DURRUS WASTEWATER COLLECTION NETWORK

WASTE WATER DISCHARGE LICENCE APPLICATION

IRISH WATER

SEPTEMBER 2017

This is a draft document and is subject to revision.

Waste Water Discharge Licence Application Form

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. 1.	11/10/07	N/A	
V. 2.	18/10/07	Inclusion of a Note 1 superscript for Orthophosphate in Tables D.1(i)(b) & D.1(ii)(b).	To highlight the requirement for filtered samples in measurement of O-Phosphate for waste water discharges.
V.3.	13/11/07	Amend wording of Section F.2 to include 'abstraction'. Amend wording of Checklist in Annex to reflect wording of Regulation 16(5) of S.I. No. 684 of 2007. Inclusion of unique point code for each point of discharge and storm water overflow.	To accurately reflect the information required To accurately reflect the Regulations and to obtain the application documentation in appropriate format. To aid in cross-referencing of application documentation.
V.4	18/04/08	Inclusion of requirement to provide name of agglomeration to which the application relates. Amend wording of Section B.7. (iii) to reflect the title of Water Services Authority. Addition of new Section B.9 (ii) in order to obtain information on developments yet to contribute to the waste water works. Addition of sub-sections C.1.1 & C.1.2 in order to clarify information required for Storm water overflow and pumping stations within the works. Amend Section D.1 to include a requirement for monitoring data for influent	To accurately determine the agglomeration to be licensed. To accurately reflect the Water Services Act, 2007. To obtain accurate population equivalent figures for the agglomeration. To obtain accurate information on design and spill frequency from these structures. To acquire information on the population loading onto the plant and to provide information on performance rates within

		to waste water treatment plants, where available. Amend wording of Section E.1 to request information on composite sampling/flow monitoring provisions.	the plant. To acquire accurate information on the sampling and monitoring provisions for discharges from the works.
V.5	07/07/2008	Amend wording of B.7 (iii) to include reference to Water Services Authorities. Amend Section G.1 to include Shellfish Waters Directive.	To accurately reflect the Water Services Act, 2007 requirements.
V.6	26/08/2008	Amendments to Section D to reflect new web based reporting. Amended requirements for reporting on discharges under E.1 Waste Water Discharge Frequency and Quantities. Amendment to Section F.1 to specify the type of monitoring and reporting required for the background environment. Removal of Annexes to application form.	To clarify the reporting requirements. To streamline reporting requirements. To clarify the reporting requirements for ambient monitoring. To reflect the new web based reporting requirements.
V.7	14/05/2012	Amendments to Section B.6 and Section F.1 to take account of the requirements of European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) in terms of Appropriate Assessment under Article 6(3) of the Habitats Directive (92/43/EEC). Update references to new legislation	To accurately reflect the Habitats Regulations 2011 (S.I. No. 477 of 2011) requirements. To reflect changes in legislation

Environmental Protection Agency

Application for a Waste Water Discharge Licence
Waste Water Discharge (Authorisation) Regulations 2007, as amended.

CONTENTS

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 www.epa.ie.

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. The 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 the 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 applicant, not being the local authority in whose functional area the relevant waste water discharge, or discharges, to which the relevant application relates, takes place or is to take place, must also notify the relevant Local Authority, in writing, of their intention to apply.

An application for a licence must be submitted on the appropriate form (available from the Agency) 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. <u>The abbreviation "N/A" should not be used</u>.

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.

SECTION A: NON-TECHNICAL SUMMARY

On 30th March 2011, Certificate of Authorisation (CoA) No. A0394-01 was issued to Cork County Council for the Durrus agglomeration. The current population for this agglomeration exceeds 500 p.e. Hence a Waste Water Discharge License (WWDL) is required for the Durrus agglomeration to comply with the Waste Water Discharge (Authorisation) Regulations, 2007, as amended.

The agglomeration served by Durrus Wastewater Treatment Plant (WWTP) consists solely of Durrus village which is made up largely of residential developments and some industrial premises.

There are two main sewers which serve the village; the first serving the entire village except for the road west towards Kilcrohane, and the second serving the Kilcrohane Road area. The existing sewerage system is a combined one, taking foul and storm flows from buildings as well as acting as a storm sewer for roads. Both sewers feed into a pump station located within the WWTP prior to being pumped to the next stages of the WWTP process.

The wastewater treatment plant consists of primary, secondary and tertiary treatment. The main elements of the Wastewater Treatment Plant are as follows:

1. Inlet Screen
2. Primary Settlement Tank
3. Rotor Modules
4. Final Settlement Tank c/w sludge return
5. Channel UV System
6. Stormwater Holding Tank

The treated effluent from the WWTP discharges via a single outfall pipe to transitional waters at primary discharge point (IG 094437E, 041831N), which is located at the estuary of the Four Mile River discharging to Dunmanus Bay. There is 1No. stormwater overflow within the agglomeration at Durrus WWTP and it discharges to the same outfall location as the primary discharge point from a stormwater holding tank.

The discharge from the Wastewater treatment plant in Durrus is not within any designated sensitive area under the Urban Wastewater Treatment Regulations 2001, as amended. The water quality status for the Four Mile River and Dunmanus Bay are "good" and "unassigned" respectively based on EPA WFD monitoring data 2010 - 2015. It is not likely that discharge from the WwTP will have a significant impact on the receiving waters.

The discharge and sampling locations are listed in Table A.1 and A.2 below.

Table A.1 - Discharge Points:

	Type	Location	Easting 6E	Northing 6N
SW1	Primary Discharge Point	Four Mile River Estuary	094437E	041831N
SW2	Storm Water Overflow	Four Mile River Estuary	094437E	041831N

Table A.2 - Monitoring Points:

	Type of Point	Easting 6E	Northing 6N
aSW1-u	Upstream Ambient Monitoring	094764	042207
aSW1-d	Downstream Ambient Monitoring	094293	041828
eSW1	Effluent Sampling	094437	041831
iSW1	Influent Sampling	094461	041857

The operation of the WwTP is carried out on an ongoing basis by the Plant Operators. The Plant Operators produce a monthly Operation & Maintenance Status Report which is forwarded to Irish Water for review.

Attachment Nº A.1

SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration:	Durrus

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.

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 red ink.

Name*:	Irish Water☐
Address:	24 – 26 Colvill House☐
	Talbot Street☐
	Dublin 1☐
	01 8925000☐
Tel:	01 8925001☐
Fax:	Irish Water☐
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.

*Where an application is being submitted on behalf of more than one water services authority the details provided in Section B.1 shall be that of the lead water services authority.

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

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

Co-Applicant's Details

Name*:	Not Applicable
Address:	
Tel:	
Fax:	
e-mail:	

*This should be the name of a water services authority, other than the lead authority, where multiple authorities are the subject of a waste water discharge (authorisation) licence application.

Design, Build & Operate Contractor Details

Name*:	Not Applicable
Address:	
Tel:	
Fax:	
e-mail:	

*Where a design, build & operate contract is in place for the waste water works, or any part thereof, the details of the contractor should be provided.

Attachment B.1 should contain appropriately scaled drawings / maps (≤A3) of the agglomeration served by the waste water works showing the boundary clearly marked in red ink. These drawings / maps 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. These drawings should be provided to the Agency on a separate CD-Rom containing sections B.2, B.3, B.4, B.5, C.1, D.2, E.3 and F.2

Attachment included	**Yes**	**No**
	X	

B.2 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.

Name*:	Valarie Hannon
Address:	Durrus Wastewater Treatment Plant
	Carrigboy, Durrus
	Co.Cork
Grid ref (6E, 6N)	094475E, 041833N
Level of Treatment	Tertiary
Primary Telephone:	01 - 8925000
Fax:	-
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 drawings / maps (≤A3) of the site boundary and overall site plan, including labelled discharge, monitoring and sampling points. These drawings / maps 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. These drawings should be provided to the Agency on a separate CD-Rom containing sections B.1, B.3, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
		X*

*Durrus WWTP Location shown in Attachment B.1 Drawing.

B.3 Location of Primary Discharge Point

Give the location of the primary discharge point, as defined in the Waste Water Discharge (Authorisation) Regulation, associated with the waste water works.

Type of Discharge	Outfall Pipe
Unique Point Code	SW1
Location	Discharge to the Four Mile River Estuary
Grid ref (6E, 6N)	094437E, 041831N

Attachment B.3 should contain appropriately scaled drawings / maps (≤A3) of the discharge point, including labelled monitoring and sampling points associated with the discharge point. These drawings / maps 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 data should be provided to the Agency on a separate CD-Rom containing the drawings and tabular data requested in sections B.1, B.2, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
	X	

B.4 Location of Secondary Discharge Point(s)

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

Type of Discharge	Not Applicable
Unique Point Code	
Location	
Grid ref (6E, 6N)	

Attachment B.4 should contain appropriately scaled drawings / maps (≤A3) of the discharge point(s), including labelled monitoring and sampling points associated with the discharge point(s). These drawings / maps 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 data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
		X

B.5 Location of Storm Water Overflow Point(s)

Give the location of **all** storm water overflow point(s) associated with the waste water works.

Type of Discharge	Outfall Pipe
Unique Point Code	SW2
Location	Discharge to the Four Mile River Estuary
Grid ref (6E, 6N)	094437E, 041831N

Attachment B.5 should contain appropriately scaled drawings / maps (≤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). These drawings / maps 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 data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
		X*

** Storm Water Overflow (SW2) location shown in map included in Attachment B.3.*

B.6 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:	Planning Department
	Norton House
	Skibbereen
	Co.Cork
Tel:	00353-28-40340
Fax:	00353-28-21660
e-mail:	planning@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:	County Manager's Report on the Durrus Sewerage Scheme in accordance with the provisions of Part 8 of the Planning and Development Regulations 2001

Attachment B.6 should contain ***the most recent*** planning permission, including a copy of ***all*** conditions, a copy of the planning inspector's report and where an EIS was required, copies of any such EIS and any certification associated with the EIS, should also be enclosed. Where planning permission is not required for the development, provide reasons, relevant correspondence, *etc.*

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 (S.I. No. 477 of 2011) in relation to the waste water works which is the subject of this application. 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 NIS, and any supplemental 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 in Attachment B.6.

The planning report for Durrus Sewerage Scheme is included in Attachment B.6 of this application.

Attachment included	**Yes**	**No**
	X	

B.7 Other Authorities

B.7 (i) Shannon Free Airport Development Company (SFADCo.) area

The applicant should tick the appropriate box below to identify whether the discharge or discharges are located within the Shannon Free Airport Development Company (SFADCo.) area.

Attachment B.7(i) should contain details of any or all discharges located within the SFADCo. area.

Within the SFADCo Area	**Yes**	**No**
		X

B.7 (ii) Health Services Executive Region

The applicant should indicate the **Health Services Executive Region** where the discharge or discharges are or will be located.

Name:	Health Services Executive
Address:	Area Headquarters
	Hospital Grounds
	Skibbereen
Tel:	028-40400
Fax:	028-21006
e-mail:	info.hse.ie

B.7 (iii) Other Relevant Water Services Authorities

Regulation 13 of the Waste Water Discharge (Authorisation) Regulations, 2007 as amended, requires all applicants, not being the water services authority in whose functional area the relevant waste water discharge or discharges, to which the relevant application relates, takes place or is to take place, to notify the relevant water services authority of the said application.

Name:	Not Applicable
Address:	
Tel:	
Fax:	
e-mail:	

Relevant Authority Notified	**Yes**	**No**
		X

Attachment B.7(iii) should contain a copy of the notice issued to the relevant local authority.

Attachment included	**Yes**	**No**
		X

B.8 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.8 should contain a copy of the site notice and an appropriately scaled drawing (≤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 notice and drawing illustrating the location of the public notice is included in Attachment B.8(a) and B.8(b) respectively.

Attachment included	**Yes**	**No**
	X	

B.9 (i) Population Equivalent of Agglomeration

TABLE B.9.1 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.

Table B.9.1

Population Equivalent	630 (2017) 655 (2023)
Data Compiled (Year)	2017
Method	Generated Load Assessment

*Irish model-based estimate using the figure determined by a generated load assessment. The p.e. for the agglomerations served by Durrus WWTP is projected to 2023 using an ESRI rural growth rate of 0.644%for agglomerations.

B.9 (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.

The p.e. projected to 2023 for Durrus WWTP is estimated to be 655 as stated in Table B.9.1 above.

B.9 (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 €)
License Application (Discharges from agglomerations with a population equivalent of 500 to 1,000.)	10,000

Appropriate Fee Included	Yes	No
	X	

B.10 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, (local or national), 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.

There is no upgrade works proposed for the agglomeration under the Irish Water Capital Investment Programme 2017-2021.

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.

Attachment included	**Yes**	**No**
		X

B.11 Significant Correspondence

Provide a summary of any correspondence resulting from a Section 63 notice issued by the Agency in relation to the waste water works under the Environmental Protection Agency Acts, 1992 to 2011.

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

Attachment included	**Yes**	**No**
		X*

**No section 63 notice has been issued in relation to Durrus WWTP.*

B.12 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.

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

There is no Foreshore Act Licence issued in relation to discharges from Durrus Wastewater Treatment Plant.

Attachment included	**Yes**	**No**
		X

SECTION C: INFRASTRUCTURE & OPERATION

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

C.1 Operational Information Requirements

Provide a description of the plant, process and design capacity for the areas of the waste water works where discharges occur, to include a copy of such plans, drawings or maps, (site plans and location maps, process flow diagrams), and such other particulars, reports and supporting documentation as are necessary to describe all aspects of the area of the waste water works discharging to the aquatic environment. Maps and drawings must be no larger than A3 size.

The wastewater treatment plant consists of primary, secondary and tertiary treatment. The main elements of the Wastewater Treatment Plant are as follows:

1. Inlet Screen
Haigh Ace 590 inlet screen can cater for 15 DWF. The screen is designed to serve a PE of 2000. The inlet screen removes all grit, rags etc. from the influent.

2. Primary Settlement Tank
Waste water enters the Primary Settlement Tank of the system, where solid matter is settled out and retained. The retained solids (primary sludge) is drawn off at regular intervals by a vacuum tanker. The settled or partially clarified liquor then passes into the Rotor Modules via a flow splitter. The primary zone is designed to have sufficient capacity to accept high flows within the unit over short intervals of time.

3. Rotor Modules
The Rotor Module (biozone) is semi-circular in cross section and rectangular in plan. Clarified liquor enters the first stage of the biozone, which contains the first stage 'roughing' media bank. The second stage of the biozone is hydraulically sealed from first stage and maintains a constant water level. This second stage is fed via a bucket lift transfer (Managed Flow) system contained in the first stage of the biozone. The RBC (Rotating Biological Contractor) consists of banks of polypropylene media attached to a central shaft and is supported by bearings, which are mounted on the main steel frames at each end of the unit. One of the frames includes the fixing assembly for the drive motor unit. The main operational features of the rotor unit are outlined below;

- The RBC is divided into two stages by means of a fixed baffle attached to the biozone. The media is split into stages by the means of rotating baffles fixed to the shaft, designed to promote effective and efficient growth of bio-culture to effect treatment.
- The RBC is rotated slowly through a reduction gearbox and is arranged so that a proportion of its surface area is submerged in the effluent at any one time. As the RBC rotates, biologically active film of microorganisms (biomass) to become established on each side of the media sheets. This biologically active film grows in size, is self regulating and oxidises the pollutants in the sewage. The micro organisms use the polluting material (measure as BOD) as a substrate (food) and as they do so, multiply in number, maintaining a specific biomass thickness to ensure optimum process efficiency. Material from the first stages of the RBC falls to the base of the first stage of the biozone, whereas material

from the remaining stages of the RBC is kept in suspension and carried forward into the Final Settlement Tank.

- In order to ensure a balanced and constant flow and, therefore, a stable environment, dosing buckets fitted to the first stage of the RBC shaft lift and transfer the partially clarified liquor to the final stages of the RBC at a constant rate, irrespective of changes to incoming flow rates and water level.

4. Final Settlement Tank c/w sludge return

The Final Settlement Tanks comprises of the secondary settlement or final zone and it is in this final zone that any biological culture, which has fallen from the latter stages of the RBCs, is allowed to settle out. The treated effluent enters this zone from the biozone and then travels to the Flow Collection Chamber. The settled sludge is drawn off hydrostatically and transferred via a pump unit in the Sludge Return Chambers to the Primary Settlement Tank.

5. Channel UV System

UV System is situated inside a concrete channel and provides tertiary treatment in the form of sterilisation.

6. Stormwater Holding Tank

The stormwater holding tank receives and store excess flow from the pumping station located at the start of the treatment process during a storm event. It consist of an overflow which allows discharge when tank capacity is being exceeded. The stormwater tank allows discharge back to the pumping station when the flow to pumping station is reduced below the pumping capacity. Further detail is included in C.1.1 and C.1.2 below.

C.1.1 Storm Water Overflows

For each storm water overflow within the waste water works the following information shall be submitted:

- An assessment to determine compliance with the criteria for storm water overflows, as set out in the DoEHLG '*Procedures and Criteria in Relation to Storm Water Overflows*', 1995 and any other guidance as may be specified by the Agency, and
- Identify whether any of the storm water overflows are to be decommissioned, and identify a date by which these overflows will cease, if applicable.

There is 1No. stormwater overflows in the agglomeration and it is located at a pumping station within Durrus WWTP. Flows in excess of the pumping capacity discharges from the pumping station located at the start of the treatment process into a stormwater holding tank. The stormwater holding tank has sufficient capacity to store flows greater than 3DWF and has an overflow. The overflow from the stormwater holding tank allows excess flow discharge to an outfall chamber, where it mixes with the treated effluent prior to UV radiation treatment before discharging to the primary outfall.

The frequency of spillage and quantity from this stormwater overflow is unknown.

C.1.2 Pumping Stations

For each pump station operating within the waste water works, provide details of the following:

- Number of duty and standby pumps at each pump station;
- The measures taken in the event of power failure;
- Details of storage capacity at each pump station;
- Frequency and duration of activation of emergency overflow to receiving waters. Clarify the location where such discharges enter the receiving waters.

There is 1 No. pumping station located at the start of the treatment process, which consist of 2No. ABS submersible pumps one on duty and the other on standby. The pumps are used to pump the waste water to the inlet screen and into the primary settlement tanks.

In the event of power failure, the flow discharges into a storm tank sized to store excess flow, and flows in excess of tank capacity discharges via an overflow to an outfall chamber, where it mixes with the treated effluent prior to UV radiation treatment before discharging to the primary outfall.

Attachment C.1 should contain supporting documentation with regard to the plant and process capacity, systems, storm water overflows, emergency overflows, etc., including flow diagrams of each with any relevant additional information. These drawings / maps 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 data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, D.2, E.3 and F.2.

Attachment included	Yes	No
		X

C.2 Outfall Design and Construction

Provide details on the primary discharge point & secondary discharge points and storm overflows to include reference, location, design criteria and construction detail.

The primary discharges from Durrus WWTP discharges via an open discharge pipe to the Four Mile River Estuary, which then discharges to Dunmanus Bay.

Attachment C.2 should contain any supporting documentation on the design and construction of any and all discharge outfalls, including stormwater overflows, from the waste water works.

Attachment included	Yes	No
		X

SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

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.

Details of all discharges of waste water from the agglomeration should be submitted via the following web based link: http://epa.corasystems.com/EPA_WWD. ***The applicant should address in particular all discharge points where the substances outlined in Tables D.1(i), (b) & (c) and D.1(ii), (b) & (c) of Annex 1 are emitted.***

Where it is considered that any of the substances listed in Annex X of the Water Framework Directive (2000/60/EC) or any of the Relevant Pollutants listed in Annex VIII of the Water Framework Directive (2000/60/EC) are being discharged from the waste water works or are seen to be present in the receiving water environment downstream of a discharge from the works (as a result of any monitoring programme, e.g., under the Water Framework Directive Programme of Measures) the applicant shall screen the discharge for the relevant substance.

D.1 Discharges to Surface Waters

Details of all discharges of waste water from the agglomeration should be supplied via the following web based link: http://epa.corasystems.com/EPA_WWD. Tables D.1(i)(a), (b) & (c), should be completed for the primary discharge point from the agglomeration and Tables D.1(ii)(a), (b) & (c) should be completed for **each** secondary discharge point, where relevant. Table D.1(iii)(a) should be completed for **each** storm water overflow. Individual Tables must be completed for each discharge point.

Where monitoring information is available for the influent to the plant this data should also be provided in response to Section D.1.

Tables D.1 (i) (a)-(b) include data and characteristics analysis for the Primary Discharge emissions to surface waters. Further discussion on this is included in Section E.4 of this application.

Supporting information should form **Attachment D.1**

Attachment included	**Yes**	**No**
	X	

D.2 Tabular Data on Discharge Points

Applicants should submit the following information for each discharge point:

Table D.2:

PT_CD	PT_TYPE	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING
SW01	Primary Discharge	Transitional	Four Mile River Estuary (Dunmanus Bay)	None	094437E	041831N

An individual record (i.e. row) is required for each discharge point. Acceptable file formats include Excel, Access or other upon agreement with the Agency. A standard Excel template can be downloaded from the EPA website at www.epa.ie. This data should be submitted to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, C.1, E.3 and F.2.

SECTION E: MONITORING

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

E.1 Waste Water Discharge Frequency and Quantities – Existing & Proposed

Provide an estimation of the quantity of waste water likely to be emitted in relation to all primary and secondary discharge points applied for. This information should be included in Table E.1(i) via the following web based link: **http://epa.corasystems.com/EPA_WWD**.

Provide an estimation of the quantity of waste water likely to be emitted in relation to all storm water overflows within the agglomeration applied for. This information should be included in Table E.1(ii) via the following web based link: **http://epa.corasystems.com/EPA_WWD.**

Information is included in Attachment E.1.

Indicate if composite sampling or continuous flow monitoring is in place on the primary or any other discharge points. Detail any plans and timescales for the provision of composite sampling and continuous flow meters.

There is no composite sampling or continuous flow monitoring in place at present on the discharge points within the agglomeration.

E.2. Monitoring and Sampling Points

Programmes for environmental monitoring should be submitted as part of the application. These programmes should be provided as Attachment E.2.

Reference should be made to, provision of sampling points and safe means of access, sampling methods, analytical and quality control procedures, including equipment calibration, equipment maintenance and data recording/reporting procedures to be carried out in order to ensure accurate and reliable monitoring.

In determining the sampling programme to be carried out, the variability of the emission and its effect on the receiving environment should be considered.

Details of any accreditation or certification of analysis should be included.
Attachment E.2 should contain any supporting information.

The Cork County Council Environmental Laboratory on behalf of Irish Water carried out the analysis of the sampling undertaken.

The Wastewater Laboratory of Cork County Council is accredited for a number of analytical tests under the Irish National Accreditation Board (INAB) under the ISO 17025 international standard.

The locations for the effluent sampling location and ambient monitoring points are shown in Attachment B.3 Drawing.

Attachment included	Yes	No
		X

E.3. Tabular data on Monitoring and Sampling Points

Applicants should submit the following information for each monitoring and sampling point:

PT_CD	PT_TYPE	MON_TYPE	EASTING	NORTHING	VERIFIED
Point Code Provide label ID's assigned in section E of application	Point Type (e.g., Primary, Secondary, Storm Water Overflow)	Monitoring Type M = Monitoring S = Sampling	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used
eSW1	Primary	S	094437	041831	N
iSW1	Primary	S	094461	041857	N
aSW1-u	Upstream	S	094764	042207	N
aSW1-d	Downstream	S	094293	041828	N

An individual record (i.e., row) is required for each monitoring and sampling point. Acceptable file formats include Excel, Access or other upon agreement with the Agency. A standard Excel template can be downloaded from the EPA website at www.epa.ie. This data should be submitted to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, C.1, D.2 and F.2.

E.4 Sampling Data

Regulation 16(1)(h) of the Waste Water Discharge (Authorisation) Regulations 2007 as amended, requires all applicants in the case of an existing waste water treatment plant to specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application.

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

The effluent sampling results carried out for Durrus WWTP is appended to Attachment E.4 in this application.

The effluent sampling data indicates that the treated effluent from the existing WWTP allows the receiving waters to meet the relevant quality objectives and relevant provisions of the Urban Wastewater Directive and other Community Directives.

Attachment E.4 should contain any supporting information.

Attachment included	Yes	No
	X	

SECTION F: 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 development is proposed to be carried out, being development which is of a class for the time being specified under Article 24 (First Schedule) of the Environmental Impact Assessment Regulations, the information on the state of the existing environment should be addressed in the EIS. **In such cases, it will suffice for the purposes of this section to provide adequate cross-references to the relevant sections in the EIS.**

F.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 Four Mile River Estuary, which Durrus WwTP discharges to, was assigned Good WFD status (2010-2015). Both the Four Mile River and Dunmanus Bay were classed as 'not at risk of not achieving Good status'. WAC calculations were carried out to determine the proposed Emission Limit Values (ELVs) required for the receiving waters to maintain good status.

  In absence of ambient monitoring data for DIN concentration levels within Dunmanus Bay, the 2015 data from nearest EPA coastal monitoring station (Roaringwater Bay – Station No: RW050) was used as a basis for determining background DIN concentration levels for the purpose of the WAC calculations. Hence the highest concentration level recorded for DIN (0.105mg/l) during 2015 at this station was used as a conservative measure. Further details on the WAC calculations are included in Attachment E.4(b) of this application.

  The proposed ELVs for the treated effluent discharges from the existing WWTP are listed in below;

Parameter	Proposed ELVs for Treated Effluent
BOD	≤ 25.0mg/l
COD	≤ 125.0mg/l
Total Suspended Solids	≤ 35.0mg/l
Orthophosphate as P	≤ 5.7mg/l
DIN (as N)	≤ 55.0mg/l

The existing WWTP has sufficient capacity to treat current and future loads to the standards required in the Urban Wastewater Treatment Regulations (S.I. No.254/2001) as amended.

- Details of all monitoring of the receiving water should be supplied via the following web based link: **http://epa.corasystems.com/EPA_WWD.** Tables F.1(i)(a) & (b) should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables F.1(i)(a) & (b). Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.

  Monitoring Details and Dangerous Substances Monitoring Details are compiled in Table F.1(i)(a) &(b) & F.1(ii)(a) & (b) for surface water upstream and downstream of the existing Primary Discharge Point.

  The downstream monitoring data shows exceedance for Biochemical Oxygen Demand and Ammonia. Wastewater Assimilative Capacity calculations were carried out and it was concluded from the assessment that the receiving watercourse will meet the limits listed in the Surface Water Regulations (S.I. No. 272 of 2009) required to maintain "Good" Status provided that the proposed ELVs listed in Section F.1 of this application are met.

- For discharges from secondary discharge points Tables F.1(ii)(a) & (b) should be completed. Furthermore, 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.

  There are no secondary discharges from this agglomeration.

- Provide details of the extent and type of ground emissions at the works. For larger discharges to groundwaters, e.g., from Integrated Constructed Wetlands, large scale percolation areas, etc., a comprehensive report must be completed which should include, inter alia, topography, meteorological data, water quality, geology, hydrology, and hydrogeology. The latter must in particular present the aquifer classification and vulnerability. The Geological Survey of Ireland Groundwater Protection Scheme Dept of the Environment and Local Government, Geological Survey of Ireland, EPA (1999) methodology should be used for any such classification. This report should also identify all surface water bodies and water wells that may be at risk as a result of the ground discharge.

  There are no discharges to the ground from this agglomeration.

- Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Submit a copy of the most recent water quality management plan or catchment management plan in place for the receiving water body. Give details of any designation under any Council Directive or Regulations that apply in relation to the receiving water.

The discharge from the Wastewater treatment plant in Durrus is not within any designated sensitive area under the Urban Wastewater Treatment Regulations 2001, as amended.

The receiving water for the primary discharge is the Four Mile River Estuary. This was classified as good status under the South Western River Basin District status. This river flows into Dunmanus Bay coastal water which status is "unassigned".

Approximately 1.9 km away from primary discharge is a recently designated shellfish area in Dunmanus Bay in the region of Mannion's Islands (large and small). In order to ensure that there are no negative impacts on this shellfish area UV disinfection has been incorporated in the treatment process at Durrus Wastewater Treatment Plant.

- Provide a statement as to whether or not emissions of main polluting substances (as defined in the *Dangerous Substances Regulations S.I. No. 12 of 2001*) to water are likely to impair the environment.

  The flows to Durrus WWTP from the agglomeration are largely domestic with negligible industrial influence, it can be assumed that the presence of dangerous substances is minimal.

- In circumstances where water abstraction points exist downstream of any discharge describe measures to be undertaken to ensure that discharges from the waste water works will not have a significant effect on faecal coliform, salmonella and protozoan pathogen numbers, e.g., Cryptosporidium and Giardia, in the receiving water environment.

  There are no water abstraction points downstream of the discharge location.

- Indicate whether or not emissions from the agglomeration or any plant, methods, processes, operating procedures or other factors which affect such emissions are likely to have a significant effect on a European Site, as defined in Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011).

  Undertake a screening for Appropriate Assessment and state 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). 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, the applicant shall provide a Natura Impact Statement, as defined in Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations (S.I. No. 477 of 2011). Where based on the screening it is considered that an Appropriate Assessment is not required, a reasoned response should be provided.

  An AA Screening Assessment has been prepared as part of this application and is included in Attachment F.1 (a). The assessment concluded that the current wastewater discharge from the agglomeration alone or in-combination with other plans and / or projects will not have a

significant effect on the Natura 2000 network, and a Stage 2 Appropriate Assessment is not required.

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

  There are no mitigation measures proposed for this agglomeration.

- 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 F.1.**

  No dispersion modelling undertaken for this agglomeration.

Attachment included	**Yes**	**No**
	X	

F.2 Tabular Data on Drinking Water Abstraction Point(s)

Applicants should submit the following information for each downstream or downgradient drinking water abstraction point. 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.

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

Not applicable.

An individual record (i.e. row) is required for each abstraction point. Acceptable file formats include Excel, Access or other upon agreement with the Agency. A standard Excel template can be downloaded from the EPA website at www.epa.ie. This data should be submitted to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, C.1, D.2 and E.3.

Attachment F.2 should contain any supporting information.

SECTION G: PROGRAMMES OF IMPROVEMENTS

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

G.1 Compliance with Council Directives

Provide details on a programme of improvements to ensure 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;

- Dangerous Substances Directive 2006/11/EC,
- 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, and
- Shellfish Waters Directive (79/923/EEC).

There is no further improvement works scheduled for the network or the WwTP.

Attachment G.1 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.

Attachment included	**Yes**	**No**
		X

G.2 Compliance with the European Communities Environmental Objectives (Surface Waters) Regulations 2009.

Provide details on a programme of improvements, including any water quality management plans or catchment management plans in place, to ensure that improvements of water quality required under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 are being achieved.

There is no further improvement works scheduled for the network or the WwTP.

Attachment G.2 should contain the most recent programme of improvements and any associated documentation requested under Section G.3 of the application.

Attachment included	**Yes**	**No**
		X

G.3 Impact Mitigation

Provide details on a programme of improvements to ensure that discharges from the agglomeration will not result in significant environmental pollution.

There is no further improvement works scheduled for the network or the WwTP.

Attachment G.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.

Attachment included	**Yes**	**No**
		X

G.4 Storm Water Overflow

Provide details on a programme of improvements to ensure that discharges other than the primary and secondary discharges comply with the definition of 'storm water overflow' as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007 as amended.

There is no storm water overflow within the agglomeration.

Attachment G.4 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.

Attachment included	**Yes**	**No**
		X

SECTION H: DECLARATION

Declaration

I hereby make 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 local authority 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 Applicant or any person acting on the Applicant's behalf.

Signed by : _____ **Date :** 24/08/2017
(on behalf of the organisation)

Print signature name: JOHN CASEY

Position in organisation: A/HEAD of ASSET MANAGEMENT

SECTION I: JOINT DECLARATION

Joint Declaration [Note1]

I hereby make 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 local authority 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 Applicant or any person acting on the Applicant's behalf.

Lead Authority

Signed by :_____ **Date :**_____
(on behalf of the organisation)

Print signature name: _____

Position in organisation:_____

Co-Applicants

Signed by :_____ **Date :**_____
(on behalf of the organisation)

Print signature name: _____

Position in organisation:_____

Signed by :_____ **Date :**_____
(on behalf of the organisation)

Print signature name: _____

Position in organisation:_____

Note 1: In the case of an application being lodged on behalf of more than a single water services authority the following declaration must be signed by all applicants.