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Cork UTAS Bundle

Screening for Environmental Impact Assessment for Ballycotton Sewerage Scheme

Irish Water

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1 Introduction

1.1 Background

Irish Water identified 44 agglomerations in Ireland where untreated sewerage is discharged directly to receiving waters, either from sewer network outfalls or via septic tanks where the level of treatment provided is negligible.

Ballycotton is a town located in East Cork and was one of the identified agglomerations. Ballycotton is a small coastal village located in East Cork, approximately 40km east of Cork City and approximately 20km south west of the town of Midleton. See location in Figure 1 below.

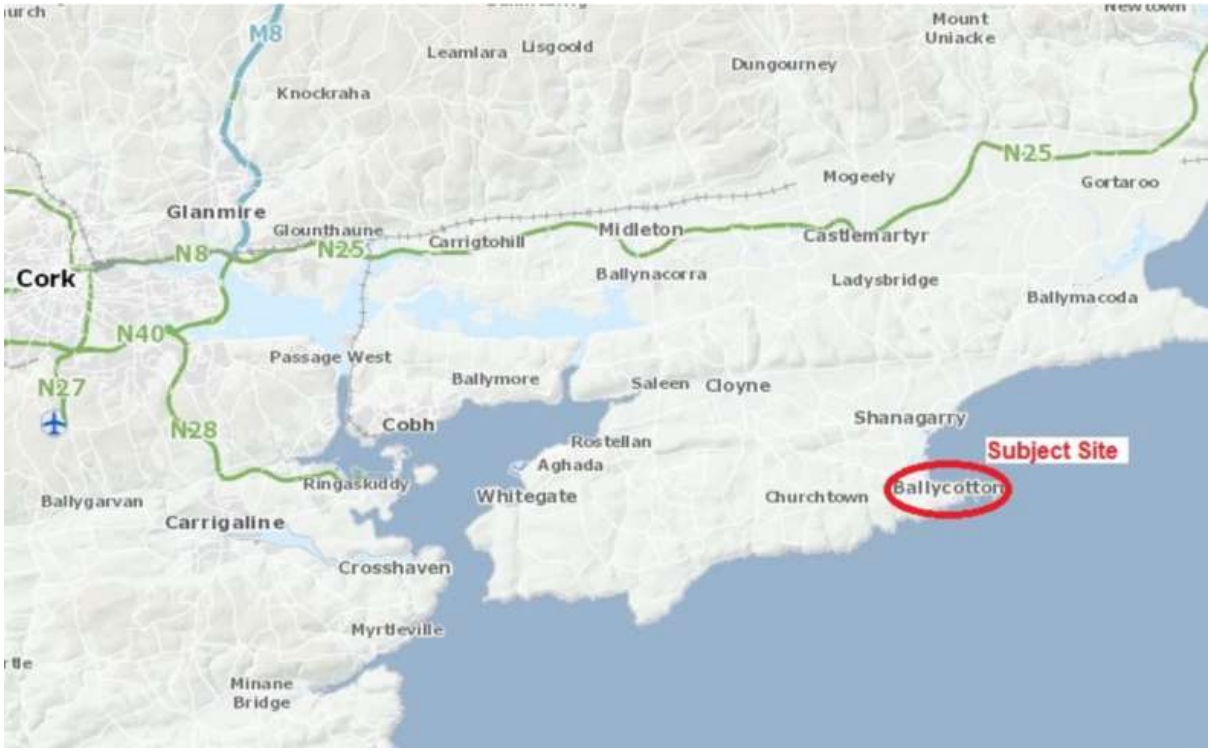


Figure 1 Site location

At present, wastewater flows generated in the agglomeration are collected in two combined (foul and storm water) collection systems. The west of the agglomeration is served by a sewer network which flows to a septic tank located along the foreshore which discharges into the Ballycotton Bay via a short sea outfall. The septic tank dates from the 1950s, is significantly overloaded and is considered to provide a negligible level of treatment.

The east of the agglomeration is served by a collection network which discharges untreated effluent into Ballycotton Bay via an outfall on Ballycotton Pier. This practice of discharging untreated wastewater to the bay is no longer acceptable and Irish Water intends to fix this problem in partnership with Cork County Council by developing a sewerage scheme

The objective of the Ballycotton UTAS project is to provide upgrades to the network and provide a wastewater treatment plant (WWTP) capable of primary treatment. A site has been identified for the scheme for a 30-year projected capacity but the initial project objective is to provide infrastructure for the 10-year projected load.

The proposed works are shown in drawing no. IW-10015230-04-01-001 in Appendix A and details of the proposed outfalls and associated discharges are shown on drawings nos. IW10015230-03-02-004, -005 and -005A in Appendix B.

1.2 This Report

An EIA Screening Report was originally prepared to accompany an application for planning permission for the proposed upgrades to the sewerage scheme in Ballycotton as part of the Cork UTAS project. The Report has been amended to accompany an application for a review of the Waste Water Discharge Licence (WWDL), to be submitted to the EPA in accordance with the European Union (Waste Water Discharge) Regulations (2007 to 2020). It provides further information on the assessment of potential impacts on the aquatic environment from discharges from the proposed sewerage scheme during the operational stage.

2 Requirements for EIA

2.1 EIA Legislation

The Environmental Impact Assessment Directive is based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should, as a priority, be rectified at source and that the polluter should pay. Effects on the environment should be considered at the earliest possible stage in all the technical planning and decision-making processes.

The Environmental Impact Assessment (EIA) Directive 2014/52/EU (the 'EIA Directive'), amending Directive 2011/92/EC on the assessment of the effects of certain public and private projects on the environment, came into force on the 15th May 2014 and Member States had three years to transpose the Directive (i.e. by 16th May 2017).

The EIA Directive is implemented in Ireland by the Planning and Development Acts 2000 to 2021, the Planning and Development Regulations 2001 to 2022 and the European Communities/Union (Environmental Impact Assessment) Regulations 1989 to 2018.

The EIA Screening has been prepared with reference to the provisions of Directive 2014/52/EU and the EIA Regulations (1989-2018).

2.2 EIA Screening Methodology

EIA Screening is the first stage of the EIA process and determines whether the environmental impact of a proposed development or project will be such that an EIA is required.

EIA Screening for the proposed Scheme was undertaken with consideration of the following legislation and guidance:

- Planning and Development Acts, 2000 to 2021.
- Planning and Development Regulations, 2001 to 2022.
- Environmental Impact Assessment of Projects - Guidance on Screening (EU, 2017).
- Environmental Impact Assessment of Projects - Guidance on the preparation of the Environmental Impact Assessment Report (EU, 2017).
- Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2017).
- Guidelines for Planning authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (EPA, 2018).

2.3 Sub-Threshold Development requiring EIA – Criteria to Determine Significance

The EIA Directive comments at paragraph 27 that "The Screening procedure should ensure that an environmental impact assessment is only required for projects likely to have significant effects on the environment."

As noted above, the proposed Scheme comes within Schedule 5, Part 2, Class 13 of the Planning and Development Regulations 2001-2017. If the proposed development does not exceed the threshold for mandatory EIA, a sub-threshold assessment of the need for an EIA is required based on the approach and criteria set out in Annex IIA and III of the 2014 Directive and Schedule 7 of the Planning and Development Regulations.

3 Proposed Scheme

3.1 Proposed Scheme

The objective of the Ballycotton UTAS project is to provide upgrades to the network and provide a wastewater treatment plant (WwTP) capable of primary treatment. A site has been identified for the scheme for a 30-year projected capacity but the initial project objective is to provide infrastructure for the 10-year projected load with a Population Equivalent (PE) of 1082. The works are proposed in order to meet the primary objective of providing treatment for wastewaters collected in the agglomeration of Ballycotton, Co. Cork.

The proposed treatment plant will provide primary treatment to achieve, as a minimum, an effluent quality that meets the requirements of the wastewater discharge licence:

- Biochemical Oxygen Demand (BOD_5) – 20% reduction
- Suspended Solids (SS) – 50% reduction

Two new pumping stations (PS) will be required to deliver the wastewater to the WwTP. The PSs will be located to intercept the discharges from the eastern and western collection networks. Appendix A contains the drawing of the proposed works and Appendix B gives details of the associated outfalls.

The first PS will be located on the Ballycotton pier (Pier PS) at the eastern end of the town. Several locations were considered for this PS but this was found to be the most viable option from technical, environmental and economic aspects. From this PS, the wastewater will be pumped, via a rising main, in a north westerly direction along Main Street to a header manhole west of the grotto.

From the header manhole, the wastewater will flow via a new section of gravity sewer and then through an existing gravity sewer westward along Main Street to the second pumping station which is to be located along 'Cow Lane' at the top of the slipway (The Cow PS).

The Cow PS will then pump the wastewater via rising main to the proposed WwTP. The proposed site for the WWTP is located north of the existing water reservoir and south of the development boundary. Access to the site will be along the existing right-of-way to the water reservoir with a new right-of-way to the proposed WWTP site.

The treated wastewater will then flow via gravity to the top of 'Cow Lane' where it will tie into the existing outfall which discharges to the sea (SW004).

Following the completion of the construction works, wastewater treatment services at Ballycotton will be upgraded. This will ensure that the practice of discharging untreated

sewage into Ballycotton Bay is ceased while it is also expected to provide sufficient wastewater treatment capacity to cater for the expected future population growth in Ballycotton.

The proposed development will comprise of the following elements:

1. A proposed Waste Water Treatment Plant (WWTP) with associated and ancillary development works including an access road, inlet works, tanks, kiosks, pumping stations and perimeter boundary fence.
2. Access track from Church Road (the L-3633) public road to the WWTP site.
3. A proposed gravity sewer to convey flows from Cliff Road to existing sewer at Atlantic Terrace
4. The Pier Pump Station (PS), a proposed underground pumping station and associated infrastructure at Ballycotton Pier, including an underground pump sump, underground storm water storage tank, kiosks, surge vessel and an adjacent temporary working area.
5. A proposed rising main to convey flows from the Pier PS to a header manhole on Main Street.
6. A proposed gravity sewer to convey flows from the header manhole to the existing gravity sewer on Main Street.
7. A proposed gravity sewer to convey flows from the existing gravity sewer on Main Street to the proposed pump station at The Cow Slipway
8. The Cow Pump Station (PS), a proposed underground pumping station with associated infrastructure at The Cow Slipway including an underground pump sump, underground storm water storage tank, kiosks, and surge vessel.
9. A proposed rising main to convey flows from the proposed Cow PS, to the WWTP.
10. A proposed gravity sewer to convey treated effluent from WWTP to existing outfall.
11. Upgrade of the public watermain along public roads (Cliff Road and Main Street).
12. Demolition of existing toilet block at Ballycotton Pier.
13. Construction of new toilet block at Ballycotton Pier.
14. All associated ancillary site development works above and below ground.

The proposed scheme layout drawing is included in Appendix A of this report.

3.2 Operational Phase

There will be discharges to the aquatic environment from the proposed development during the operational phase. The discharges will comprise:

- Treated effluent from the wastewater treatment plant (WwTP).
- Stormwater and emergency overflows from the WwTP.
- Stormwater and emergency overflows from the Cow Pumping Station (PS).
- Stormwater and emergency overflows from the Pier Pumping Station (PS).

Discharge locations are shown on drawings nos. IW10015230-03-02-004, -005 and -005A in Appendix B.

Once the proposed sewerage scheme is operational, the overall quantity of BOD and Suspended Solids being discharged to Ballycotton Bay from the agglomeration will be reduced, with primary treatment achieving 20% reduction in BOD and 50% reduction in Suspended Solids. The outfall (SW004) will now be serving a larger population equivalent and so, an increased quantity in BOD and Suspended Solids will be discharged at SW004 locally.

Treated effluent will be discharged to Ballycotton Bay from the proposed marine treated outfall linked to the WwTP, while dilute storm water discharges will also overflow from the pumping stations to receiving waters on an infrequent basis.

An Impact Assessment Report which includes an assimilative capacity assessment describes the number of dilutions which will be achieved at a given distance from the primary discharge point (SW004). It found a dilution value (D) of 283. Irish Waters Technical Standards for Marine Modelling (Document Number IW-TEC-100-015) requires a minimum of 100 initial dilutions for new primary treated effluent discharges. As such the calculated 283 is considered more than adequate.

An assessment of concentrations of dissolved organic nitrogen and dissolved oxygen was carried out based on background concentrations and peak levels in the treated effluent. In coastal waters, the main physico-chemical elements assessed are dissolved oxygen (DO) and nitrogen (as dissolved inorganic nitrogen (DIN)). The monitoring data indicates that the waters of Ballycotton Bay met the “High status” environmental quality standards set out in the SWR in the period 2019-2022, though Ballycotton Bay is currently classified as “good” status. An assessment of the discharge effluent indicated that it will not impact on the ability of the receiving water to maintain its current “good” status and in fact, would allow compliance with “high” status.

The Impact Assessment Report , including the assimilative capacity assessment and ambient monitoring data, is provided in Appendix C.

In the event of an emergency, each pumping station will include a stormwater/emergency storage tank, with the capacity for 24 hour emergency storage. Should the flows entering the wet well be

greater than the pump forward flow rate, the excess flows will spill into the storm water holding tank through an electronically operated mechanical screen. In the event that the 24 hour storage capacity is exceeded, all flows will be screened before discharging to Ballycotton Bay.

At the Pier PS, the excess flow will discharge from the holding tank (SW006). The existing overflow pipe discharges on the eastern side of the pier. An overflow weir has been provided in the design to facilitate flow measurement and logging of the emergency overflow, so that volumes of storm spillage to the receiving waters can be quantified.

At the Cow PS, an overflow pipe will not be provided. Instead a combined sewer overflow (CSO) chamber will be constructed at the head of Cow Lane to accommodate any excess flows should the stormwater holding tank reach capacity which discharges to Ballycotton Bay via marine outfall (SW007).

A venturi aerator has been incorporated into the design at both pumping stations to provide mixing and aeration in the stormwater holding tank. The operation will be based on a high and low level in the tank.

4 EIA Screening – Consideration of Requirement for Mandatory EIA

The requirements for a mandatory legislation are set out in European and Irish legislation - Environmental Impact Assessment (EIA) Directive 2014/52/EU (the 'EIA Directive'), the Planning and Development Acts 2000 to 2021, the Planning and Development Regulations 2001 to 2022 and the European Communities/Union (Environmental Impact Assessment) Regulations 1989 to 2018.

These are described below.

Waste Water Treatment Plants

Schedule 5, Part 1, Class 13 requires EIA for the following:

> *11. Wastewater treatment plants with a capacity exceeding 150,000 population equivalent as defined in Article 2, point (6), of Directive 91/271/EEC.*

Schedule 5, Part 2, Class 11 requires EIA for the following:

> *11. Other projects*
>
> *(c)Wastewater treatment plants with a capacity greater than 10,000 population equivalent as defined in Article 2, point (6), of Directive 91/271/EEC not included in Part 1 of this Schedule.*

The proposed Scheme does not exceed the thresholds for mandatory EIA under these classes.

Pipelines

Schedule 5, Part 1, Class 16 requires EIA for the following:

> *16. Pipelines with a diameter of more than 800mm and a length of more than 40km:*
>
> *- for the transport of gas, oil, chemicals, and,*
>
> *- for the transport of carbon dioxide (CO2) streams for the purposes of geological storage, including associated booster stations.*

The pipelines within the scheme do not have a diameter of more than 800mm, the pipelines are not more than 40km long, the pipelines are not associated with the transport of the materials set out in the legislation, and therefore Class 16 does not apply.

Extensions

Schedule 5, Part 1, Class 22 requires EIA for the following:

> *22. Any change to or extension of projects listed in this Annex where such a change or extension in itself meets the thresholds, if any, set out in this Annex.*

Schedule 5, Part 2, Class 13 requires EIA for the following:

13. Changes, extensions, development and testing.

(a)Any change or extension of development already authorised, executed or in the process of being executed (not being a change or extension referred to in Part 1) which would: -

> *(i)result in the development being of a class listed in Part 1 or paragraphs 1 to 12 of Part 2 of this Schedule, and*
>
> *(ii)result in an increase in size greater than –*
>
> > *- 25 per cent, or*
> >
> > *- an amount equal to 50 per cent of the appropriate threshold, whichever is the greater.*

The proposed Scheme does not comprise a change to or an extension to a project that meets the thresholds above. Therefore, these classes do not apply to the proposed Scheme.

As set out above, it is submitted that the proposed Scheme does not exceed the thresholds within the classes of development listed in Schedule 5 of the Planning and Development Regulations 2001-2017, and therefore, Class 15 of Part 2 does not apply to the proposed Scheme.

Based on the above, the proposed Scheme does not fall within the mandatory EIA requirements.

5 EIA Screening - Sub-threshold Assessment

5.1 Environmental Sensitivities within the area

5.1.1 General

This section has regard to the environmental topics as set out within the EIA Directive 2014 and EIA Regulations 1989 to 2018, , as follows:

- population, materials assets and human health;
- biodiversity;
- land and soil;
- water;
- air and climate;
- landscape and cultural heritage, including architectural and archaeological aspects; and
- the interrelationship between the environmental topics.

5.1.2 Population, materials assets and human health

A proposal of this nature has the potential to impact positively on population, material assets and human health by way of an enhanced waste water treatment facility.

The proposed Scheme lies within a small village. During construction, disturbance to local roads and paths will be managed in line with standard mitigation to minimise effect upon the local population.

There will be some temporary negative effects to properties and residents in and around construction zones from increased construction traffic, dust, noise and vibration. There will be some short-term negative impacts on traffic during construction, particularly along roadways where pipelines will be construction underground.

5.1.3 Biodiversity

5.1.3.1 Construction Stage

A screening for Appropriate Assessment (AA) has been carried out to provide relevant material to inform a decision by the planning authority, as required under Article 6.3 of the EU Habitats Directive, as to whether the proposed development is likely to have any significant impacts of on

the Conservation Objectives of a Natura 2000 site. European sites were isolated for consideration in the study based on the presence of qualifying features within the proposed scheme's Zone of Influence and potential connectivity to European sites. The following European sites were considered:

- Ballycotton Bay Special Protection Area (SPA 004022), the eastern boundary of which is approximately 70m of the existing outfall.
- Ballymacoda Bay Special Protection Area (SPA 004023) is located approximately 10km from the subject site when measured as a straight line and 14km when measured along an aqueous pathway by the coastline.
- Ballymacoda Bay Special Area of Conservation (SAC 000077) is located over 8km from the subject site when measured as a straight line and approximately 14km when measured along an aqueous pathway by the coastline.
- Cork Harbour Special Protection Area (SPA 004030) is located over 11km from the subject site when measured as a straight line and approximately 26km when measured along an aqueous pathway by the coastline.
- Great Island Channel Special Area of Conservation (SAC 001058) is located approximately 12km from the subject site when measured as a straight line and approximately 31km when measured along an aqueous pathway by the coastline.

The possibility of there being a significant effect on a designated or 'European' site has generated the need for screening for appropriate assessment to be carried out by the competent authority for the purposes of Article 6(3). Sweeney Environmental Consultants have produced an Appropriate Assessment Screening Report and have concluded that "*The proposed works, unless adequately mitigated, could potentially negatively impact on Features of Interest of SPA 004022. Therefore, it cannot be presumed that no adverse effects will result from this project and it is considered that a Natura Impact Statement is required to inform the Appropriate Assessment process.*"

The Cork County Development Plan 2014 and planning application data base was considered in the assessment of in-combination effects that may arise from the project in-combination with other plans and projects.

A Natura Impact Statement (NIS) was prepared by Sweeney Environmental Consultants. This report considered the potential for impacts of the proposed upgrade works, in particular the construction of the pumping stations at the Pier and at The Cow, on the Ballycotton Bay SPA (SPA 004022) and set out mitigation measures where there was potential for impacts.

The main potential impact on this site is from the disturbance during the construction stage of bird species which are features of interest within the Natura 2000 sites. Most of these birds are winter birds and as such the works will be scheduled for the summer months. A bird survey was

carried out in February 2019 and relatively low numbers of birds were recorded. The birds that were recorded were not very close to the proposed works. Considering the low numbers of birds in the vicinity of the works and considering construction works will be scheduled for the summer months, the potential disturbance of birds is minimal.

The following ecological assessments were undertaken to ensure that all minor impacts to local biodiversity are identified and mitigated; A search for Protected Species was carried out using the National Parks and Wildlife website and the National Biodiversity Data Centre website. Field surveys were undertaken on four occasions, in which the entire terrestrial habitat within the footprint of the proposed development was walked, habitats were assessed and protected or rare species were checked for. While several protected mammal species are reported as occurring in proximity to the subject site, none were found within the footprint of the proposed works. Particular consideration was given to potential disturbance impacts on the wetland birds which are Features of Interest of SPA 004022. It was concluded that, with works in proximity to the shoreline scheduled for the summer months, disturbance would be minimal. Several passerine bird species, all of which are protected under the Wildlife Acts, were seen and/or heard within or adjacent to the site.

An intertidal survey of habitats and the main plant and invertebrate species occurring in proximity to the existing western outfall was undertaken. Marine species recorded are all common in occurrence and typical of the habitats found.

Invasive species listed in the Third Schedule of the EU Birds and Habitats Regulations 2011 were checked for. A preliminary Invasive Species Management Plan was prepared to prescribe measures for the management of three-cornered leek, which is present at several locations within the site. The Invasive Alien Species survey report and management plan is included as part of the Ballycotton Sewerage Scheme planning application.

Given the nature of the proposal (which will improve existing water quality) together with its modest scale and use of best practice working methods, it is considered that the potential for any significant impact upon protected species or habitats is highly unlikely.

5.1.3.2 Operation Stage

A separate AA Screening Report was carried out by ByrneLooby/Aquafact in relation to the operation stage of the proposed sewerage scheme. This screening report was based on information gathered as part of the preparation of the planning stage AA Screening Report and NIS but also included additional assessments in relation to potential impacts on water quality.

The Zone of Influence for the operational stage of this project showed only one European Site with the potential to be affected. Ballycotton Bay SPA is in the Zone of Influence as it is hydrologically connected to the outfalls from the Ballycotton WwTP and pumping stations. The boundary of Ballycotton Bay SPA is located c. 70m of the WwTP primary discharge point (SW004) which is the same discharge outfall as the WwTP combined emergency/ stormwater overflow (SW005) and the

Cow Pumping Station combined emergency/stormwater overflow (SW007). The Pier pumping station stormwater overflow (SW006) is located >900m from Ballycotton Bay SPA. See Appendix B for outfall locations. As the other European sites have no connectivity with the site of the proposed WwTP, nor with the outfalls, potential impacts on the Conservation Objectives of these sites can be screened out.

Potential impacts resulting from the proposed Upgrade Project that have the potential (without mitigation) to result in significant environmental effects have been identified can be summarised as follows:

- Discharge of Treated Effluent from the Ballycotton WwTP at operational phase.
- Discharge of Screened Effluent from the Stormwater/Emergency outfalls in infrequent cases of emergency.

An Impact Assessment Report has been prepared to determine the impact of the discharges from the Ballycotton agglomeration on the receiving waterbody once the proposed upgrade to the Ballycotton Sewerage Scheme becomes operational. This was considered in the AA Screening and can be seen in Appendix C.

The AA Screening Report concluded that the operation of the WwTP will not have a 'significant effect' on the conservation objectives of the Ballycotton Bay SPA. The structure and function of the habitats protected for the Qualifying Interests of Ballycotton Bay SPA will not be impacted by the Upgrade Project. Overall no significant adverse effects on Ballycotton Bay SPA are foreseen and indeed, a slight positive effect is possible. The treatment provided by the proposed WwTP will likely result in a betterment of water quality. Effects of discharge during the operational phase of the project from the upgrade project will therefore have imperceptible impact on habitats and species listed within Ballycotton Bay SPA.

The AA Screening Report accompanies the Application for Review of the WWDL.

5.1.4 Land and soil

The use of natural resources such as aggregates and energy will be required during the construction and operational stages of the proposed Scheme. While exact quantities of materials/resources are not known as this stage, it is not considered to be significant in the context of environmental effects.

Minimal impacts are anticipated to soils and geology. There will be some excavation of material needed in order to lay the pipeline and construct both the WWTP and pumping stations.

5.1.5 Water

Ballycotton Bay currently has unpolluted status based on coastal water quality data from the EPA. The provision of primary treatment for all wastewater from the Ballycotton agglomeration, providing a minimum of 20% reduction in BOD and minimum 50% reduction in suspended solids, will result in an improvement to the receiving water quality.

Watercourses can be sensitive to pollution, particularly suspended solids released into the water course during the construction phase of the project. Aquatic life has the potential to be disturbed during construction and be impacted by accidental pollution incidents.

The EU Water Framework Directive (WFD) (2000/60/EC) requires all Member States to protect and improve water quality in all waters so that they achieve "good" ecological status by 2015 or, at the latest, by 2027. It was given legal effect in Ireland by the European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003). It applies to rivers, lakes, groundwater, and transitional coastal waters. The Directive requires that management plans be prepared and specifies a structured method for developing these plans.

The provision of a WWTP with primary treatment for Ballycotton will assist in meeting the objective of the WFD.

5.1.5.1 Coastal Water Quality

The EU Water Framework Directive (WFD) (2000/60/EC) requires all Member States to protect and improve water quality in all waters so that they achieve "good" ecological status by 2015 or, at the latest, by 2027. It was given legal effect in Ireland by the European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003). It applies to rivers, lakes, groundwater, and transitional coastal waters. The Directive requires that management plans be prepared and specifies a structured method for developing these plans.

The provision of a WWTP with primary treatment for Ballycotton will assist in meeting the objective of the WFD.

Water quality has the potential to affect species listed as qualifying interests for SPAs that utilise the intertidal and estuarine habitats in Ballycotton Bay for feeding and/or roosting. At low spring tide on 04 December 2017, a plume of discolouration in the seawater was noted, extending to about 20m from the western outfall. The passage of sewage through the septic tank helps in the removal of suspended solids but there is very little biological activity and the removal of BOD is not significant (Cork County Council, 2009). The EPA website (www.epa.ie) indicated that Ballycotton Bay was classified as "*Not at risk*" in accordance with the WFD 2013-2018 Risk Status and the ecological status is noted as "Good" (2013-2018). Moreover, the Water Quality was deemed to be 'unpolluted' during the reporting period 2018-2020 (see Appendix C). However, the Annual Environmental Report by Irish Water (2019) shows Ballycotton Bay is classified as

"*Unassigned*". Any deoxygenation or enrichment of the marine habitat from the existing discharge has evidently been very localised and quickly diluted.

Recent ambient monitoring data (2019-2022) for Ballycotton Bay is shown in the table below. The data presented below is based on chemistry monitoring data for Ballycotton Bay (downloaded from Catchments.ie 31/05/22) [2]. Comparison with the European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019 (S.I. No. 77 of 2019) (SWR) is also shown below.

Table 1 Ambient Monitoring Data – Ballycotton Bay

Parameter	BOD (mg/l)	Dissolved Oxygen (% Saturated)	Dissolved Inorganic Nitrogen (mg/l)
Number of Samples	5	6	6
Max result	3.3	107.7	1.6
Min result	0.5	97.3	0.018
Median Value	-	-	0.083
Mean Value	1.34	102.07	-
95%ile Value	2.92	106.75	-
EQS High Status as per S.I. No. 77/2019	≤3.0 (95%ile) [1]	95%ile Lower limit >80-85% Upper limit <115-120%	≤0.585[3]
EQS Good Status as per S.I. No. 77/2019	≤4.0 (95%ile) [1]	95%ile Lower limit >70-80% Upper limit <120-130%	≤1.425[3]
Overall compliance with relevant EQS High Status	Yes	Yes	Yes

Note 1: Value for transitional water body under S.I. No. 77 of 2019

Note 2: Where data was reported as less than the limit of detection, LOD/2 was applied

Note 3: In the absence of salinity level data, the DIN EQS has been taken as the median value in accordance with S.I. No 77 of 2019

In coastal waters the main physico-chemical elements assessed are dissolved oxygen (DO) and nitrogen (as dissolved inorganic nitrogen (DIN)). The monitoring data presented in Table 1 above indicates that the waters of Ballycotton Bay met the "High status" environmental quality standards set out in the Surface Water Regulations 2009 to 2019.

Compliance limits for BOD_5 in the water body are not stipulated in the SWR for coastal water bodies. For information purposes, the concentrations of BOD_5 have been assessed against the limits as set in the SWR for transitional waters to achieve good/high status, as this would

represent the most similar waterbody class. In the above assessment, the ambient water quality monitoring indicates high status under the SWR.

5.1.5.2 Hydrology

A Stage 1 Flood Risk Assessment was carried out to assess the flood risk to sites that are being considered for works in Ballycotton to provide new pumping stations, WWTP and associated piped connections to treat wastewater discharges arising from the village. The proposed pumping station sites have been identified as potential flood risks in the Stage 1 Flood Risk Assessment.

A Stage 2 Flood Risk Assessment was carried out for the 2no proposed pumping stations. This stage 2 assessment determined that the ground levels at the locations of the proposed pumping stations were above the 0.1% AEP coastal flood extent. It was considered that there is a residual risk from wave action but the pumping stations and associated kiosks will be designed to be resilient to any wave actions. In particular, access covers in the roof slabs of the pumping stations and adjacent manholes will be watertight and manufactured from stainless steel. Kiosks will be specified as GRP type with moisture ingress rating of IP68.

The Stage 2 Flood Risk Assessment Report is included as part of the Ballycotton Sewerage Scheme planning application.

5.1.6 Air and climate

There may be short-term impacts to air quality during the construction phase of the proposed Scheme caused by increased construction traffic and excavation and stockpiling activities.

Wastewater facilities have the potential to generate odour and noise. A distance of 50m will be provided between the WWTP and the nearest existing development which is the recommended separation distance given in the EPA Wastewater Treatment Manual – Treatment Systems for Small Communities, Business, Leisure Centres and Hotels for WWTPs with a capacity over 161. The sludge holding tank will be covered. Noise levels will be maintained to acceptable levels.

5.1.7 Landscape and Cultural Heritage, including architectural and archaeological aspects

An Archaeological desk top review and walk over survey were carried out for the proposed Scheme in April 2018. The site for the proposed Scheme is not situated within a Historic Town or a Zone of Archaeological Potential.

Several archaeological monuments and protected structures are situated within the study area. No significant impacts have been predicted on cultural heritage assets during construction or operation of the Proposed Scheme.

The monuments located within the vicinity of the proposed sewerage scheme are as follows;

Church (CO089-041)**:** Marked as 'Church (in ruins)' on 1842 OS 6-inch map, and 'site of' on later editions.

Ringfort (CO089-040)**:** In tillage, on E-facing slope. Shown on all eds of OS 6-inch map as hachured semi-circular area (diam. c. 30m N-S); E area removed. Levelled; no visible surface trace.

Enclosure (CO089-070)**:** In tillage, on E-facing slope. Cropmark (CASAP) shows univallate circular enclosure immediately W of possible ringfort (CO089-040---) and of similar dimensions. Entrance possibly to N.

Ringfort (CO089-039)**:** In pasture, on N-facing slope. Roughly circular area (42.4m E-W) defined by earthen bank (H 1.5m). Field fence completes enclosure but may run outside line of original bank. Low rise with shallow external

The only significant visible elements of the proposed Scheme once construction is completed will be the proposed WWTP, the pumping station kiosks for the control panels and water supply and surge protection vessels . Green paladin fencing will be utilised to blend in with the WWTP site's greenfield surroundings. The pumping stations and pipelines will all be underground and therefore not visible. It is not anticipated that the proposed Scheme will result in significant effects to the surrounding landscape.

The pumping station control and surge protection kiosks will be positioned so as to minimise the visual impact. The kiosks finish will be chosen so as to minimise the visual impact.

An underwater archaeological impact assessment was carried out in August 2018. No archaeological sites or features were identified during the intertidal inspection.

No National Monuments or Protected Structures of National Importance are situated within the study area with the exception of the WWTP access track which will run adjacent to the ringfort (C0089-039).

The portion of the access track which passes through the zone of archaeological potential of the ringfort will be 'floated' on the existing ground and will therefore not require any disturbance of the underlying ground. A fence line is proposed to be inserted immediately north of the road and also extends into the zone of notification. Ground works will be required for the posts for the fence line in the form of pits at 3m centres.

No significant impacts have been predicted on cultural heritage assets during construction or operation of the Proposed Scheme. Archaeological testing and monitoring will be carried out for the duration of all excavational works to ensure that the integrity of National Monuments' is maintained.

For further information on the archaeology within the agglomeration, please refer to the Archaeological Reports which are included as part of the Ballycotton Sewerage Scheme planning application.

5.1.8 The interrelationship between the environmental topics

It is considered in the case of the proposed Scheme that the most important potential interaction is that between water quality and aquatic ecology. Therefore, it is important that the project includes within its design and proposed mitigation solutions to ensure that the water quality of the sea is not unduly harmed. A treated waste discharge of the scale proposed will not have any significant negative impact on the local environment. The proposal will result in considerably less nutrient input to the bay than is presently the case and will therefore have a significant positive impact on the marine environment.

5.2 Consideration of the EIA Screening Criteria

The EIA Directive includes an updated Annex III 'Selection Criteria Referred to in Article 4(3)' (Criteria to determine whether the projects listed in Annex II should be subject to an Environmental Impact Assessment).

The criteria are grouped under three headings:

- Characteristics of projects;
- Location of projects; and
- Type and characteristics of the potential impacts.

The sub criteria associated with each of the above criteria have been taken into account and are considered in the context of the proposed Scheme in the sections below.

Table 2 – Criteria for determining whether the project would or would not be likely to have a significant effect on the environment.

Characteristics of the project	
Size and design of the whole project	The proposed Scheme has the potential to provide primary treatment for up to 1082 people. At present, the agglomeration is not provided with any form of treatment with raw effluent discharging directly to Ballycotton Bay. Part of the agglomeration is served by a septic tank, but the treatment provided by the septic tank is considered negligible. The proposed Scheme will provide primary treatment for the entire agglomeration and create a higher standard of discharge to Ballycotton Bay.
Cumulation with existing and/or approved projects	A search of the Cork County Council website, the County Cork Development Plan 2022, and general web searches for major infrastructure projects in East Cork has been undertaken to identify other projects that may result in cumulative impacts. The majority of recent planning applications in the vicinity of the proposed Scheme appear to be small scale domestic applications. There are plans for improvement works involving dredging of the harbour at Ballycotton. These plans have not been granted the necessary

	consents at this time with no definite timeline for when consents might be in place and so, cannot be assessed in the context of a cumulative impact. In the context of the above, it is considered unlikely that there will be any significant effects either during construction or operation of the proposed Scheme.
The use of natural resources, in particular land, soil, water and biodiversity	The use of soil and rock resources associated with the development would not cause significant or adverse effects. Natural resources will be required for construction, however; given the scale of the proposed Scheme this is not considered to be significant.
The production of waste	During construction, waste will be generated from the demolition of the existing toilet block and from excavations for the pumping stations and pipelines. The volumes are not considered to be significant. During operation, sludge waste and screenings will be produced and stored on site before being transported to a licensed facility for disposal. Treated effluent and stormwater/emergency overflows will be discharged to the coastal waters of Ballycotton Bay and is assessed to not impact water quality negatively. See Impact Assessment Report in Appendix C. All waste generated in any phase of the proposed Scheme will be handled, transferred and disposed of appropriately in accordance with the waste hierarchy and relevant waste management regulations / guidelines. It is not anticipated that the production of waste during either construction or operation is likely to result in a significant effect. The production of waste during both construction and operation is unlikely to cause significant effects.
Pollution and nuisances	During construction without mitigation, there is potential for localised pollution impacts in regard to Ballycotton Bay. In addition, there is also potential for temporary impacts, such as noise, vibration and dust to affect property owners in the vicinity of the proposed Scheme. The likelihood and severity of construction phase impacts will be minimised through adherence to standard mitigation measures and effective construction management and this will be demonstrated by the appointed Contractor in their project specific Construction Environmental Management Plan (CEMP). The preliminary Construction Environmental Management Plan accompanies the Ballycotton Sewerage Scheme planning application. In addition, the project is required to adhere to the measures within Irish Water's 'General Civil Engineering Specification' IW-TEC-300-01 and 'General Civil Engineering Specification Notes for Guidance' IW-TEC-300-02. Subject to the implementation of standard construction practices, there will be no potential for significant pollution/nuisance effects during construction and operation of the proposed Scheme. During operation, all risk of pollution and nuisance will be managed in accordance with relevant legislation to avoid any impact.
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	The risk of any major accidents during the construction and operational stages will be managed in accordance with relevant health and safety legislation. All works will be in line with Irish Waters Standard Operating Procedure 'Management of Health, Safety, Quality and Environment on Capital Projects' IW-HSQE-SOP-021. This includes the requirement for the development of a Construction Safety and Health Plan.

	The potential for any accidents during construction and operation, such as spillages into the aquatic environment can be eliminated by the implementation of standard mitigation measures.
The risks to human health (for example due to water contamination or air pollution).	Human health could be impacted during the construction phase as a result of noise, dust, odour and vibration. These potential impacts are of a short terms nature and are not deemed to be significant. The effects of the proposed scheme on the surrounding environment have been considered in detail and the proposed scheme does not come within the classes of development that European and Irish legislation identify as being likely to have significant effects on the environment, as set out in Part 1 or Part 2 of Schedule 5 of the Planning and Development Regulations 2001-2017. As a result, it is considered unlikely that there will be any significant risks to human health.
Location of Project	
The existing and approved land use	The proposed WWTP is to be located on a greenfield site, the proposed pumping stations are on Cork County Council brownfield sites and the proposed rising main and gravity sewer is along the existing road network with part traveling along greenfield sites. Discharges to coastal waters during operation will be through existing outfalls. It is not considered that the location of the site, its approved or existing uses would give rise to any potential significant effects either during construction or operation.
The relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground	This is a small-scale project that will require a limited quantity of natural resources associated with the construction phase. Construction will include materials such as steel, concrete and hardcore which will be imported. The Discharge License states that *"The Licensee shall, upon completion of upgrade to provide primary treatment maintain such available capacity within the waste water works as is necessary to ensure that there is no environmental risk posed to the receiving water environment as a result of the discharge".* The proposed Scheme has been designed to ensure compliance with this requirement. Subject to standard mitigation, it is considered unlikely that there will be any significant effects on natural resources within the area.
The absorption capacity of the natural environment, paying particular attention to the following areas: Wetlands, riparian areas, river mouths; Coastal zones and the marine environment; Mountain and forest areas; Nature reserves and parks; Areas classified or protected under legislation, Natura 2000	Wetlands riparian areas and river mouths: Ballycotton Bay Special Protection Area (SPA 004022) includes areas of intertidal mudflats. There will be no significant effects upon these areas. Coastal Zones and the marine environment: The proposal will result in considerably less nutrient input to Ballycotton Bay than is presently the case and will therefore have a significant positive impact on the biodiversity of the marine environment. See Appendix C for Impact Assessment Report. Mountain and forest areas: There are no mountain ranges in the study area. The proposed Scheme is within a small coastal village and there will be no significant effects upon any mountain or forested area. Nature reserves and parks: There are no Nature Reserves or Parks within the vicinity of proposed Scheme and there will be no significant effects upon these areas.

areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC; 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; Densely populated areas; Landscapes of historical, cultural or archaeological significance.	Natura 2000 Sites: At the closest point, the footprint of the proposed works is within 50m of Ballycotton Bay Special Protection Area (SPA 004022) and the existing outfall to Ballycotton Bay is within 70m of this Natura 2000 site (see Appendix A). There are no other Natura 2000 sites within 5km of the subject site. There are two additional Natura 2000 sites within 10km of the subject site. These are Ballymacoda Bay Special Protection Area (SPA 004023) and Ballymacoda, Clonpriest and Pillmore Special Area of Conservation (SAC 000077). As the latter two Natura 2000 sites are both over 9km distant and have no direct connectivity with the site of the proposed development, potential impacts on the Conservation Objectives of these Natura 2000 are considered negligible. A Natura Impact Statement for the construction and operation of the Ballycotton Sewerage Scheme has been prepared as part of the Ballycotton Sewerage Scheme planning application. An AA Screening Report for the Operation of the Ballycotton Sewerage Scheme has been prepared as part of the application for review of the WWDL. Areas in which environmental quality standards laid down by the EU have already been exceeded: At present, the Town Network consists of combined sewers. Sewage in this network is currently not provided with any significant form of treatment with raw effluent discharging directly to Ballycotton Bay. The existing Discharge License states that the holder shall identify appropriate improvements to the sewerage system, including the WWTP, which are necessary to ensure all discharges(s) from the agglomeration contribute towards achieving at least good status in accordance with the Surface Water Regulations 2009 and/or Groundwater Regulations 2010. The Proposed Scheme is required to comply with this requirement and will create a betterment of the existing situation. Densely populated areas: The proposed Scheme is located within the sparsely populated village of Ballycotton. The lands within the immediate vicinity of the site are primarily of agricultural and residential use types. Landscapes of historical, cultural or archaeological significance: The Proposed Scheme is not situated within a Historic Town. No National Monuments or Protected Structures of National Importance are situated within the study area with the exception of the WWTP access road which will run adjacent to a ring fort. No significant impacts have been predicted on cultural heritage assets during construction or operation of the Proposed Scheme. Archaeological testing and monitoring will be carried out for the duration of all excavational works to ensure that the integrity of National Monuments' is maintained.
Type and characteristics of the potential impact	
The potential significant effects of the projects on the environment must be considered in relation to the criteria set out in 1 & 2 above and having regard to the factors specified in Article 3 (1) of the EIA Directive) taking into account aspects of the impact as outlined in 9a) to (h) below. Article 3(1) Factors Population and human health;	

Biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC; Land, soil, water, air and climate; Materials assets, cultural heritage and the landscape; The interaction between the factors referred to in points (a) to (d).	
The magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected)	The proposed Scheme is an improvement to the existing sewerage scheme in place at present which discharges raw effluent directly into the Ballycotton Bay. It is a betterment that will provide appropriate treatment to meet the emission limit values set out in the discharge licence. Primary treatment will achieve a 20% reduction in the level of $cBOD_5$ and a 50% reduction in the level of suspended solids being generated within the agglomeration in accordance with the discharge license requirements. The site of the proposed WWTP is in currently a greenfield site. The proposed Cow Lane pumping station is on a disused brownfield site and the Pier pumping station is to be located on the site of existing public toilets. The rising main and gravity sewer will be underground and therefore will have minimal construction and operational impacts. The works areas outside of the schemes immediate footprint will be temporary in nature and will be reinstated at the conclusion of the construction stage. The primary source of odour is the sludge holding tank. This will be a covered tank and it will incorporate a passive odour scrubbing unit. The pumping stations will be covered and will have high level ventilation stack. The population directly impacted by the construction of the proposed Scheme is relatively small as Ballycotton is a small village and therefore the spatial extent of any potential impact is likely to be limited. The magnitude of any potential impacts is not considered to be significant.
The nature of the impact	Population and human health impact: During the construction period road users may experience traffic delays, noise and vibration. However, these impacts are of a short-term nature and will not result in any significant effects. The primary source of odour is the sludge holding tank. This will be a covered tank and it will incorporate a passive odour scrubbing unit. Pumping stations will be covered and will have high level ventilation stacks. There are clearly positive impacts for population and human health associated with providing primary treatment to the wastewater which currently discharges untreated into Ballycotton Bay. Biodiversity: During construction, there is potential for small scale water quality impacts on Ballycotton Bay from runoff from building materials or sediment. However, these impacts would be of a short-term nature and are not considered to be significant. During operation, the treated effluent from the proposed Scheme could impact upon aquatic ecology. However, as the area where the outfall is proposed is a typical area of inter-tidal sands and mudflats the proposed development will not result in any loss of habitat nor will it have any significant impact on the availability of open ground on which wading birds could roost at high tide. Other/interacting impact: Other impacts are considered to be minor in nature and do not have potential to significantly impact on the environment, either by themselves or in combination with other impacts.

The transboundary nature of the impact	There are no transboundary impacts associated with the proposed Scheme.
The intensity and complexity of the impact	The main potential impacts during construction relate to traffic, noise and vibration during construction. During operation potential impacts upon aquatic ecology are not considered to be significant or complex. The key positive impact as a result of the proposed Scheme is the improvement to the existing water quality of Ballycotton Bay.
The probability of the Impact	The probability of a significant impact as a result of the proposed Scheme given its scale and nature is considered to be unlikely. The probability of any significant impacts upon aquatic ecology during operation has been reduced through design and standard mitigation. After primary treatment, the effluent will comply with the standards set out in the Urban Waste Water Treatment Regulations 2001 (S.I. No. 254/2001) for biochemical oxygen demand and total suspended solids.
The expected onset, duration, frequency and reversibility of the impact	Population and human health Construction stage traffic will be temporary in nature. Operation stage traffic will be long term but limited to occasional maintenance. Noise and vibration will occur during the construction phase but not during the operation phase. Therefore, these impacts will be of a short-term nature. Air quality impacts may arise during operation and have the potential to be of a long-term nature. However, with standard mitigation these impacts are reversible. The primary source of odour is the sludge holding tank. This will be a covered tank and it will incorporate a passive odour scrubbing unit. The pumping station will be covered and will have a high-level ventilation stack. Biodiversity The proposed Scheme will introduce a higher standard of effluent treatment than that currently being discharged into the aquatic environment. The proposed quality of the effluent that will meet standards for primary treatment will have no negative impact on the quality of receiving waters in Ballycotton Bay and should in fact improve the water quality. Damage from eutrophication is often reversible and it might be expected that the water quality and / or the fish habitat capability of the bay would consequently improve.
The cumulation of the impact with the impact of other existing and/or approved projects	There are no significant impacts considered likely as a result of the proposed Scheme in cumulation with other existing and/or approved projects.
The possibility of effectively reducing the impact	Population and human health Standard traffic and construction management mitigation measures will be implemented. In addition, odour abatement measures will be put in place to reduce any potential impacts during the operation phase. Biodiversity With the application of good practice construction methods and primary treatment to the discharge effluent, no likely significant negative effects are anticipated from potential water quality changes.

	The terrestrial habitats within the subject site are of low value, in accordance with the NRA site evaluation scheme (NRA, 2009). Negative impacts on terrestrial habitats will therefore be minor.
Screening Decision	
Having regard to the above, and in particular the nature, scale and location of the proposed Scheme, by itself and in combination with other plans and projects, it is considered that an EIA is not required in this instance.	

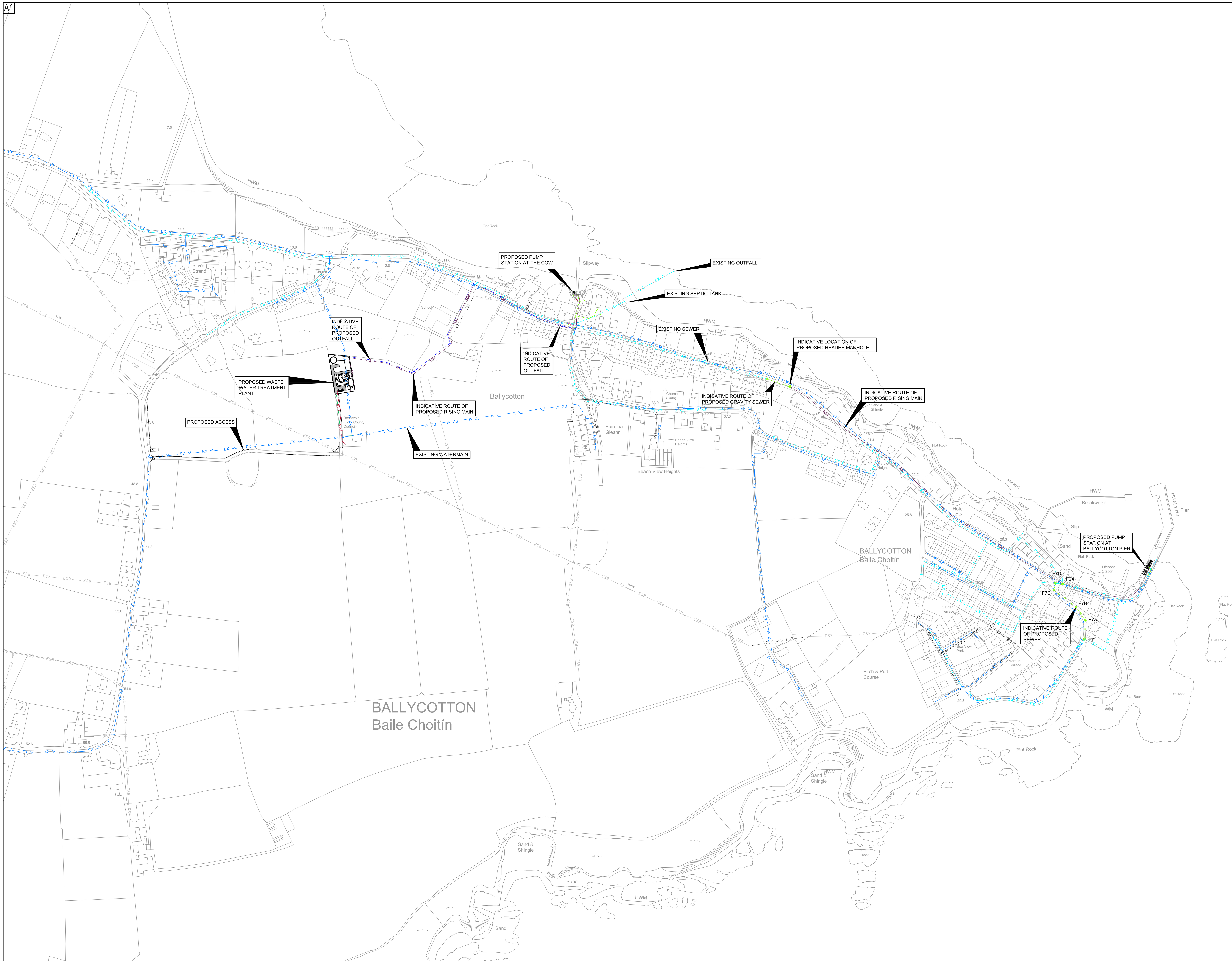
6 Conclusion

It is submitted that the proposed Scheme does not come within the classes of development that European and Irish legislation identify as being likely to have significant effects on the environment, as set out in Part 1 or Part 2 of Schedule 5 of the Planning and Development Regulations 2001-2017. As the proposed Scheme does not come within the specified classes, there is no mandatory requirement for an EIA for the proposed Scheme.

In addition to the above, a sub threshold assessment has been undertaken. The potential for impacts has been identified, both positive and negative but none that would be likely to have significant effects on the environment.

Appendix A – Proposed Works

A1



GENERAL NOTES

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NOTES:

1. ORDNANCE SURVEY IRELAND LICENCE NUMBER EN 3-3-34.
2. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
3. ALL DIMENSIONS TO BE CHECKED ON SITE.
4. ANY QUERIES OR DISCREPANCIES SHOULD BE REFERRED TO THE EMPLOYERS REPRESENTATIVE IMMEDIATELY.
5. EXISTING PIPE LOCATIONS ARE INDICATIVE ONLY.

LEGEND:

- EXISTING SEWER — EX C
- EXISTING WATERMAIN — EX W
- EXISTING ESB — ESB
- PROPOSED SEWER — FS
- PROPOSED WATER — WATER
- PROPOSED ESB — ESB
- PROPOSED RISING MAIN — RM
- PROPOSED OUTFALL
- PROPOSED STORM DRAIN — SD

Rev	Date	Description	By	Chk	App
A2	06.12.19	ISSUED FOR INFORMATION	LT	OL	KT
A1	20.08.19	WWTP LAYOUT UPDATED	LT	OL	KT

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PROJECT
UTAS – CORK BUNDLE
BALLYCOTTON SEWERAGE SCHEME

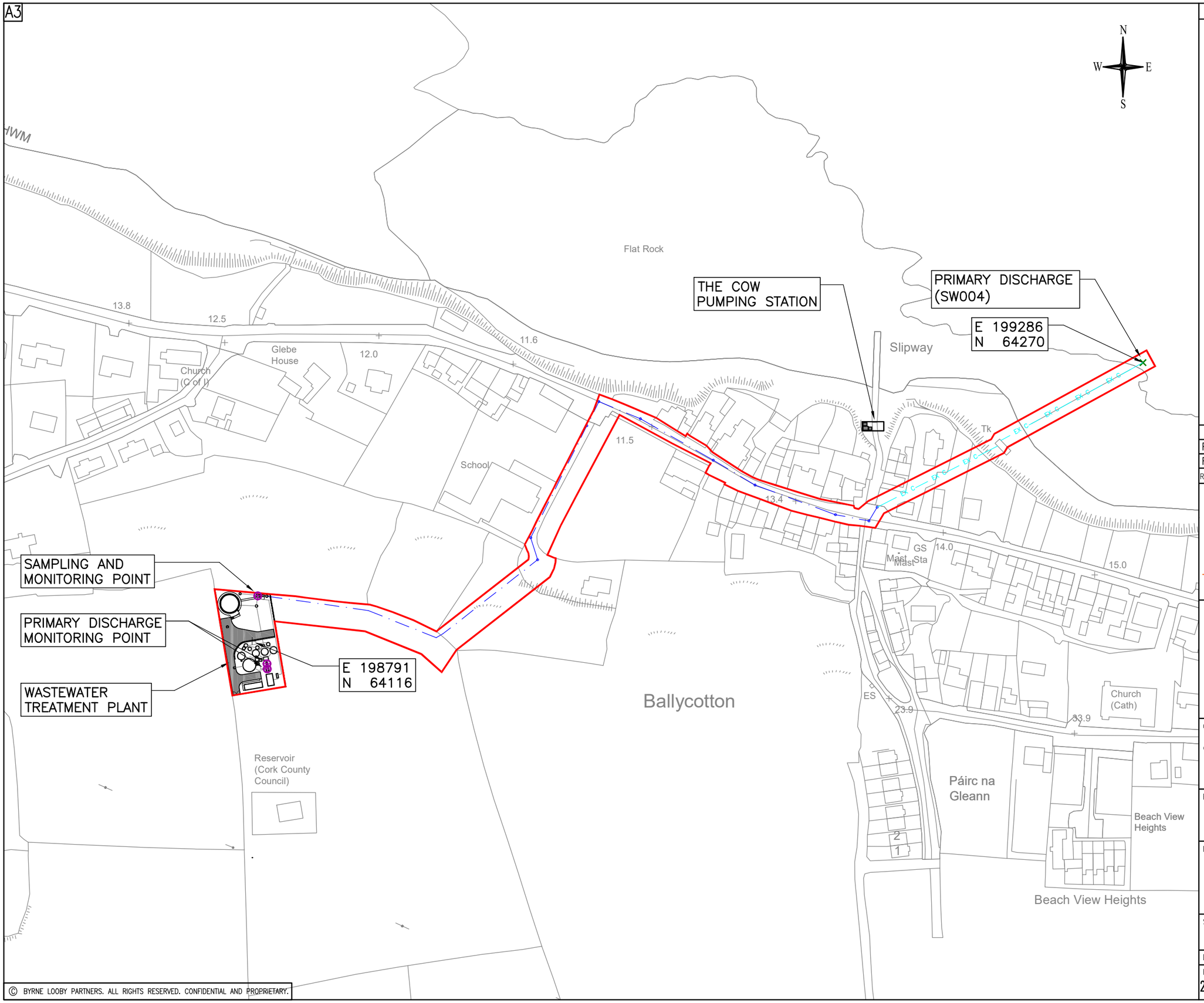
DRAWING TITLE
PROPOSED SCHEME LAYOUT

STATUS
FOR INFORMATION

Date: 09.04.19	Scale: 1:2500	Drawn: LBR	Chk: OL	App: KT
Project No: 257589_00	Drg. No: IW-10015230-04-01-001			Rev: A2

Appendix B – Proposed Outfalls and Discharges

A3



GENERAL NOTES

NOTES:

1. ORDNANCE SURVEY IRELAND LICENCE NUMBER EN 3–3–34.

2. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.

LEGEND:

SITE BOUNDARY

PRIMARY DISCHARGE POINT AND SWO

PRIMARY DISCHARGE SAMPLING, AND MONITORING POINT

Rev	Date	Description	By	Chk	App
F1	26.09.22	ISSUED FOR LICENCE APPLICATION	LT	OL	KT
F0	31.05.21	ISSUED FOR LICENCE APPLICATION	LT	OL	KT

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PROJECT

UTAS – CORK BUNDLE
BALLYCOTTON SEWERAGE SCHEME

DRAWING TITLE

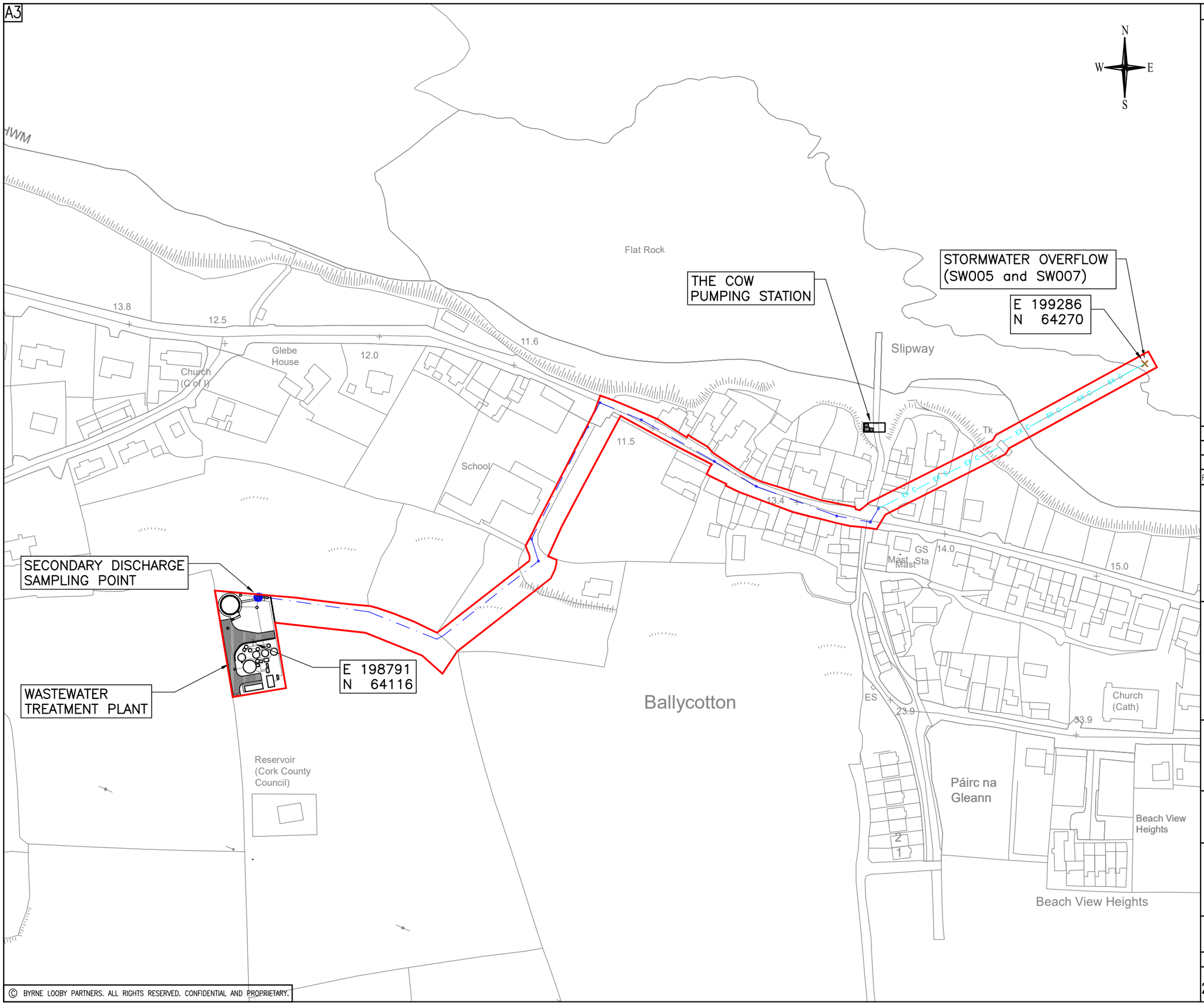
PRIMARY DISCHARGE POINTS

STATUS

FOR LICENCE APPLICATION

Date: 28.07.22	Scale: 1:2000	Drawn: LT	Chk: OL	App: KT
Project No: 257589_00	Drg. No: IW10015230–03–02–004			Rev: F1

A3



GENERAL NOTES

NOTES:

1. ORDNANCE SURVEY IRELAND LICENCE NUMBER EN 3–3–34.

2. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.

LEGEND:

SITE BOUNDARY

SECONDARY DISCHARGE POINT

SECONDARY DISCHARGE MONITORING POINT

Rev	Date	Description	By	Chk	App
F1	26.09.22	ISSUED FOR LICENCE APPLICATION	LT	OL	KT
F0	25.05.21	ISSUED FOR LICENCE APPLICATION	LT	OL	KT

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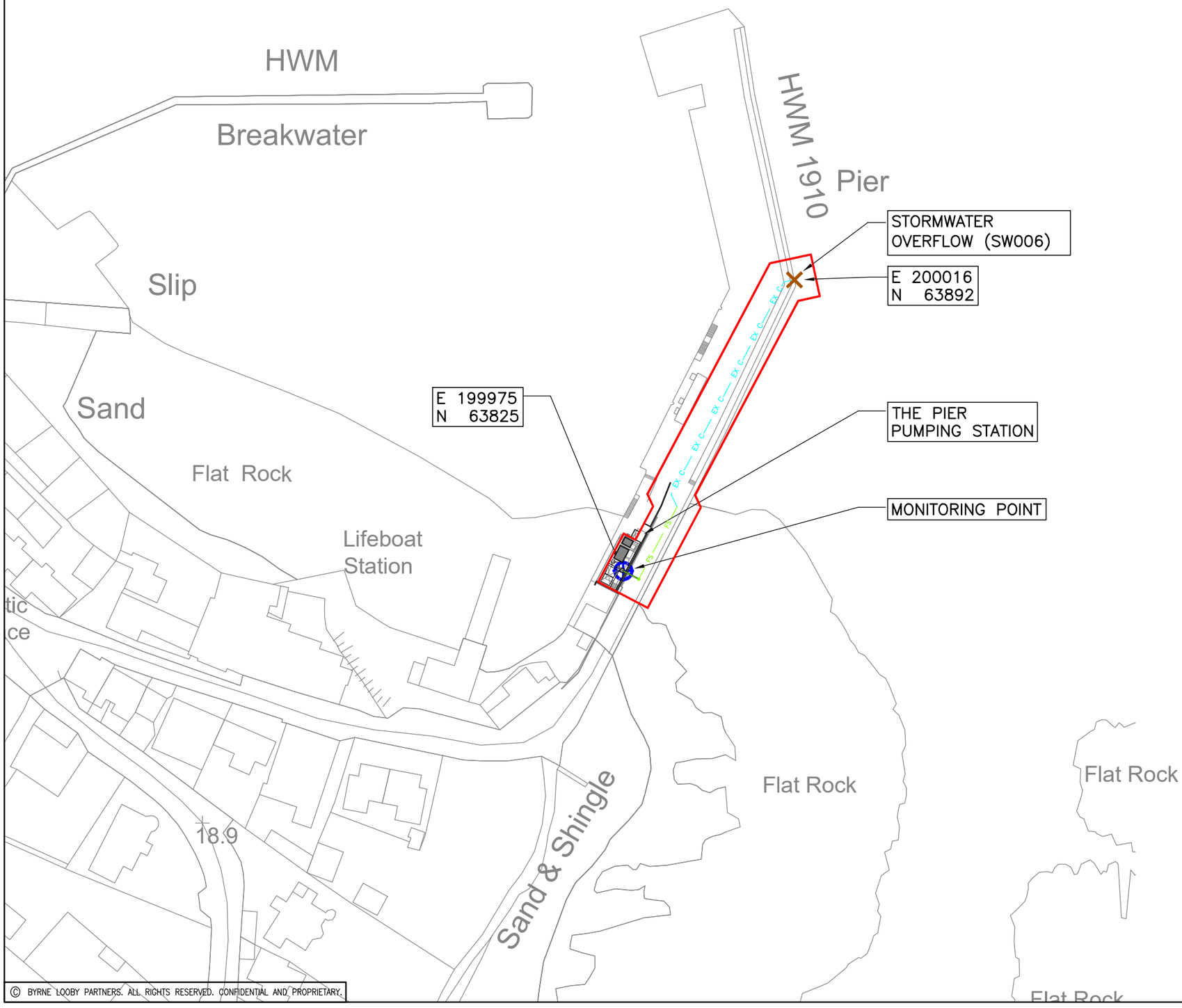
BALLYCOTTON SEWERAGE SCHEME

DRAWING TITLE
STORMWATER OVERFLOWS 1 OF 2

STATUS
FOR LICENCE APPLICATION

Date: 25.05.21	Scale: 1:2000	Drawn: LT	Chk: OL	App: KT
Project No: 257589_00	Drg. No: IW10015230–03–02–005			Rev: F1

A3



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GENERAL NOTES

NOTES:

1. ORDNANCE SURVEY IRELAND LICENCE NUMBER EN 3–3–34.

2. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.

LEGEND:

SITE BOUNDARY

SECONDARY DISCHARGE POINT

SECONDARY DISCHARGE MONITORING POINT

Rev	Date	Description	By	Chk	App
F1	26.09.22	ISSUED FOR LICENCE APPLICATION	LT	OL	KT
F0	31.05.21	ISSUED FOR LICENCE APPLICATION	LT	OL	KT

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PROJECT
UTAS – CORK BUNDLE
BALLYCOTTON SEWERAGE SCHEME

DRAWING TITLE
STORMWATER OVERFLOWS 2 OF 2

STATUS
FOR LICENCE APPLICATION

Date: 31.05.21	Scale: 1:1000	Drawn: LT	Chk: OL	App: KT
Project No: 257589_00	Drg. No: IW10015230–03–02–005A			Rev: F1

Appendix C – Impact assessment Report

ATTACHMENT D.2.1: Impact Assessment Report

1. Introduction

This Report provides a summary of the Impact Assessment, prepared to determine the impact of the discharges from the Ballycotton agglomeration on the receiving waterbody (Ballycotton Bay IE_SW_040_0000) once the proposed upgrade to the Ballycotton Sewerage Scheme becomes operational.

This report also addresses the criteria as outlined in **Section D.2** of the EPA guidance document.

Currently wastewater is collected in Ballycotton's public sewer network and is discharged through two existing outfalls to Ballycotton Bay with little or no treatment. By eliminating the discharge of untreated wastewater into Ballycotton Bay, the proposed Ballycotton Sewerage Scheme will improve the water quality in Ballycotton Bay in relation to environmental quality standards and WFD status and will comply with the Urban Wastewater Treatment Directive by providing primary treatment.

The proposed Ballycotton Waste Water Treatment Plant (WwTP) will provide primary treatment of wastewater, with treated effluent quality achieving the emission limit values set out below in accordance with the existing wastewater discharge licence (no. D0516-01) and the Urban Wastewater Treatment Directive.

Parameter	Units	Emission Limit Value
CBOD	mg/l	20% reduction
Suspended Solids	mg/l	50% reduction

2. Water Environment

The primary discharge from the proposed Ballycotton WwTP will be to Ballycotton Bay (coastal waterbody, WFD code IE_SW_040_0000). The primary discharge will be via an existing marine outfall (SW004). The EU Water Framework Directive (WFD) has established a Framework for the protection, improvement and management of surface water and groundwaters. The EPA website (www.epa.ie) indicated that Ballycotton Bay was classified as "*Not at risk*" in accordance with the WFD 2013-2018 Risk Status and the ecological status is noted as "Good" (2013-2018).

The WFD objective for Ballycotton Bay is to achieve "Good" status by 2027.

Ballycotton Bay has not been identified as a significant pressure and does not have high ecological status objectives.

Recent ambient monitoring data (2019-2022) for Ballycotton Bay is shown in the table below. The data presented below is based on chemistry monitoring data for Ballycotton Bay (downloaded from Catchments.ie 31/05/22) [(3)]. Comparison with the European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019 (S.I. No. 77 of 2019) (SWR) is also shown below.

Parameter	BOD (mg/l)	Dissolved Oxygen (% Saturated)	Dissolved Inorganic Nitrogen (mg/l)
Number of Samples	5	6	6

Parameter	BOD (mg/l)	Dissolved Oxygen (% Saturated)	Dissolved Inorganic Nitrogen (mg/l)
Max result	3.3	107.7	1.6
Min result	0.5	97.3	0.018
Average Value	1.34	102.07	0.44
95%ile Value	2.92	108.35	-
EQS High Status as per S.I. No. 77/2019	Not Applicable	95%ile Lower limit >80-85% Upper limit <115-120%	≤0.585[(2)]
EQS Good Status as per S.I. No. 77/2019	Not Applicable	95%ile Lower limit >70-80% Upper limit <120-130%	≤1.425[(2)]
Overall compliance with relevant EQS High Status	Not applicable	Yes	Yes

Table D.2.1.1 – Ambient Monitoring Data – Ballycotton Bay

Note 1: Where data was reported as less than the limit of detection, LOD/2 was applied

Note 2: In the absence of salinity level data, the DIN EQS has been taken as the median value in accordance with S.I. No 77 of 2019

In coastal waters, the main physico-chemical elements assessed are dissolved oxygen (DO) and nitrogen (as dissolved inorganic nitrogen (DIN)).

The monitoring data presented in Table D.2.1.1 above indicates that the waters of Ballycotton Bay met the "High status" environmental quality standards set out in the SWR in the period 2019-2022.

Compliance limits for BOD_5 in the water body are not stipulated in the SWR for coastal water bodies. For information purposes, the concentrations of BOD_5 have been assessed against the limits as set in the SWR for transitional waters to achieve good/high status, as this would represent the most similar waterbody class. In the above assessment, the ambient water quality monitoring indicates high status under the SWR.

The existing Waste Water Discharge Licence for the Ballycotton agglomeration (no. D0516-01) includes Schedule C.1: Specified Improvement Programme where the specified improvement is described as "*Construct a new primary waste water treatment plant to include inlet screens and appropriately sized primary settlement capacity*". Schedule C.2: Discharges to be Discontinued includes the secondary discharge point SW002.

The proposed Ballycotton WwTP will provide inlet screens and primary treatment of wastewater, with treated effluent quality achieving 20% reduction in BOD and 50% reduction in Suspended Solids and it will also eliminate the discharge of untreated waste water at SW001 and SW002 (existing WWDL codes). The Ballycotton WwTP will be operational as of Q4 2024. Both of the foregoing will result in a betterment of the water quality within Ballycotton Bay and support the objective of the waters continuing to meet the "High Status" standard in accordance with the European Union Environmental Objectives (Surface Waters) Regulations 2009-2019.

There are several SPAs and SACs within a 15km radius of the proposed sewerage scheme. These are as follows:

- Ballycotton Bay Special Protection Area (SPA 004022), located within 70m of the discharge point.
- Ballymacoda Bay Special Protection Area (SPA 004023), located approximately 10km from the subject site when measured as a straight line and 14km when measured along an aqueous pathway by the coastline.
- Ballymacoda Bay Special Area of Conservation (SAC 000077), located over 8km from the subject site when measured as a straight line and approximately 14km when measured along an aqueous pathway by the coastline.
- Cork Harbour Special Protection Area (SPA 004030), located over 11km from the subject site when measured as a straight line and approximately 23km when measured along an aqueous pathway by the coastline.
- Great Island Channel Special Area of Conservation (SAC 001058), located approximately 12km from the subject site when measured as a straight line and approximately 31km when measured along an aqueous pathway by the coastline.

Of the five sites listed above as being within 15km of the subject site, the nearest hydrologically connected designated site is Ballycotton Bay Special Protection Area (SPA 004022) which is located within 70m of the WWTP primary discharge point (SW004), the WWTP combined emergency/ stormwater overflow (SW005) and the Cow Pumping Station combined emergency/stormwater overflow (SW007).

As stated in the Site Synopsis for SPA 004022, “The inter tidal flats provide the main feeding habitat for the wintering birds. Salt marshes fringe the flats in the sheltered inlets and these provide high tides roosts”

The proposed development will not result in any loss of habitat within SPA 004022, nor will it have any significant impact on the availability of open ground on which wading birds could roost at high tide. It is considered that significant impacts on the Features of Interests of the SPA arising from habitat loss can be screened out.

Please refer to Section 4 of this impact assessment for further information on potential impacts on nearby European Sites.

There are no designated nutrient sensitive areas or candidate nutrient sensitive areas in Ballycotton Bay under the Urban Waste Water Treatment Regulations, 2001, as amended.

3. Water Quality

The proposed Ballycotton WwTP will provide primary treatment of wastewater, with treatment effluent quality achieving 20% reduction in BOD and 50% reduction in Suspended Solids.

As noted in section 1 of this Impact Assessment Report, wastewater in the Ballycotton agglomeration is currently discharged untreated to Ballycotton Bay via two separate outfalls which serve two separate wastewater networks.

As part of the proposed Ballycotton Sewerage Scheme, the two existing wastewater networks will be rerouted to the proposed WwTP which will provide primary treatment before discharging treated effluent via a single marine outfall (SW004). Therefore, once the proposed sewerage scheme is operational, the quantity of BOD and Suspended Solids being discharged to Ballycotton Bay from the

agglomeration will be reduced. However, as (SW004) will now be serving a larger population equivalent, an increased level in BOD and Suspended Solids will occur at SW004 locally.

Based on predicted 10-year design PE, the overall BOD discharge to Ballycotton Bay will reduce from 60.8kg/d (2016) to 51.9kg/d (2026) and the discharge at the primary discharge (SW004) will increase from 30.4kg/d (2016) to 51.9kg/d (2026).

The above assessment is based on a BOD loading of 60g/person/day in accordance with the Urban Waste Water Treatment Regulations 2001 as amended.

Based on predicted 10-year design PE, the overall suspended solids discharge to Ballycotton Bay will reduce from 28.9kg/d (2016) to 15.4kg/d (2026) and the discharge at the primary discharge (SW004) will increase from 14.5kg/d (2016) to 15.4kg/d (2026).

The above assessment is based on a suspended solids loading of 163mg/l (mean domestic loading) in accordance with EPA Wastewater Treatment Manuals – Treatment Systems for Small Communities, Business, Leisure Centres and Hotels and a consumption rate of 175l/person/day in accordance with Irish Water technical guidance document IW-TEC-700-99-02 Inlet Works and stormwater treatment (wastewater).

The BOD and Suspended Solids water quality assessment is summarised in Table D.2.1.2 below.

	BOD	SS
Loading	60 g/PE/Day	70 g/PE/Day
Current PE (2016)	1014	
Future PE (2026)	1082	
Total Agglomeration		
Current Load	60.84 kg/Day	70.98 kg/Day
Future Load*	51.94 kg/Day	37.87 kg/Day
Primary Discharge Point		
Current Load	30.42 kg/Day	35.49 kg/Day
Future Load*	51.94 kg/Day	37.87 kg/Day
*Future Loading calculation above considers a reduction in BOD of 20% and a reduction in SS of 50%		

Table D.2.1.2 – Ballycotton Bay BOD and Suspended Solids Assessment

The most recent EPA data notes that Ballycotton Bay was classified as "*Not at risk*" in accordance with the WFD 2013-2018 Risk Status and the ecological status is noted as "good" (2013-2018). This indicates that the existing wastewater discharges were not having sufficient impact on water quality to affect the "good" status of Ballycotton Bay. The proposed Ballycotton WwTP will reduce the overall quantity of BOD and Suspended Solids to Ballycotton Bay at operational phase of the project and therefore will not have any negative effects in relation to water quality.

4. Screening for Appropriate Assessment

A Screening for Appropriate Assessment in relation to the discharge of treated effluent from the Ballycotton WwTP and pumping stations, including stormwater overflows and emergency overflows, has been carried out and concluded that "overall no significant adverse effects are foreseen and indeed, a slight positive effect is possible. The Screening for AA Report is included with this application as **Attachment D.2-2**.

On the basis of the information set out, and documentation referenced in the AA Screening Report, it can be excluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the relevant European sites, that the proposed operational discharges from the new Ballycotton Waste Water Treatment Works, individually or in combination with other plans and projects, would be likely to have a significant effect on any European site. It is acknowledged however that it is the EPA, as the Competent Authority, who will formally conduct the formal AA screening process as part of their determination of this WWDA application.

5. Environmental Impact Assessment (EIA) Screening

An Environmental Impact Assessment (EIA) Screening Report has prepared in relation to the construction and operational stages of the proposed Ballycotton Sewerage Scheme, to form an opinion as to whether or not the proposed activities from the Scheme should be subject to Environmental Impact Assessment (EIA) and if so, whether an Environmental Impact Assessment Report (EIAR) should be prepared in respect of it. Refer to **Attachment B.5** for a copy of the EIA Screening Report.

The Ballycotton Sewerage Scheme EIA Screening Report concluded the following;

'It is submitted that the proposed Scheme does not come within the classes of development that European and Irish legislation identify as being likely to have significant effects on the environment, as set out in Part 1 or Part 2 of Schedule 5 of the Planning and Development Regulations 2001-2017. As the proposed Scheme does not come within the specified classes, there is no mandatory requirement for an EIA for the proposed Scheme.
In addition to the above, a sub threshold assessment has been undertaken. The potential for impacts has been identified, both positive and negative but none that would be likely to have significant effects on the environment.'

6. Bathing Waters

The nearest designated bathing waters are at Garryvoe approximately 2.5km north of the proposed works area. Current EPA water quality results indicate that the water at Garryvoe Beach is of 'sufficient' quality based on the three-year assessment period 2018 to 2021.

Cork County Council has taken a total of 8no samples at Garryvoe during the 2022 bathing season. Of these 8no samples, 7no samples were noted as being 'excellent' while the remaining 1no sample was determined to be 'good'.

The proposed Ballycotton WwTP will provide primary treatment of wastewater, with treated effluent quality achieving 20% reduction in BOD and 50% reduction in Suspended Solids. The reduction in Suspended Solids will result in a decrease in pathogens in the discharge and will therefore not have any negative effects on the bathing water quality at Garryvoe.

7. Shellfish Waters

The nearest designated shellfish area is at Ballymacoda Bay located over 9km from the subject site.

The proposed Ballycotton WwTP will provide primary treatment of wastewater, with treated effluent quality achieving 20% reduction BOD and 50% reduction Suspended Solids. The reduction in Suspended Solids will result in a decrease in pathogens in the discharge and will therefore not have any negative effects on the water quality at Ballymacoda.

8. Priority Substance Assessment

A priority substance assessment has been carried out to identify substances which are likely to be emitted from the agglomeration to the receiving water. The assessment is included in **Appendix A** of this Impact Assessment Report.

9. Combined Approach

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

The treated effluent discharge standards for the new WwTP will comply with the requirements for primary treatment with a 20% reduction in BOD and a 50% reduction in suspended solids. In addition, they will give effect to the principle of the Combined Approach as defined in Waste Water Discharge (Authorisation) Regulations, 2007 to 2020 in that they accommodate the Urban Waste Water Regulations and the relevant status/designations of the receiving waterbody, Ballycotton Bay.

10. Compliance with Relevant National or EU Legislation

The proposed Ballycotton WwTP has been designed to ensure that the emissions from the agglomeration will comply with, and will not result in the contravention of, EU Legislation and National Regulations.

The current WFD Ecological Status of Ballycotton Bay is "good" and the WFD risk status is "not at risk". Regarding in-combination impacts and associated effects, it is envisaged that the improvement in the effluent discharges from the proposed Ballycotton Sewerage Scheme, will have a net positive impact on Ballycotton Bay in terms of assisting it to maintain Good WFD Status for this coastal waterbody. Any improvement in the aquatic environment will have a beneficial impact on the water dependent qualifying features of Ballycotton Bay SPA and all other European sites within the zone of influence of the proposed activity.

Please refer to **Attachment B.6-Compliance with EU Directives and National Regulations** for further information.

11. Mixing zone or transitional areas of exceedance

The EPA publication '*EO Regulations Review, Simple Assimilative Capacity Model for Lakes and Coastal Water' presents* a simple model for carrying out assimilative capacity in lakes and coastal waters. This Assimilative Capacity Model has been applied here to determine the number of dilutions which will be achieved at a given distance from the primary discharge point (SW003).

The calculation for the available dilutions is as follows:

$$D = \frac{8930b}{F}$$

where:

b = average depth of the receiving water (m)

F = Maximum hourly flow rate of the discharge (m^3/hr)

In order to estimate the available dilutions, the average depth of the receiving waters of the mixing zone over a distance of 100m from the discharge point is required. Based on available bathymetry and tidal data, the average depth of the receiving waters over a distance of 100m for the discharge point was determined to be 2.747m (b).

The maximum hourly flow rate from the proposed WwTP is 86.8m^3/h.

This results in a dilution value (D) of 283. Irish Waters Technical Standards for Marine Modelling (Document Number IW-TEC-100-015) requires a minimum of 100 initial dilutions for new primary treated effluent discharges. As such the calculated 283 is considered more than adequate.

Based on the above calculated dilution and the background water quality data in Ballycotton Bay, the resulting concentrations of BOD_5 and DIN in the receiving water (near field) have been calculated as:

- BOD_5 - 2.18mg/l (<3.0mg/l limit for high status water quality)
- DIN - 0.56mg/l (<0.585mg/l limit for high status water quality).

Therefore, the discharge effluent will not impact on the ability of the receiving water to maintain its current "good" status and in fact, would allow compliance with "high" status.

12. Cumulative and In Combination Effects

The Appropriate Assessment Screening Report addresses combination effects. Refer to **Attachments D.2.2**

13.Dilutions and retention times for lakes

Not applicable. No discharges to lakes.

14.The impact of the discharges on any environmental media other than those into which the emissions are to be made

Not applicable. No other relevant media into which the emissions are to be made.

15.Groundwater Details

Not applicable. No discharge to ground waters.

16.High Status Waterbodies

No High Status water bodies are downstream of the operational discharges.

17.Fresh Water Pearl Mussels

Not applicable. No Fresh Water Pearl Mussels within the region of the primary discharge point

18.For waste water treatment plants with coastal discharges, provide evidence that the end of the discharge pipe is below the mean spring tide low water line

A primary discharge outfall long section is included in **Attachment D.2-1**. The long section demonstrates that the WwTP will discharge treated effluent to Ballycotton Bay via the primary discharge point (SW004) below the mean low water springs level.

Please note that maintenance works will be carried out on the outfall on behalf of Irish Water prior to the operational stage of the Ballycotton sewerage scheme to ensure that the discharge point is in accordance with the levels noted on the long section referenced above and to repair any damage to the outfall pipe. The maintenance works are required in accordance with the Ballycotton Foreshore Licence (November 1953) which states that the outfall is to be kept '*in a good and proper state of repair and condition to the satisfaction of the Department of the Environment, Community and Local Government'.*

19. Data Sources

The following data sources were used to complete this application.

- Online data available or held by the NPWS, the EPA, NIEA and Irish Water:
    - www.npws.ie
    - epawebapp.epa.ie
    - gis.epa.ie/EPAMaps
    - catchments.ie
- Irish Water/Cork County Council Monitoring& Sampling Data

Appendix A – Priority Substance Assessment

Ballycotton Sewerage Scheme – Priority Substances Assessment

Introduction

This assessment has been prepared for the Ballycotton agglomeration in County Cork to inform the review application of the existing wastewater discharge licence (D0516-01).

Ballycotton is a village in east Cork located approx. 18km southeast of Midleton town.

Currently, wastewater flows generated in Ballycotton are collected in two combined collection networks with two separate outfalls. These two networks are referred to as the 'west' network and the 'east' network throughout this report.

The west of the agglomeration is served by a sewer network that conveys combined wastewater and storm water by gravity to a septic tank located along the foreshore to the west of Ballycotton harbour. The septic tank is an above ground structure and it is believed that it was constructed in the 1950s (for a PE of 50-60) The passage of sewage through the septic tank helps in the removal of suspended solids but there is very little biological activity and the removal of BOD is not significant (Cork County Council (2009)). It is considered to provide negligible treatment.

Effluent from the septic tank is discharged into Ballycotton Bay via a short sea outfall which is approx. 80m in length and is encased in concrete.

The east of the agglomeration is served by a collection network which discharges untreated sewage as well as storm water into Ballycotton Bay via an outfall at the end of the harbour pier. The outfall at Ballycotton pier is exposed at low tide.

The objective of the proposed Ballycotton sewerage scheme is to provide a wastewater treatment plant (WwTP) capable of primary treatment. Two new pumping stations (PS) will be required to deliver the wastewater to the WWTP. The PS's will be located to intercept the discharges from the eastern and western collection networks.

The proposed Ballycotton Waste Water Treatment Plant (WwTP) will provide primary treatment of wastewater, with treated effluent quality achieving 20% reduction in BOD and 50% reduction in suspended solids in accordance with the requirements set out in the existing wastewater discharge licence (no. D0516-01) and the Urban Wastewater Treatment Directive.

A Waste Water Discharge Licence (WWDL) (Licence Register Number: D05016-01) was granted to Irish Water in accordance with the Waste Water Discharge (Authorisation) Regulations (S.I. No. 684 of 2007) in 2014.

This desk top study has been undertaken to determine the necessity, if any, for further analysis of the discharge based on the *Guidance on the Screening for Priority Substances for Waste Water Discharge Licences*, issued by the EPA. Relevant inputs to the Ballycotton WwTP and estimates for the emissions from the discharge point have been taken into account in the preparation of this report.

Desktop Study

Review of all industrial inputs into WwTP

A review of all available online mapping and all EPA licensed facilities was undertaken to determine the non-domestic discharge types which will being received at the Ballycotton WwTP.

EPA's online mapping portal doesn't show any IPC (Integrated Pollution Control) sites, IEL (Industrial Emissions Licensing) facilities

The sources of the emissions from the proposed WwTP are largely associated with the residential population of the agglomeration, as well as domestic type wastewater discharge from commercial sources (shops, restaurants, offices etc.).

The proposed Ballycotton Sewerage Scheme will end the practice of the discharge of untreated wastewater from the agglomeration which will have a significant positive impact on the surface water quality.

Upon review of the types of businesses, amenities and educational facilities in Ballycotton, **Table 1** provides an indicative list of non-domestic discharge types to the WwTP and details potential dangerous/priority substance.

Type of Industry within the Agglomeration	Potential Source of Dangerous / Priority Substances (Yes / No)	Dangerous / Priority Substances Monitoring Undertaken (Yes / No)	List of Potential Dangerous Substances Based on Industry Type (Source: ***Technical Assessment Manual – Sectoral Profile Data***)
School	Yes	Unknown	Dichloromethene Lead and its compounds Nickel and its compounds Tricholormethane
Hairdressers	Yes	Unknown	Nickel and its compounds Cadmium and its compounds

Table 1 – List of Non-Domestic Discharge Types to WwTP and Details of Potential Dangerous/Priority Substance

Discharge Monitoring

No primary discharge monitoring for the possible presence of Specific Pollutants, Priority and Priority Hazardous Substances as outlined in Table 10, 11 and 12 of European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended (now S.I No. 77 of 2019) is available for this agglomeration.

Downstream monitoring location's participation in relevant monitoring programme

There is no available record of any priority substances monitoring data for the nearest monitoring stations (National Water Monitoring Station CW05003148BT1001 (Ballycotton Ambient) or National Water Monitoring Station CW31003143BR3003 (BR270 - North of Caple Island)).

Catchments.ie notes that Ballycotton Bay is 'not on a published monitoring programme'.

Participation in PRTR reporting

The PRTR section of EPA's online mapping portal was reviewed. No emissions/discharges in relation to PRTR are noted within the Ballycotton agglomeration.

Priority Substance Assessment Conclusion

The desktop study assessed the agglomeration for the presence of relevant priority substances to establish any potential impact on the receiving waters.

The 'parameters to be screened' listed in Appendix 1 of EPA's 'Guidance on the Screening for Priority Substances for Waste Water Discharge Licences' have been reviewed. The desktop study didn't identify any significant sources of the listed parameters within the Ballycotton agglomeration.

The assessment considered the primary discharge relevant to Environmental Quality Standards (EQS) for priority substances in surface waters, as set out in the European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended (now S.I No. 77 of 2019).

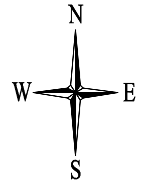
Does the assessment use the Desk Top Study Method or Screening Analysis to determine if the discharge contains the parameters in Appendix 1 of *Guidance on the Screening for Priority Substances for Waste Water Discharge Licences*, issued by the EPA	Desk Top Study
Does the assessment include a review of licensed / authorised inputs to the works?	Yes
Does the assessment include a review of other (unauthorised) inputs to the works?	No
Does the report include an assessment of the significance of the results where a listed material is present in the discharge? (e.g. impact on the relevant EQS standard for the receiving water)	Yes
Does the assessment identify that priority substances may be impacting the receiving water?	No
Does the Improvement Programme for the agglomeration include the elimination / reduction of all priority substances identified as having an impact on receiving water quality?	N/A

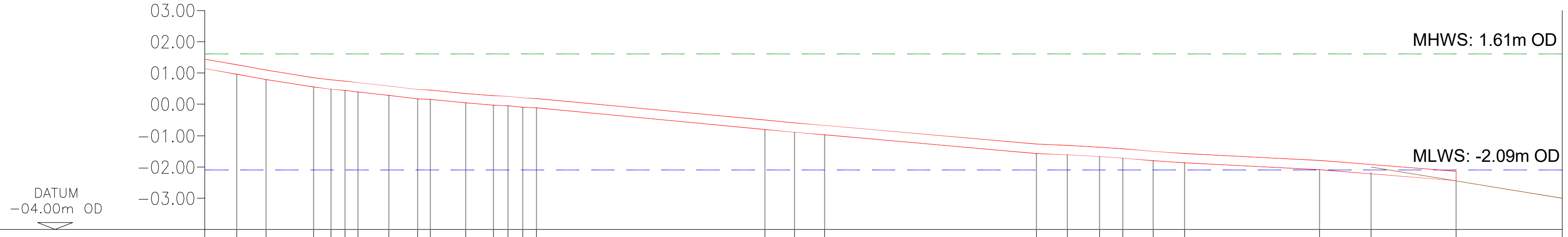
The sources of the emissions from the proposed Ballycotton WwTP are largely associated with the residential population of the agglomeration, as well as domestic type wastewater discharge from commercial sources (shops, restaurants, offices etc.).

The proposed Ballycotton Sewerage Scheme will end the practice of the discharge of untreated wastewater from the agglomeration which will have a significant positive impact on the surface water quality.

Based on the results of this desk top study, it can be determined that **no for further analysis** of the discharge, based on the *Guidance on the Screening for Priority Substances for Waste Water Discharge Licences*, issued by the EPA, is required.

A3





CHAINAGE (m)	OUTFALL CROWN LEVEL (mOD)	SEABED LEVEL (mOD)
0.000	1.44	
2.049	1.26	
3.922	1.09	
6.964	0.85	
8.087	0.78	
8.983	0.74	
9.812	0.69	
11.792	0.58	
13.645	0.47	
14.450	0.45	
16.727	0.34	
18.507	0.27	
19.439	0.25	
20.391	0.20	
21.270	0.18	
35.905	−0.51	
37.807	−0.60	
39.733	−0.68	
53.324	−1.28	
55.291	−1.32	
57.359	−1.38	
58.860	−1.43	
60.809	−1.51	
62.813	−1.58	
71.473	−1.80	
74.767		−02.00
80.223	−2.15	
87.025		−03.00

MHWS TIDE LEVEL (mOD)	MHWS: 1.61m OD
MLWS TIDE LEVEL (mOD)	MLWS: -2.09m OD
OUTFALL PIPE (D)	300

LONGITUDINAL SECTION OF OUTFALL PIPE

SCALE: HORIZ; 1:250 - VERT; 1:500

GENERAL NOTES

NOTES:

1. ORDNANCE SURVEY IRELAND LICENCE NUMBER EN 3−3−34.

2. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.

LEGEND:

OUTFALL PIPE

Rev	Date	Description	By	Chk	App
FO	15.08.22	ISSUED FOR LICENCE APPLICATION	LT	OL	KT

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Working in Partnership

PROJECT
UTAS – CORK BUNDLE
BALLYCOTTON SEWERAGE SCHEME

DRAWING TITLE
DISCHARGE LICENCE APPLICATION
ATTACHMENT D.2.1
OUTFALL LONGITUDINAL SECTION

STATUS
FOR LICENCE APPLICATION

Date: 15.08.22	Scale: AS SHOWN	Drawn: LT	Chk: OL	App: KT
Project No: 257589_00	Drg. No: IW10015230−03−02−010			Rev: FO

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