

This is a draft document and is subject to revision.



Waste Water Discharge Licence Application Form

For inspection purposes only.
Consent of copyright owner required for any other use.

EPA Ref. N^o:
(Office use only)

Environmental Protection Agency
PO Box 3000, Johnstown Castle Estate, Co. Wexford
Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699
Web: www.epa.ie Email: info@epa.ie

Tracking Amendments to Draft Application Form

Version No.	Date	Amendment since previous version	Reason
V. 2.0	05/10/2017	N/A	

*For inspection purposes only.
Consent of copyright owner required for any other use.*

Environmental Protection Agency
Application for a Waste Water Discharge Licence under the
Waste Water Discharge (Authorisation) Regulations 2007 as amended.

CONTENTS

	Page
TRACKING AMENDMENTS TO DRAFT APPLICATION FORM	2
ABOUT THIS APPLICATION FORM	4
PROCEDURES	5
SECTION A: NON-TECHNICAL SUMMARY	7
SECTION B: GENERAL	12
SECTION C: DISCHARGES & MONITORING	23
SECTION D: EXISTING ENVIRONMENT & IMPACT OF THE DISCHARGE(S)	26
SECTION E: DECLARATION	33
ANNEX 1: TABLES/ATTACHMENTS	
ANNEX 2: LICENCE APPLICATION CHECKLIST	
ANNEX 3: COMPLIANCE WITH WASTE WATER DISCHARGE (AUTHORISATION) REGULATIONS 2007 AS AMENDED	

For inspection purposes only.
Content of copyright owner required for any other use.

ABOUT THIS APPLICATION FORM

This form is for the purpose of making an application for a Waste Water Discharge Licence under the Waste Water Discharge (Authorisation) Regulations 2007 as amended, or for the review of an existing Waste Water Discharge licence.

The Application Form **must** be completed in accordance with the instructions and guidance provided in the *Waste Water Discharge Licensing Application Guidance Note*. The Guidance Note gives an overview of Waste Water Licensing, outlines the licence application process (including the number of copies required) and specifies the information to be submitted as part of the application. The Guidance Note and application form are available to download from the Licensing page of the EPA's website at <http://www.epa.ie/pubs/forms/lic/wwda/>.

A valid application for a Waste Water Discharge Licence must contain the information prescribed in the Waste Water Discharge (Authorisation) Regulations 2007 as amended. Regulation 16 of the Regulations sets out the statutory requirements for information to accompany a licence application. This application form is designed in such a way as to set out these questions in a structured manner and not necessarily in the order presented in the Regulations. In order to ensure a legally valid application in respect of Regulation 16 requirements, please complete the Regulation 16 Checklist provided in Annex 2.

This Application Form does not purport to be, and should not be considered, a legal interpretation of the provisions and requirements of the Waste Water Discharge (Authorisation) Regulations 2007 as amended. While every effort has been made to ensure the accuracy of the material contained in this Application Form, the EPA assumes no responsibility and gives no guarantee or warranty concerning the accuracy, completeness or up-to-date nature of the information provided herein and does not accept any liability whatsoever arising from any errors or omissions.

Should there be any contradiction between the information requirements set out in the Application Form and any clarifying explanation contained in the accompanying Guidance Note, then the requirements in this Application Form shall take precedence.

PROCEDURES

The procedure for making and processing of applications for waste water discharge licences, and for the processing of reviews of such licences, appear in the Waste Water Discharge (Authorisation) Regulations 2007 as amended, and is summarised below. The application fees that shall accompany an application are listed in the Third Schedule to the Regulations.

Prior to submitting an application the applicant must publish (within the two weeks prior to date of application) in a newspaper circulating in the area, and erect at the point nearest to the waste water treatment plant concerned or, if no such plant exists, at a location nearest the primary discharge point, a notice of intention to apply.

An application for a licence must be submitted using this application form with the correct fee, and should contain relevant supporting documentation as attachments. The application should be based on responses to the form and include supporting written text and the appropriate use of tables and drawings. Where point source emissions occur, a system of unique reference numbers should be used to denote each discharge point. These should be simple, logical, and traceable throughout the application.

The application form is divided into a number of sections of related information. The purpose of these divisions is to facilitate both the applicant and the Agency in the provision of the information and its assessment. **Please adhere to the format as set out in the application form and clearly number each section and associated attachment, if applicable, accordingly.** Attachments should be clearly numbered, titled and paginated and must contain the required information as set out in the application form. Additional attachments may be included to supply any further information supporting the application. Any references made should be supported by a bibliography.

All questions should be answered. Where information is requested in the application form, which is not relevant to the particular application, the words "not applicable" should be clearly written on the form. The abbreviation "N/A" should not be used.

Additional information may need to be submitted beyond that which is explicitly requested on this form. Any references made should be supported by a bibliography. The Agency may request further information if it considers that its provision is material to the assessment of the application. Advice should be sought from the Agency where there is doubt about the type of information required or the level of detail.

Information supplied in this application, including supporting documentation will be put on public display and be open to inspection by any person.

Applicants should be aware that a contravention of the conditions of a waste water discharge licence is an offence under the Waste Water Discharge (Authorisation) Regulations 2007 as amended.

The provision of information in an application for a waste water discharge licence which is false or misleading is an offence under Regulation 35 of the Waste Water Discharge (Authorisation) Regulations 2007 as amended.

Note: Drawings. The following guidelines are included to assist applicants:

- All drawings submitted should be titled and dated.
- All drawings should have a unique reference number and should be signed by a clearly identifiable person.
- All drawings should indicate a scale and the direction of north.
- All drawings should, generally, be to a scale of between 1:20 to 1:500, depending upon the degree of detail needed to be shown and the size of the facility. Drawings delineating the boundary can be to a smaller scale of between 1:1000 to 1:10560, but must clearly and accurately present the required level of detail. Drawings showing the waste water treatment plant location, if such a plant exists, can be to a scale of between 1:50 000 to 1:126 720. All drawings should, however, be A3 or less and of an appropriate scale such that they are clearly legible. Provide legends on all drawings and maps as appropriate.
- In exceptional circumstances, where A3 is considered inadequate, a larger size may be requested by the Agency.

It should be noted that it will not be possible to process or determine the application until the required documents have been provided in sufficient detail and to a satisfactory standard.

For inspection purposes only.
Consent of copyright owner required for any other use.

SECTION A: NON-TECHNICAL SUMMARY

Advice on completing this section is provided in the accompanying Guidance Note.

A non-technical summary of the application is to be included here. The summary should identify all environmental impacts of significance associated with the discharge of waste water associated with the waste water works.

The following information must be included in the non-technical summary:

A description of:

- The waste water works and the activities carried out therein,
- the sources of emissions from the waste water works,
- the nature and quantities of foreseeable emissions from the waste water works into the receiving aqueous environment as well as identification of significant effects of the emissions on the environment,
- the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the waste water works,
- further measures planned to comply with the general principle of the basic obligations of the operator, i.e., that no significant pollution is caused,
- measures planned to monitor emissions into the environment,
- type of discharge, i.e., continuous, tidal, intermittent,
- the hours during which the waste water works is supervised or manned and days per week of this supervision,
- in the event that this is a review application, state the grounds for which this review application is being made.

Supporting information should form **Attachment N° A.1**

1. Introduction

Castletownbere, Co. Cork is located on the northern shore of Bantry Bay and is the principle town of the Beara Peninsula. The town has been identified by the EPA as a Priority Area where untreated wastewater is currently being discharged into the environment.

The objective of the Castletownbere Sewerage Scheme is to provide new pumping stations (PS), gravity sewers, rising mains and a wastewater treatment plant (WWTP) capable of providing appropriate preliminary and primary wastewater treatment for the agglomeration. The proposed infrastructure has been designed to cater for the projected load at the 10-year design horizon (2,168 PE) and water quality impact assessments carried out for the scheme have been based on this 10-year projected load. However, civil and structural components have been designed to cater for future expansion up to the projected load at the 30-year design horizon (3,247 PE).

Presently, the town of Castletownbere has a number of independent collection systems which collect wastewater within and around the town. There are 5 No. septic tanks under the control of Irish Water, three of which discharge to Berehaven and two of which discharge to groundwater via percolation areas. The combined network in the town centre discharges directly to the harbour with no treatment. Dinish Island also has a treatment facility which is under the control of the Department of

Agriculture, Food and Marine. This treatment facility is solely used for the Island and its fish factories and therefore is not considered as part of the Castletownbere Agglomeration for this License Application. The existing infrastructure is not capable of meeting the requirements of the Urban Waste Water Treatment Directive (91/271/EEC) (UWWTD).

Once operational, the proposed Castletownbere Sewerage Scheme will provide an effective wastewater collection network, treatment capacity and treated effluent outfall for current and future agglomeration loads. The proposed scheme will improve water quality in Berehaven and bring benefits associated with health, amenity, environmental quality as well as facilitating economic and social development for Castletownbere, which has been constrained by the lack of adequate wastewater treatment capacity.

Once operational, the Castletownbere WwTP will eliminate the discharge of untreated wastewater to Berehaven, thereby having a significantly positive impact on water quality, aligning with objectives set out in the Water Framework Directive (2000/ 60/ EC) and the European Communities Environmental Objectives (Surface Water) Regulations, SI272 of 2009, as amended (Surface Water Regulations).

Planning applications have been submitted to Cork County Council for the proposed Castletownbere Sewerage Scheme (reference no. 19813 and 19814).

2. The wastewater works and the activities carried out therein

Castletownbere Sewerage Scheme Overview

The proposed Castletownbere Sewerage Scheme will provide a new wastewater treatment plant (WwTP), marine outfall, 4 no. proposed wastewater pumping stations, approximately 1,673m of new wastewater rising mains, 600m of new gravity sewers and associated and ancillary infrastructure.

Proposed Wastewater Treatment Plant

The proposed Castletownbere WwTP will provide preliminary and primary treatment designed to cater for a biological load of 2,168 PE (10 year design horizon), treating effluent to discharge standards of 20% reduction cBOD (mg/l) and 50% reduction Suspended Solids (mg/l).

The WwTP will consist of an inlet works, stormwater storage tank, primary treatment, sludge thickening and site control facilities.

Primary Discharge

The proposed primary discharge, identified as SW001, is treated effluent from the proposed WwTP which will discharge by gravity to Berehaven via a 120m long marine outfall.

The proposed primary discharge will replace the existing primary discharge SW001, which discharges to Berehaven near Main Street and which will be decommissioned under the proposed scheme.

Secondary Discharges and Stormwater Overflows

The following secondary discharges are to be decommissioned: GW001, GW002 and an unlicensed package plant located at the site of the proposed WwTP in Drom South - each of which discharge to

groundwater. Under the proposed scheme, effluent from these sub-catchments will be conveyed to the proposed WwTP for treatment, before being discharged via the proposed primary discharge SW001.

3 no. existing secondary outfall locations **SW002**, **SW003** and **SW004** (currently associated with existing septic tanks) are to be retained and reused as stormwater overflows at the sites of proposed pumping stations. The existing septic tanks are to be decommissioned.

There are no existing stormwater overflows or emergency overflows identified within the existing agglomeration.

A new stormwater overflow, identified as **SW005**, will be constructed adjacent to the proposed Quays Pumping Station and **SW006** from the Stormwater overflow tank at the WwTP.

3. The sources of emissions from the wastewater works

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

4. The nature and quantities of foreseeable emissions from the waste water works into the receiving aqueous environment as well as identification of significant effects of the emissions on the environment

The proposed infrastructure has been designed to cater for the projected load at the 10-year design horizon (2,168 PE). MEICA (Mechanical, Electrical, Instrumentation Control and Automation) infrastructure will be provided to accommodate the 10-year projected load (2,168 PE). However, civil and structural components have been designed to cater for future expansion up to the projected load at the 30-year design horizon (3,247 PE).

Primary treatment of wastewater will be provided, with treatment effluent quality achieving 20% reduction cBOD (mg/l) and 50% reduction Suspended Solids (mg/l). Average Daily Flows of up to 610m³/day (10-year design horizon) are expected at the WwTP. Further detail on estimated quantities of emissions are provided in **Section B.4**.

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

The proposed WwTP will be designed by the appointed Contractor to ensure the primary discharge of treated effluent achieves a 20% reduction in cBOD (mg/l) and 50% reduction in Suspended Solids (mg/l). The proposed WwTP will provide primary treatment prior to discharging effluent to Berehaven. This level of treatment is appropriate to ensure compliance with the Urban Waste Water Treatment Directive.

6. Further measures planned to comply with the general principle of the basic obligations of the operator, i.e. that significant pollution is caused

Standard Operating Procedures, Environmental Plans and Site Emergency Plans will be developed by the Contractor prior to the WwTP becoming operational.

7. Measures planned to monitor emissions into the environment

The primary discharge monitoring will be carried out in accordance with the licence requirements.

8. Types of discharge, i.e., continuous, tidal, intermittent

Outfall	Type	Details	Type of Discharge
New			
SW001	Primary Discharge	Treated effluent and stormwater overflow.	Continuous
SW005	SWO/ EO	Dual function Stormwater/ Emergency Overflow (Quays Pumping Station)	Intermittent
SW006	SWO/ EO	Dual function Stormwater/ Emergency Overflow (WwTP)	Intermittent
Reused			
SW002	SWO/ EO	Outfall to be reused as a dual function SWO/ EO (Brandyhall Bridge Pumping Station)	Intermittent
SW003	SWO/ EO	Outfall to be reused as a dual function SWO/ EO (Hospital Pumping Station)	Intermittent
SW004	SWO/ EO	Outfall to be reused as a dual function SWO/ EO (Came Woods Pumping Station)	Intermittent
To be Decommissioned			
SW001	Existing Primary discharge	Main street sewer discharge	N/A
GW001	Existing-secondary	Existing septic tank discharge to groundwater	N/A
GW002	Existing-secondary	Existing septic tank discharge to groundwater	N/A
GW003	Existing-secondary	Existing package plant discharge to groundwater	N/A

9. The hours during which the waste water works is supervised or manned and days per week of this supervision

Allowance has been made for an operator to be on site an estimated 2.5 days/week. Supervision requirements will be reviewed periodically once the plant is operational

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

This licence application is intended to replace the existing Wastewater Discharge Licence for the agglomeration (reference D0297-01). The existing licence states that a review of the of the licence will be required to accommodate loading over 2,000 PE, and to account for the relocation of the Primary Discharge and ELV changes. The proposed scheme which will provide primary treatment, will not cause any of the Environmental Quality Standard thresholds in Berehaven to be exceeded, as outlined in Section D.1 of this Application Form and detailed in the attachments D.1

which include a Far Field Modelling Report, a Near Field Modelling Report and a Supplementary Far Field Modelling Report.

As well as serving the agglomerations current needs, the proposed development has been designed to cater for future growth and development within the agglomeration. The proposed infrastructure has been designed to cater for the projected load at the 10-year design horizon (2,168 PE), while all civil and structural elements have been designed to cater for future expansion up to the projected load at the 30-year design horizon (3,247 PE).

For inspection purposes only.
Consent of copyright owner required for any other use.

SECTION B: GENERAL

Advice on completing this section is provided in the accompanying Guidance Note.

B.1 Application Type

Is this a review application?	Yes	No
	X	

If yes, provide the following information:

EPA Licence Register Number	D0297-01
------------------------------------	----------

State the grounds for which this review application is being made:

This licence review application is intended to replace the existing Wastewater Discharge Licence for the agglomeration (reference D0297-01). The License review is being submitted to account for the relocation of the Primary Discharge point and proposed emission limit values changes. The existing licence states that a review of the of the licence will be required to accommodate loading over 2,000 PE.

As well as serving the agglomerations current needs, the proposed development has been designed to cater for future growth and development within the agglomeration. The proposed infrastructure has been designed to cater for the projected load at the 10—year design horizon (2,168 PE).

B.2 Agglomeration Details

Name of Agglomeration	Castletownbere
------------------------------	----------------

Provide a drawing detailing the agglomeration to which the licence application relates. It should have the boundary of the agglomeration to which the licence application relates clearly marked in a continuous red line. Please note that the agglomeration boundary shall include all areas serviced by the sewer network and shall include the wastewater treatment plant. All areas of the agglomeration shall be within the agglomeration boundary. The boundary line on the map should not be impinged on by labels or any other graphic insertions.

Attachment B.1 should contain appropriately scaled hardcopy drawings / maps (≤A3) of the agglomeration served by the waste water works showing the boundary clearly marked in red ink. This drawing / map should also be provided as geo-referenced digital drawing files (e.g., ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This geo-referenced digital drawing should be provided to the Agency at the following address: gis@edenireland.ie.

Please see agglomeration boundary, **Map 1 Attachment B.2**.

Applicant’s Details

Name and Address for Correspondence

Only application documentation submitted by the applicant and by the nominated person will be deemed to have come from the applicant.

Name*:	Irish Water
Address:	Colvill House
	24-26 Talbot Street,
	Dublin 1.
	D01 NP86
CRO Number:	530363
Tel:	01 8925000
e-mail:	WasteWaterLicensingSouthern@water.ie

**This should be the name of the water services authority in whose ownership or control the waste water works is vested.*

Name*:	Ken Conroy
Address:	Colvill House
	24-26 Talbot Street
	Dublin 1
	D01 NP86
Tel:	01 8925000
e-mail:	WasteWaterLicensingSouthern@water.ie

**This should be the name of person nominated by the water services authority for the purposes of the application.*

B.3 Location of Associated Waste Water Treatment Plant(s)

Give the location of the waste water treatment plant associated with the waste water works, if such a plant or plants exists.

Information associated with the proposed Castletownbere WwTP is as follows:

Name*:	Valerie Hannon, Regional Compliance Specialist
Address:	Drom South TD, Castletownbere, Co. Cork
Grid ref (6E, 6N)	67579E, 45192N
Level of Treatment	Primary
Telephone Number:	N/A
e-mail:	WasteWaterComplianceSouthern@Water.ie

**This should be the name of the person responsible for the supervision of the waste water treatment plant.*

Attachment B.2 should contain appropriately scaled hardcopy drawings / maps ($\leq A3$) of the site boundary and overall site plan, including labelled discharge, monitoring and sampling points.

Please see proposed WwTP site location in Map 2, **Attachment B.3**.

B.4 Description of Associated Waste Water Treatment Plant(s)

Provide a description of the waste water treatment plant(s), type of process units, level of treatment provided and design capacity (p.e. and flow rates) for the areas of the waste water works where discharges occur.

Proposed Wastewater Treatment Plant

The proposed infrastructure has been designed to cater for the projected load at the 10—year design horizon (2,168 PE). MEICA (Mechanical, Electrical,

Instrumentation Control and Automation) infrastructure will be provided to accommodate the 10-year projected load (2,168 PE).

The proposed WwTP will include the following infrastructure:

- Inlet flow attenuation chamber with overflow;
- Self-contained inlet micro strainer 6mm screen c/w integral hand raked bypass;
- Piped bypass manual raked bar screen 19mm;
- Overflow chamber (FA-FFT) c/w return pumps;
- Stormwater holding tank (169m³) c/w return pumps and SWO;
- Flow measurement flume (FFT);
- Flow split chamber;
- 3 no. primary settlement tanks (PST), with footprint provision for a fourth PST;
- PST de-sludge/ de-scum chamber to primary sludge pumping station;
- Picket fence thickener with supernatant decant tree;
- Supernatant liquors pumping station
- Collection manhole post PST;
- Sample chamber c/w final effluent wash water pumps;
- Potable/ final effluent wash water kiosk c/w break tank and poster pumps.
- MCC and welfare kiosk.

A WwTP layout plan and sections are presented in drawing 1, **Attachment B.4.i** and drawing 2, **Attachment B.4.ii** respectively

The estimated Dry Weather Flow (DWF) for the 10-year design horizon is **488m³/day**.

The estimated Average Daily Flow (ADF) for the 10-year design horizon is: **610m³/day**.

Effluent from the proposed WwTP is to achieve the following Emission Limit Values (ELVs):

- **cBOD (mg/l):** 20% reduction;
- **Suspended Solids (mg/l):** 50% reduction.

Key process elements at the proposed WwTP are described below:

Inlet Works (Preliminary Treatment)

Preliminary treatment of flows up to Formula A will be provided by a single set of duty inlet screens. Inlet screens shall incorporate a micro-strainer type screen with aperture at 6mm, contained in a prefabricated box complete with coarse bar bypass screen and screenings bin. Package inlet works are acceptable in accordance with Irish Water Specification IW-TEC-700-99-02. The inlet works will incorporate a manual bypass which shall be fitted with a 19mm manually raked bar screen. Screenings shall be discharged into the skip/wheelie bins prior to removal from site. Grit removal will also be provided.

Following preliminary treatment, flows will pass to a rectangular weir chamber which will enable Full Flow to Treatment (FFT) to pass forward for primary treatment, with flows in excess of FFT being diverted to the proposed stormwater storage tank.

Stormwater Management

The stormwater storage tank has been sized to store flows in excess of FFT and up to Formula A for the 10-year design horizon for up to 2 hours. The tank will incorporate return duty/ standby pumps, hydro ejector type mixer and screened overflow in the event flows exceed Formula A. Pumped flows are returned to the FA-FFT flow split chamber during periods of low flow at the inlet works.

The stormwater storage tank will be provided with a gravity overflow pipe which will discharge via the marine outfall.

The structure will be capable of being extended in the future to accommodate spills up to the 30-year design horizon.

Primary Settlement Tanks

The proposed Primary Settlement Tanks (PSTs) have been designed to cater for the 10-year design horizon. Screened flows up to FFT shall be split upstream of the PSTs by means of a splitter chamber to create three equal process streams which will feed three independent primary settlement tanks. The settlement tanks shall utilise the 'upward flow' type settlement process. Each settlement tank shall be a prefabricated proprietary unit which allows for approximately 2.5hrs retention time.

Sludge Management

The sludge management system shall receive sludges from the primary settlements tanks and shall consist of a sludge pumping station, Picket Fence Thickener (PFT), and supernatant return pumping station.

Sludges from the PSTs will flow by gravity to the sludge pumping station, via which they will be pumped to the PFT. Supernatant shall be taken from the PFT and recirculated to the flow split chamber prior to the PST via the supernatant return pump station.

Thickened solids shall be collected via tanker and transported to the off-site collection facility.

The sludge management system is sized for the 10-year design horizon.

Proposed Marine Outfall

The proposed 120m long marine outfall will be designed to have sufficient capacity to cater for future loading up to the 30-year design horizon and will be capable of discharging Formula A flows of 4,530m³/day. Effluent will discharge by gravity at an approximate level of -7.7mOD (Main) via a diffuser consisting of 3 No. 80mm diameter ports.

B.5 (i) Population Equivalent of Agglomeration

The population equivalent (p.e.) of the agglomeration to be, or being, served by the waste water works should be provided and the period in which the population equivalent data was compiled should be indicated.

Actual Population Equivalent	Peak Week 1,880
Design Population Equivalent	10 Year: 2,168 PE
Data Compiled (Year)	2021
Method of Compilation, e.g., direct measure	Review of registered properties on GeoDirectory, 2016 Census results

Section 3.6.6 of the West Cork Municipal District Local Area Plan (LAP)-2017 confirmed a population of 912 persons for the town of Castletownbere based on the Census 2011 data. The LAP provides growth estimates for Castletownbere and states "the County Development Plan sets an overall population target of 1,439 for Castletownbere for the year 2022".

B.5 (ii) Pending Development

Where planning permission has been granted for development(s), but development has not been commenced or completed to date, within the boundary of the agglomeration and this development is being, or is to be, served by the waste water works provide the following information;

- information on the calculated population equivalent (p.e.) to be contributed to the waste water works as a result of those planning permissions granted,
- the percentage of the projected p.e. to be contributed by the non-domestic activities, and
- the ability of the waste water works to accommodate this extra hydraulic and organic loading without posing an environmental risk to the receiving water habitat.

No significant developments identified where planning permission has been granted but development has not been completed.

B.5 (iii) FEES

State the relevant class of waste water discharge as per Column 1 of the Second Schedule, and the appropriate fee as per Columns 2 or 3 of the Third Schedule of the Waste Water Discharges (Authorisation) Regulations 2007 as amended.

Class of waste water discharge	Fee (in €)
Discharges from agglomerations with a population equivalent of: 2,001 – 10,000 PE (Licence Review)	€20,000

B.6 Primary Discharge Point

Provide information on the primary discharge point, as defined in the Waste Water Discharge (Authorisation) Regulations as amended, associated with the waste water works.

New Primary Discharge Point to be Constructed

Type of Discharge	E.g. Diffuser, Lunar Valve, Non-return flap valve etc. Diffuser (3 No. 80mm diameter ports).
Unique Point Code	SW001
Location	Drom South TD, Castletownbere
Grid ref (6E, 6N)	E:67756, N:45122
Source of Emission	WwTP effluent
Monitoring Point Location (6E, 6N)	Final Effluent Chamber (E:67594, N:45195)
Monitoring Frequency	As required
Composite Sampler Provided	Yes

Receiving Water Name	Berehaven
Receiving Water Type	Coastal
Receiving Water WFD Code	IE_SW_180_0000

Existing Primary Discharge Point to be Decommissioned

Type of Discharge	E.g. Diffuser, Lunar Valve, Non-return flap valve etc. Existing 350mm outfall pipe with non-return valve
Unique Point Code	SW001
Location	Foildarrig TD
Grid ref (6E, 6N)	E:68028 N:46138
Source of Emission	Sewer network
Monitoring Point Location (6E, 6N)	E:68028 N:46138 (sampling point)
Receiving Water Name	Berehaven
Receiving Water Type	Coastal
Receiving Water WFD Code	IE_SW_180_0000

Attachment B.3 should contain appropriately scaled hardcopy drawings / maps ($\leq A3$) of the primary discharge point, including labelled monitoring and sampling points associated with the discharge point.

Please see primary discharge point location in Map 3, **Attachment B.6**.

B.7 Secondary Discharge Point(s)

Provide information on **all** secondary discharge point(s) associated with the waste water works. Please refer to Guidance Note for information on Secondary discharge points.

There are no proposed secondary discharges as part of the Castletownbere Sewerage Scheme development.

Existing Secondary Discharge Point(s) to be Decommissioned

Type of Discharge	E.g. Diffuser, Lunar Valve, Non-return flap valve etc. Outfall pipe
Unique Point Code	GW001
Location	Drom North TD
Grid ref (6E, 6N)	E:67462 N:45370
Source of Emission	Septic Tank No. 4- Drom North
Receiving Water Name	Groundwaters
Receiving Water Type	Groundwater
Receiving Water WFD Code	IE_SW_G_019

Type of Discharge	E.g. Diffuser, Lunar Valve, Non-return flap valve etc. Outfall pipe
Unique Point Code	GW002
Location	Foildarrig TD
Grid ref (6E, 6N)	E:67997 N:46481
Source of Emission	Septic Tank No. 5- Foildarrig
Receiving Water Name	Groundwaters
Receiving Water Type	Groundwater
Receiving Water WFD Code	IE_SW_G_019

Type of Discharge	E.g. Diffuser, Lunar Valve, Non-return flap valve etc. Discharge to groundwater
Unique Point Code	GW003
Location	Drom South TD, Castletownbere (Site of the proposed Castletownbere WwTP)
Grid ref (6E, 6N)	E:67603, N:45215
Source of Emission	Wastewater Package Plant
Receiving Water Name	Beara Sneem
Receiving Water Type	Groundwater
Receiving Water WFD Code	IE_SW_G_019

Attachment B.4 should contain appropriately scaled hardcopy drawings / maps ($\leq A3$) of the secondary discharge point(s), including labelled monitoring and sampling points associated with the discharge point(s).

Please see secondary discharge points to be decommissioned Map 4, in **Attachment B.7**.

B.8 Storm Water Overflow Point(s)

Provide information on **all** storm water overflow point(s) associated with the waste water works.

New Stormwater Overflow Point (WWTP)

Unique Point Code	SW006 Dual function SWO/ EO associated with WWTP
Storm Water Device Location (6E, 6N)	Stormwater Storage Tank (E:67574, N: 45191)
Discharge Location (6E, 6N)	E:67756, N:45122
Does this Storm Water Overflow comply with the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995	Yes.
Is this Storm Water Overflow to be decommissioned?	No- newly constructed
Decommissioning Date	N/A

New Stormwater Overflow Point to Connect into Existing Surface Water Sewer

Unique Point Code	SW005 Dual function SWO/ EO Quays Pumping Station
Storm Water Device Location (6E, 6N)	E: 67800, N: 45873
Discharge Location (6E, 6N)	E: 67754, N:45853
Does this Storm Water Overflow comply with the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995	Yes.
Is this Storm Water Overflow to be decommissioned?	No- newly constructed
Decommissioning Date	N/A

Existing Secondary Discharge Point(s) to be Retained for use as Stormwater Overflows

Unique Point Code	SW002 Dual function SWO/ EO Brandyhall Bridge PS
Storm Water Device Location (6E, 6N)	E: 68345, N:46311
Discharge Location (6E, 6N)	E: 68347, N: 46339
Does this Storm Water Overflow comply with the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995	Yes.
Is this Storm Water Overflow to be decommissioned?	No. The existing Brandyhall Bridge Septic Tank (No. 1) is to be decommissioned as part of the Castletownbere Sewerage Scheme. The existing outfall pipe is to be retained and used as an SWO for a proposed pumping station at the same site location.
Decommissioning Date	N/A

Unique Point Code	SW003 Dual function SWO/ EO Hospital PS
Storm Water Device Location (6E, 6N)	E:68613, N:46026
Discharge Location (6E, 6N)	E: 68625, N: 46004
Does this Storm Water Overflow comply with the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995	Yes.
Is this Storm Water Overflow to be decommissioned?	No. The existing Hospital Septic Tank (No. 2) is to be decommissioned as part of the

	Castletownbere Sewerage Scheme. The existing outfall pipe is to be retained and used as an SWO for a proposed pumping station at the same site location.
Decommissioning Date	N/A

Unique Point Code	SW004 Dual function SWO/ EO Came Woods PS
Storm Water Device Location (6E, 6N)	E:67676, N:45752
Discharge Location (6E, 6N)	E: 67654, N:45749
Does this Storm Water Overflow comply with the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995	Yes.
Is this Storm Water Overflow to be decommissioned?	No. The existing Camtringane Septic Tank (No. 3) is to be decommissioned as part of the Castletownbere Sewerage Scheme. The existing outfall pipe is to be retained and used as an SWO for a proposed pumping station at the same site location.
Decommissioning Date	N/A

Attachment B.5 should contain appropriately scaled hardcopy drawings / maps ($\leq A3$) of storm water overflow point(s) associated with the waste water works, including labelled monitoring and sampling points associated with the discharge point(s).

Please see Stormwater Overflow discharge locations Map 5, in **Attachment B.8**.

B.9 Emergency Overflow Point(s)

Provide information on **all** emergency overflow point(s) associated with the waste water works.

Unique Point Code	See Section B.8
Emergency Overflow Device Location (6E, 6N)	See Section B.8
Discharge Location (6E, 6N)	See Section B.8

All SWOs in the agglomeration are dual function, acting as Storm Water Overflows and Emergency Overflows when required, as outlined in Section B.8 above.

Attachment B.6 should contain appropriately scaled hardcopy drawings / maps ($\leq A3$) of emergency overflow point(s) associated with the waste water works, including labelled monitoring and sampling points associated with the discharge point(s).

B.10 Leachate

Leachate Accepted at the plant	Yes	No
		X
Quantity of Leachate accepted (m³/annum)	Not Applicable	

B.11 Industrial, Commercial and Trade Inputs

Applicants should provide details of any significant industrial inputs into the waste water treatment works.

Industrial Inputs	Type	Quantity (m³/annum)
Not Applicable	Not Applicable	Not Applicable

B.12 Abstractions

Applicants should submit the following information for each abstraction point (including drinking water) which potentially impacts on, or is potentially impacted by the waste water treatment works. The zone of contribution for the abstraction point should be delineated and any potential risks from the waste water discharge to the water quality at that abstraction point identified.

Abstraction Code	Abstraction Volume (m³/day)	Distance upstream/downstream	Easting (6E-digit GPS Irish National Grid Reference)	Northing (6E-digit GPS Irish National Grid Reference)
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Note: Attach any risk assessment that may have been carried out in relation to the abstraction point(s) listed.

Attachment B.7 should contain any supporting information.

B.13 Planning Authority and/or Public Authority

Give the name of the planning authority, or authorities, in whose functional area the discharge or discharges take place or are proposed to take place.

Name:	Cork County Council
Address:	Norton House, Skibbereen Co. Cork
Tel:	(028) 40340
e-mail:	westcorkplanninginfo@corkcoco.ie

Planning Permission relating to the waste water works which is the subject of this application:- (tick as appropriate)

has been obtained	X	is being processed	
is not yet applied for		is not required	

Local Authority Planning File Reference No:	19/00813 & 19/00814
--	---------------------

Attachment B.8a should contain **the most recent** planning permission, including a copy of **all** conditions, a copy of the planning inspector's report and where an EIAR was required, copies of any such EIAR and any certification associated with the EIAR, should also be enclosed. Where planning permission is not required for the development, provide reasons, relevant correspondence, etc.

Planning permission and conditions for planning file reference no.s 19/00813 (main scheme) and 19/00814 (Hospital P.S.) can be found in **attachments B.13.a and B.13.b** respectively.

The corresponding planning inspectors reports for planning file reference no.s 19/00813 and 19/00814 can be found in **attachments B.13.c and B.13.d** respectively. Both planning inspector's reports confirm that an EIAR is not required. The EIA screening is provided in **attachment D.1.d**.

B.14 Notices and Advertisements

Regulations 10 and 11 of the Waste Water Discharge (Authorisation) Regulations 2007 as amended, require all applicants to advertise the application in a newspaper (within two weeks prior to date of application) and by way of a site notice. See *Guidance Note*.

Attachment B.9 should contain a copy of the site notice and an appropriately scaled drawing ($\leq A3$) showing its location. **The original application must include the original page of the newspaper in which the advertisement was placed.** The relevant page of the newspaper containing the advertisement should be included with the original and one (1) copy of the application.

A copy of the public site notice, map 6, indicating its site location and the newspaper notice advertisement are provided in **Attachment B.14.a, B.14.b and B.14.c** respectively

B.15 Capital Investment Programme

State whether a programme of works has been prioritised for the development of infrastructure to appropriately collect, convey, treat and discharge waste water from the relevant agglomeration. If a programme of works has been prioritised provide details on funding allocated to the capital project. Provide details on the extent and type of work to be undertaken and the likely timeframes for this work to be completed.

Attachment B.10 should contain the most recent development programme, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

The Castletownbere Sewerage Scheme has been allocated funding under Irish Water's Capital Investment Plan 2020-2024. The Irish Water Board approved funding for the scheme in December 2020. It is anticipated that the new primary discharge location will be operational by Q2,2022, with full completion of the works (including commissioning) by Q3, 2022, but is subject to change.

B.16 Significant Correspondence

Provide a summary of any correspondence resulting from a Section 63 notice or a compliance correspondence issued by the Agency in relation to the waste water works under the Environmental Protection Agency Act 1992 as amended, or the Waste Water Discharge (Authorisation) Regulations 2007 as amended.

Attachment B.11 should contain a summary of any relevant correspondence issued in relation to a Section 63 notice/ compliance correspondence.

There are two open compliance investigations (CI). One is reference INC1014636, dated 22/6/2018, relating to recurring breaches of ELVs. It is noted that this CI will be addressed by the upgrade of the Castletownbere WWTP. The other is reference CI001681, dated 10/9/2018, relating to tracking progress with the waste water infrastructure improvements.

B.17 Foreshore Act Licences.

Provide a copy of the most recent Foreshore Act licence issued in relation to discharges from the waste water works issued under the Foreshore Act 1933 as amended.

Attachment B.12 should contain the most recent licence issued under the Foreshore Act 1933 as amended, including a copy of **all** conditions attached to the licence and any monitoring returns for the previous 12-month period, if applicable.

A foreshore Licence was granted on 26/05/1989. A copy of this licence is provided in **Attachment B.17**.

SECTION C: DISCHARGES & MONITORING

Advice on completing this section is provided in the accompanying Guidance Note.

- Give particulars of the source, location, nature, composition, quantity, level and rate of discharges arising from the agglomeration and, where relevant, the period or periods during which such emissions are made or are to be made.

The table below includes details of spill frequencies and volumes along the proposed sewerage network. The grid references below are for the discharge locations.

Discharge Point Code	Discharge Point Type	Receiving Water Body Name	Discharge Location		Frequency of Discharge (days/ annum)	Rate of Discharge (m ³ /day @ Average Daily Flow)
			6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference		
New to be Constructed						
SW001	Primary discharge	Berehaven (Coastal)	67756	45122	365	610
SW005	SWO/ EO: Quays PS	Berehaven (Coastal)	67754	45853	Unknown - intermittent	Unknown - intermittent
SW006	SWO/ EO	Berehaven	67756	45122	Unknown -	Unknown -

	WwTP	(Coastal)			intermittent	intermittent
Existing Secondary to be Reused as SWOs						
SW002	SWO/ EO: Brandyhall Bridge PS	Berehaven (Coastal)	68347	46339	Unknown - intermittent	Unknown - intermittent
SW003	SWO/ EO: Hospital PS	Berehaven (Coastal)	68625	46004	Unknown - intermittent	Unknown - intermittent
SW004	SWO/ EO: Came Woods PS	Berehaven (Coastal)	67654	45749	Unknown - intermittent	Unknown - intermittent
Existing to be Decommissioned						
SW001	Existing primary	Berehaven (Coastal)	68028	46138	0	0
GW001	Existing Secondary	Beara Sneem (groundwater)	67462	45370	0	0
GW002	Existing Secondary	Beara Sneem (groundwater)	67997	46481	0	0
GW003	Existing Secondary	Beara Sneem (groundwater)	67603	45215	0	0

- Undertake and provide details of a risk based assessment of the discharge in order to identify the relevant priority substances for monitoring. This assessment shall be undertaken in accordance with "Guidance on the Screening for Priority Substances for Waste Water Discharge Licences" issued by the Agency. Provide details of the sources of any priority substances detected during the risk based assessment of discharges, that would be likely to give rise to exceedances of the relevant standards set in the European Communities Environmental Objectives (Surface Waters) Regulations 2009 as amended. Provide information on measures that are necessary to reduce or eliminate priority substances in the discharge(s).

As the source of the wastewater in Castletownbere is municipal in nature, it is not considered likely that concentrations of dangerous substances from the agglomeration will impair the environment.

- Details of all discharges of waste water from the agglomeration should be supplied. Tables C.1(a) & (b), should be completed for the primary discharge point from the agglomeration and Tables C.2(a) & (b) should be completed for **each** secondary discharge point, where relevant. Individual Tables must be completed for each discharge point.

Please see completed tables **C.1(a), (b)** and **C.2(a) and (b)**, in this form for discharge details.

- Describe the existing or proposed measures, including emergency procedures, to prevent unintended waste water discharges and to minimise the impact on the environment of such discharges.

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

An emergency procedures plan will be developed as part of the process of the design and construction of the new WWTP to ensure unintended waste water discharges and potential impacts on the environment are kept to a minimum.

- Regulation 16(1)(h) of the Waste Water Discharge (Authorisation) Regulations 2007 as amended, requires all applicants to provide the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application.

Monitoring is not undertaken as there is currently no treatment at this agglomeration.

- Attach associated monitoring data for the receiving water for the 12 months preceding the making of the application. This data should be provided for the primary discharge point and each of the secondary discharge points, if applicable.

Available monitoring data (provided by the EPA) associated with monitoring stations within close proximity to the existing and proposed discharge points is provided in **Appendix C.1.A**.

- Regulation 16(1)(l) of the regulations requires applicants to give details of compliance with any applicable monitoring requirements and treatment standards.

A monitoring and sampling programme will be undertaken on completion of the new WwTP in accordance with the relevant standards and frequencies to comply with the Waste Water Discharge Licence.

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

Drawing 3, the Outfall Long Section, in **Attachment C.1.B** presents the longitudinal section of the marine outfall and primary discharge point, SWO01. This confirms that the outfall will discharge at approximately -7.7mOD Malin. The drawing also indicates the lowest astronomical tide level as -2.43m O.D Malin and confirms the proposed long sea outfall lies below this level.

Attachment C.1 should contain all supporting information.

SECTION D: EXISTING ENVIRONMENT & IMPACT OF THE DISCHARGE(S)

Advice on completing this section is provided in the accompanying Guidance Note.

Detailed information is required to enable the Agency to assess the existing receiving environment. This section requires the provision of information on the ambient environmental conditions within the receiving water(s) upstream and downstream of any discharge(s).

Where applicable, information on the state of the existing environment should be addressed in the EIAR. **In such cases, it will suffice for the purposes of this section to provide adequate cross-references to the relevant sections in the EIAR.** If there is no EIAR associated with the development, information on the existing environment should be provided here.

D.1. Assessment of Impact on Receiving Surface or Ground Water

- Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

The proposed WwTP will provide primary treatment of wastewater, with treatment effluent quality achieving

- 20% reduction cBOD₅ (mg/l) and
- 50% reduction Suspended Solids (mg/l).

Average daily flows of up to 610m³/day (10-year design horizon) are expected at the WwTP.

An assessment of the impact of wastewater discharges from the proposed Castletownbere WwTP outfall has been conducted. Near Field and Far Field Modelling assessments have been undertaken and are provided in **Attachment D.1.a** of the application. A supplementary Far Field modelling report was compiled in response to a request for information associated with the planning application process and includes additional modelling. This report is also included in **Attachment D.1.b**

The primary discharge from the proposed Castletownbere WwTP will be to Berehaven, coastal waterbody, WFD code IE_SW_180_0000. The primary discharge will be via a marine outfall, 120m in length from the high-water mark. The EU Water Framework Directive (WFD) has established a Framework for the protection, improvement and management of surface water and groundwaters. The (2010-2015) WFD status of the coastal water body in the vicinity of Castletownbere is classified as having 'good' water quality status.

As part of the far field modelling assessment, a high-resolution MIKE 21 Water Quality model of Bantry Bay was developed. Model results indicate that the 95%ile concentrations of both E.Coli and Intestinal Enterococci are significantly reduced in the inner harbour area of Castletownbere with the proposed Castletownbere Sewerage Scheme in place. 50%ile

concentrations of Dissolved Inorganic Nitrogen, Molybdate Reactive Phosphorus, Total Ammonia and Unionised Ammonia are reduced across large areas of the Harbour.

Results also indicate that the 95%ile concentrations of both E. Coli and Intestinal Enterococci as well as the 50%ile concentrations of the other modelled nutrients are increased in the vicinity of the proposed outfall location. These increases in percentile concentrations are considered minor and do not lead to Surface Water Regulation thresholds being exceeded at any of the designated monitoring points (operated by the Environmental Protection Agency). The mixing zone in relation to E. Coli is presented in Figure 49 of the Far Field modelling report. It confirms that the mixing zone area that exceeds the 500 cfu/100ml threshold (target set to Bathing Water Directive), is approximately 3,800m². The zone identified as good quality is approximately 28,600m².

The proposed scheme will not cause any of the Environmental Quality Standard thresholds in Berehaven to be exceeded based on the proposed design loadings, as listed in Section B4. Proposed discharges from the proposed WwTP at Drom South, Castletownbere are in full compliance with the following regulations:

- Urban Wastewater Treatment Regulations 2001
- EC Environmental Objectives (Surface Water) Regulations 2009
- The Bathing Water Directive 2006/7/EC
- The Shellfish Directive 2006/113/EC

Given the findings of the water quality modelling reports in attachments D.1.a and D.1.b, Irish Water considers that the level of treatment being proposed (primary) for this agglomeration is appropriate and that the proposed emission limit values will be sufficient to allow the receiving waters to meet the relevant quality objectives, and the relevant provisions of the above referenced directives and regulations (and those referenced further in section D below also). The proposed ELVs are therefore compatible with achieving the WFD objectives for the receiving waters (Berehaven, Coastal waterbody).

Parameters	Proposed Emission Limit Values/% reduction
cBOD (mg/l)	20% reduction
Suspended Solids (mg/l)	50% reduction

- Provide summary details and an assessment of the impacts of any existing or proposed emissions on the surface water or ground (aquifers, soils, sub-soils and rock environment), including any impact on environmental media other than those into which the emissions are to be made.

Three existing secondary discharges discharge untreated wastewater to groundwater via percolation areas. There is expected to be an overall improvement in groundwater quality as result of the decommissioning of these discharges as part of the Castletownbere Sewerage Scheme.

- Where a discharge is being made to a small stream, provide evidence that there is a background flow in the stream all year round.

Not applicable.

- Provide details and evaluate any direct or indirect discharges to groundwater that may be associated with the waste water treatment plant in accordance with the EPA Guidance document '*Guidance on the Authorisation of Direct Discharges to Groundwater*' (2014) and the Agency published '*Guidance on the Authorisation of Discharges to Groundwater*' (2011).

Not applicable.

- Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Give details of any designation under any Council Directive or Regulations that apply in relation to the receiving water.

Waterbody Name	WFD Code	Waterbody Type	WFD Status (2010-2015)
Berehaven	IE_SW_180_0000	Coastal	Not at Risk
Beara Sneem	IE_SW_G_019	Groundwater	Not at Risk
Outer Bantry Bay	IE_SW_170_0000	Coastal	Not at Risk

There are no designated nutrient sensitive areas under the Urban Waste Water Treatment Regulations, 2001, as amended.

There are no designated bathing areas in the area of Castletownbere.

Castletownbere is a classified shellfish production area under the European Communities (Quality of Shellfish Waters) Regulation, 2006. A proportion of the waters north of Bere Island are classified as the Castletownbere shellfish production area under the Irish Shellfish Regulations (S.I. No. 55/2009). It is currently a Class A production area for Mussels, Oysters and Urchins. The western boundary of this production area is located approximately 1km east of the proposed outfall location.

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

- Beara Peninsula SPA (2.3km), Sheeps Head to Toe Head SPA (11.4km);
- Kenmare River SAC (5.7km), Glanmore Bog SAC (6.9km), Sheeps Head SAC (11.4km), Caha Mountains SAC (13.2km),

Further information on the above SPAs and SACs is provided in **Appendix 1- Table D.1** of this application.

- Provide information demonstrating that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the;

- Water Framework Directive 2000/60/EC,
- Birds Directive 79/409/EEC,
- Groundwater Directives 80/68/EEC & 2006/118/EC,
- Drinking Water Directives 80/778/EEC,
- Urban Waste Water Treatment Directive 91/271/EEC,
- Habitats Directive 92/43/EEC,
- Environmental Liabilities Directive 2004/35/EC,
- Bathing Water Directive 76/160/EEC,
- Marine Strategy Framework Directive 2008/56/EC, and
- European Communities Environmental Objectives (Surface Waters) Regulations 2009 as amended.

The proposed Castletownbere Sewerage Scheme will end the practice of the discharge of untreated wastewater to Berehaven and groundwater which will have a significant positive impact on the surface water quality.

The planned works will ensure that the emissions from the agglomeration will comply with and not result in the contravention of the above Directives. Further details on the proposed WwTP are detailed in **Section B.4** of this application.

- o Describe, where appropriate, measures for minimising pollution over long distances or in the territory of other states.

No transboundary or long distance effects are envisaged with regards to the proposed development. AA Screening, EIA Screening and Ecological Impact Assessment reports have been compiled and include mitigation measures to minimise impacts on the surrounding environment.

The Ecological Impact Assessment, EIA Screening and AA screening reports are provided in **Attachment D.1.c**, **Attachment D.1.d** and **Attachment D.2** respectively.

- o This section should also contain full details of any modelling of discharges from the agglomeration. Full details of the assessment and any other relevant information on the receiving environment should be submitted as **Attachment D.1**.

An assessment of the impact of wastewater discharges from the proposed Castletownbere Sewerage Scheme has been conducted. The study is entitled 'Castletownbere Far Field Modelling', included as **Attachment D.1.a**, and includes a near field modelling assessment in appendix C of the report. An additional supplementary report entitled 'Castletownbere Far Field Modelling Supplementary Report- Response to RFI and Additional Modelling' is also provided in **Attachment D.1.b**. The proposed scheme does not cause any of the Environmental Quality Standard thresholds in Berehaven to be exceeded based on the proposed design loadings. Proposed discharges from the proposed WwTP at Drom South, Castletownbere are in full compliance with the following regulations:

- o Urban Wastewater Treatment Regulations 2001
- o EC Environmental Objectives (Surface Water) Regulations 2009
- o The Bathing Water Directive 2006/7/EC
- o The Shellfish Directive 2006/113/EC

The purpose of the far field modelling report was to assess compliance of relevant water quality parameters (as presented in Section 1.4.5 of the modelling report) with environmental quality standard threshold levels and adhere with relevant EU water quality Directives.

A detailed high-resolution MIKE21 numerical model of Bantry Bay and the area of the Irish Sea adjacent to its entrance of the harbour has been developed. The model consists of two separate parts (hydrodynamic model and water quality (EcoLab) model) which are dynamically coupled and run together as a single model.

Two separate scenarios have been considered as part of the study:

- The Existing (baseline) Scenario: This represents the current situation with a number of outfalls discharging untreated sewage into Berehaven, Castletownbere.
- The Proposed Scenario: This represents the situation with the proposed WwTP in place (as outlined in Section B4), namely the untreated sewage outfalls being replaced by one new outfall discharging primary treated effluent into Berehaven.

Results of the far field water quality modelling indicate that the 95%ile concentrations of both E. Coli and Intestinal Enterococci are significantly reduced within Berehaven with the implementation of the proposed Sewerage Scheme. Concentrations of E. Coli and Intestinal Enterococci do not exceed Environmental Quality Standard thresholds at any location in the harbour, except at the location of the proposed outfall.

The results of model also indicate that the 50%ile concentrations of Dissolved Inorganic Nitrogen (DIN), Molybdate-Reactive Phosphorous (MRP), Total Ammonia (TA) and Unionised Ammonia (UiA) are reduced across large areas of Berehaven but are increased in the vicinity of the location of the proposed outfall. Full details of the concentrations modelled are provided in the modelling reports provided in **Attachments D.1.a and D.1.b**

Section 6.7 of the Far Field modelling report relates to mixing zones and figure 49 displays the mixing zone associated with E. Coli. This image confirms that the mixing zone area that exceeds the 500 cfu/ 100ml threshold (target set to Bathing Water Directive), is approximately 3,800m². The zone that is of good quality is approximately 28,600m² in area.

The increases in the percentile concentrations are considered to be minor and do not lead to exceeding the thresholds at any of the Surface Water Regulation monitoring points. Discharges from the proposed Castletownbere WwTP are therefore considered fully compliant with the following regulations:

- Urban Wastewater Treatment Regulations 2001
- EC Environmental Objectives (Surface Water) Regulations 2009
- The Bathing Water Directive 2006/7/EC
- The Shellfish Directive 2006/113/EC

A Shellfish Pollution Reduction Programme (PRP) report has been published by the former Department of the Environment, Heritage and Local Government for the designated Castletownbere Shellfish Area. The objectives of the PRP is to protect or improve water quality in designated shellfish areas and achieve compliance with the water quality parameters as outlined in the Quality of Shellfish Water Regulations (S.I. No. 268 of 2006). Section 5.2.1 of the Castletownbere Pollution Reduction Programme (PRP) identifies the existing Castletownbere municipal wastewater system as a pressure on the quality of the designated shellfish waters. The proposed wastewater treatment plant will meet the requirements of the Urban Wastewater Treatment Directive and have a positive impact on the quality of the receiving waters of Berehaven. The results of the water quality impact assessment for this scheme indicate that the proposed scheme will significantly improve the water quality in Berehaven and will not lead to any EQS being exceeded at any of the designated EPA Surface Water Regulation monitoring points. The proposed scheme therefore greatly supports the Castletownbere PRP meeting its objectives.

D.2. Appropriate Assessment

- Where applicable, provide a copy of any screening for Appropriate Assessment report and Natura Impact Statement (NIS) that was prepared for consideration by any planning/public authority as defined in Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, in relation to the waste water works. Where a determination that an Appropriate Assessment is required has been made by any planning/public authority in relation to the waste water works, a copy of that determination and any screening report and Natura Impact Statement (NIS), and any supplementary information furnished in relation to any such report or statement, which has been provided to the planning/public authority for the purposes of the Appropriate Assessment shall be included.

Appropriate Assessment screening was submitted to Cork County Council as part of the planning submission for the proposed Castletownbere Sewerage Scheme. Planning permission was granted in October 2020. A copy of the AA Screening report is provided in **Attachment D.2**. As part of the planning approval process (refer to Planning Inspector's reports in **Attachments B.13.c** and **B.13.d**) the Senior Planner has confirmed that Stage 2 Appropriate Assessment, and therefore an NIS, is not required.

The EIA screening is provided in **Attachment D.1.d**, with the Planning Inspector also concluding in the Planning Inspector's reports, that an EIAR is not required as per attachments B.13.c and B.13.d.

- Undertake a screening for Appropriate Assessment and submit a copy of the screening report in Attachment D.2.

Appropriate Assessment screening has taken place and a copy of the report is provided in **Attachment D.2**.

- Complete Table D.1 providing details of all European Sites considered as part of the screening for appropriate assessment.

Please see completed **Table D.1**, which can be found in **Annex 1**.

- Based on the information provided above, indicate whether the discharge(s), individually or in combination with other plans or projects, is likely to have a significant effect on a European Site(s), in view of best scientific knowledge and the conservation objectives of the site(s). Provide reasons for this determination.

The AA Screening report conducted by Arup concludes that:

- There is no potential for the proposed development to significantly impact on Natura 2000 Sites;
- The proposed Castletownbere Sewerage Scheme is not directly connected with, or necessary to the conservation management of any Natura 2000 Sites;
- The proposed development, alone or in combination with other projects, is not likely to have significant effects on Natura 2000 Sites in view of their conservation objectives.

Appropriate Assessment screening was submitted to Cork County Council as part of the planning submission for the proposed Castletownbere Sewerage Scheme. Planning permission was granted in October 2020. Appendix A of the report includes 'Findings of No Significant Effects Report'.

- Where it cannot be excluded, on the basis of objective scientific information, following screening for Appropriate Assessment, that the discharge(s), either individually or in combination with other plans or projects, will have a significant effect on a European Site, provide a Natura Impact Statement (in Attachment D.2), as defined in Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 as amended.

Appropriate Assessment screening was submitted to Cork County Council as part of the planning submission for the proposed Castletownbere Sewerage Scheme. It was considered that a Natura Impact Statement is not required for the proposed Castletownbere Sewerage Scheme. Planning permission was granted in October 2020.

Attachment D.2 should contain an Appropriate Assessment screening report and where applicable a Natura Impact Statement.

D.3. Programme of improvements

- Provide details on a programme of improvements to ensure that discharges from the agglomeration will not result in significant environmental pollution and details to ensure that all emissions from the agglomeration will comply with, or will not result in the contravention of any national or European legislation.

There are no additional investments planned beyond the current work programme, further details of which are included in **Section B.4** of this application.

Attachment D.3 should contain the most recent programme of improvements, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

SECTION E: DECLARATION

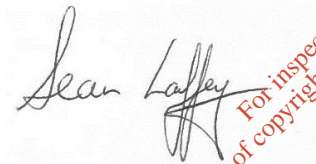
Declaration

I hereby make an application for a waste water discharge licence/revised licence, pursuant to the provisions of the Waste Water Discharge (Authorisation) Regulations 2007 as amended.

I certify that the information given in this application is truthful, accurate and complete.

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA and Irish Water offices, and via the EPA's website.

This consent relates to this application itself and to any further information or submission, whether provided by me as the Applicant or any person acting on the Applicant's behalf.



Signed by : _____ **Date :** 19/02/2021
(on behalf of the organisation)

Print name: _____ Sean Laffey _____

Position in organisation: _____ Head of Asset Management _____

For inspection purposes only.
Consent of copyright owner required for any other use.

ANNEX 1: TABLES/ATTACHMENTS**Table C.1(a): Emissions to Surface/Ground Water – Primary Discharge Point**

Discharge Point Code	Proposed SW001
Normal Volume Emitted/day (m ³ /day)	610m ³ /day
Maximum Volume Emitted/day (m ³ /day)	1,464m ³ /day
Period of Emission (avg)	24hrs per day

Table C.1(b): Emissions to Surface/Ground Water – Characteristics of the Emission - Primary Discharge Point

Substance	As Discharged		
	Unit of Measurement	Sampling Method	Max Daily Average*
pH	pH	TBC	TBC
Temperature	°C	TBC	TBC
Suspended Solids	mg/l	TBC	TBC
Total Ammonia (as N)	mg/l	TBC	TBC
Carbonaceous Biochemical Oxygen Demand	mg/l	TBC	TBC
Chemical Oxygen Demand - Cr	mg/l	TBC	TBC
Total Nitrogen (as N)	mg/l	TBC	TBC
Total Phosphorus (as P)	mg/l	TBC	TBC
Orthophosphate (as P) - Unspecified	mg/l	TBC	TBC

* Max daily average refers to the maximum concentration of the relevant substance recorded from composite sample results during the monitoring period.

Table C.2(a): Emissions to Surface/Ground Water – Secondary Discharge Point
(1 table per discharge point)

Discharge Point Code	Not applicable.
Normal Volume Emitted/day (m ³ /day)	N/A
Maximum Volume Emitted/day (m ³ /day)	N/A
Period of Emission (avg)	N/A

Table C.2(b): Emissions to Surface/Ground Water – Characteristics of the Emission - Secondary Discharge Point
(1 table per discharge point)

Substance	As Discharged		
	Unit of Measurement	Sampling Method	Max Daily Average*
pH	pH	N/A	N/A
Temperature	°C	N/A	N/A
Suspended Solids	mg/l	N/A	N/A
Total Ammonia (as N)	mg/l	N/A	N/A
Carbonaceous Biochemical Oxygen Demand	mg/l	N/A	N/A
Chemical Oxygen Demand - Cr	mg/l	N/A	N/A
Total Nitrogen (as N)	mg/l	N/A	N/A
Total Phosphorus (as P)	mg/l	N/A	N/A
Orthophosphate (as P) - Unspecified	mg/l	N/A	N/A

* Max daily average refers to the maximum concentration of the relevant substance recorded from composite sample results during the monitoring period.

Table D.1: List of European Sites assessed, their associated qualifying interests and conservation objectives.

	European Site Name & Site Code	Distance/ Direction of European Site from discharge(s) (Distance from closest section of proposed development)	Qualifying interests List all habitats and species listed in the Conservation Objectives document on the NPWS website. Denote priority habitats with an *. For species list the English Name & <i>Latin Name</i> .	Conservation objectives Cite the most recent Conservation Objectives document on the NPWS website for the European Site.
1	Beara Peninsula SPA (Site Code 004155)	2.3km	<ul style="list-style-type: none"> • Fulmar (<i>Fulmarus glacialis</i>) [A009] • Chough (<i>Pyrrhocorax pyrrhocorax</i>) [A346] 	NPWS (2018) conservation objectives for Beara Peninsula [004155]. Generic Version 6.0 Department of Culture, Heritage and the Gaeltacht.
2	Sheep's Head to Toe Head SPA (Site Code 004156)	11.4km	<ul style="list-style-type: none"> • Peregrine (<i>Falco peregrinus</i>) [A103] • Chough (<i>Pyrrhocorax pyrrhocorax</i>) [A346] 	NPWS (2018) Conservation objectives for Sheep's Heat to Toe Head SPA [004156]. Generic Version 6.0 Department of Culture, Heritage and the Gaeltacht.
3	Kenmare River SAC (Site Code 002158)	5.7 (22) ¹	<ul style="list-style-type: none"> • Marsh Snail <i>Vertigo angustior</i> [1014] • Large shallow inlets and bays [1160] • Reefs [1170] • Perennial vegetation of stony banks [1220] • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] • Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i> [1303] 	NPWS (2013) Conservation Objectives: Kenmare River SAC 002158 Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Series Editor: Rebecca Jeffrey ISSN 2009-4086

			<ul style="list-style-type: none"> • Atlantic salt meadows (<i>Glaucopuccinellietalia</i> <i>maritima</i>) [1330] • Otter <i>Lutra</i> [1355] • Harbour seal <i>Phoca vitulina</i> [1365] • Mediterranean salt meadows (<i>Juncetalia</i> <i>maritimi</i>) [1410] • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] • *Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] • European dry heaths [4030] • Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130] • Submerged or partially submerged sea caves [8330] 	
4	Glanmore Bog SAC (Site Code 001879)	6.9	<ul style="list-style-type: none"> • Freshwater Pearl Mussel <i>Margaritifera margaritifera</i> [1029] • Killarney Fern <i>Trichomanes speciosum</i> [1421] • Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110] • Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260] • Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010] 	<p>NPWS (2017) Conservation Objectives: Glanmore Bog SAC 001879. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p> <p>Series Editor: Rebecca Jeffrey ISSN 2009-4086</p>

			<ul style="list-style-type: none"> • Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)* [6230] • Blanket bogs (* if active bog) [7130] 	
5	Sheeps Head SAC (Site Code 00012)	11.4	<ul style="list-style-type: none"> • Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010] • European dry heaths* [4030] • <i>Geomalacus maculosus</i> (Kerry Slug) [1024] 	NPWS (2018) Conservation objectives for Sheep's Head SAC [000102]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.
6	Caha Mountains SAC (Site Code 000093)	13.2	<ul style="list-style-type: none"> • Kerry Slug <i>Geomalacus maculosus</i> [1024] • Killarney Fern <i>Trichomanes speciosum</i> [1421] • Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3120] • Natural dystrophic lakes and ponds [3160] • Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010] • European dry heaths [4030] • Alpine and Boreal heaths [4060] • Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)* [6230] • Blanket bogs (* if active bog) [7130] • Siliceous scree of the montane 	<p>NPWS (2016) Conservation Objectives: Caha Mountains SAC 000093. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p> <p>Series Editor: Rebecca Jeffrey ISSN 2009-4086</p>

			<p>to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110]</p> <ul style="list-style-type: none"> • Calcareous rocky slopes with chasmophytic vegetation [8210] • Siliceous rocky slopes with chasmophytic vegetation [8220] 	
--	--	--	---	--

¹Approximate distance of the hydrological pathway between proposed development and Kenmare River SAC for mobile marine species e.g. harbour seals

*Indicates a priority habitat under the Habitats Directive

For inspection purposes only.
Consent of copyright owner required for any other use.

ANNEX 2: Licence Application Checklist

Section	Attachment Number	Document	Attached by Applicant ✓
Non-Technical Summary	A.1	Non-technical summary Section A	✓
General	B.2	Agglomeration boundary map Agglomeration Boundary Map	✓
	B.3	Site boundary and overall site plan WwTP site Location	✓
	B.4	Description of WwTP B.4.a WwTP proposed layout WwTP sections	✓
	B.6	Primary discharge point location map Primary Discharge and Monitoring Point Location	✓
	B.7	Secondary discharge point location map(s) Secondary Discharge points to be decommissioned	✓
	B.8	Storm Water Overflow location map(s) Stormwater Overflow discharge locations	✓
	B.9	Emergency Overflow location map(s) As per Attachment B.8	✓
	B.7	Supporting information on Abstractions Not Applicable	
	B.13	Most recent planning permission, including all conditions, the planning inspectors report and an EIAR where required. B.13.a Planning Permission and Conditions – 19/00813 B.13.b Planning Permission and Conditions – 19/00814 B.13.c Planning Inspector’s report – 19/00813 B.13.d Planning Inspector’s report – 19/00814	✓
	B.14	A copy of the site notice and newspaper notice B.14.a Site Notice B.14.b Site Notice location B.14.c Newspaper Notice	✓
	B.15	Most recent Capital Investment Programme, including a copy of any approved funding Not Applicable	

	B.16	Section 63 Notices/ compliance correspondence Not Applicable	
	B.17	Most recent licence issued under the Foreshore Act 1933 as amended Foreshore licence	✓
Discharges & Monitoring	C.1	Supporting information on Discharges and Monitoring C.1.a Ambient monitoring locations and data C.1.b Outfall Longitudinal Section	✓
Existing Environment & Impact of the Discharge(s)	D.1	All supporting information on the assessment of the impact on the receiving waters D.1.a Water Quality Modelling report D.1.b Supplementary modelling report D.1.c Ecological Impact Assessment D.1.d EIA Screening	✓
	D.2	Appropriate Assessment screening report and where applicable a Natura Impact Statement AA Screening	✓
	D.3	Most recent Programme of Improvements Not Applicable	

For inspection purposes only.
Consent of copyright owner required for any other use.

ANNEX 3: Compliance with Waste Water Discharge (Authorisation) Regulations 2007 as amended

- Regulation 16 of the Waste Water Discharge (Authorisation) Regulations 2007 as amended sets out the information which must, in all cases, accompany a discharge licence application. Applicants should ensure that the application fully complies with the legal requirements of Regulation 16 of the 2007 Regulations as amended.
- Regulation 16(3) states that an application for a licence shall be accompanied by such fee as is appropriate having regard to the provisions of Regulations 38 and 39.

Has the appropriate fee been paid?	Yes/No	Amount
		€

- Regulation 16(4) states that an original application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under Regulation 16(3) in hardcopy or in an electronic or other format as specified by the Agency.

The application shall include a signed original, 1 hardcopy of the application and 2 CD versions of the application (PDF files).

Has this documentation been provided?	Yes	No

- Regulation 17 states that where a treatment plant associated with the relevant waste water works is or has been subject to the European Communities (Environmental Impact Assessment) Regulations 1989 to 2001, in addition to compliance with the requirements of Regulation 16, an application in respect of the relevant discharge shall be accompanied by a copy of an environmental impact statement and approval in accordance with the Act of 2000 in respect of the said development and may be submitted in an electronic or other format specified by the Agency.

Where applicable, the application shall be accompanied by 2 hardcopies of the EIAR and 2 CD versions of the EIAR (PDF files).

Has this documentation been provided where applicable?	Yes	No