



Environmental Licensing Programme
Office of Environmental Sustainability
Environmental Protection Agency
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12/04/2023

UÉ ref: LT0635

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Re: Ballycotton Reg. No. D0516-02 – Reg. 18(3)(b) Notice

Dear Inspector,

In response to the regulation 18(3)(b) request for information notice dated 15 March 2023, please see below relevant information:

Provide an explanation as to why the specified improvements set out in Schedule C.1 of the current licence D0516-01 were not carried out within the specified timeframe.

The Ballycotton Wastewater Discharge licence (WWDL) was issued on 30 October 2014 and under schedule C.1 required the construction a new primary waste water treatment plant (WwTP) to include inlet screens and appropriately sized primary settlement capacity by 31 December 2019.

Uisce Éireann is progressing a project to fulfill the requirements of the specified improvement programme (SIP) as set out in Schedule C.1, as well as constructing associated pumping stations and pipeline to convey the wastewater to the new WwTP and treated effluent to the outfall. The works are expected to be completed by Q4, 2024.

As Uisce Éireann was only established in 2013 under the Water Services Act 2013, the time period allowed for in the WWDL for the completion of the SIP was insufficient to allow for appropriate review and approval of investment funding, strategic assessment, feasibility studies, detailed design, planning and other statutory processes required as well as procurement and construction of the required works,

Stiúrthóirí / Directors: Tony Keohane (Chairman), Niall Gleeson (CEO), Christopher Banks, Fred Barry, Gerard Britchfield, Liz Joyce, Patricia King, Eileen Maher, Cathy Mannion, Michael Walsh

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Is cuideachta ghníomhaíochta ainmnithe atá faoi theorainn scaireanna é Uisce Éireann / Irish Water is a designated activity company, limited by shares.
Uimhir Chláraithe in Éirinn / Registered in Ireland No.: 530363

and hence the reason for the improvement programme not being carried out within the specified timeframe.

Provide a Natura Impact Statement, as defined in Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 as amended.

Uisce Éireann will revert by 28 April 2023 or sooner with an estimated timeframe for submission of the Natura Impact Statement.

Provide a copy of the planning authority or an Bord Pleanála as the case may be, appropriate assessment determination and a copy of the Natura Impact Statement which was provided to the planning authority or an Bord Pleanála as the case may be, in respect of development or proposed development to which the application relates.

The planning decision of Cork County Council for planning reference no. 214483 was appealed to An Bord Pleanála (ABP 312229-21). An Bord Pleanála's Appropriate Assessment screening determination and Appropriate Assessment are included in pages 46-50 of the ABP Inspector's Report, submitted as attachment B.3.1 as part of the of the review application. The ABP Inspector's report concurs with the AA screening submitted as part of the planning application and states that the only Natura site that could be potentially adversely affected is the Ballycotton SPA, and during the construction stages only. ABP therefore determined an Appropriate Assessment was required. The stage 2 appropriate assessment from pages 47-50 of the ABP Inspector's report concludes that as a result of the nature of the works and the mitigation measures to be implemented during the construction phase, that the proposed development individually or in combination with other plans or projects would not adversely affect the integrity of European Site No. 004022 (Ballycotton SPA) or any other European site in view of the site's conservation objectives. Please see An Bord Pleanála Inspector's report attached as Appendix 1.

Please also see attached, appendix 2, the Appropriate Assessment Screening (AAS) and Natura Impact Statement (NIS) submitted to Cork County Council as part of the planning application (planning ref: 214483). As discussed above the AAS screened out operational impacts and an NIS was deemed required for construction related activities only.

Enclosed:

Appendix 1: An Bord Pleanála Inspector's report April 2022

Appendix 2: Planning AAS & NIS January 2021

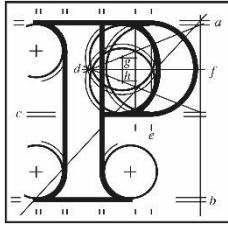
Yours sincerely,

Peter Keegan

Peter Keegan

Wastewater Strategy

Appendix 1: An Bord Pleanála Inspector's report April 2022



An
Bord
Pleanála

Inspector's Report ABP312229-21

Development	Construction of a sewerage scheme and associated ancillary site development works.
Location	Ballycotton Village, County Cork.
Planning Authority	Cork County Council.
Planning Authority Reg. Ref.	214483.
Applicant(s)	Irish Water.
Type of Application	Permission.
Planning Authority Decision	Grant.
Type of Appeal	Third Party.
Appellant(s)	(i) Ballycotton Fisherman's Association, (ii) Niall Healy, (iii) Sean and Jean O Murchú
Observer(s)	Darren and Hazel Whelton.
Date of Site Inspection	April 5 th 2022
Inspector	Paul Caprani.

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1.0 Introduction

- 1.1. ABP 312229 relates to three separate third party appeals against the decision of Cork County Council to issue notification to grant planning permission for the construction of a sewage treatment plant and associated site development works including pumping stations and sewerage infrastructure incorporating gravity sewers and rising mains. An observation was also submitted which likewise objected to the proposed development. The main issues raised in the grounds of appeal express concerns that the WWTP is located too close to residential receptors and will have an unacceptable impact, particularly through noise and odours on the residential amenities of the area. An appeal from the local Fisherman's Association argued that the proposed pumping station to be located on Ballycotton Pier could adversely impact on fishing operations in the village of Ballycotton.

2.0 Site Location and Description

- 2.1. The village of Ballycotton is located in east Cork, approximately 40 km east of Cork City. It is a coastal village, comprising of a linear settlement along the R629. It faces northwards onto Ballycotton Bay. The lands rise steeply to the south (rear of the village) towards the Townland of Ballytrasna. The proposed WWTP is to be located to on these elevated lands to the rear of the Main Street, adjacent to an existing water reservoir located within an agricultural field currently used for tillage farming. The area in which the WWTP is to be located, is to the immediate north of the existing water tank c.50m above sea level and about 200m south of, and c.30m higher than the main road (R629) serving the village. The 2016 census puts the population of Ballycotton at 497 persons.
- 2.2. Access to the field and reservoir, in which it is intended to put the WWTP is provided via a local road (Church Road) which runs southwest from the R629 towards the small settlement of Churchtown to the southeast. In terms of surrounding development, the WWTP is to be located in the north-eastern corner of a field to the immediate north of the reservoir tank. All other development is located to the north of the site facing directly onto the R629 (Main Street) to the north and east of the site

and developments fronting onto Church Road to the north west of the site. The nearest dwellings are between 85m and 130m from the boundary of the WWTP. A National School that fronts onto Main Street is located c.100m from the north east of the proposed WWTP.

- 2.3. In terms of the existing wastewater infrastructure arrangements, effluent generated in the Ballycotton agglomeration is collected two combined collection networks with two separate outfalls. The western end of the agglomeration is served by a sewer network that conveys combined wastewater and stormwater to a septic tank, dating from c1950's located along the foreshore to the west of Ballycotton Harbour. There is little information regarding the condition of this tank, however the documentation submitted with the original CPO application (subsequently withdrawn) suggests that the upper portion of this tank is in good condition. The tank however is merely a retention and settlement tank and does not provide the required level of treatment (including BOD removal) to ensure regulatory compliance. Effluent from the septic tank is discharge into Ballycotton Bay via a concrete encased sea-outfall pipe approximately 80m in length.
- 2.4. The eastern part of the agglomeration is served by a collection network which discharges untreated sewerage as well as storm water into Ballycotton Bay via an outfall and the end of the Pier at Ballycotton Harbour. This outfall is exposed at low tide where little dilution and dispersion takes place.

3.0 Proposed Development

3.1. Proposed Wastewater Treatment Plant

- 3.1.1. It is proposed to construct a new wastewater treatment plant to serve the existing agglomeration of Ballycotton. It is to be located on elevated agricultural lands to the south of Main Street, c. 130m due south of the junction of Main Street and Church Road. It is accessed via an existing agricultural access track which is to be upgraded as part of the access to the proposed WWTP. The access track is to skirt the boundary of a recorded monument to the southwest of the proposed WWTP. The WWTP is to occupy a rectangular plot of land an area c.250m in length and 140m in width. Untreated effluent is to enter the inlet works where it will be screened; after which it will be conveyed to an 'inlet works splitter chamber' where effluent will flow

into 3 no. primary tanks. Sludge will be drawn-off and transferred to a sludge holding tank. It is also proposed to provide a Balancing Tank (200m³) and a Buffer Tank (138m³). The settled effluent will then be conveyed to the outflow chamber at the eastern end of the site where a new outfall will run in a north-easterly direction adjacent to the eastern boundary of the National School, and eastward along the Main Street and connecting to the existing outfall near the Cow Lane slipway.

3.2. Pump Stations

- 3.2.1. Two new pumping stations are proposed to convey wastewater from the existing agglomeration to the new wastewater treatment plant. The existing combined gravity sewer system which discharges to the outfall at the Eastern Pier is to be discontinued and is to be collected at a new pumping station at the pier and pumped up along Main Street to a header manhole, near the existing Grotto (c. half way along Main Street) before being gravity fed to a new pumping station at Cow Lane.
- 3.2.2. The proposed pumping station on the East Pier is to be located beneath the Pier landing. Other infrastructure to be located on the Pier include a new toilet block, a control kiosk, a surge vessel (to absorb acute rises in pressure at the pumping station) and a 7.6m ventilation stack. A new crash barrier and handrail is also proposed to be constructed. A 7.6 m high odour stack is also to be provided.
- 3.2.3. A second pumping station is to be located at Cow Lane, a small lane leading to a slipway north of Main Street, in proximity to the existing outfall. All effluent within the system is to be collected in this pumping chamber and pumped up to the WWTP for treatment before being conveyed via a separate outfall to the existing outfall pipe along the shoreline. This pumping station also incorporates a control kiosk, a surge vessel and a ventilation stack.
- 3.2.4. New rising and gravity mains are to be provided along the Main Street and to the WWTP.

4.0 Planning Authority Decision

4.1. Decision

Cork County Council issued notification to grant planning permission for the proposed wastewater treatment plant, associated pumping stations and sewerage network subject to 26 conditions.

4.2. Documentation Submitted with the Planning Application

4.2.1. The planning application was lodged with Cork County Council on 26th February, 2021. The planning application was accompanied by the following documentation.

- **A Planning Report.** This report was prepared on behalf of Irish Water by Byrne/Luby Consulting Engineers. It sets out details of the site location and description the project background and need, together with the planning history and the legislative and planning policy context relating to the proposal.

It assesses the proposed development in terms of land use impact, environmental impacts, ecology/biodiversity, traffic and transport, air quality, noise and vibration, cultural heritage and soils, geology, hydrogeology and hydrology. The assessment concludes that the proposed development would have a positive impact on the Ballycotton agglomeration in that it would upgrade existing wastewater infrastructure for the area thereby positively impacting on water quality in Ballycotton Bay. It also concludes that the proposal fully accords with national, regional and local policy. It is considered that the proposal in no way materially contravenes the provisions of the county development plan and/or local plans in the area. It is suggested that there would be no significant impact on the visual amenity of the area or the residential amenity of properties in the vicinity. For this reason, it is considered that the proposal fully accords with the proper planning and sustainable development of the area.

- Also submitted was an **EIA Screening Report.** It sets out details of the description of the proposed scheme and the mandatory requirements for EIA. It notes that the proposed development does not exceed the thresholds within the classes of development listed in Schedule 5 of the Planning and

Development Regulations. The proposed development is assessed in terms of potential significant impact on

- Population, material assets and human health.
- Biodiversity.
- Land and soil.
- Water.
- Air and Climate.
- Landscape and cultural heritage.

The proposal is assessed in terms of the overall characteristics of the project in the context of the potential impacts on the environment. This involves the assessment of the location of the project and the type and characterisation of the potential impacts which may occur on the environment as a result of the proposal. In terms of the sub-threshold assessment undertaken, the report concludes that potential for impacts have been identified both positive and negative and it is concluded that none of the identified impacts would be likely to have significant effects on the environment.

- Also submitted is a **Preliminary Construction and Environmental Management Plan**. It sets out a suite of environmental measures, operational control requirements and procedures and emergency response requirements to be incorporated into the overall design of the proposed development.
- Also included in the documentation submitted is a **Draft Waste Management Plan** which set out a series of waste management measures and protocols to be incorporated into the design of the scheme.
- **An Invasive Alien Species Plant Survey Report and Management Plan** was also submitted. It noted that three invasive alien plant species in and around the agglomeration of Ballycotton and in proximity to the subject site. These included:
 - The three-cornered leek.
 - The giant rhubarb.
 - Japanese knotweed.

Section 4 of the report sets out details of an invasive species management plan to be incorporated as part of the proposal.

- **An Appropriate Assessment Report** (including Stage 1 Screening and Natura Impact Statement) was also submitted. One potential Natura 2000 site has been identified as being potentially impacted upon as a result of the proposed development; namely the Ballycotton Bay SPA (Site Code: 004022). It comprises of approximately 281 hectares of an intertidal sand and mudflats to the immediate east of the existing outfall. The results of the screening assessment concludes that the proposed works, unless adequate mitigation measures are included, could potentially negatively impact on features of interest of the SPA through disturbance and the risk of contamination of intertidal habitat through the spillage of chemicals or hydrocarbons during the construction phase. It is also considered that a minor but possibly significant impact could arise on wintering birds as a result of the construction works particularly at the Cow Lane pumping station being undertaken at inappropriate times. Section 5 of the NIS sets out appropriate mitigation measures to ensure that no adverse impacts would occur.
- An **Archaeological Impact Assessment** was also submitted. The assessment was predicated on a walkover survey and notes that the proposed access road leading to the WWTP is located in close proximity to Recorded Monument CO089-039, a ringfort. Also submitted was an **Underwater Archaeological Impact Assessment**. This assessment relates to an intertidal area contiguous to the western boundary of Ballycotton Pier. It concludes that the no archaeological sites or features were identified during the intertidal inspection. It is noted that the existing outfall site is located in direct proximity to the old pier and efforts should be made to avoid any damage or changes to this structure.
- **A Stage 2 Initial Flood Risk Assessment Report** was also submitted. It examines available data from historical flood information, topography, CFRAM maps and pluvial flood risk assessment maps. The assessment undertaken indicates that the sensitive components of the proposed development (pumping stations, kiosk plinths, toilets etc.) will all be located above the 0.1% AEP flood levels. It is stated that the pumping stations and kiosk would still be

vulnerable to extreme wave actions during storm events. As a result, all access covers to pumping stations and adjacent manholes would be fully watertight to prevent sea water ingress.

4.3. **Initial Assessment by the Planning Authority**

Objections

4.3.1. A number of letters of objection were submitted which raised concerns in relation to access to lands during construction work, residential amenity issues in relation to odour and noise as well as issues in relation to the site selection process. The content of the various letters of objection have been read and noted. Some observations submitted also express concerns with respect to the proximity of the wastewater treatment plant to the local national school.

4.4. Internal Reports

4.4.1. A report from the Environment Department notes the concerns on file in relation to the proximity of the wastewater treatment plant to sensitive receptors. Reference is made to EPA Guidelines which specify a minimum distance of 50 metres from sensitive receptors. From a water quality perspective, the proposed development would provide better treatment. It is noted that the receiving waters are designated as being “*not at risk of failing to achieve the WFD status objective*”. It is noted that there are no designated Shellfish or Bathing Waters within 5 kilometres of the proposed outfall. The report states that there is no objection to the proposed development subject to 6 environmental conditions.

4.4.2. A Water Services Report states that there is no objection to the proposed development provided that access and artificial lighting to the pumping station are provided and maintained. It is stated that Irish Water and Cork County Council will be required to resolve operational issues at design stage prior to construction. It is recommended that three conditions be attached in this regard.

4.4.3. The Ecology Report notes the details of the information submitted with the application and notes that the proposal will generally result in improvement in water quality within Ballycotton Bay. Information in relation to biodiversity submitted with

the application is acknowledged. It is noted that evidence of otter activity was recorded along the shoreline to the east of the slipway. The primary considerations from an ecological perspective relate to the construction phase, to ensure that the construction of the new system will not impact negatively on the SPA. It is considered that no particular rare or high conservation value terrestrial habitats or species were recorded within the potential zone of influence of the development and therefore the proposal will not result in direct negative effects on such ecological receptors. However, impact on water quality does remain a concern during the construction phase. It is stated that there is currently no conclusive evidence that allows an accurate impact prediction and therefore it must be concluded that the current impact potential on qualifying birds in respect of the SPA is undeterminable.

- 4.4.4. Given the existing outfall discharges into open coastal waters which are likely to be assimilated quickly, it is likely that the discharge will have a minimal effect on water quality.
- 4.4.5. The local authority report concurs with the conclusions set out in the NIS in that, with the implementation of the mitigation measures, it is stated that there will be no negative impact of the proposed development on the features of interest of the Ballycotton Bay SPA. The report concludes that further information is required including a description of the marine habitats and species occurring within the areas of foreshore where works are required (Ballycotton Pier pumping station).
- 4.4.6. The applicants are requested to propose appropriate mitigation measures to ensure that disturbance related impacts to the otter are avoided at both construction and post-construction phase.
- 4.4.7. The CEMP shall be updated to ensure that all mitigations specified within the NIS Invasive Species Plan and planning report are undertaken.
- 4.4.8. In the Area Engineer's Report, it is noted that the applicant has submitted sightlines at the layout to the proposed entrance to the wastewater treatment plant on Church Road. The applicant also proposes to replace the old cast iron watermain at Main Street and Cliff Road. This is welcomed by the Roads Department as it is considered that the existing watermain trench causes groundwater infiltration to the foundation of the road surface leading to reoccurring road damage. The Roads Department therefore have no objection in principle to the proposed development.

4.4.9. The planner's report assesses the proposed development in the context of the principle of development, the possibility of utilising alternative sites further from sensitive receptors. The potential impact on fishing operations at the pier, visual impact, traffic impacts, flooding, archaeology and ecology are also assessed.

4.5. **Further Information Request**

4.5.1. The report concludes that further information is required in relation to the following:

- Potential impact arising from the proposed pumping station and ancillary development at the pier and its potential implications for access to the pier particularly for fishermen.
- Potential impact arising from the proposed development in respect of odour and noise.
- Further information with regard to marine habitats and species and the Ballycotton Pier pumping station.
- Appropriate mitigation measures to reduce any potential impact on otter activity.
- An upgrade of the CEMP to include all mitigation measures included in the NIS, Invasive Species Management Plan and the Planning Report.
- Further details in relation to landscaping around the proposed wastewater treatment plant.
- Clarification of the operating population equivalent (PE) for the proposed wastewater treatment plant in the context of 30 year design horizon.
- A further redesign of the access road leading to the wastewater treatment plant to include a 20-metre buffer zone from the outer extent of the monument.
- Further archaeological testing is required in respect of all greenfield areas associated with the wastewater treatment plant, rising main and outfall.

4.6. Response on behalf of the Applicant

- 4.6.1. With regard to the location of the East Pier pumping station and underground tank, it is noted that the current option (Option No. 3) was the preferred site of the four options considered as part of the site selection report. It is stated that preferred site does not interfere with any of the three options considered in the Ballycotton Harbour Development Feasibility Study for the future expansion of the harbour. All the other options considered would entail additional construction traffic. The site selection report undertaken is attached as part of the additional information response.
- 4.6.2. With regard to the issue of odour and noise and its potential impact on surrounding residential amenity, the applicant states that the proposed wastewater treatment plant will be operated in compliance with the European Communities (Wastewater Treatment – Prevention of Odours and Noise) Regulations 2005. The proposal also complies with the separation distances set out in the EPA’s Manual on Wastewater Treatment Systems for Small Communities, Businesses, Leisure Centres and Hotels in that the nearest residential and other receptors are all in excess of the specified minimum distance set out in the guidelines in this case 50 metres. It is noted that the proposed wastewater treatment plant is in excess of 100 metres from the school property boundary. The distance to the nearest residence is 85 metres all of which are well in excess of the EPA’s recommended minimum distance.
- 4.6.3. In terms of odour control, it is noted that the inlet works will be largely enclosed and odour control measures will be provided. While the primary settlement tanks will be open tanks, there is little potential for odour from these tanks as retention times will be 2 to 3 hours. These short times will avoid septicity. It is acknowledged that the sludge holding tank has the greatest potential for odours. As such it will be covered and incorporate passive odour control equipment to treat air coming from the tank. No sludge flow will occur that is open to the atmosphere. It is also considered that any odour generated by the proposed development will dissipate quickly because of the elevated nature of the site.
- 4.6.4. It is stated that low noise levels will be generated during the operational phase. The pumping equipment associated with the wastewater treatment plant will be relatively low powered and submerged in underground structures ensuring minimal noise impacts. No air blowers or any other high generating noise equipment is proposed as

part of the development. The wastewater treatment plant will be designed and operated to ensure that noise from the plant does not exceed the limits set out below at the site boundary – ‘0800 hours to 2000 hours 55 dB(A), 2000 hours to 0800 hours 45 dB(A)’. All noise measurements will be carried out in accordance with relevant guidelines.

- 4.6.5. In response to Item 3, a marine habitats assessment has been produced to describe the marine habitats and species which are found on the Ballycotton foreshore. The potential impact of the proposed sewage scheme on these habitats and species is also assessed in the report. The report concludes that the overall impact of the project will have a net positive impact on biodiversity and the marine eco systems. While it is acknowledged that there is likely to be some localised negative impacts to the marine benthic environment in the harbour during the construction phase, due to the low ecological value of the habitat and the restricted nature of the works these impacts are deemed to be insignificant with rapid recovery expected. It is also acknowledged that the construction phase of the project has the potential for inadvertent pollution on the marine environment through accidental fuel spillages etc. However, following careful implementation of appropriate mitigation measures the risk of impact to the marine environment such events will be minimised. The Marine Habitat Assessment Report is attached to the submission.
- 4.6.6. With regard to otter activity, referred to in additional information request no. 4, it is stated that, given the distances between the works and the sites where otter activity has been recorded, together with the short-term nature of the works, the impact on otters is likely to be minimal. The subject site will be resurveyed for the presence of otters in advance of the construction phase. If otter holts or resting places have been established in proximity to the development, a derogation licence will be sought and other relevant measures will be progressed. A series of mitigation measure during both the operational and construction phase are set out in the report to minimise any potential impact on otters.
- 4.6.7. In response to item 5, an updated CEMP to include all mitigation specified in the NIS, Invasive Species Management Plan and the Planning Report together with further measures proposed in the further information response is submitted.

- 4.6.8. In response to item no. 6 additional landscaping proposals for the wastewater treatment plant are provided.
- 4.6.9. In response to item no. 7 it is stated that the estimated 30-year population equivalent for the Ballycotton wastewater treatment plant is 1,750.
- 4.6.10. In relation to item no. 8, which requires a buffer zone of at least 20 metres around the outer extent of the ringfort monument, the response notes that the development proposals for the access road will involve minimal ground disturbance to facilitate its construction. The section of the proposed road within the zone of notification will be constructed by laying down a geotextile membrane on the existing ground level over which 25 millimetres of hardcore and 200 millimetres of 804 will be laid. This portion of the road will therefore be floated and will not require any disturbance to the underlying ground. A fence line will be placed along the northern boundary of the road. It has been agreed with the Archaeology Department of Cork County Council that the fence post within the zone of notification for the ringfort will be driven in order to minimise ground disturbance in the area. Other temporary fencing will also be included. It is stated that the proposals above have been discussed and agreed with Cork County Council Archaeologist.
- 4.6.11. With regard to archaeological testing, it is stated that archaeological testing under licence was carried out along the access road, wastewater treatment plant, rising main and outfall. No archaeological finds, features or deposits were recovered during the testing. A cobbled surface was found at the site at the Cow Lane Pumping Station. Although not of archaeological significance, it will be recorded by an appointed archaeologist prior to its removal during the construction of the pumping station.

4.7. Further Assessment by Planning Authority

- 4.7.1. A report from the Environmental Department expresses some concerns in relation to the setback distance from the wastewater treatment plant to sensitive receptors. It further notes its primary settlement is essentially the only treatment process to be undertaken at the WWTP. However, in the absence of a detailed odour impact access little comfort can be drawn from the response submitted by the applicant. There is serious concerns having regard to the proximity of the school and other

sensitive receptors that could be potentially affected. It is noted that all odour complaints arising from the operation of wastewater treatment works would be a matter for the EPA and Irish Water to resolve. This provides little comfort to the Planning Authority who are responsible for ensuring that development does not adversely impact on communities and amenities. Notwithstanding the above concerns, it is stated that there is no objection to the grant of planning permission with the incorporation of Condition No. 5 which requires that all treatment tanks and chambers shall be covered and appropriately sealed to prevent odours.

- 4.7.2. A report from the Water Services Section states that there are no further comments to make subject to conditions.
- 4.7.3. A further report from the Ecology Department notes further information submitted in respect of the Marine Habitats Assessment. The report concludes that the additional biodiversity information submitted is satisfactory. The mitigation measures to protect other habitats are also deemed to be satisfactory. It is therefore concluded that there is no objection to the proposed development subject to conditions.
- 4.7.4. A further report from the Archaeologist states that it is considered that all archaeological issues have been satisfactorily addressed although it is noted that it is not best practice to facilitate development over an archaeological monument and should not be viewed as an appropriate mitigation in future development as outlined at a meeting with the applicant. However, it was agreed that the only practical option in this instance to facilitate the access road and to protect the monument was to lay geotextile and cover it with materials. In this particular circumstance, as the monument will be protected and preserved in situ, consideration can be given to granting planning permission subject to a number of conditions.
- 4.7.5. The planner's report notes the additional information submitted and considers that all outstanding items have been addressed. While there is concern over the construction impact on the pier, it is noted that this is a temporary effect which can be managed via a detailed traffic management plan to be agreed with the Area Engineer. It is also considered that any potential adverse impact on sensitive receptors can be mitigated by appropriate conditions.
- 4.7.6. Cork County Council therefore issued notification to grant planning permission for the proposed development subject to 25 conditions.

4.7.7. The following conditions are of note.

Condition No. 2 required a detailed construction and operation traffic management plan to be submitted.

Condition No. 3 required vehicular access to both the pier pumping station and the Cow Lane Pumping Station to be maintained at all times.

Condition No. 10 required archaeological monitoring.

Condition No. 15 required construction noise and vibration limits.

Condition No. 16 requires that all treatment tanks and chambers shall be covered and appropriately sealed to prevent the egress of odours with active odour control units provided.

5.0 Grounds of Appeal

The proposed development was the subject of 3 separate third party appeals which are summarised below.

5.1. Appeal on behalf of Niall Healy by Murphy McCarthy Consulting Engineers

- This appeal recognises that Ballycotton urgently needs a wastewater treatment plant, and the objection is not against the principle of the development but the selected site for the wastewater treatment plant. If Irish Water move the site of the wastewater treatment plant to a point further south, the 3rd Party Appeal in this instance would be withdrawn.
- It is contended that the proposed wastewater treatment plant is located relatively close to many existing residences and a school while other alternative sites are available. Both odour and noise reports attached to the appeal highlight the significant risks associated with the development of a WWTP at this location from an residential amenity perspective and it is the Planning Authority's duty to safeguard the adjoining environment. It is argued that the information submitted is inadequate to enable the local authority to make an informed decision as to whether or not an EIA is required. It is suggested that there is insufficient information on file to allow the local authority to screen whether or not an EIA is required.

- It is difficult to understand how the local authority were able to make a decision on the planning application in view of the scanty nature of the information provided. No details were provided in relation to odour and noise. At the very best Irish Water would be requested to provide such information before deciding on this appeal. The applicant has stated that such measures would only be designed and specified during the tender/construction stage. This is considered to be unsatisfactory. It is considered that the data surrounding these issues require significant further information.
- The wastewater treatment plant merely relies on an EPA document for separation distances between the wastewater treatment plant and noise sensitive receptors. This is applicable for a treatment plant with a maximum capacity of 500 PE. The applicant relies solely on this document to justify separation distances from nearby residences and the school. This is not satisfactory.
- Separate reports are submitted from Katestone Global in respect of odour. It concludes that there is significant potential for odour nuisance due to the size, nature and location of the proposed wastewater treatment plant in close proximity to a school and residential dwellings.
- It is stated that EIA screening is required to determine the likelihood of significant environmental effects from odour nuisance as a result of operating the proposed wastewater treatment plant. The EIA screening for odour nuisance has not been completed. Irish Water has not supplied sufficient information to support the approval of the proposed scheme from the perspective of odour nuisance.
- While conditions do require active odour controls, there remains a risk that the residual post debatement emissions of odour could still cause significant environmental effects. Adverse impacts should be quantified in an odour impact assessment.
- A separate report was also submitted by Damien Brosnan Acoustics. It reaches similar conclusions in respect of noise; namely that the planning application does not provide sufficient detail in relation to the proposed wastewater treatment plant noise sources. No reference is made to typical

noise generation associate with wastewater treatment plants in the documentation submitted. The planning report does not include any predictive modelling of noise levels at surrounding receptors.

- It is not clear why strict noise control limits are not applied to the construction phase of the proposed development.
- Any reference to the contractor being ultimately responsible for the final detailed design of the proposed development is considered to be highly unsatisfactory from a planning point of view. The best practice is to factor noise control from the outset at planning stage. It is also suggested that at some stage, the introduction of secondary and tertiary treatment will be included and this may include noise blowers etc. It is also noted that while noise limits of 55 dB(A) are required, it is suggested that wastewater treatment operations may give rise to tonal emissions which could adversely impact on the amenity of receptors. Furthermore, the noise limits set out may result in noise levels resulting from the wastewater treatment plant exceeding existing background noise levels by more than 5 dB(A) which will also give rise to amenity problems and are contrary to BS4142. It is also suggested that the conditions attached to the Planning Authority appeal are inadequate to ensure that residential receptors are not adversely affected as a result of the noise conditions. It is suggested that Condition No. 16 is neither enforceable or precise. It is noted that the planning report submitted with the application did not include any mitigation measures in respect of operational noise emissions. It is suggested that most if not all issues could be entirely addressed by relocating the proposed plant away from receptors.

5.2. Appeal by Sean and Jean O Murchú

- This appeal again raises concerns are expressed in relation to the proximity of the proposed development to local residents and the local school. It is suggested that the proposal is going to impact directly on nearby dwellings and could adversely affect the health of people living in the vicinity (specific reference is made to asthma in terms of health).
- Questions are asked as to why Irish Water did not conduct an odour impact assessment and this it is argued, displays a total lack of respect for the

community living in the vicinity. The odours emanating from the plant will lead to forced closures of windows and doors in the surrounding estates particularly during the summertime. An odour impact assessment should be undertaken as a minimum.

- It is argued that the wastewater treatment plant can facilitate a population equivalent of c.1,500 which will result in significant increases in volume of sewage over the operational period which in turn will lead to an increase in odours. When at capacity the wastewater treatment plant will operate at more than 350% of what it was originally designed for.
- In terms of noise, the treatment facility will be operating 24/7 on an all-round-year basis. No details of noise emanating from the wastewater treatment plant has been undertaken and how this noise might affect people outdoors. Irish Water should be required to furnish a noise assessment at a minimum.
- The proposal could give rise to increased levels of vermin.
- Concerns are expressed that any malfunction in the wastewater treatment plant could have disastrous consequences particularly in such close proximity to a school.
- On the basis of the above, Irish Water should seek an alternative field in which to locate the sewage wastewater treatment plant as far away from human habitation as possible.

5.3. Appeal by Ballycotton Fishermans Association Limited prepared by PJ Jordan and Associates

- Firstly, the Fisherman's Association wish to state that it is very much in favour of the proposed development which is long overdue for the village of Ballycotton. It is stated that the pier at Ballycotton is the main asset of the village and is used regularly all year round for boating, fishing, fish landing and various leisure activities. Therefore, any proposed development of the pier must cater for day to day needs and the longer-term requirements of the Ballycotton community. Any structure that impedes the proper long-term development of the harbour should not be permitted. In this regard it is argued that the proposed positioning of the holding tank, pumping station and new

toilets should be located on the southern side of the existing pier and should incorporate much needed extra car parking by reclaiming a suitable amount of ground from the foreshore (Figure 3 of the submission refers).

- Any malfunction during the construction work could have significant risk of pollution of the inner harbour where lobster and crab are held. It is considered most reasonable that the pumping station and all associated infrastructure would be moved to the southern side of the existing pier thereby protecting the inner harbour from any pollution.
- It is argued that it would be impossible to keep open the working pier during the excavation of the proposed pumping station which is up to 5 metres below the existing pier level.
- It is also argued that there is currently a great need for further car parking spaces in the location of the pier as car parking is currently a major problem.
- The harbour at Ballycotton is currently a very busy harbour and is rated in the top 20 harbours in the country. It is imperative therefore that access would not be impeded to the pier at any stage during the construction works.
- Another advantage of placing the tank and pumping station on the southern side of the pier is that any malfunction arising from the pumping station would not have the potential to contaminate fish landing at the pier.
- The holding tanks for lobster and crab are located under the surface of the water in the inner harbour and any contamination from the sewage pumping station or release of sewage could wipe out this fishing overnight.
- On the basis of the above, the Board are requested to change the location of the holding tank pumping station and toilets to the other side of the pier so as it will not impact on any future development of the harbour and could also have the added benefit of providing much needed traditional parking spaces.

6.0 Appeal Responses

- 6.1. A response from Cork County Council states that the Planning Authority is of the opinion that all relevant issues have been covered in the technical reports already

forwarded to the Board as part of the appeal documentation and has no further comment to make on this matter.

6.2. **Response on behalf of the Applicant**

6.3. A response was received on behalf of Irish Water by Byrne Looby Consulting Engineers. The response is summarised below.

- In relation to construction traffic, careful consideration has been given to the design of the pier pumping station to ensure that access to the pier is available at all times during the construction and operation phases of the proposed development. The site selection assessment demonstrated that constructing the pumping station at an alternative location on the east side (ocean side) of the pier would not have a reduced level of construction traffic when compared with the proposed pumping station location which is the subject of the appeal. Reference is made to the site selection report which assessed four potential sites for the pumping station. The site selection report is included as Appendix A. A temporary working platform will be constructed adjacent to the pier to provide room for construction activities and a temporary coffer dam will be installed to enable excavation for the pumping station which will facilitate traffic passing along the pier.
- While Irish Water appreciates that additional parking may be beneficial to the Fishermans Association, as a regulated utility, it is not within Irish Water's remit to provide public car parks. The proposed development at the pier will not stymie the provision of additional car parking in the future. The proposed works will not impede the current access the inner harbour as suggested in the appeal on behalf of the Fishermans Association.
- With regard to the potential impact of the proposal on lobster and crab storage within the Ballycotton inner harbour, the Board are requested to note that the proposed development will improve water quality in Ballycotton Bay. In response to the additional information request, Irish Water acknowledge that there will be some localised negative impacts on the marine benthic in the harbour during the construction phase of the project. However, this habitat is deemed to be of low ecological value. A preliminary construction

environmental management plan has been produced which contains a comprehensive list of best practice measures to minimise the impact on the local environment. It will be operated in accordance with standards and best practice and in compliance with the Wastewater Discharge Licence which will be issued from the EPA. Should the proposed pumping station malfunction during the operational stage, a stormwater storage tank is proposed which will retain the flows as required. The pumping station will include high and low level alarms which will inform operation staff if the storage tank is reaching its capacity. The proposed new toilet block at the pier facility is only 2 square metres bigger than the existing toilet block.

- With regard to odour standards, it is stated that the works will be designed in accordance with the requirements of the *“European Communities (Wastewater Treatment) (Prevention of Odours and Noise) Regulations, 2005*, to ensure that the operation of the plant will not cause nuisance through odours. It notes that published research in the UK by its wastewater industry has indicated that odour concentrations below 5 OU_E/m³ result in complaints which are rare and at 3 OU_E/m³ odour complaints are unlikely to occur. It is stated that odour levels at the site boundary shall comply with an odour concentration limit of 3 OU_E/m³ as a 98th percentile basis of hourly averages. This will be achievable through proper management and operation of the wastewater treatment plant. The nearest dwelling is a minimum of 85 metres from the site boundary, while the school building is 107 metres from the site boundary and this will further reduce the likelihood of local residents experiencing undesirable odours. The sludge holding tank and inlet works are the most likely sources of odour nuisance at the wastewater treatment plant and it is proposed that these elements will be covered. Furthermore, the proposed wastewater treatment plant is located in an open elevated greenfield site which will allow for adequate dispersion.
- With regard to the location of the proposed development, a comprehensive site selection process was undertaken to identify the most suitable location for the wastewater treatment plant. Multi criteria analysis was applied and it is noted that it can be particularly challenging to identify an appropriate site where there is a need to intercept existing assets and provide wastewater

treatment in existing communities. The site selection process concluded that the proposed wastewater treatment plant was the most viable site in relation to technical requirements at sustainable costs. It is again reiterated that the proposed wastewater treatment plant will be operated in compliance with the *European Communities (Wastewater Treatment) (Prevention of Odours and Noise) Regulations, 2005* which require wastewater treatment plants to be designed, constructed, operated and maintained as to avoid causing nuisance through odours or noise.

- With regard to the EIAR requirement, the Ballycotton Sewage Scheme Environmental Impact Assessment Screening Report was submitted as part of the planning application. It is concluded that there is no real likelihood of significant effects on the environment and therefore an EIA is not required. While the grounds of appeal suggest that EPA standards in respect of small wastewater treatment plants are not applicable in this instance, the applicant again reiterates that the proposal will comply with an odour concentration limit of 3 OUE/m³ at the site boundary.
- In the event of a grant of planning permission, Irish Water respectfully request that An Bord Pleanála amend Condition No. 16 by removing the requirement to cover all treatment tanks and chambers as described in the third paragraph of this condition. Covering non-odour generating elements of a wastewater treatment plant can result in health and safety and operational issues which are not merited. It is suggested that a condition similar to that attached for a new 1,000 PE wastewater treatment plant at Spiddle (An Bord Pleanála Ref. 302847-18) be attached instead which specifically limits odour levels at the nearest noise sensitive receptor.
- In relation to noise limits, Irish Water states that it will comply with BS5228:2009 as amended for the control of noise and vibration on construction and open sites. It is stated that only low-level noise will be generated at the wastewater treatment plant during the operational phase. The pumping equipment associated with the wastewater treatment plant will be relatively low powered and housed within concrete structures thus ensuring minimal noise impacts. No air blowers or any other typically high noise generating equipment are proposed. The noise limits set out in

Condition No. 15 will be adhered to during construction. The operational noise limits will not exceed 55 dB(A) (0800 hours to 2000 hours) and 45 dB(A) (2000 hours to 0800 hours). The noise limits which have been specified in relation to both the construction phase and operational phase will be fully adhered to.

- With regard to treatment plant capacity, the proposed Ballycotton Wastewater Treatment Plant has been designed for an estimated 10-year population equivalent of 1,082 which allows for the current PE and predicted growth over 10 years.
- It is stated that the proposed treatment plant will not introduce any vermin control issues to the area. Appropriate bait and eradication measures shall be used should any pest control measures during the construction and operational phases occur.
- Concerns in relation to any malfunction of the wastewater treatment plant have been considered throughout the design process and provision has been included for numerous contingencies in the design. These are set out in the response.
- Appendix A sets out details of the report on the site selection for the pier pumping station at Ballycotton (September 2021).

6.4. **Observations**

- 6.5. An observation was submitted by Darren and Hazel Whelton. The observers live 100 metres away from the proposed wastewater treatment plant and their son attends the primary school. It is argued that having a wastewater treatment plant so close to the school and residents in the area is unnecessary.
- 6.6. The observation goes on to state that it supports the appeal submitted on behalf of Niall Healy by Murphy McCarthy Consulting and fully supports the technical reports submitted with this appeal.
- 6.7. Cork County Council's Archaeologist has changed the original observation and now permits an access road to be built beside a protected ringfort. Furthermore, the environmental officer's report advises that there is a high risk of odours from the

plant and needs to take “a leap of faith” to come to a decision. It is suggested that Cork County Council are facilitating Irish Water in granting the permission for the proposed wastewater treatment plant location.

- 6.8. It is noted that Ballycotton Bay is a Special Protected Area and it is questioned whether Irish Water or the EPA have looked at this aspect of the potential impact of discharging treated effluent into Ballycotton Bay.
- 6.9. It is argued that the 50 metre separation distances set out in the EPA manual is not sufficient to cater for town treatment plants which will be in excess of 150 PE. Ballycotton Wastewater Treatment Plant should take the same approach as the proposed Clonsaugh Treatment Plant where the minimum separation distance was 300 metres from the nearest house.
- 6.10. It is argued that numerous problems with odour has occurred at the recently constructed Courtmacsharry Plant.
- 6.11. The applicants have attempted to engage with Irish Water regarding the relocation of the plant but to no avail.

7.0 Further Submissions on behalf of Third Parties and Observers

7.1. Submission by Murphy McCarthy Consulting Engineers on behalf of Mr. Niall Healey

- 7.1.1. This submission again reiterates concerns in respect of noise, odour and site selection. It essentially argues that the concerns raised in the original third-party submission has not been adequately addressed by the applicant. It is suggested that An Bord Pleanála cannot safely assess this application in the absence of a Noise Impact Assessment or any specific noise emission details. It is argued that the separation distances are insufficient with respect to noise emissions. If the Board decide to grant planning permission it is requested that An Bord Pleanála apply limits and such limits should have regard to existing baseline day and night noise levels. Further details in relation to concerns in respect of noise are contained in a separate report submitted by DBA Limited.
- 7.1.2. Likewise, a separate report by Katestone is attached to the submission. As in the first report, it sets out the comprehensive reservations in respect of odour emissions

generated by the proposed development. It is contended that Irish Water have not followed mandatory procedures to enable EIA screening by An Bord Pleanála. It is contended that in the absence of upfront as opposed to post consent odour impact assessment EIA screening is not possible. An Bord Pleanála cannot adopt a proverbial leap of faith approach in this instance. As the EIA screening procedure has not been followed the information presented is not sufficient for An Bord Pleanála to approve the development. However, if the Board decide to grant planning permission Katestone request that specific odour limits be set.

7.1.3. Similar concerns are reiterated in respect of site locations. It is argued that there are obvious better alternative sites available nearby to the south which is further remote from existing residents than the selected site. Noise and odour concerns would be mitigated by the greater separation distance.

7.1.4. It is not accepted that the selected site was the most viable in relation to technical requirements, cost and sustainability access. It is suggested that an alternative site approximately 100 metres further away from the sensitive receptors would be technically feasible at marginal extra cost. The selected site was acquired by CPO and it could be handed back to the farmer in part exchange for the suggested site to the south. The alternative site to the south is also considered to be superior in terms of access with a shorter roadway. It would also have more benefits in terms of increasing the separation distance to sensitive receptors and would result in little if any difference in cost.

7.2. Further Submission on behalf of Ballycotton Fishermans Association

7.2.1. It is the appellants opinion that the holding tank and pumping station would be best located to the south of the pier out of view from the public road as indicated in the figure enclosed. It is argued that relocating the pumping station to this location would have a minimum impact on pier activity during construction work. It is argued that the access roadway and the usable road surface is only 4 metres wide along the pier at Ballycotton. It is not practical that the working pier can be kept open at all reasonable times during the major construction work that is planned.

7.2.2. The Fishermans Association required that access to the pier be open at all times even during construction or as agreed with an association representative in writing

prior to any planned closure to be carried out. It is reiterated that this is essential for fishing operations at the pier.

- 7.2.3. It is further suggested that responsible agencies can cooperate with the developer to ensure that additional car parking is provided at the pier location. Additional parking and turning areas are badly needed around the pier.
- 7.2.4. It is argued that it is not possible to guarantee a malfunction or overflow of the pumping station infrastructure being planned for Ballycotton, and any such malfunction could have significant adverse impacts on fish cages in the inner pier area.
- 7.2.5. As pointed out by the applicants, there are no statutory standards for odour concentration limits and this leaves the public and the Fishermans Association in a very weak position in the event that a major leak or discharge of noxious gas occurs.
- 7.2.6. It is stated that Condition No. 16 of Cork County Council's grant of planning permission should be retained in full.
- 7.2.7. In terms of the Pumping Station Site Selection Report submitted with the grounds of appeal, it is argued that Option 4 is the most suitable option as it would provide unhindered access to all equipment by means of a dedicated short road from the existing road. This would be of significant benefit to the fishing industry, the tourism industry and the general use of the harbour.
- 7.2.8. It is stated that the future development of Ballycotton Harbour and Pier is of vital concern to the Fishermans Association at Ballycotton. For this reason, An Bord Pleanála are respectfully requested to reconsider the location of the proposed pumping station and holding tanks at the pier location.

7.3. Further Submission by Seán and Jean Murchú

- 7.3.1. In relation to the location of the wastewater treatment plant, it is not accepted that it is the preferred option based on a multiplicity of factors. It is argued that the most important factor in locating a wastewater treatment plant relates to proximity to sensitive receptors and it is argued that there are numerous other agricultural lands which would be better suited due to the separation distances between the wastewater treatment plant and sensitive receptors. If Irish Water had made physical

and mental health its top priority in terms of criteria, it would have chosen an alternative location.

7.3.2. A cavalier attitude is displayed towards odour control. Asthma sufferers in the area will be adversely affected by the odours. Cork County Council Planning Authority by its own admission will be required to take a 'leap of faith' that there will be no odour nuisance.

7.3.3. It is stated that the proposal will also give rise to excessive noise and for this reason the proposed location of the wastewater treatment plant is extremely unwise and unsuitable. As such, the proposal should be re-examined and re-visited.

7.4. Further Submission by Darren and Hazel Whelton (Observers)

7.4.1. It is stated that the largest and most important aspect of the sewage treatment scheme is the wastewater treatment plant and the response by Irish Water highlights the lack of details as to why the site was selected for the wastewater treatment plant when it is so close to schools and residential dwellings. Scant regard was paid to the site selection process for the wastewater treatment plant. Moving the wastewater treatment plant further south behind the reservoir further from the school and residents in the vicinity and will screen it from view from surrounding beaches. Attached is a photo showing how visible the site will be from the Ballynamona Beach to the north.

7.5. Further Submission by Cork County Council

7.5.1. A further submission by Cork County Council merely makes reference to the report prepared by the Senior Executive Scientist which highlights the preferability of covering all tanks in order to reduce odour emissions due to the relative proximity of the school. It is noted that the proposal to establish odour limit values at the boundary is potentially unenforceable and that the statement of intention to comply with best practice limits is less an undertaking and more an aspiration. Notwithstanding the above the Planning Authority, is precluded from setting emission limit values on activities licensed by the EPA. Should the Planning Authority establish odour limits how is non-compliance with same to be enforced? The EPA is the competent licence authority and the competent authority under the European Communities (Wastewater Treatment) (Prevention of Odours and Noise) Regulations, 2005 not the Planning Authority. It is recommended that ELVs are not

established by the Planning Authority, but the risk of odour is mitigated by covering all tanks with the risk of odour and providing active odour control.

8.0 Planning Policy Context

8.1 National Planning Policy

The National Planning Framework makes specific reference in Section 9 to treating urban wastewater and protecting important and vulnerable habitats. Section 9.4 acknowledges that urban wastewater is one of the principal pressures on water quality in Ireland and the treatment and disposal of wastewater in an environmentally sound manner is critical to maintain and improve the natural water environment. National Policy Objective 63 seeks to ensure the efficient and sustainable use and development of water resources and water services infrastructure in order to manage and conserve water resources in a manner that supports a healthy society, economic development requirements and a cleaner environment.

The Irish Water and National Water Services Policy Statement (2018-2025) states that at a minimum, wastewater discharges should comply with standards set out by the EU in the Urban Wastewater Treatment Directive so as wastewater can be collected and treated to an acceptable standard before being discharged back into the environment.

8.2 Cork Co. Development Plan

- The lands to which the CPO relate are governed by the policies and provisions contained in the Cork County Development Plan 2014-2020¹. The plan contains a number of policies and objectives relating to the provision of wastewater infrastructure and these are set out below.
- In terms of water services, a key aim of the plan is to prioritise the delivery of water services infrastructure, in consultation with Irish Water, to ensure that the aims and objectives of the plan can be delivered in a timely and efficient manner.

¹ The 2022-28 Plan will come into effect on or after June 6th 2022.

- The plan goes on to state that the challenge will be to match water services infrastructure provision in the main towns to the population targets identified for them so that the planned growth and development is not inhibited by any lack of adequate water services infrastructure.
- In general, water supply and wastewater facilities need to be improved throughout the county both to serve the existing communities and to accommodate planned growth.
- Policy WS2-1 seeks to prioritise the provision of water services infrastructure in the gateways, hubs and main towns to complement the overall strategy for economic and population growth while ensuring appropriate protection of the environment.
- All settlements where services are not meeting current needs are failing to meet existing licensed conditions, and where these deficiencies are either (a) interfering with the Council's ability to meet the requirements of the Water Framework Directive or (b) having negative impacts on Natura 2000 sites; development may only proceed where appropriate wastewater treatment is available which meets the requirements of environmental legislation, the Water Framework Directive and requirements of the Habitats Directive.
- Policy WS3-1 specifically relates to wastewater disposal. It requires that all development in main settlements connect to public wastewater treatment facilities subject to sufficient capacity being available which does not interfere with the Council's ability to meet the requirements of the Water Framework Directive and Habitats Directive. In settlements where no public wastewater system is either available or proposed, or where a design, capacity or licensing issues have been identified in existing plants, new developments will be unable to proceed unless adequate wastewater infrastructure is provided.

8.3 East Cork Development Plan 2017

- Ballycotton is designated as a 'village' in the above plan. It is a strategic aim of the Cork County development plan to encourage and facilitate development of a scale layout and design that reflects the character of each village and where water services and wastewater infrastructure is available to support the

retention and improvement of key social and community facilities within villages.

- The overall scale of development envisaged in this plan for each village is set out on Table 5.1. Ballycotton is listed as having a population of 303 persons. The envisaged scale of new development is estimated to be 45 houses during the life of the plan.
- The level of proposed development in each of the villages is based on the assumption that wastewater infrastructure and water supply improvements identified will be delivered. If these projects are not delivered, then given the wastewater issues affecting some settlements, development potential will be limited to a small number of individual dwellings supported by individual wastewater treatment systems.
- Specific objectives for the village of Ballycotton include:
- DB - 01 - Subject to the upgrading of the village's wastewater treatment facilities within the development boundary of Ballycotton, it is an objective to encourage the development of 45 houses during the plan period.
- DB-03 - This settlement is adjacent to Ballycotton Bay Special Protection Area. This plan will protect the favorable conservation status of this site, and all new development shall be designed to ensure the protection and enhancement of biodiversity generally.
- DB-04 - Appropriate and sustainable water and wastewater infrastructure that secures the objective of the Water Framework Directive and the Great Island Channel Cork Harbor Special Area of Conservation, and the Cork Harbour Special Protection Area, must be provided and be operational in advance of the commencement of any discharges from development. Wastewater infrastructure must be capable of treating discharges to ensure that water quality in the receiving water does not fall below legally required levels.
- In terms of land use zoning Objectives, the two pumping stations are located within the settlement boundary of Ballycotton. The proposed wastewater treatment plant and the proposed rising main to the south of the school area are located outside the development boundary for the settlement.

8.0 Planning Assessment

I have read the entire contents of the file, visited the site and its surroundings, have had regard to the issues raised in the various third-party appeals, and the observation contained on file and the subsequent responses and further submissions. I have also had particular regard to the provisions of national policy in respect of wastewater infrastructure provision and the policies in relation to same contained in the development plan and I consider the critical issues in determining the current application and appeal are as follows:

- Principle of Development
- Location of Proposed Wastewater Treatment Plant (Noise and Odour Considerations)
- EIAR Requirement
- Access to Ballycotton Pier
- Additional Car Parking Provision
- Potential Impact on Inner Harbour Area
- Potential for Malfunctioning
- Other Issues

It is proposed to deal with each of these issues in turn in my assessment below.

8.1. Principle of Development

- 8.1.1. The need for a new wastewater treatment plant to treat effluent generated by the town of Ballycotton is not disputed by any of the third parties. In fact, two of the third party appellants explicitly recognise and support the need in principle for a new wastewater treatment plant to serve the agglomeration. The concerns do not challenge the idea of constructing a wastewater treatment plant but rather question the location of a proposed wastewater treatment plant.
- 8.1.2. The principle of development in my opinion is clear and unequivocal. There is a legal requirement to comply with the provisions of the Urban Wastewater Treatment Regulations and in this regard the Irish State is required to ensure that urban

wastewater entering collection systems shall be subject to appropriate treatment prior to discharge. There can be little doubt that the provision of a wastewater treatment plant to serve the village of Ballycotton will improve the water quality in the Ballycotton Bay area by treating effluent to a requisite standard prior to discharge in accordance with the UWWT Regulations and the WFD. In addition the provision of a wastewater treatment plant will facilitate the phased economic and social development within the village.

- 8.1.3. The National Planning Framework makes specific reference in Section 9 of the document to treating urban wastewater and protecting important and vulnerable habitats. Section 9.4 acknowledges that urban wastewater is one of the principal pressures on water quality in Ireland and the treatment and disposal of wastewater in an environmentally sound manner is critical to maintaining and improving the natural water environment. The Irish Water and National Water Services Policy Statement (2018-2025) states that at a minimum, wastewater discharges should comply with standards set out by the EU in the Urban Wastewater Treatment Directive so as wastewater can be collected and treated to an acceptable standard before being discharged back into the environment.
- 8.1.4. At a more local level, there are a number of policies and objectives relating to the provision of wastewater infrastructure in the County Cork Development Plan. In terms of water services, a key aim of the plan is to prioritise the delivery of water services infrastructure in consultation with Irish Water to ensure that the aims and objectives of the County Plan can be delivered in a timely and efficient manner. In general, the plan notes that water supply and wastewater facilities need to be improved throughout the county both to serve the existing communities and to accommodate planned growth. The plan also notes that all settlements where services are not meeting current needs and are failing to meet existing licenced conditions and where these deficiencies are either (a) interfering with the Council's ability to meet the requirements of the Water Framework Directive or (b) having negative impacts on Natura 2000 sites, development may only proceed where appropriate wastewater treatment is available which meets the requirements of the environmental legislation. The Plan also notes that in settlements where no public wastewater system is either available or proposed, or where a design, capacity or licensing issues have identified in existing plants, new developments will be unable

to proceed unless adequate wastewater infrastructure is provided. Planned expansion within the county is therefore predicated on the availability of wastewater infrastructure to serve the development.

- 8.1.5. Ballycotton is designated as a village settlement in the County Development Plan. The overall scale of the development envisaged for each village is set out in Table 5.1 of the East Cork Development Plan 2017. Ballycotton is listed as having a population of 303 persons. The envisaged scale of the new development is estimated to be 45 houses during the life of the plan. The level of proposed development envisaged in each of the villages is based on the assumption that wastewater infrastructure and water supply improvements identified will be delivered within the timeframe of the plan.

It is clear therefore that both national and local policy seek to improve any wastewater discharges from existing agglomeration to acceptable levels in order to protect the natural environment and Natura 2000 sites in the vicinity. Furthermore, it is clear on the basis of local planning policy, that any modest development objectives for the village of Ballycotton are entirely dependent on the provision of water and wastewater infrastructure within the village. On this basis I consider the provision of a wastewater treatment plant fully complies with national and local policy and therefore the principle of the development of a wastewater treatment plant is acceptable subject to qualitative safeguards and these are assessed in more detail below.

8.2. **Location of Proposed Wastewater Treatment Plant (Noise and Odour Considerations)**

- 8.2.1. It is proposed to locate the new wastewater treatment plant on agricultural lands to the immediate south of the village to the rear of development which fronts onto the main road serving the village. The elevated lands on which it is proposed to build the wastewater treatment plant at its closest point is located c.85 metres from the nearest residential development and 107 metres from a national school to the north-east. The grounds of appeal argue that there are numerous sites further south which would be likewise located on agricultural lands but would incorporate more generous separation distances in order to safeguard the amenity of adjoining residences.

Concerns in respect of amenity are primarily predicated on concerns in respect of odour and noise. And these two issues are assessed in more detail below.

- 8.2.2. In relation to odour issues, a report on behalf of one of the third-party objectors by Katestone Environmental questions the appropriateness of allowing a wastewater treatment system at this location in the absence of detailed odour abatement measures and in the absence of an odour impact assessment. It further states that the Planning Authority are required to take a “*proverbial leap of faith that there will not be an odour nuisance.... which is a serious concern having regard to the proximity of the school and other sensitive receptors potentially affected*”.
- 8.2.3. While it is acknowledged that Cork County Council seek to cover all tanks it is still argued in the grounds of appeal that there remains a substantial risk that residual post abatement emissions could cause significant environmental effects through odour nuisance.
- 8.2.4. There are no specific standards set out in Irish legislation in respect of odour limits at sensitive receptors. Guidance Note AG9 produced by the Environmental Protection Agency’s Office of Environmental Enforcement (OEE), merely sets out recommended approaches for the development of odour management plans and abatement strategies; it does not set out specific odour unit limits. DEFRA Guidance on Odour (March 2010²) suggest that in the case of sewage treatment works, typical standards might be for emissions to be controlled at source to such a level that modelled odour exposures should not exceed the 98th percentile hourly mean concentration of 1.5, 3 or 5 OUE/m³ at receptor locations. It is suggested that these limits provide a useful tool for allowing local authorities to assess and control the odour impact of new developments through the planning control regime and this can be a very effective means of protecting amenity and therefore preventing or controlling future statutory nuisance from odours at planning stage.
- 8.2.5. Mean hourly concentrations of 3 OUE/m³ results in odour emissions whereby complaints from sensitive receptors are unlikely to occur.
- 8.2.6. In addition to the above, SI No. 787/2005 requires that Planning Authorities in granting planning permission or the Board in considering an appeal (as per Article 6

² www.defra.gov.uk ‘Odour Guidance for Planning Authorities’.

of the Regulations), shall include conditions as may be necessary to ensure that plant is so operated and maintained so as to avoid causing nuisance through odours and noise.

- 8.2.7. It is therefore incumbent upon the Planning Authority and the Board to ensure that the operation of wastewater treatment plants do not give rise to excessive noise or odours so as to give rise to complaints. Furthermore, the above Regulations require that a sanitary authority (in this case Irish Water) shall provide reports to the EPA on a yearly basis indicating all necessary steps taken to limit the potential for any incidences arising in terms of odour and noise. This also includes records of any complaint's procedure.
- 8.2.8. On the basis of the above and on the basis that Irish Water have indicated that odour levels at the site boundary shall comply with an odour concentration limit of 3 UOE/m³ as a 98th percentile basis of hourly averages is achievable. It is a requirement of Irish Water to ensure that no odour complaints arise from the operation of the wastewater treatment plant. I consider (a) that it is incumbent upon Irish Water to ensure that the above standards are adhered to and (b) I consider that the standards are attainable in the case of the proposed development have regard to the mitigation measures for odour control that can be put in place to reduce odour emissions. I note that Irish Water propose that the sludge holding tank and inlet works will be encased within existing buildings thereby severely restricting the potential for odour nuisance. Irish Water have also indicated that passive odour control equipment will be installed to treat air coming from the sludge holding tank and associated chambers. Any screenings from the inlet works will also be bagged in order to minimise odour emissions. In addition to the above, Condition No. 16 of the Planning Authority's grant of planning permission requires that all treatment tanks and chambers shall be covered and appropriately sealed to prevent the egress of odours with the incorporation of active odour control units to be also provided. There are in my view a sufficient suite of measures which can be put in place to ensure that the above standards are adhered to. With this in mind it is not necessary to carry out an odour impact assessment prior to granting permission. Any odour impact assessment prepared, will rely on a suite of mitigation measures to ensure that odour limits are achieved. I am satisfied that these limits can be achieved through an appropriate mitigation plan. The covering of odour generating plant and equipment in

the case of the Ringsend WWTP, a facility of infinitely great size and scale, ensured compliance with the SI 787/2005 through standard mitigation. The achievement of these limits through similar mitigation measures cannot be considered insurmountable in WWTP of a much more modest scale such as that at Ballycotton.

- 8.2.9. A limit of 3 OUE at the site boundary is unlikely to give rise to odour problems. The fact that the subject site is elevated and the nearest sensitive receptors (nearest residential developments and the national school) are located between 80 and 100 metres from the site boundary means that any odour emissions emanating from the wastewater treatment plant would be readily dispersed and diluted to a significant extent to ensure that no odour issues arise. Furthermore, in the unlikely case that odour emissions do arise there is a complaints procedure set out in legislation under S.I. 787/2005 which would require Irish Water to undertake measures to address and eliminate any odour problems.
- 8.2.10. In conclusion therefore while it is obviously open to the Board to request an odour impact assessment as suggested in the grounds of appeal, I am satisfied that there is sufficient regulatory and mitigation measures put in place to ensure that the wastewater treatment plant during the operational phase will not give rise to significant odour problems. I further consider that little would be gained from the submission an odour impact assessment at pre-development consent stage. The key to achieving appropriate odour standards is through effective mitigation measures post construction rather than the preparation of a report which merely indicated that certain mitigation measures may be required in order to achieve the standards required.
- 8.2.11. I note that the applicant in response to the grounds of appeal, requests that An Bord Pleanála omit that part of Condition No. 16 which requires that all treatment tanks and chambers shall be covered and appropriately sealed. It is my considered opinion that if Irish Water had concerns in this regard this should have been the subject of a separate first party appeal. It is not in my view appropriate that Irish Water would seek to have a condition altered on the back of a third-party appeal. Furthermore, I consider the condition to be appropriate and will not unduly hinder the operation of the wastewater treatment plant while at the same time providing a level of comfort to the third party appellants in respect of odour emissions emanating from the plant. On this basis I would recommend that if the Board are minded to grant planning

permission it would retain Condition No. 16 and in particular the requirement to have the treatment tanks and chambers covered.

8.2.12. **Noise**

The grounds of appeal express similar concerns in respect of noise. A submission on behalf of Niall Healey by Damian Brosnan Acoustics suggest that there is insufficient information on file in respect of the wastewater treatment plant and the potential noise generation activities that could arise from the plant.

A critically important issue in assessing the noise impact from the proposed development concerns the fact that what is proposed in this instance is a wastewater treatment plant designed to undertake primary treatment only. No secondary treatment is proposed therefore it is not proposed to incorporate any activated sludge treatment, air blowers, sequencing batch reactors etc. Aeration activities undertaken as part of the secondary treatment process could in my view give rise to significant noise issues through air blowers etc. However, such equipment is not proposed under the current application. Any reference in the grounds of appeal to any future secondary treatment activity is not the subject of the current application and should not in my opinion form any basis for assessing potential noise impacts emanating from the proposed development. Essentially the proposed wastewater treatment plant will comprise of water running through a series of settlement tanks. This in itself has very limited scope to create excessive noise. It is not in my view necessary that Irish Water would be requested to provide any specific noise emission detail associated with a primary wastewater treatment plant having regard to the separation distances between the plant and the noise sensitive receptors. Furthermore, as in the case with odour, any pre-consent noise impact assessment would do little to inform the consent authority's views as to whether or not the WWTP would give rise to unacceptable noise impacts on surrounding residential development. The key to ensuring that noise limits are kept to an acceptable level is through post-development mitigation. I would reiterate and re-emphasise that it is a statutory obligation to comply with the requirements of SI 787/2005 in the operation of any WWTP in terms of noise generation.

Furthermore, in the case that any pumping activity or grid blowers at the inlet works are required the Board are again requested to note that any such equipment would

be housed within proposed structures which would significantly attenuate noise emissions. I do not consider that there is any scope for impulsive noise impacts as suggested in the grounds of appeal.

I consider that the separation distance between the boundary of the wastewater treatment plant and the nearest noise sensitive receptors at over 80 metres is sufficient to ensure that any noise emissions are sufficiently attenuated over such a distance. The fact that the intervening lands between the noise sensitive receptors and the wastewater treatment plant comprise of heavy vegetation and woodland will also assist in attenuating potential noise impacts.

With regard to the application of BS4142 I would again reiterate that there is very little activity anticipated at the wastewater treatment plant which would give rise to excessive noise levels beyond background noise levels at the nearest sensitive receptors. It is very unlikely that a community noise rating in excess of 5 dB(A) would be experienced at any of the noise sensitive locations which could be directly attributed to the operation of the wastewater treatment plant. Furthermore, I do not consider that the noise sensitive receptors in this instance would experience baseline noise levels which would be characteristic of a rural area. While Ballycotton is a village located in a rural area in East Cork the noise sensitive receptors that could be impacted upon as a result of the proposed wastewater treatment plant are located within an existing village environment that will experience higher baseline noise levels than that associated with a rural area.

I would again refer to the fact that Irish Water will be required to comply with the provisions set out in SI 787 of 2005 where it is a requirement that a wastewater treatment plant is operated and maintained to avoid causing nuisance through either odour or noise. Furthermore, there are complaint mechanisms set out in the Regulations which would require Irish Water to take remedial action should any complaints arise in respect of noise. Attenuation measures can be put in place should noise emissions be breached. The applicant has indicated that the proposed wastewater treatment plant will operate in accordance with EPA limits namely 45 dB(A) at night-time and 55 dB(A) at all other times. These limits, having regard to the nature of the primary treatment to take place at the WWTP and the existing baseline environment, are readily achievable.

Finally in relation to separation distances, the Board should note that the distances quoted in the grounds of appeal and the response to the grounds of appeal (nearest residential receptors 85 metres and 102 metres from the nearest noise sensitive receptors and 107 metres from the school) that the potential noise generating activities within the wastewater treatment plant are located in the southern portion of the site which is estimated to be an additional 30 to 40 metres from the noise sensitive receptors. This will further attenuate any potential impacts in terms of noise pollution.

8.2.13. **Conclusions in relation to Noise and Odour**

While I acknowledge that there might be more optimal sites available in the wider area which would further mitigate or reduce the potential for noise and odour impacts at sensitive receptors, it is not incumbent or a requirement of Irish Water to find the most optimal site in terms of protecting residential amenity. It is incumbent upon Irish Water however to provide a suitable site which would both serve the needs of Irish Water from an infrastructural point of view while at the same time protecting surrounding residential amenity. Having regard to the arguments set out above, I consider that the subject site is suitably located to ensure that noise and odour can be adequately reduced and attenuated to the extent that they will not affect surrounding residential amenity. In this regard I consider the site location to be suitable.

On a point of clarity, I refer the Board to Cork County Council's submission dated 22nd February, 2022. In the submission reference is made to a report by the Senior Executive Scientist which suggests that the Planning Authority is precluded from setting emission limit values on activities licensed by the EPA and that the EPA is the competent licensing authority for emission limits under the European Communities (Wastewater Treatment) (Prevention of Odours and Noise) Regulations 2005. Irish Water will be required to apply for an obtain a Wastewater Discharge Authorisation Licence in accordance with SI No. 684 of 2007 (as amended). Section 41 of the said Regulations clearly stipulates that a Planning Authority or An Bord Pleanála where it decides to grant planning permission under Section 34 (or Section 37 and 37E on appeal) for an activity which requires a Wastewater Discharge Licence, that the Board may not attach conditions which are for the purposes of controlling the wastewater discharge. This implies that the

Planning Authority in this instance has jurisdiction to attach conditions in respect of other emissions namely noise and odour. It is my considered opinion therefore that setting limits in respect of noise and odour during the operational phase of the proposed development would fall under the jurisdiction of the Planning Authority and in this particular case - An Bord Pleanála. Conditions relation to these matters can therefore be attached.

8.3. EIAR Requirement

- 8.3.1. The grounds of appeal suggest that the proposed development should be subject to a full environmental impact assessment report. It is suggested that as part of the EIA screening process the applicant will be required to provide an odour impact assessment that illustrates that odour nuisance will not occur during the operation of the proposed wastewater treatment plant.
- 8.3.2. In the first instance it should be noted that the wastewater treatment plant in this instance has been designed for an estimated 10-year population equivalent of 1,082. This is significantly below the mandatory threshold for EIA set out in Schedule 5, Part 2, Class 11 which stipulates that wastewater treatment plants with a capacity greater than 10,000 PE be subject of mandatory EIA. In fact, the capacity of the proposed wastewater treatment plant constitutes less than 11% of this threshold. Furthermore, the Board will note that the proposed development was screened for the purposes of EIA and this report was submitted with the original application to Cork County Council. It is not tenable or appropriate in my view to suggest that a lack of an odour impact assessment in this instance would trigger the requirement for an full EIAR which would involve the preparation by arrange of competent experts of a fully comprehensive and detailed identification, description and evaluation on the potential impact of the modest proposal on all the environmental factors listed in Article 3 of the Directive. As already referred to in my assessment if the Board have any concerns in respect of odour the Board could reasonably in my view specifically request an odour impact assessment without necessitating the requirement for a full EIAR under Directive 2014/52/EU. The EIAR screening report sets out details of the environmental sensitivities of the area and assesses the proposed development in terms of its potential impact on population, material assets, human health, biodiversity, lands and soil, air and climate, landscape and cultural heritage and the relationship between the foregoing. I have assessed the proposed development in

the context of the above environmental topics and I consider, having regard to the relatively modest nature of the proposed development, particularly in the context of the mandatory thresholds set out for EAIR, that the proposed development is significantly below this threshold and would not be likely to have such a significant effect on the environment to trigger a mandatory EIAR.

- 8.3.3. I would also have regard to the fact that the proposed development will improve the quality of wastewater discharging into Ballycotton Bay which will have positive environmental consequences in terms of water quality, biodiversity and ecology within the bay. I am mindful of the fact that the applicant has submitted a number of detailed reports in respect of EIA screening, AA screening and NIS, terrestrial and marine archaeology, flood risk assessment and a preliminary CEMP. All these reports in combination provide robust and comprehensive assessments as to the potential impacts on the environment that are likely to arise as a result of the proposed development. These impacts in my view are neither significant or material in extent to trigger the requirement for an EIAR and I would conclude that the proposal is not likely to have significant effects on the environment which would necessitate the preparation of an environmental impact assessment report and the undertaking of an environmental impact assessment. On this basis I would agree with the conclusions contained in the EIAR screening report that an EIAR is not required or justified in this instance.

8.4. Access to Ballycotton Pier

- 8.4.1. The appeal submitted on behalf of the Ballycotton Fishermans Association restricted its concerns to the proposed pumping station to be located on the east pier. Concerns are expressed in the grounds of appeal that the works to be undertaken during the construction phase and the resultant works implemented during the operational phase could significantly hinder access to the pier. In response to this issue, Irish Water have indicated that during the construction phase, a temporary working platform will be constructed adjacent to the pier to provide room for construction activities thereby reducing the amount of construction traffic on the existing pier and reducing the impact on pier activities. While it is possible that the construction works could give rise to some disruption of fishing operations on the pier, Irish Water have indicated that procedures will be kept in place to enable traffic

to pass on the eastern side of the excavation footprint along the pier and therefore access to the pier will remain unhindered.

- 8.4.2. During the operational phase the proposed pumping station will not give rise to any material change in the operations of the pier. The proposed pumping station will be located underground while the new public toilets to replace the existing toilets will result in an overall loss of c.2 square metres of the area of the pier and this is considered to be negligible.
- 8.4.3. The Board if it is minded to grant planning permission, it might consider incorporating a condition requiring that, during the construction phase of the proposed development, vehicular access to the east pier shall be maintained at all times.
- 8.4.4. With regard to locating the pumping station to lands along the shoreline to the east of the pier, the current application before the Board does not seek planning permission for such arrangements and it would be beyond the scope of the Planning and Development Act to allow such arrangements to be addressed by way of condition. Furthermore, as Irish Water indicate the site selection assessment indicated that constructing the pumping station at an alternative location on the ocean side of the pier would have little or no impact in terms of reducing construction traffic and in fact may require significant construction traffic to raise the foreshore level and to construct a haul road to facilitate a pumping station at this location.

8.5. Additional Car Parking Provision

- 8.5.1. In terms of the provision of additional car parking, as Irish Water point out it is not within Irish Water's remit to provide additional car parking to facilitate the operation of Ballycotton Pier. Irish Water is a public utilities company entrusted with providing adequate sufficient water and wastewater infrastructure. Its remit does not extend to provide additional public car parking to serve other commercial operations.

8.6. Potential Impact on Inner Harbour Area

- 8.6.1. Concerns are expressed that the proposed construction of the pumping station and associated infrastructure could adversely impact on the inner harbour area and in particular water quality within the harbour area which could affect lobster, crab and shrimp populations in this area. Issues with regard to potential pollution including excessive surface water runoff etc. during the construction phase has been addressed in the preliminary CEMP submitted to the Planning Authority by way of

additional information (see Section 5.8 of report). Furthermore, information on file indicates that the proposed pumping station at the pier will be designed, constructed and operated in accordance with Irish Water standards and will be operated in accordance with any wastewater discharge licence issued by the EPA. The design features include:

- Standby pumps where necessary.
- The incorporation of an emergency/stormwater storage tank.
- Alarms for failure of plant and equipment, power and/or instruments.

8.7. Potential for Malfunctioning

- 8.7.1. Furthermore, it is stated that should the pumping station malfunction during the operational stage, a stormwater storage tank is proposed which will retain flows while maintenance personnel resolve the malfunction. Further details of mitigation measures which are incorporated into the overall design should a malfunction occur are set out in Section 5.3 of the applicant's response to the grounds of appeal (pages 18 and 19 of the appeal response).
- 8.7.2. On the basis of the information submitted by Irish Water both in the response to the grounds of appeal and the preliminary CEMP, I am satisfied that measures can be put in place to ensure that no adverse issues arise in the inner harbour area which could adversely impact upon or jeopardise fish stocks or shellfish which are farmed or inhabit the inner bay area.
- 8.7.3. Finally, in relation to this matter, the Board will note that the works undertaken as part of the overall development, including the pumping station at the pier, will result in the removal of untreated wastewater in the inner harbour area which will ultimately benefit water quality and therefore fish and shellfish stocks in the inner harbour area and the wider Ballycotton Bay in general.
- 8.7.4. The submission on behalf of the Ballycotton Fishermans Association submitted suggests that Option No. 4 of the site selection report prepared for the pier pumping station in Ballycotton is a more preferable option and the Board should opt for this option as an alternative to the preferred option which forms the basis of the current planning application. Option No. 4 is located in the intertidal area of the foreshore at the eastern end of the pier.

8.7.5. The site selection report for the Ballycotton Pier Pumping Station is attached as an appendix to the applicant's response to the grounds of appeal. All four options considered were assessed under multi-criteria analysis. The assessment undertaken indicated that Option No. 3 (the preferred option and the option proposed in the current application) was identified as the best of the four options. It is further noted that Option No. 4 is considered to be the least favourable option for all criteria. I consider that Option No. 3 is an acceptable option and will not give rise to any significant impacts on existing fishing operations on Ballycotton Pier and will not present a threat to the inner harbour area of the pier during either the construction or operational phases subject to mitigation measures set out in the preliminary CEMP.

8.8. Other Issues

8.8.1. Concerns are expressed in one of the grounds of appeal that the proposed development could impact on the setting of a ringfort which is located in close proximity to the access road serving the wastewater treatment plant. As mentioned above, an archaeological assessment was submitted with the original planning application and this report acknowledges that the proposed access road extends immediately to the north of the monument and therefore direct impacts are possible to the northern bank of the enclosure. This issue was highlighted as a concern in Point No. 8 of the Planning Authority's request for additional information. In response the applicant has indicated that the section of the proposed road within the zone of notification of the ringfort will be constructed by laying down the geotextile membrane on the existing ground level over which 25 millimetres of hardcore and 200 millimetres of 804 will be laid. This portion of the road will therefore be floated and will not require any disturbance of the underlying ground. It is noted from the planner's report that the Council's archaeologist has expressed general satisfaction with the response subject to appropriate conditions. I would agree that the measures proposed to float the road upon the existing ground level in the vicinity of the ringfort would result in limited potential for the proposed development to adversely impact on the integrity of the ringfort or any subsurface features associated with the ringfort. Any archaeological remains therefore will be undisturbed and will remain in situ beneath the proposed road. This is acceptable in my opinion.

8.8.2. It is not considered that the proposed development will introduce any vermin into the immediate area of the wastewater treatment plant. The applicant in the grounds of

appeal states that the contractor shall implement pest control measures during the construction and operational phase. Where any indication of vermin or other pests on site occur appropriate mitigation measures (bait and eradication methods) will be used by a suitably qualified specialist. This in my view will address any potential adverse impacts which could arise from vermin activity.

9.0 Appropriate Assessment

9.1. Introduction

- 9.1.1. I note that the application was accompanied by a Stage 1 Screening for Appropriate Assessment and a Natura Impact Statement. For the purposes of completeness, it is proposed to undertake a separate assessment as part of the evaluation of the proposed development.

9.2. Appropriate Assessment Screening Stage 1

- 9.2.1. The subject site comprises of the provision of a new wastewater treatment plant together with two new pumping stations one of which is at the East Pier while the other is Cow Lane in the centre of Ballycotton Village. All effluent will be collected and pumped via the 2 new pumping stations to a new wastewater treatment plant where the wastewater will receive primary treatment before being discharged via an new gravity main to an existing outfall in the vicinity of Cow Lane near the western environs of the village. The existing outfall at the harbour pier will be decommissioned. None of the works to be undertaken at the wastewater treatment plant or the pumping stations are located within or contiguous to a designated Natura 2000 site. Neither are the works to be undertaken connected with or necessary for the management of a Natura 2000 Site. The existing outfall to the west of the town is located approximately 100 metres to the eastern boundary of the Ballycotton Bay SPA (Site Code: 004022).

There are no other Natura 2000 sites within 5 kilometres of the subject site. Natura 2000 sites within the wider area include the Ballymacoda (Clonpriest and Pillmore) SAC (Site Code: 000077) and The Ballymacoda Bay SPA (Site Code: 004023) both of which are located between 9 and 10 kilometres to the north-east of the subject site. The Cork Harbour SPA (Site Code: 004030) is located c.11.7 and 13 kilometres to the west and north-west of the subject site and the Great Island Channel SAC

(Site Code: 001058) is located approximately 13 kilometres to the north-west of Ballycotton.

Having regard to the separation distances involved and the minor nature of the proposed works to be carried out within Ballycotton Bay, the AA screening report submitted with the application reasonably concludes in my opinion that the only Natura 2000 site that could be potentially affected by the proposed works is the Ballycotton SPA to the immediate north and west of the subject site. It is considered that the other Natura 2000 sites referred to above have no connectivity with the site of the proposed development and are located considerable distances from the development so as to ensure that no adverse impact can occur.

9.3. **Appropriate Assessment Stage 2**

The qualifying interests associated with the Ballycotton SPA (004022) are set out below.

Teal (Anas crecca) [A052]

Ringed Plover (Charadrius hiaticula) [A137]

Golden Plover (Pluvialis apricaria) [A140]

Grey Plover (Pluvialis squatarola) [A141]

Lapwing (Vanellus vanellus) [A142]

Black-tailed Godwit (Limosa limosa) [A156]

Bar-tailed Godwit (Limosa lapponica) [A157]

Curlew (Numenius arquata) [A160]

Turnstone (Arenaria interpres) [A169]

Common Gull (Larus canus) [A182]

Lesser Black-backed Gull (Larus fuscus) [A183]

Wetland and Waterbirds [A999]

The site synopsis notes that the site comprises of 2 sheltered inlets which receive the flows of several small rivers. The principal habitat within the site is intertidal sand and mudflats. The intertidal flats provide the main feeding habitat for winter birds. A small area of shallow marine water is also incorporated into the lands covered by the SPA. Ballycotton Bay supports an excellent diversity of wintering water species birds and the site supports nationally important populations of Teal, Ringed Plover, Golden

Plover, Grey Plover, Lapwing, Black Tailed Godwit, Bar Tailed Godwith, Curlew Turnstone, Common Gull and Lesser Blackheaded Gull. Ballycotton Bay was formerly utilised by Berrick Swans, but the birds have abandoned the site since the reversion of lagoonal habitats to estuarine conditions. The site is also a well-known location for passage waders especially in the autumn. While relatively small in area, Ballycotton Bay supports an excellent diversity of wintering water birds and has nationally important populations of 11 species two of which, the Golden Plover and the Bar Tailed Godwit, are listed in Annex 1 of the EU Habitats Bird Directive. Ballycotton Bay is also a Ramsar convention site and part of the Ballycotton Bay SPA Wildfowl Sanctuary.

The AA Screening Report submitted with the application correctly identifies in my opinion that the SPA located in such close proximity to the works could be adversely impacted through general site disturbance during the construction works and the potential for accidental pollution or excessive silt laden discharges during the construction phase. The potential impacts of the proposed development on the SPA are assessed below.

Having regard to the separation distances between the works proposed for the construction of the wastewater treatment plant which at its closest point is c.170 metres from the shoreline together with the presence of heavily planted woodland and the R629, it is not anticipated that any pollution events could occur which would adversely impact on the Ballycotton SPA. Furthermore, works associated with the Ballycotton Pier pumping station is located over 800 metres from the boundary of the SPA. With such a separation distance, it is not anticipated, having regard to the mitigation measures to be included as part of the construction works associated with the pumping station, and the potential for dilution in the Bay area, that any such works would lead to pollution or disturbance of bird species associated with the SPA. The works associated with the WWTP and the East Pier pumping station can be screened out in terms of impacting on the SPA in question.

Works to be carried out at the Cow Lane Pumping Station are located in close proximity to the SPA. At their closest point, these works are located c.50 metres south of the southern boundary of the SPA. There is therefore a potential risk of contamination of the shoreline from the spillage of hydrocarbons or petrochemicals or lubrication oil associated with leaks from machinery etc. Any accidental spillage of

these contaminants could pollute adjoining waters and therefore could have a direct toxic effect on feeding grounds associated with birds which frequent the SPA.

Furthermore, having regard to the proximity of the Cow Pumping Station to the southern boundary of the SPA, the construction works to be undertaken could if carried out in an inappropriate time of the year, adversely impact on the wintering birds frequenting the SPA.

Section 5.5 of the NIS sets out a suite of mitigation measures to address these potential impacts and these include the following:

- To avoid disturbance impact on wintering shore birds, the construction work at the Cow Pumping Station will be restricted to the period April to October inclusive.
- Mitigation measures to ensure that adjoining waters and shorelines associated with the SPA are not polluted or contaminated include:
 - The provision of spill kits and bunded fuel tanks to be located within site compound working areas.
 - Fuels, lubricants and hydraulic fluids for equipment to be used on site are carefully handled to avoid spillage and provided with spill containment measures.
 - All fuels/chemicals and other materials classified as hazardous will be kept and stored within a bunded enclosed spillage tray or cabinet. An inventory of any chemicals kept on site will be stored within a designated fuel storage area.
 - Spill kits will be deployed on site during the construction phase. Every construction vehicle shall carry a mini spill kit within its cab.
 - Fuelling and lubrication of machinery will not be carried out within 50 metres of the shoreline.
 - Inspections will be undertaken to ensure that machinery is leakproof.
 - Any spillage of fuels, lubricants or hydraulic oils is to be immediately contained and the contaminated soil removed with proper disposal.

In terms of cumulative impacts, the Natura Impact Statement makes reference to the licenced wastewater discharge for the Garryvoe agglomeration which also discharges into Ballycotton Bay. However, water quality data associated with this discharge indicates that neither the Ballycotton nor the Garryvoe discharges individually or in combination will negatively impact on the conservation objectives of the SPA. No other plans or projects are identified that could result in a cumulative impact on the conservation objectives of the SPA.

Subject to the implementation of the above mitigation measures, I would concur with the conclusions set out in the NIS submitted with the application, i.e. that there would be no adverse effects of the proposed development on features of interest associated with the SPA. Therefore, the proposed development has been considered in light of the assessment requirements of Sections 177U and 177V of the Planning and Development Act 2000, as amended. Having carried out screening for appropriate assessment of the proposed development it was concluded that the proposal would be likely to have a significant effect on the Ballycotton Bay SPA in the absence of mitigation. Consequently, an appropriate assessment was required for the implications of the project on the qualifying interests in light of the conservation objectives of that SPA. Following an appropriate assessment, it has been determined that the proposed development individually or in combination with other plans or projects would not adversely affect the integrity of European Site No. 004022 or any other European site in view of the site's conservation objectives. This conclusion is based on a complete assessment of all aspects of the project and there is no reasonable doubt as to the absence of adverse effects due to the relatively minor nature of the works to be carried out outside the boundary of the SPA and the mitigation measures to be included particularly in relation to limiting the construction to the period between April and October inclusive, and the various mitigation measures to be employed to ensure that there is no accidental spillage of materials which could affect the water quality or the shoreline associated with the SPA.

10.0 Conclusions and Recommendation

Arising from my assessment above therefore, I recommend that the Board uphold the decision of Cork County Council and grant planning permission for the proposed wastewater treatment plant, pumping stations and associated sewerage infrastructure based on the reasons and considerations set out below.

11.0 Reasons and Considerations

It is considered that the proposed provision of a wastewater treatment plant, pumping stations and associated sewerage infrastructure, subject to conditions set out below would not seriously injure the amenity of the area or property in the vicinity, would not be prejudicial to public health or adversely affect the residential amenities of the area through excessive odour and noise levels and would result in a higher quality of effluent being discharged into Ballycotton Bay which would be beneficial to the receiving environment. The proposed development would therefore be in accordance with the proper planning and sustainable development of the area.

12.0 Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application as amended by the further information submitted on the 30th day of September 2021, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of clarity.

2. Odour levels at the site boundary shall comply with an odour concentration limit of $3\text{OU}_E / \text{M}^3$ on a 98th percentile basis of hourly averages. Procedures for the purposes of determining compliance with this limit shall be submitted to and agreed in writing with the planning authority prior to the

commencement of development.

Reason: To protect residential amenity of property in the vicinity.

3. During the operation of the wastewater treatment plant, the maximum noise level at the northern boundary of the site shall not exceed 55 dB(A) (15 mins L_{Aeq}) at any time between 0800 hours to 2000 hours and shall not exceed 45 dB(A) (15 mins L_{Aeq}) at any time outside these hours.

Procedures for the purposes of determining compliance with this limit shall be submitted to, and agreed in writing, with the planning authority prior to the commencement of development.

Reason: To protect the residential amenities of property in the vicinity.

4. The wastewater treatment plant shall be provided in accordance with the plans and particulars accompanying the application shall be capable of producing an effluent quality as prescribed by the Environmental Protection Agency in any subsequent application for a Wastewater Discharge licence application. The wastewater treatment plant shall be designed, constructed and operated as to ensure that it avoids causing nuisance through odours and noise.

Reason: In the interest of orderly development, to safeguard the residential amenities of the area and to improve water quality within Ballycotton Bay.

5. All treatment tanks and chambers to be provided as part of the wastewater treatment plant shall be covered and appropriately sealed to prevent odours with active odour control units provided. Details shall be subject of a written agreement with the planning authority prior to the commencement of development.

Reason: To safeguard residential amenities.

6. The construction of the development shall be managed in accordance with the details provided in the preliminary construction and environmental management plan submitted to the planning authority on 30th day of September, 2021. Details contained in this plan shall be the subject of a written agreement with the planning authority and shall provide details of intended construction practice for all aspects of the development including

the wastewater treatment plant, pumping station and rising mains. Details of all aspects of construction management shall be the subject of a written agreement with the planning authority prior to the commencement of development.

Reason: In the interest of orderly development and to safeguard residential amenities in the area.

7. Prior to the commencement of development, a detailed construction and operational traffic management plan shall be submitted to the planning authority for written agreement. This plan shall ensure continuous access to the pier and to Cow Lane and shall be implemented at all times in accordance with the Area Engineer's requirements.

Reason: In the interest of orderly development and vehicular pedestrian safety.

8. Details of required sightlines at the proposed access to the wastewater treatment plant shall be the subject of written agreement with the planning authority prior to the commencement of development.

Reason: In the interest of vehicular and pedestrian safety.

9. Construction and demolition waste shall be managed in accordance with a construction waste and demolition management plan, which shall be submitted to and agreed in writing with the planning authority prior to the commencement of development. This plan shall be prepared in accordance with the "*Best Practice Guidelines of the Preparation of Waste Management Plans for Construction and Demolition Projects*" published by the Department of the Environment, Heritage and Local Government in July, 2006.

Reason: In the interest of sustainable waste management.

10. Water supply and drainage arrangements including the attenuation of surface water during the construction period shall be agreed in writing with the planning authority prior to the commencement of development.

Reason: In the interest of orderly development.

11. No dust, mud or debris from the site shall be carried or deposited onto the public road or footpath. Public roads and footpaths in the vicinity of the site shall be maintained in a tidy condition by the developer during the construction phase.

Reason: In the interest of visual and residential amenity.

12. The developer shall facilitate the archaeological appraisal of the wastewater treatment plant site and shall provide for the preservation, recording and protection of archaeological materials or features which may exist within the site. In this regard, the developer shall:
 - (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development, and
 - (b) employ a suitably-qualified archaeologist prior to the commencement of development. The archaeologist shall assess the site and monitor all site development works.

The assessment shall address the following issues:

- (i) the nature and location of archaeological material on the site, and
- (ii) the impact of the proposed development on such archaeological material.

A report, containing the results of the assessment, shall be submitted to the planning authority and, arising from this assessment, the developer shall agree in writing with the planning authority details regarding any further archaeological requirements (including, if necessary, archaeological excavation) prior to commencement of construction works.

In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

Reason: In order to conserve the archaeological heritage of the area and to secure the preservation (in-situ or by record) and protection of any archaeological remains that may exist within the site.

13. All pumping station overflow pipes or weirs shall be fitted with mechanical self-cleaning screens and/or baffle plates to retain floating material and debris etc. within the collection network. Storage capacity of sumps and aperture size of any overflow screen shall comply with the requirements of the Urban Wastewater Treatment Directive (91/271/EEC) and any Departmental guidelines including procedures or criteria in relation to stormwater flows (DoE 1993).

Reason: In the interest of public health.

14. No stockpiling of materials shall take place within 10 metres of any watercourse or drain.

Reason: In the interest of public health.

15. Details of proposed landscaping plans associated with the proposed wastewater treatment plant shall be agreed in writing with the planning authority prior to the commencement of development.

Reason: In the interest of visual amenity.

16. All mitigation measures set out in the Natura Impact Statement to protect the qualifying interests associated with the Ballycotton SPA (Site Code: 004022) shall be implemented in full.

Reason: To protect Natura 2000 sites in the vicinity.

17. All external lighting associated with the proposed development shall be sufficiently cowled so as to ensure that light spillage beyond the boundary of the wastewater treatment and the proposed pumping stations are minimised.

Reason: In the interest of visual amenity.

18. Where chemicals are to be used or stored on site such chemicals shall be stored in bunded areas.

Reason: In order to prevent pollution.

19. Prior to the commencement of development, the final operational design details shall be submitted to and agreed in writing with the planning

authority prior to the commencement of development.

Reason: In the interest of clarity.

20. The developer shall pay to the planning authority a financial contribution of €895 (eight hundred and ninety-five euro) to Cork County Council in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. The application of any indexation required by this condition shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

Paul Caprani,
Senior Planning Inspector.

20th April, 2022.

Appendix 2: Planning AAS & NIS January 2021

Habitats Directive
Appropriate Assessment Report
(Screening and Natura Impact Statement)
for a Proposed Waste Treatment Facility for
Ballycotton Agglomeration



27 January 2021

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214483-26/02/2021-Habitats Directive Appropriate
Assessment Report

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1.0 INTRODUCTION

The primary purpose of this report is to provide relevant material to inform a decision by the public 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 any Natura 2000 site.

Section 42 (1) of S.I. No. 477 of 2011, the European Communities (Birds and Natural Habitats) Regulations 2011 states: *“A screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site.”*

Where the screening process cannot exclude the possibility that a plan or project, individually or in combination with other plans or projects, could have a significant effect on a European site, there is a requirement under Article 42 (9) of these Regulations for the preparation of a Natura Impact Statement to inform the Appropriate Assessment process.

1.2 Site Location

The site of the proposed works is located within and in the immediate environs of the village of Ballycotton in East County Cork (Location Map, Appendix 2 and Site Plan, Appendix 3).

1.3 Potentially Affected Natura 2000 Sites

Natura 2000 sites in the vicinity of the proposed development and with a direct or indirect physical connection to this development were checked for on the mapping system of the NPWS website <http://webgis.npws.ie/npwsviewer/>. Natura 2000 sites within 15km of the subject site are shown in Appendix 4. At the closest point, the footprint of the proposed works is within 50m of Ballycotton Bay Special Protection Area (SPA 004022) and the outfall to Ballycotton Bay is within 100m of this Natura 2000 site (see Appendix 3). There are two Natura 2000 sites between

5km and 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). There are also two other Natura 2000 sites between 10 and 15km from the subject site. These are Cork Harbour Special Protection Area (SPA 004030) and Great Island Channel Special Area of Conservation (SAC 001058). As the latter four Natura 2000 sites have no connectivity with the site of the proposed development, potential impacts on the Conservation Objectives of these sites can be screened out.

1.4 Proposed Project

Currently, there are two wastewater discharges to Ballycotton Bay (see Satellite Image, Appendix 5). A combined sewer network at the eastern side of the agglomeration conveys untreated wastewater to an outfall at the harbour pier. A combined sewer network at the western side of the agglomeration conveys wastewater to an above ground septic tank located on the foreshore at the upper end of the tidal zone (Photos 1 and 2, Appendix 6). Effluent from the septic tank is discharged to the sea via a c.60m pipeline, with the outfall at the lower end of the tidal zone (Photo 3).

The proposed development considered in this report is the construction of the scheme in order to meet the primary objective of providing treatment for wastewaters collected in the village of Ballycotton, Co. Cork.

1.5 Relevance of Development to Management of Natura 2000 Sites

While better quality of the effluent will result in some localised improvement in water quality within SPA 004022, the proposed development is not directly connected with or necessary to the management of this Natura 2000 and, as such, does not undertake measures for the site's conservation management.

1.6 Report Structure

In this report, the Department of the Environment, Heritage and Local Government guidance "*Appropriate Assessment of Plans and Projects in Ireland – guidance for Planning Authorities, 2009 – Revised 11 February 2010*", the European Commission (2001) guidelines "*Assessment of*

plans and projects significantly affecting Natura 2000 sites - Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC” and the European Commission (2018) guidelines “Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC” are followed.

The implications of all aspects listed above are assessed, individually and in combination with any other relevant developments, plans or projects, in light of:

- the nature and quality of habitats within and adjacent to the site of the proposed development;
- information relating to the ecology of SPA 004022;
- the status of Features of Interest of SPA 004022;
- the key structural and functional relationships maintaining the integrity of the Natura 2000 site;
- the scale and nature of the aspects of the project in relation to the Natura 2000 site.

The aim of the report is to provide the public authorities with the relevant information necessary to inform the decision-making process, while ensuring that the requirements of the EU legislation quoted above are fully complied with.

1.7 Ecological Consultancy Engaged

Pascal Sweeney was engaged to carry out this report. Qualifications and past experience are presented in Appendix 7.

1.8 Consultations

Cyril Saich, District Conservation Officer, National Parks and Wildlife Service, was contacted by telephone on 04 December 2017 to discuss possible impacts of the proposed development. Mr. Saich agreed that an upgrade of the waste treatment system for Ballycotton was desirable and confirmed that, while the entire designated site is important for some bird species, the parts of the site most used by roosting waders in winter are in areas of fine sediment to the west of the subject site.

2.0 PROPOSED WORKS

2.1 Proposed Works Description

Indicative timescales for the works described below are presented in Table 1.

The WWTP site is a greenfield site to the south west of the agglomeration and is outside the local area plan settlement boundary. The area is located on elevated land to the rear of the school and is 70m north of the Cork County Council service reservoir.

Two new pumping stations will be required to deliver the waste water to the WWTP. The pumping stations will be located to intercept the discharges from the eastern and western collection networks. The first pumping station will be located on the Ballycotton pier (The Pier PS) at the eastern end of the town. From this pumping station 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 an existing gravity sewer westward along Main Street as far as the top of Cow Lane. A gravity sewer will convey wastewater from the top of Cow Lane 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 treated wastewater will then flow via gravity back to the top of Cow Lane where it will tie into the existing outfall which discharges to the sea.

The components of the proposed development are described below:

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.

Table 1. Indicative timescales* for works described

Component	Duration of Works	Note
Laying of pipes along public roads	4 months	Work period between October and March
Laying of pipes along private lands	1 month	No seasonal restrictions
The Pier pumping station construction	4 months	Work period between October and April
The Cow pumping station construction and laying of pipes on Cow Lane.	4 months	Outside of Winter birds roosting season
Wastewater treatment plant construction.	8 months	No seasonal restrictions

*The timescales are indicative and will be dependent on the appointed contractor's programme.

The footprint of all proposed works is outside SPA 004022 (see SPA boundary, Appendix 3).

2.2 Construction Methodology

The Ballycotton Sewerage Scheme comprises of the following packages of works;

- Pipelines
 - Pier Rising Main
 - Cow Rising Main
 - Cliff Rd Gravity Main
 - Outfall Pipeline
- Pump Stations
 - Pier Pump Station
 - Cow Pump Station
- CSO Chamber
- Waste Water Treatment Plant

During the works different specialist subcontractors will complete the various works packages, as such some of the above works will be completed concurrently with some pipelines potentially being completed at the same time as the pump stations and the WWTP.

To minimise the impact on the local community and the village inhabitants only one pipeline section will be constructed at any one time.

Pipelines

The majority of the pipelines with the exemption of the Cliff Rd Gravity Main will be HDPE material. These will be delivered to site in 12m lengths, welded together and installed via conventional install methods using excavators to excavate a trench, lay the pipe sections and backfill. The excavated trench material will be removed from site to a licensed waste facility and suitable backfill material shall be delivered and installed, compacting in layers prior to reinstatement of the road surface.

All roadworks will be completed under a road opening licence and Temporary Traffic Management (TTM) signage, cones and personnel will be in place to ensure a single lane of traffic can pass through the works at all times and access is always available for emergency crews and vehicles. Due to the width of the road networks, in particular the access to the pier, manned stop-go crews will be utilised to ensure TTM cones signs etc can be altered quickly and

efficiently to prevent build-up of traffic and allow access for emergency vehicles. Road plates shall also be onsite at all times to ensure a trench can be quickly covered over to enable access if required.

Careful liaison will occur with all residents, businesses and the local schools during the works on the road network and works shall always be carried out in a manner as to minimise the impact on the community.

Pier Pump Station

The construction of the Pier pump station will take careful consideration to ensure access to the pier is available at all times. A temporary works island (as shown in Appendix 8) shall be constructed to the west of the proposed pump station site and this shall be utilised to store materials and construct the pump station. Rock bags will be used to construct a temporary retaining wall around the temporary island, and this will be infilled with large diameter clean stone. Temporary navigation lighting will be installed at the outside edge of the temporary island to ensure boats can navigate the new works area safely.

A temporary coffer dam will be installed around the perimeter of the proposed pump station footprint to enable excavation works, this will stabilise the adjacent pier access road and enable traffic to pass by the work on the eastern side and will enable the excavation footprint to be kept to a minimum. Once the hole has been excavated the pump station (precast unit) will be lifted into place. Use of a precast unit reduces construction timeframes, the volume of deliveries required and the overall impact on the immediate vicinity. Once the precast units have been placed, the pipework will be connected and the backfill process commenced. When the hole has been backfilled, the coffer dam will be removed, and the above ground works can commence. Only when all works have been completed will the temporary works island will be removed.

Cow Pump Station

The Cow pump station will again be designed and constructed using precast concrete units. A works compound will be established on Cow Lane. Again, a coffer dam will be required for the works to minimise the excavation footprint. The coffer dam will be designed and installed by a temporary works specialist. The homeowners at the houses directly adjacent to the works will

need to be engaged early in the construction of this pump station as vehicular access may be impacted during this phase of works.

CSO Chamber

The CSO chamber shall require the construction of a chamber within the road surface at the main entrance to Cow lane. Again, a precast unit will be utilised to reduce the impact on the locals.

WWTP

Works will commence in the WWTP in a timeline as to ensure its construction is finished at the same time as the pump stations. Temporary access roads will be constructed initially to ensure safe access can be maintained and to avoid sediment being transported out onto the road network by delivery trucks and construction plant. All topsoil, except for the section of access track with the zone of archaeological potential by the ringfort, will be stripped, under the supervision of an archaeologist, segregated and stored as to avoid contamination and sediment run off.

Works crews will commence on the deepest process tanks and units, removing excess soil from site as it is generated, with the remaining structures and pipework being installed when the largest process tanks have been installed and backfilled.

As much as possible off-site fabrication in the form of precast concrete tanks, GRP tanks and buildings will be utilised to reduce on the construction duration and the number of trades and workers required to attend site as well as the various associated materials deliveries.

The last phase of works will involve the site finishes, every effort will be made to return the area to an aesthetically pleasing final solution as possible.

2.3 Potentially Affected Habitats/Species

The potential impact zone within which habitats and species could potentially be affected by the proposed development is taken as being the entire designated area of SPA 004022, particularly in areas adjoining the footprint of the proposed works (the stony shore in the southeast corner of the SPA) and the receiving aquatic habitat.

3.0 SITE ASSESSMENT (FLORA, FAUNA AND HABITATS PROTECTED UNDER THE EU HABITATS DIRECTIVE)

3.1 Natura 2000 Sites

The Site Synopsis (Version 30.05.2015) and the Conservation Objectives (Version 1: 26.08.2014) for SPA 004022 are available on <http://www.npws.ie/protected-sites/spa/004022>.

The Features of Interest of SPA 004022 are tabulated in Appendix 9.

Ballycotton Bay supports an excellent diversity of wintering waterfowl and has nationally important populations of eleven species (NPWS, 2014).

The principal habitat within this SPA site of approximately 281ha is inter-tidal sand and mudflats (Photo 3). These are mostly well-exposed and the sediments are predominantly firm sands. In the more sheltered conditions of inlets, sediments contain a higher silt fraction. A small area of shallow marine water is also included. The intertidal area in the south-eastern corner of the SPA, nearest to the proposed development, is stony (Photo 4).

3.2 Development Site

3.2.1 Development Site Habitat Assessment Methods

Field work for habitat assessment was carried out on four occasions, coinciding with times of a low tide: 04/12/2017, 18/05/2018, 17/06/2018 and 24/07/2018.

A general assessment of the site was carried out in line with the Heritage Council Best Practice Guidance for Habitat Survey and Mapping (Smith *et al.*, 2011) and habitats were classified to level 3 of the Fossitt (2000) classification system. To illustrate the general habitat quality, photographs were taken using a digital camera. Grid references were recorded using a GPS handset. Site evaluation is based on the guidelines of the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018).

The latest available Water Framework Directive (WFD) Status and the EPA Coastal and Transitional Water Body Scores ascribed to Ballycotton Bay were checked. Information is included in appendices 10 and 11.

3.2.2 Features of Interest Species Assessment Methods

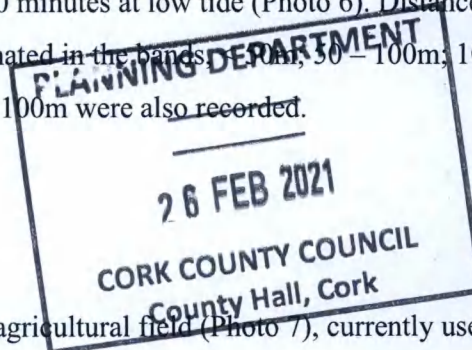
The suitability of the habitats within the footprint of the proposed works for bird species listed as Features of Interest of the SPA was assessed by the criteria of Morrison (1998). The section of upper shoreline between the proposed location of The Cow PS and the SPA boundary was checked for the nesting birds, particularly Ringed Plover, on 17/06/2018 and 24/07/2018, and potential nesting habitat was evaluated.

Bird counts, following a combination of the guidance of Wetlands International (2010) and Lewis & Tierney (2014), were carried out on four dates during the period when wintering birds are present in the SPA, in winter 2018/2019, on days when both a high and a low tide coincided with daylight hours. On 29/11/2018, 28/12/2018, 28/01/2019 and 26/02/2019, birds present on the shoreline within line of sight of the proposed works site of The Cow PS were counted for 30 minutes at high tide (Photo 5) and again for 30 minutes at low tide (Photo 6). Distances of these birds from the proposed works site were estimated in the bands 0m, 30 – 100m, 100 – 150m; 150 – 200m; >200m. Birds flying past within 100m were also recorded.

3.3 Results

3.3.1 Development Site Habitats

The site of the proposed WWTP is within an agricultural field (Photo 7), currently used for arable crops (Habitat Code BC1). From here, the proposed route of the rising main and outfall sewer runs through an area of dense scrub on a steep slope (Photo 8), with gorse (*Ulex europaeus*) and bramble (*Rubus fruticosus agg.*) dominant (Habitat Code WS1). The exposed rocky shore over which the existing outfall pipe is laid (Photo 1) is classified as Habitat Code LR1. The harbour area adjacent to Ballycotton Pier, where work for the pump station is proposed, consists of mixed sublittoral sediments (Habitat Code SS) that are regularly disturbed by the activity of fishing trawlers and therefore of relatively low habitat value. The remainder of the proposed works is on artificial surfaces/built land (Habitat Code BL3). The access route from



the public road to the WWTP site is through agricultural fields of improved grassland (Habitat Code GA1, Photo 9) and arable crops (Habitat Code BC1, Photo 10). No watercourses are to be crossed by the proposed works.

3.3.2 Coastal Water Quality

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 (Photo 2). 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 2010-2015 Risk Status (Appendix 10) and was classified as “*Unpolluted*” in 2010-2012 under the EPA Coastal Waterbody Score system (Appendix 11) and the ecological status was reported as *Good*. However, in the more recent coastal data on the EPA website, (2015-2018), 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.

3.3.3 SPA 004022 Features of Interest

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 habitats within the footprint of the proposed development are unsuitable for any significant use by the bird species listed as Features of Interest of SPA 004022. The section of upper shoreline between the proposed location of The Cow PS and the SPA boundary consists mainly of ridges of exposed bedrock, with some patches of shingle at the top of the shore (Photo 11). No nesting birds were seen here and it is considered that the patches of shingle close to the proposed works location are currently subject to too much regular human disturbance to be of use to ground-nesting birds.

Results of the bird counts carried out at the proposed works site for The Cow PS are presented in Appendix 12. The limited suitability of the stony shore habitat (Habitat Code LR4, Photo 4) in this corner of the SPA for roosting or foraging birds is reflected in the count results. Sixteen bird species were recorded. Of these, the following five are Features of Interest on SAC 004022:

Ringed Plover (*Charadrius hiaticula*), Curlew (*Numenius arquata*), Common Gull (*Larus canus*), Lesser Black-backed Gull (*Larus fuscus*) and Grey Plover (*Pluvialis squatarola*). None were recorded on the shore within 100m of the proposed works site. The most significant occurrence of any Feature of Interest of the SPA was just two curlews at a distance of 100 – 150m from the works site at low tide on 28/12/18. Photographs of some of the birds recorded are presented in Appendix 6 (Photos 12, 13, 14 & 15).

3.3.4 Invasive Alien Plant Species

Under Section 49 (2) of S.I. No. 477 of 2011, the European Communities (Birds and Natural Habitats) Regulations 2011, it is an offence to allow or cause to disperse, any plant which is included in Part 1 of the Third Schedule of this S.I. One such plant, three-cornered leek (*Allium triquetrum*), was found at several locations in Ballycotton, within and close to the footprint of the proposed works, as shown in Appendix 13, including:

- At the site of the pumping station by the slipway at ING 19913 06424 (Photo 16);
- On the side of the privately-owned laneway at ING 19898 06423 (Photo 17).
- At several places along the southern side of the main road from the grotto (Photo 18) to the bus stop near the pier (Photo 19)

Other plants listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 and growing in proximity to the site of the proposed works are giant rhubarb (*Gunnera tinctoria*), growing among garden waste on the slope above the septic tank (Photo 20) and Japanese knotweed (*Fallopia japonica*), a stand of which is located just up from the shore, approximately 40m to the west of The Cow slipway (Photo 21).

4.0 SCREENING FOR APPROPRIATE ASSESSMENT

4.2 Screening of Potential Impacts at Construction Phase

4.2.1 Screening of Potential Impacts from Disturbance of Wintering Birds in the SPA

Works at The Cow PS site could cause some minor disturbance to Features of Interest of the SPA, such as curlew, if the works were undertaken when wintering bird species are present and unmitigated disturbance impacts therefore cannot be screened out prior to Appropriate Assessment.

4.2.2 Screening of Potential Impacts from Disturbance of Nesting Birds in the SPA

As the shoreline close to the works area is unsuitable for ground-nesting species, the possibility of any disturbance of shoreline nesting Features of Interest of the SPA can be screened out.

4.2.3 Screening of Potential Impacts from Construction Site Runoff to the SPA

While the construction works for the pump station at the pier will disturb sublittoral sediments, considering the ongoing disturbance of sediments by fishing trawlers at this location (*pers. obs.*), the temporary nature of the works, the resilience of the dynamic tidal sedimentary environment to temporary disturbance and the distance to the SPA (over 1km), this will not have any significant impact on the Features of Interest and can be screened out.

Although considered slight, there is a potential of risk of contamination of the intertidal habitat within the SPA by runoff of petrochemicals during the works, which could result from spillage during refuelling or from lubricating oils leaks from machinery. Significant impacts of petrochemicals on the intertidal habitat and on bird species cannot be screened out prior to Appropriate Assessment.

4.2.4 Screening of Potential Impacts from Invasive Plants

Under Section 49 (2) of S.I. No. 477 of 2011, the European Communities (Birds and Natural Habitats) Regulations 2011, it is an offence to allow or cause to disperse, any plant which is included in Part 1 of the Third Schedule of this S.I. One such plant, three-cornered leek (*Allium triquetrum*), was found at several locations in Ballycotton, within and close to the footprint of the proposed works. Giant rhubarb (*Gunnera tinctoria*) and Japanese knotweed (*Fallopia japonica*)

occur close to, but outside the footprint of the scheme (see Appendix 13), making their accidental spread during construction less likely.

While the spreading of these invasive species must be avoided and a site-specific Invasive Alien Plant Species Management Plan will be implemented, the Conservation Objectives of SPA 004022 cannot be affected by these invasive terrestrial species. Potential impacts from invasive plant species can therefore be screened out.

4.3 Screening of Potential Impacts at Operational Phase

4.3.1 Screening of Potential Impacts from Habitat Loss

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.

4.3.2 Screening of Potential Impacts from Eutrophication

The design and location of the proprietary waste treatment system for the proposed development is of a specification that will result in a final effluent that will be to a far higher standard than is currently the case. Information on the EPA website (Appendices 10 & 11) indicates that in the recent past, the existing discharges were not having sufficient impact on water quality to affect the unpolluted status of Ballycotton Bay and the Ballycotton WwTP has not been identified as a pressure to this Ballycotton Bay waterbody under the second cycle of the Water Framework Directive. The reduction in the concentration of plant nutrients in the discharge at operational phase of the project will therefore not have any effects significant on eutrophication. While domestic and urban wastewater discharges are noted in the Conservation Objectives Supporting Document for the Ballycotton Bay SPA (NPWS 2014), they are not highlighted as activities that have the potential to cause disturbance to waterbirds. Impacts from this source can therefore be screened out.

4.3.3 Screening of Potential Impacts from Disturbance of Birds

At operational phase, there will be no significant increase in human activity in proximity to the SPA resulting from the proposed development. Potential impacts from this source can therefore be screened out.

4.4 Conclusions of Screening

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.

5.0 NATURA IMPACT STATEMENT

5.1 Potential Impacts of Project Not Screened Out

The potential of significant impacts on the Features of Interest of SPA 004022, caused by disturbance and site runoff of petrochemicals at construction phase, were not considered to have been eliminated by screening:

5.2 Unmitigated Aquatic Implications of Proposed Works

5.2.1 Potential Impacts from Disturbance

The risk of disturbance a species by the proposed works is related to the likely presence of that species in the vicinity of the subject site at the time the works are being undertaken. The period of highest likelihood of disturbance to the Features of Interest of SPA 004022 is during the winter months.

5.2.2 Potential Impacts from Petrochemicals

Although considered slight, there is a serious potential risk of contamination of the shoreline from petrochemicals which could result from spillage during refuelling or from lubricating oils leaks from machinery. In unmodified form these are liquid, virtually insoluble and lighter than water. Some petrochemicals exhibit an affinity for sediments and thus become entrapped in deposits from which they are only released by vigorous erosion or turbulence (Luker and Montague, 1994). Harmful effects of oil and petroleum compounds include the prevention of gaseous exchange at the water surface, leading to reduced dissolved oxygen in the underlying water (Solbe 1988). Oil products may contain various highly toxic substances, such as benzene, toluene, naphthenic acids and xylene which are to some extent soluble in water and can have a direct toxic effect. Apart from the direct impact of severe petrochemical contamination, the immune system of seabirds can be compromised by ingestion of lower concentrations of petrochemicals during preening (Briggs et al, 1997).

5.3 Assessment of Significance

The proposed development will not result in any loss or fragmentation of habitats within the SPA.

A minor, but possibly significant, negative impact on wintering birds could result from construction works at The Cow PS being undertaken at an inappropriate time.

If significant contamination of the intertidal habitat with petrochemicals were to occur, there could be significant negative impacts on some bird species that are Features of Interest of the SPA.

Such impacts on Features of Interests would have a negative impact on the integrity of the Natura 2000 site and its Conservation Objectives.

5.4 Cumulative Impacts

The licensed wastewater discharge for the Garryvoe Agglomeration (Reg. No. A0363-01) also discharges to Ballycotton Bay. However, water quality data (Report Section 3.3.2) indicate that neither the Ballycotton nor the Garryvoe discharges, individually or in combination are negatively impacting on the Conservation Objectives of SPA 004022.

Petrochemical spillages from boats within Ballycotton Harbour would add to potential petrochemical impacts from the proposed works.

No other plans or projects that could result in a cumulative impact on the Conservation Objectives of the SPA are known.

5.5 Mitigation of Potential Impacts

5.5.1 Pre-works measures to minimise impacts:

All work on this project will be tendered to contractors with proven experience in this type of work.

The engineer in charge of construction works will be familiar with the mitigation measures listed below and should ensure that they are fully implemented.

5.5.2 Measures to mitigate disturbance at Construction Phase:

- To avoid disturbance impacts on wintering shorebirds, construction work at The Cow PS will be planned for the period, April to October, inclusive.

5.5.3 Measures to mitigate petrochemical contamination at Construction Phase:

- Spill kits and bunded fuel tanks shall be located in the site compound and clearly marked.
- Fuels, lubricants and hydraulic fluids for equipment used on the site are to be carefully handled to avoid spillage and provided with spill containment.
- All fuels/chemicals or other materials classified as hazardous will be kept stored within a bunded enclosed spillage tray or cabinet. A folder with an inventory of the chemicals along with their applicable SDS sheets and should be kept within the designated fuel storage area.
- Spill kits will be deployed on site during project construction phase. A spill kit must be maintained within the chemical storage area at all times and must be suitable to deal with the volume of liquids held within the area. Each construction vehicle shall carry a mini spill kit in its cab.
- Fuelling and lubrication of machinery is not to be carried out within 50m of the shoreline.
- Machinery must not be leaking oil when carrying out the work.
- Any spillage of fuels, lubricants or hydraulic oils is to be immediately contained and the contaminated soil removed for proper disposal.

5.6 Residual Impacts (Following Mitigation)

If all mitigation measures detailed above are implemented in full, there will be no adverse effects of the proposed development on the Features of Interest of SPA 004022 and therefore no adverse effects on the Conservation Objectives and site integrity of this Natura 2000 site.

APPENDIX 1

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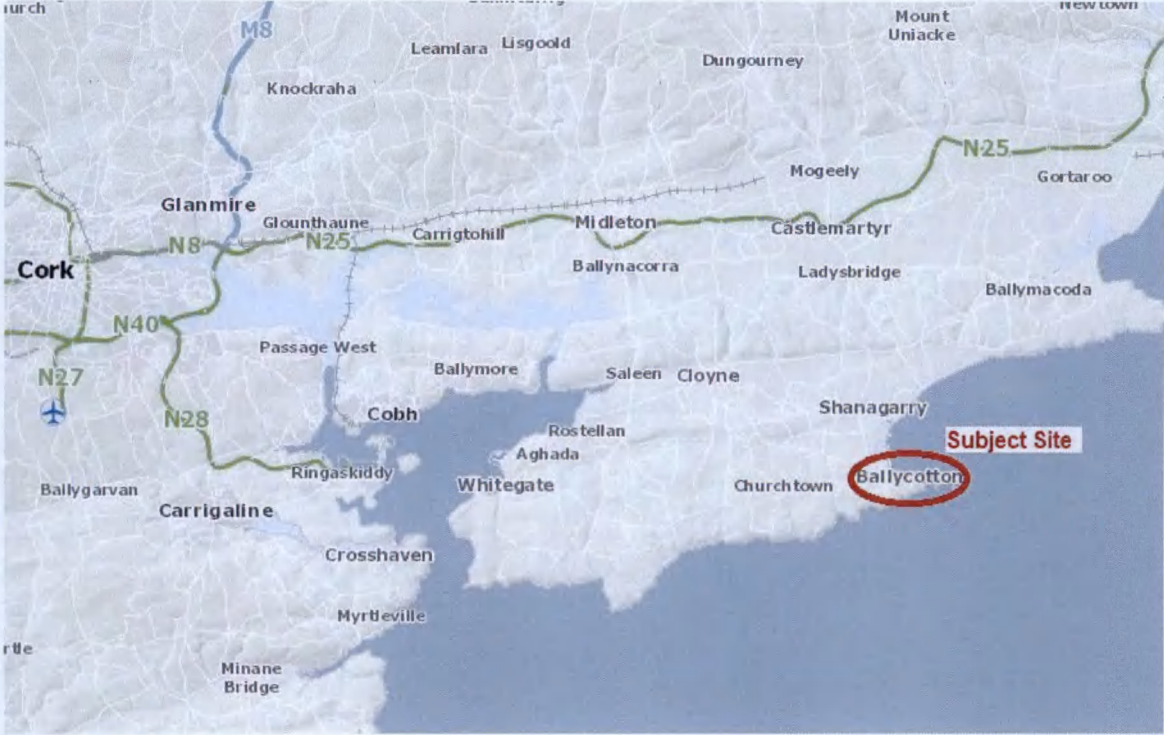
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APPENDIX 2 LOCATION MAP



APPENDIX 4 NATURA 2000 SITES WITHIN 15KM



**APPENDIX 5
SATELLITE IMAGE SHOWING EXISTING OUTFALL LOCATIONS**



APPENDIX 6 PHOTOGRAPHS

Photo 1: Outfall pipe downstream of existing septic tank



Photo 2: Western outfall



Photo 3: Western outfall



Photo 4: Intertidal sands of SPA 004022 from hill to the south



ENT
26 FEB 2021
CORK COUNTY COUNCIL
County Hall, Cork

Photo 5: Stony shore in SE corner of SPA 004022 by slipway



Photo 6: High tide at The Cow PS site



Photo 7: Low tide at The Cow PS site



Photo 8: Arable field at site of proposed WWTP



Photo 9: Scrub on proposed route of rising main and outfall sewer



Photo 10: Improved grassland field at proposed access track to WWTP site



Photo 11: Arable field at proposed access track to WWTP site



Photo 12: Bedrock and shingle between SPA and The Cow PS site



Photo 13: Curlew



Photo 14: Oystercatcher



Photo 15: Brent Geese



Photo 16: Great Northern Diver



Photo 17: Three-cornered leek at The Cow PS site (ING 19913 06424)



Photo 18: Three-cornered leek at private laneway (ING 19898 06423)



Photo 19: Three-cornered leek at grotto



Photo 20: Three-cornered leek at bus stop near pier



Photo 21: Giant rhubarb on slope above septic tank



Photo 22: Japanese Knotweed 40m west of The Cow PS site.



APPENDIX 7

QUALIFICATIONS & EXPERIENCE OF PASCAL SWEENEY

QUALIFICATIONS: B.Sc., M.Sc.

M.Sc. thesis by research on aquatic insect populations and eutrophication in the Killarney Lakes. Secretary of the Irish Freshwater Sciences Association. Member of the Freshwater Biological Association and the Botanical Society of the Britain and Ireland.

MAIN RELEVANT EXPERIENCE:

Habitats Directive Appropriate Assessment:

Over 250 reports for Appropriate Assessment for a wide variety of proposed developments, including local authority wastewater treatment plants, flood defence schemes, fish passes, bridge improvements, landfills, large industrial developments and private housing.

Freshwater Biological Water Quality Monitoring:

Yearly monitoring of biological water quality of rivers for the EPA Q-scheme monitoring programme from 2012 to 2020 (1,540 Q-value assessments on contract to EPA). Water quality surveys for Irish Water, local authorities (Wexford, Kilkenny, Carlow, Kildare, Clare, Waterford and Tipperary Co. Cos.), and industries (e.g. Glanbia, Dairygold, Irish Sugar, Irish Distillers, Lisheen Mine, Monaghan Mushrooms). Profundal species analysis of over 622 lake samples for EPA and 982 lake samples for NIEA.

Estuarine Monitoring:

Analysis of oligochaete communities in 66 Munster estuaries for a Praeger Grant funded research project. Analysis of estuarine fauna of 10 estuaries for discharge licences or Natura Impact Statements.

Impact Assessment:

Impact assessment of proposed developments on freshwater habitats and recommendation of mitigation measures. These developments include roads, gas pipelines, landfills, quarries, hydropower stations, intensive agriculture and industries.

Agri-Environmental Scheme (REPS, AEOS, Hen Harrier Farm Planning):

Ecological surveying of lands in NHA/SAC/SPA sites and preparation of Environmental Reports, with management recommendations for REPS/AEOS applicants throughout Munster (over 650 reports). Assessed habitat and vegetation suitability for hen harriers and prescribed management requirements on farms in Cork, Kerry and Limerick. (31 plans).

Commonage Framework Planning:

Surveyed habitats, assessed vegetation condition and recommended management requirements on mountain and coastal commonages in Cork Tipperary, Limerick, Clare, Carlow and Wexford on contract to Dept. Agriculture.

Habitat Surveys and Management Planning of Coillte Property:

Habitat and botanical surveys of potential Biodiversity Areas in Cork and Waterford.

Native Woodland Scheme:

Approved by the Forest Service as a Participating Ecologist. Preparation of the ecological aspects of the Ecological Survey/Management Plans. (82 plans).

Bat Surveys:

Bat surveys at a variety of structures at proposed development sites, including buildings, road bridges and tree lines. Participant in the annual All Ireland Daubenton's Bat Waterways Monitoring Survey, co-ordinated by Bat Conservation Ireland.

Freshwater Pearl Mussel Surveys:

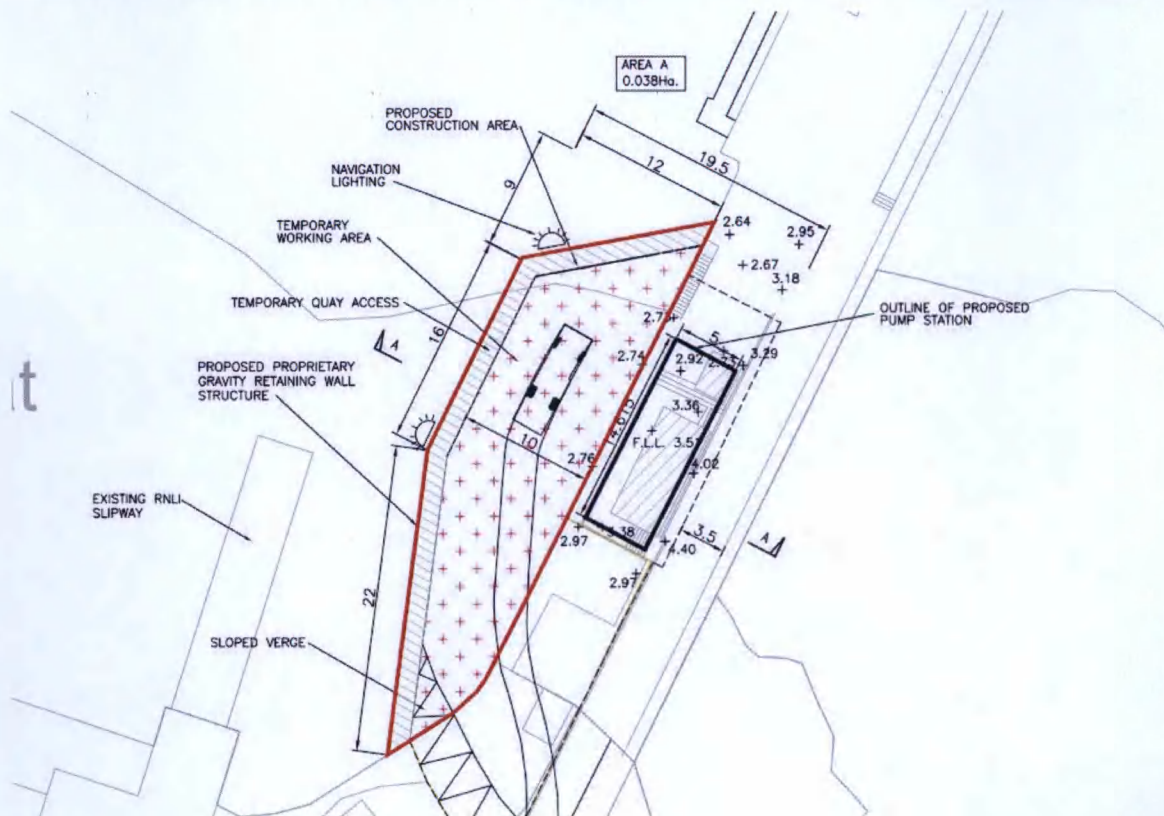
Licensed surveys for *Margaritifera margaritifera* in the following river catchments: Munster Blackwater, Lee, Bandon, Slaney, Barrow, Nore, Suir, Shannon, Owenriff and Moy.

White-Clawed Crayfish Surveys:

Licensed surveys for *Austropotamobius pallipes* in the following river catchments: Munster Blackwater, Bandon, Shannon, Liffey, Boyne, Barrow, Nore and Suir.

APPENDIX 8

PROPOSED TEMPORARY WORKS FOR THE PIER PUMP STATION



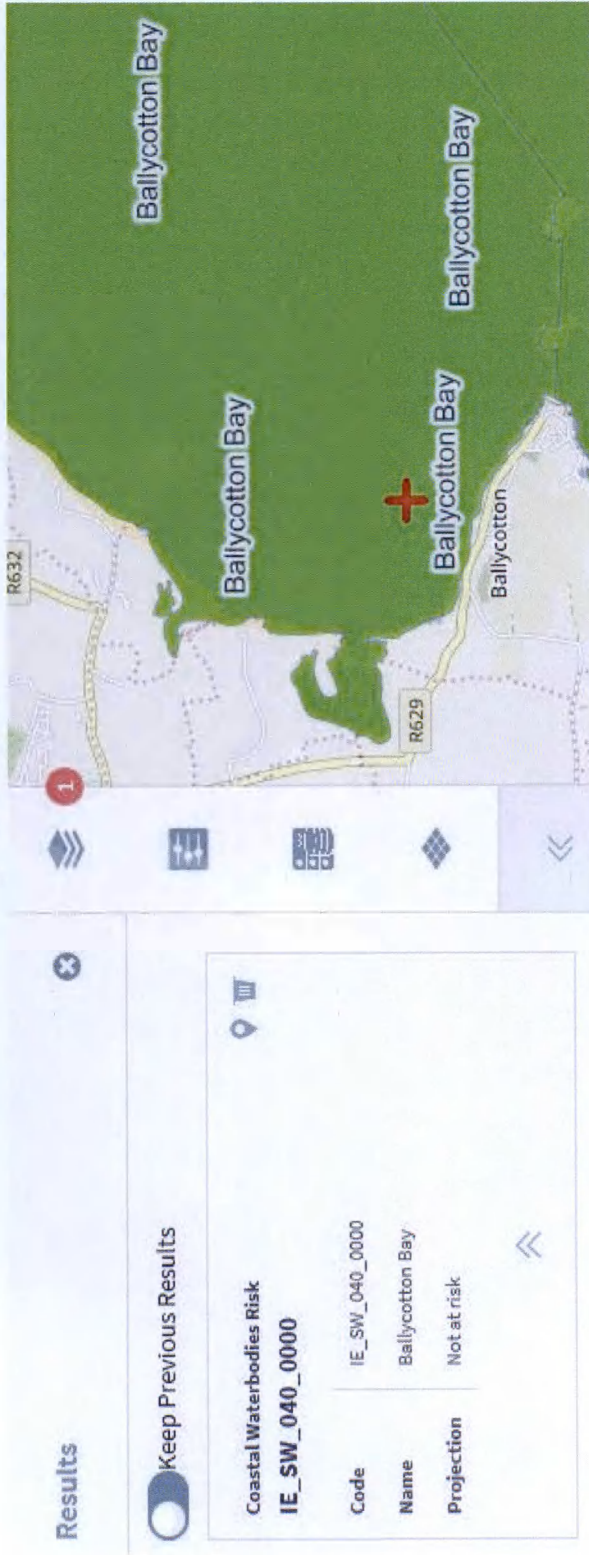
APPENDIX 9
BALLYCOTTON BAY SPA FEATURES OF INTEREST

EU Code	Taxonomic Name	Common Name
A052	<i>Anas crecca</i>	Teal
A137	<i>Charadrius hiaticula</i>	Ringed Plover
A140	<i>Pluvialis apricaria</i>	Golden Plover
A141	<i>Pluvialis squatarola</i>	Grey Plover
A142	<i>Vanellus vanellus</i>	Lapwing
A156	<i>Limosa limosa</i>	Black-tailed Godwit
A157	<i>Limosa lapponica</i>	Bar-tailed Godwit
A160	<i>Numenius arquata</i>	Curlew
A169	<i>Arenaria interpres</i>	Turnstone
A182	<i>Larus canus</i>	Common Gull
A183	<i>Larus fuscus</i>	Lesser Black-backed Gull
A999		Wetlands & Waterbirds

APPENDIX 10

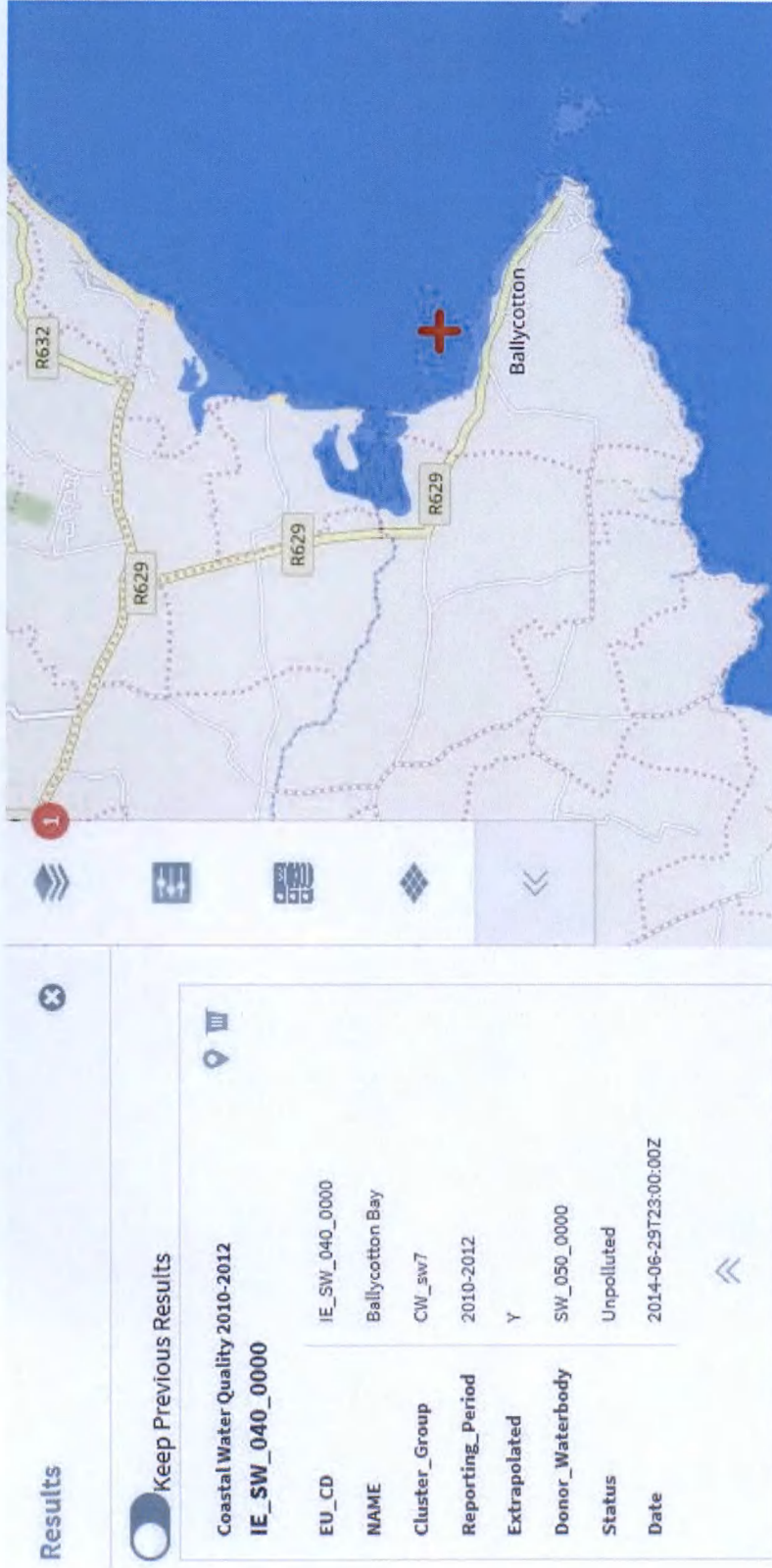
WFD RISK STATUS 2010-2015

(from www.epa.ie)



APPENDIX 11 EPA WATERBODY REPORT 2010-2012

(from www.epa.ie)



water matters

Help us plan!



Overall Status	
ES Ecological Status	
CS Chemical Status	
O Overall Ecological Status	Good

APPENDIX 12

BIRD COUNT RESULTS

Date & Tide	On Shore						Swimming			Fly Past
	<50m	50-100m	100-150m	150-200m	>200m	100-150m	150-200m	>200m		
29/11/18 High						2 ND			10 RP; 1 OC	
29/11/18 Low		1 OC;							4 CM; 1 LB; 1 OC; 1 ET	
28/12/18 High								1 CA	4 CM; 6 HG; 2 LB; 1 H	
28/12/18 Low	2 OC	3 OC; 1 H	12 PB; 2 CU				1 GG		2 CM; 1 LB	
28/01/19 High									1 GV; 7 PB 1 OC; 3 BH	
28/01/19 Low			1 ET; 2 WN	2 PB	3 CU				1 CA	
26/02/19 High									1 BH; 5 CM; 2 GB	
26/02/19 Low			6 PB; 1 HG; 1 CU; 3 OC		14 PB; 1 H	2 WN				

Abbreviations, Following Lewis & Tierney (2014)

SPA 004022 Features of Interest

RP: Ringed Plover (*Charadrius hiaticula*)
 CU: Curlew (*Numenius arquata*)
 CM: Common Gull (*Larus canus*)
 LB: Lesser Black-backed Gull (*Larus fuscus*)
 GV: Grey Plover (*Pluvialis squatarola*)

Other Species

GB: Great Black-backed Gull (*Larus marinus*)
 HG: Herring Gull (*Larus argentatus*)
 BH: Black-headed Gull (*Larus ridibundus*)
 PB: Light Bellied Brent Goose (*Branta bernicla*)
 ET: Little Egret (*Egretta garzetta*)
 ND: Great Northern Diver (*Gavia immer*)
 GG: Great Crested Grebe (*Podiceps cristatus*)
 H: Grey Heron (*Ardea cinerea*)
 OC: Oystercatcher (*Haematopus ostralegus*)
 WN: Wigeon (*Anas penelope*)
 CA: Cormorant (*Phalacrocorax carbo*)

