1.318	25	0.240	1.546	<2.2 Note 2
Ortho-P (MRP)	0.0144	0.8	0.008	0.018	<0.045 Note 2
Total Ammonia	0.0100	1.5	0.014	0.029	<0.09 Note 2

Note 1: Based on grab sampling carried out between 2019-2021.
Note 2: European Union Environmental Objectives (Surface Waters) (Amendment). Regulations 2019 (S.I. No. 77 of 2019)

In summary, achieving the ELVs as D0299-01 will ensure that the discharge from the WwTP contributes towards maintaining High status of the Sullane_030 in accordance with the European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019 (S.I. No. 77 of 2019) and will ensure that there is no environmental risk posed to the receiving water environment as a result of the discharge from the new WwTP.

Refer to **Attachment D.2.3** of the WWDA application, as submitted to the EPA on the 23rd December 2021, for further details on the WAC.

7. EIA Screening Criteria Assessment

This section of the EIA Screening Report considers the proposed development (*i.e.,* operational discharges from the Ballyvourney/Ballymakeera agglomeration) against the Schedule 7 criteria. Schedule 7 specifies '*Criteria for determining whether a development would or would not be likely to have significant effects on the environment'* under these three headings.

1. Characteristics of proposed development
2. Location of proposed development
3. Characteristics of potential impacts

Schedule 7A of the Planning and Development Regulations sets out *'Information to be provided by the Applicant or Developer for the Purposes of Screening Sub-threshold Development for Environmental Impact Assessmen*t'. This information includes:

1. A description of the proposed development
2. A description of the aspects of the environment likely to be significantly affected by the proposed development.
3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment
4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7

This Screening Report includes the relevant Schedule 7A information. This is contained in **Sections 2** to **6** above, and in the Schedule 7 criteria commentary provided in the tables below.

7.1	**Characteristic of the Proposed Development**
a. The size and design of the whole of the proposed development	The design of the new WwTP is for 2,600 p.e (design horizon to 2046). The loads generated in agglomeration however will not exceed 2,000 p.e for the duration of the reviewed licence. At the time of submitting the WWDA application in December 2021, based on existing loads (2020), the projected 10-year load is 968 p.e. which is significantly below the 10,000 p.e mandatory threshold for EIA. The primary discharge (SW001) ELVs will ensure that the discharge from the WwTP contributes towards maintaining High status of the Sullane_030 in accordance with the European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019 (S.I. No. 77 of 2019) and will ensure that there is no environmental risk posed to the receiving water environment as a result of the discharge from the new WwTP (Refer **Appendix D.2.1** *Impact Assessment Report* of the WWDA application).

7.1	Characteristic of the Proposed Development
	The design of the Storm Water Overflows (SW002 & SW003) in compliance with the definition of '*Storm Water Overflow'* as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007, as amended and the criteria as set out in the DoEHLG '*Procedures and Criteria in Relation to Storm Water Overflows'*, 1995. The Emergency Overflow (SW004) from the Pumping Station will only operate in an emergency event (*e.g.,* prolonged power outage). The likelihood of an emergency event is low, and there is provision for the connection of a mobile power generator facility at the pumping station in the event of a power failure. The source of the wastewater in the agglomeration is largely domestic in nature. There are no significant IPC or waste licensed activities discharging to the agglomeration or to the Sullane River upstream or downstream of the agglomeration. Refer to **Sections 2** and **3** of the EIA Screening Report for further details.
b. cumulation with other existing and/or approved projects	There are no significant IPC or waste licensed activities discharging to the Sullane River upstream or downstream of the agglomeration. There are no other existing waste water discharges in the vicinity of the WwTW operational discharges. Cork County Council planning portal was reviewed to identify any planning applications which have been submitted and/or granted within the last 5 years (from March 2022). The majority of applications are domestic dwellings. This review did not identify any other projects, either existing or approved, which have the potential to interact with the Ballyvourney/Ballymakeera agglomeration's operational discharges, and result in significant cumulative impacts.
c. the use of natural resources, in particular land, soil, water and biodiversity;	The operational discharges have been designed and incorporate key measures to avoid and prevent significant effects on the receiving Sullane River (refer to **Section 3** of this Report). The new WwTP is expected to have a positive impact in terms of the reduction in the levels of nutrients being discharged into the Sullane River. The effluent discharge standards and the design of the overflows will ensure that there is no environmental risk posed to the receiving water environment or its associated biodiversity as a result of the discharges from the agglomeration. As such, the use of these resources is not considered significant.
d. the production of waste;	Not applicable for operational discharges.
e. pollution and nuisances;	The WwTW operational discharges have been designed and incorporate key measures to avoid and prevent significant effects on the receiving Sullane River (refer to **Section 3** of this Report). The operation of the WwTP will result in an improved wastewater discharge to the receiving waterbody. The effluent discharge standards and the design of the overflows have been set to ensure that the operational discharges from the agglomeration contribute towards maintaining the High status of the Sullane River in accordance with the European Union Environmental

7.1 Characteristic of the Proposed Development	
	Objectives (Surface Waters) (Amendment) Regulations 2019 (S.I. No. 77 of 2019) and to ensure at there is no environmental risk posed to the receiving environment as a result of the operational discharge from the agglomeration. Refer to **Section 6** of this Report and **Attachment D.2.3** of the WWDA application for details on the WAC of the Sullane River. An assessment of the potential for impacts on receiving waters from priority substances in the primary discharge has been carried out to inform this WWDA application. It concluded that none of the substances listed in the Specific Pollutants, Priority and Priority Hazardous Substances as outlined in the Surface Water Regulations, are likely to be present in the effluent discharge to the Sullane River, at concentrations above the specified standards as per European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended (now S.I No. 77 of 2019) (Refer to **Attachment D.2.4** of the WWDA application for a copy the Priority Substances Assessment Report). There are no other nuisances that would cause unusual, significant, or adverse effects of a type that would, in themselves require an EIA.
f. the risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge;	The Waste Water Treatment Works has been designed and incorporates a number of key measures to prevent unintended discharges to the Sullane River. Refer to **Attachment C.2** of the WWDA application and **Section 3** of this EIA Screening Report for further details. It is considered that there is minimal potential for major accidents, and/or disasters which are relevant to operational discharges on the basis of best scientific knowledge.
g. the risks to human health (for example due to water contamination or air pollution).	There are no downstream drinking water abstraction points on the Sullane River. The closest designated drinking water river is >12.5 km downstream; the Sullane_060. There are no risks to human health from the operational discharges that would cause unusual, significant, or adverse effects of a type that would, in themselves require an EIA.

7.2 Location of Proposed Development	
The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:	
(a) the existing and approved land use;	Not applicable.

7.2 Location of Proposed Development	
(b) the relative abundance, availability, quality, and regenerative capacity of natural resources (including soil, land, water, and biodiversity) in the area and its underground;	Ballyvourney/Ballymakeera WwTP discharges to the Sullane River (Sullane_030). Sullane_030 is within the Lee Cork Harbour and Youghal Bay Catchment (Hydrometric Area 19). This catchment includes the area drained by the River Lee and all streams entering tidal water in Cork Harbour and Youghal Bay and between Knockaverry and Templebreedy Battery, Co. Cork, draining a total area of 2,153km². The largest urban centre in the catchment is Cork City. The other main urban centres in this catchment are Ballincollig, Macroom, Carrigaline, Crosshaven, Blarney, Glanmire, Midleton, Carrigtohill, Cobh, Passage West and Belvelly. The Sullane_030 is High Status and Not at Risk. There are no identified significant pressures for the Sullane_030. Based on the proposed ELVs and assimilative capacity of the Sullane_030, along with design of the overflows and the measures in place to prevent unintended discharges, it is considered that operational discharges are not likely to have a significant effect on the abundance, quality, or regenerative capacity of the Sullane River. Refer to **Sections 2** to **6** of this Report for further details.
(c) the absorption capacity of the natural environment, paying particular attention to the following areas:	(i) wetlands, riparian areas, river mouths; The operational discharges will not give rise to significant effects on the absorption capacity of the natural environment of the Sullane River and its riparian areas. Refer **Point (b)** above. (ii) coastal zones and the marine environment The operational discharges have no potential to impact on these features of the natural environment due to the location of the discharges. (iii) mountain and forest areas The operational discharges have no potential to impact on these features of the natural environment due to the location of the discharges. (iv) nature reserves and parks The operational discharges have no potential to impact on these features of the natural environment due to the location of the discharges. (v) areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC; There are no designated shellfish waters, designated bathing waters, nutrient sensitive waters, within the region of the operational discharges or within their zone of influence.

7.2	Location of Proposed Development
	There are no European sites immediately downstream of the operational discharges. The nearest European site downstream is the Cork Harbour SPA which is located *ca*. 68 km downstream of the agglomeration. Due the distance of this site from the operational discharges, and the large dilution capacity of downstream waterbodies, it is considered that there is no likelihood of significant effects from the operation discharges on the Qualifying Interests of this sites (including *ex-situ* species). St Gobnet's Wood SAC (Site Code: 000106) and Mullaghanish to Musheramore Mountains SPA (Site Code: 004162) are located *ca*. 1.5km to the northwest, and *ca*. 1.3 northeast of the discharge points, respectively. The operational discharges have no hydrological connectivity with these two sites. The Mullaghanish Bog SAC is located *ca.* 5.3 km north of the operational discharges. However, there is no hydrological connectivity between the discharges and this site. The Gearagh SAC and SPA are both *ca*. 9.8 km away from the operational discharges. They are located on the River Lee, but upstream of the confluence with the Sullane River. The Blackwater River SAC and Killarney National Park, Maggillycuddy's Reeks and Caragh River Catchment SAC are *ca*. 11.9 km and 8.5 km north of the operational discharges, respectively. These sites are not hydrologically connected to the Ballyvourney/Ballymakeera operational discharges. An Appropriate Assessment (AA) Screening Report has been produced separate to this EIA Screening Report, to assess the likelihood of significant effects on European sites. The AA Screening concluded that there were no likely significant effects on any European sites arising from the operational discharges, either alone or in-combination with other plans or projects. A Stage 2 '*Appropriate Assessment*' under Article 6(3) of the Habitats Directive 92/43/EEC is not required. Refer to **Attachment D.2.2** of the WWDA application for a copy the AA Screening Report. There are 9 pNHAs and 1 NHA within 15 km of the WwTP, the closest of which is St. Gobnet's Wood (*ca*. 1.5 km north-east of the WwTP). The St. Gobnet's Wood pNHA comprises terrestrial woodland habitat that is located on the Sullane River upstream from the discharge and as such there is no pathway for potential impacts. No potential ecological pathway exists by which any other NHA or pNHA could be affected by the operational discharges. The Sullane River is not designated a salmonid waterway. The Sullane River (below the agglomeration discharge point) has achieved Q4-5 (High, Unpolluted) status since 1990 and there is no indication that the water quality of the Lee River/Reservoir is negatively impacted by the input from the Sullane River. Freshwater Pearl Mussel (*Margaritifera margaritifera*) have been noted upstream and downstream of the WwTP discharge point (Moorkens, 2007). The Pearl Mussel is listed under Annex II and V of the Habitats Directive (92:43: EEC). It is legally protected in Ireland under Schedule 1 of the Wildlife Act (1976 (Protection of Wild Animals) (Statutory Instrument No. 112, 1990) and the European Communities (Natural Habitats) Regulations (Statutory Instrument No. 94, 1997). Upstream and downstream of the discharges to the Sullane River is not a designated Freshwater Pearl Mussel habitat under the Environmental Objectives (Freshwater Pearl Mussel) Regulations, S.I. No. 296 of 2009. There is no Freshwater Pearl Mussel Sub Basin Management Plan for the Sullane River catchment, however, NPWS have indicated that it is an important population. Accordingly, the ELVs set for the WwTP primary discharge are based on the High status standards as laid down in the European Union Environmental Objectives (Surface Waters) (Amendment). Regulations 2019 (S.I. No. 77 of 2019).

7.2 Location of Proposed Development	
	It is considered based on the WAC of the Sullane River and the effluent standards, and the design and operation of the Storm Water Overflows in compliance with the definition of '*Storm Water Overflow'* as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007, as amended and the criteria as set out in the DoEHLG '*Procedures and Criteria in Relation to Storm Water Overflows',* 1995, that no indirect impacts, *via* water quality impacts, on aquatic ecology or environmental sensitivities are anticipated from the Ballyvourney-Ballymakeera agglomeration operational discharges. (vi) areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure There are no areas which the environmental quality standards of the EU have already been exceeded. (vii) densely populated areas Not applicable. (viii) landscapes and sites of historical, cultural, or archaeological significance Not applicable.

7.3 Type and characteristics of the potential impact	
The likely significant effects of projects on the environment must be considered in relation to criteria set out in points 1 and 2 of this Annex, with regard to the impact of the project on the factors specified in Article 3(1), taking into account:	
(a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected);	Sullane River (Sullane_030) and downstream waterbodies.
(b) the nature of the impact;	The operation of the WwTW is expected to have a permanent positive impact on the Sullane River in terms of the reduction in the levels of nutrients being discharged into the river. This impact is not likely to be significant, within the meaning of the EIA Directive.
(c) the transboundary nature of the impact;	The operational discharges will not result in transboundary impacts.
(d) the intensity and complexity of the impact;	The intensity and complexity of impacts associated with the operational discharges are not considered significant within the meaning of the EIA Directive.
(e) the probability of the impact;	There is a high probability of positive water quality impacts. The effluent discharge standards (*i.e.,* ELVs as per D0299-01) and the operational design of the overflows from the upgraded Pumping Station and new WwTP, will ensure that the discharges from the agglomeration contribute towards maintaining the High WFD status of the Sullane River (Sullane_030)

7.3	Type and characteristics of the potential impact	
		in accordance with the European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019 (S.I. No. 77 of 2019) and will ensure that there is no environmental risk posed to the receiving water environment as a result of the discharges from the agglomeration. Based on the above, the design of the operational discharges is likely to have a positive impact in terms of the water quality of the Sullane River. This impact however is not likely to be significant, within the meaning of the EIA Directive.
(f)	the expected onset, duration, frequency, and reversibility of the impact	A permanent long-term positive impact on the Sullane River can be anticipated. The Waste Water Treatment Works has been designed and incorporates a number of key measures to avoid /prevent significant adverse effects on the receiving environment. The operational discharges are expected to have a positive impact in terms of reduction in the levels of nutrients being discharged into the Sullane River. This impact however is not likely to be significant, within the meaning of the EIA Directive.
(g)	the cumulation of the impact with the impact of other existing and/or approved projects	As noted earlier there are no significant IPC or waste licensed activities discharging to the agglomeration or to the Sullane upstream or downstream of the agglomeration. There are also no other existing waste water discharges within the vicinity of the operational discharges. There are a number of other permitted and proposed projects in the locality however none of these have potential to contribute to significant effects within the meaning of the Directive when considered in-combination with the effects of the operational discharges from the WwTW.
(h)	the possibility of effectively reducing the impact	The Ballyvourney/Ballymakeera WwTW has been designed and incorporates a number of key measures to avoid and prevent adverse effects on the receiving aquatic environment. Refer to **Section 3** of this Report.

Based on the review against the Schedule 7 criteria as detailed above, the environmental impacts associated with the operational discharges are not likely to be significant within the meaning of the Directive.

8. EIA Screening Conclusion

Based on the information as contained in this EIA Screening Report, there is no significant and realistic doubt in regard to the likelihood of significant effects on the environment arising from the proposed development (*i.e.,* the operational discharges from the Ballyvourney/Ballymakeera agglomeration in so far as they relate to the risk of environmental pollution of the receiving waters, the Sullane River) and it is considered that an EIA is not required for the authorisation to which this application relates by virtue of its nature, size and location. The main reasons and considerations on which this conclusion is based are as follows:

1. The loads generated in agglomeration will not exceed 2,000 p.e for the duration of the reviewed licence.
2. The source of the wastewater in the agglomeration is largely domestic in nature which is readily biodegradable.
3. There are no significant IPC or waste licensed activities discharging to the agglomeration or to the Sullane River upstream or downstream of the agglomeration.
4. There are no other existing waste water discharges within the vicinity of the proposed waste water discharge.
5. The effluent discharge standards (i.e., Proposed ELVs: BOD 25mg/l, Total Ammonia 1.5mg/l, Ortho-P 0.8mg/l, COD 125 mg/l, Suspended Solids 35mg/l), and the operational design of the overflows from the upgraded Pumping Station and the new WwTP, will ensure that the discharges from the agglomeration contribute towards maintaining the High WFD status of the Sullane River (Sullane_030) in accordance with the European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019 (S.I. No. 77 of 2019) and will ensure that there is no environmental risk posed to the receiving water environment as a result of the discharges from the agglomeration.
6. The Waste Water Treatment Works has been designed and incorporates a number of measures to avoid /prevent significant adverse effects on the receiving aquatic environment.
7. The Ballyvourney/Ballymakeera WwTW has been designed to ensure that emissions from the plant will not result in the contravention of EU Directives and National Regulations.
8. Cumulative effects with other existing and planned discharges are not likely to give rise to significant effects.
9. The high water quality status assigned to the receiving water (Sullane River).
10. The capacity of the receiving water to assimilate the discharges from the agglomeration.
11. Current monitoring in the Sullane River indicates that current discharge is not impacting on the ecological status of the Sullane River.

It is therefore concluded that there is no requirement for the EPA to conduct an EIA in respect of this application, and there is no requirement on Irish Water to either prepare or submit an EIA Report.