CORK COUNTY COUNCIL

WESTERN DIVISION

WATER SERVICES

Courthouse, Skibbereen, Co. Cork

APPLICATION FOR WASTE

WATER DISCHARGE CERTIFICATE

DURRUS, CO. CORK.

Application Form
22nd December 2009

CORK COUNTY COUNCIL

WESTERN DIVISION

WATER SERVICES

Courthouse, Skibbereen, Co. Cork

Re: Waste Water Discharge Certificate Application for the Agglomeration of Durrus

Dear Sir/Madam,

Please find enclosed Cork County Council's Waste Water Discharge Certificate Application for the agglomeration of Durrus.

The following documentation is enclosed:

- 1 Nr. Signed original in hardcopy
- 1 Nr. Copy in hardcopy
- 2 Nr. CD-ROM with all documentation in electronic searchable PDF (OCR'd format)
- 1 Nr. CD-ROM with GIS Data, Tabular Data

The content of the electronic files is a true copy of the original hardcopy.

Niall O'Mahony,
Senior Engineer.

Comhairle Contae Chorcaí
Cork County Council

Environmental Directorate,
Inniscarra, Co. Cork.
Tel. No. (021) 4532700 • Fax No. (021) 4532727
Web: www.corkcoco.ie
An Stiúrthóireacht Comhshaoil,
Inis Cara, Co. Corcaigh.
Fón: (021) 4532700 • Faics: (021) 4532727
Suíomh Gréasáin: www.corkcoco.ie

Mr. Frank Clinton,
Program Manager,
Office of Climate, Licensing & Resource Use,
Environment Protection Agency,
Headquarters,
PO Box 3000,
Johnstown Castle Estate,
County Wexford.

16th December, 2009

Re: Waste Water Discharge (Authorisation) Regulations 2007 – fees payable in respect of applications to be submitted by 22nd December, 2009.

Dear Mr. Clinton,

I refer to the 72 certificate applications and 3 discharge authorisation licence applications which will be submitted by the council under the above regulations before the 22nd December next.

I note that the fees payable in respect of these applications amount to €246,000 and refer you to our letter of 7th November 2008 (sent by Ted O'Leary, Senior Executive Officer) seeking a rebate/reduction, as is provided for under Art 38 (3) of the regulations. I note that since that letter the council has paid a further € 570,000 in applications fees meaning that the total amount paid by the council to date amounts to € 1,245,000.

As you will appreciate, in the current economic climate, the amount payable in respect of this final batch of applications is a significant sum that was not budgeted for in 2009. Moreover we have paid a substantial amount in fees already and have made our case for a reduction/rebate. Accordingly, I must advise that we are not submitting payment in respect of these applications as we anticipate the rebate due to the council exceeds the fees payable.

Yours faithfully,

Louis Duffy,
Director of Service,
Environment & Emergency Services Directorate

This is a draft document and is subject to revision.

Waste Water Discharge Certificate of Authorisation Application Form

EPA Ref. Nº: *(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.	12/06/2009	N/A	
V.2.	17/06/2009	Delete reference to Design Build and Operate	To accurately reflect the information required for the small schemes programme
		Delete the requirement to provide contact information for the associated waste water treatment plant	To accurately reflect the information required and the scale of the waste water works
		Replace references to the Water Services investment Programme with the Small Schemes Programme	To accurately reflect the information required for the small schemes programme
		Update references to new legislation	To reflect changes in legislation
		Inclusion of the requirement to submit information on private WWTPs within the agglomeration.	To obtain an overview of all discharges within the agglomeration.

Environmental Protection Agency

Application for a Waste Water Discharge Certificate of Authorisation
Waste Water Discharge (Authorisation) Regulations, 2007.

CONTENTS

ABOUT THIS APPLICATION FORM

This form is for the purpose of making an application for a Waste Water Discharge Certificate of Authorisation under the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) or for the review of an existing Waste Water Discharge Certificate of Authorisation.

The Application Form **must** be completed in accordance with the instructions and guidance provided in the *Waste Water Discharge Certificate of Authorisation Application Guidance Note.* The Guidance Note gives an overview of Waste Water Certificates of Authorisation, outlines the certification 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 Certificate of Authorisation must contain the information prescribed in the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007). Regulation 24 of the Regulations sets out the statutory requirements for information to accompany a Certificate of Authorisation 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 with respect to Regulation 24 requirements, please complete the Regulation 24 Checklist provided in the following web based tool: http://78.137.160.73/epa_wwd_licensing/.

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. **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 Certificates of Authorisation, and for the processing of reviews of such Certificates, appears in the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) and is summarised below. The application fees that shall accompany an application are listed in the Third Schedule to the Regulations.

An application for a Certificate of Authorisation must be submitted on the appropriate form (available from the Agency website – http://www.epa.ie/whatwedo/licensing/wwda/) 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 (under notices provided for in the Regulations) 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 Certificate of Authorisation is an offence under the Waste Water Discharge (Authorisation) Regulations, 2007.

The provision of information in an application for a waste water discharge Certificate of Authorisation which is false or misleading is an offence under Regulation 35 of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

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

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. This description should also indicate, where applicable, the hours during which the waste water works is supervised or manned and days per week of this supervision.

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.

Durrus Village is located on the R591 regional road approximately 6km south of the N71 and 9km south-west of Bantry. It lies at the head of Dunmanus Bay at the junction of the Mizen peninsula and the southern access to Sheep's Head. The village generally slopes to a central low area near Carrigboy Bridge.

There are two main sewers which serve the village; the first serving all of the 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 common manhole prior to being treated.

A new treatment plant serving the village was constructed in 2006 and commissioned in 2007. Prior to this there was no treatment for wastewater in Durrus

Durrus Wastewater Treatment Plant

The wastewater treatment plant consists of preliminary, 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 or max storm 40. 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

Raw sewage 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 here 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 micro-organisms (biomass) 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 sluge return

The Final Settlement Tanks comprises 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.

Stormwater Overflows

There are no stormwater overflows attached to the sewerage scheme. However there is an emergency overflow from the pump sump (stormwater tank) where the influent enters the treatment plant, in case of pump failure. According to the caretaker of the plant this emergency overflow has never been used. The caretaker has stated that the pump sump (stormwater tank) has more than sufficient volume to cater for the usual wet weather conditions. The only other possible occurrences could arise when there is failure of both pumps or a power cut, which has not happened to date.
The emergency overflow pipe is directed into the channel where the treated effluent from the final settlement tank receives UV treatment, prior to being discharged.

Pumping Station

The pumping station is located at the start of the treatment process. There are 2nr. ABS submersible pumps one on duty and the other on standby. The pumps are used to pump the waste water through the inlet screen and into the primary settlement tanks. In the event of power failure there is sufficient storage within the pump sump (stormwater tank) to allow time for a back up power supply to be put in place when necessary.

The source of Emissions for the Wastewater Works

The effluent from Durrus agglomeration is mainly domestic and with no industrial contribution. In recent years the Waste Water Treatment Plant was constructed where waste water undergoes primary, secondary and tertiary treatment prior to being discharged. The Waste water Treatment Plant can cater for a population equivalent of 500.

The nature and quantities of foreseeable emissions from the wastewater works into the receiving aqueous environment as well as identification of significant effects of the emission to the environment

The sources of emissions from the Durrus agglomeration are considered domestic. There has been a significant amount of development in Durrus in recent years. From the Bantry Electoral Area Local Area Plan it appears that any substantial development will be dependant on the availability of and connection to the mains sewerage. There appears to be adequate capacity for the immediate future at the Waste Water Treatment Plant.

The existing outfall discharges effluent to the Four Mile Water Estuary adjacent to Durrus Waste Water Treatment Plant. Durrus's primary discharge point is not located in an area designated as a Natural Heritage Area, a Special Area of Conservation, a Proposed Natural Heritage Area or a Special Protected Area. The effluent under-goes tertiary treatment prior to being discharged to the River. Due to this fact, it is not foreseen that any negative impacts will arise from the agglomeration.

Recent sampling results give an average BOD on the effluent from the plant of 5 mg/l resulting in river BOD of 2.1 mg/l for 95%ile flow. This is below the 2.2 mg/l limit for High Status Waters in the Draft Water Quality Regulations.

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

There is no programme of improvements proposed for the Waste Water Treatment Plant in the Durrus agglomeration. The existing treatment plant which has only been recently constructed is working satisfactorily and is capable of treating existing and future loading and the emissions from the agglomeration will conform with the Urban Wastewater Treatment Directive.

Further measures planned to comply with the general principle of the basic obligations of the operator i.e. that no significant pollution is caused

There is no programme of improvements proposed for the Waste Water Treatment Plant in the Durrus agglomeration. The fact that the effluent being discharge is mainly domestic, with no industrial contribution, it is felt that the existing treatment plant which has only been recently constructed is working satisfactorily and the emissions from the agglomeration will not result in significant environmental pollution particularly as wastewater is treated to tertiary level.

At present all wastewater treatment plants under the control of Cork County Council are monitored and maintained by full time Cork County Council personnel and are desludged as required, thus reducing the possibility of environmental damage.

Measures planned to monitor emission into the environment

It is proposed to sample the influent and effluent from treatment plant and receiving waters once a year in the future for the following parameters:

- pH
- Biochemical Oxygen Demand
- Chemical Oxygen Demand
- Suspended Solids
- Ammonia
- Ortho Phosphate
- Total Nitrogen

Supporting information should form **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 Certificate of Authorisation application relates. It should have the boundary of the agglomeration to which the Certificate of Authorisation application relates clearly marked in red ink.

Name*:	Cork County Council
Address:	Water Services (Western Division)
	Courthouse
	Skibbereen
	Co. Cork
Tel:	028-21299
Fax:	028-21995
e-mail:	niall.omahony@corkcoco.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*:	Niall O'Mahony
Address:	Cork County Council
	Courthouse
	Skibbereen
	Co. Cork
Tel:	028-21299
Fax:	028-21995
e-mail:	niall.omahony@corkcoco.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 Certificate of Authorisation application.

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**
	√	

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*:	Ruth O'Brien
Address:	Bantry Area Office
	The Square
	Bantry
	Co. Cork
Grid ref (6E, 6N)	E: 094475 N: 041833
Level of Treatment	Tertiary

***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**
	√	

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.

Discharge to	Surface Water
Type of Discharge	Outfall Pipe
Unique Point Code	SW01 Durr
Location	Carrigboy
Grid ref (6E, 6N)	E: 094437 N: 041831

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**
	√	

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.

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

*****Where a septic tank is in existence simultaneous to a package plant within an agglomeration, discharges from the septic tank shall be considered as a secondary discharge.

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**
		√

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

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**
		√

B.6 Planning 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:	028-40340
Fax:	028-21660
e-mail:	

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

has been obtained	√	***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, 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.*

Attachment included	**Yes**	**No**
	√	

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**
		√

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

B. 8(i) Population Equivalent of Agglomeration

TABLE B.8.1 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.

Existing

Population Equivalent	**300**
Data Compiled (Year)	**2006**
Method	**House Count**

Proposed

Population Equivalent	**500**
Data Compiled (Year)	**2009**
Method	**House Count, Planning + Future Zoning**

For the purposes of this application the relevant PE chosen for the certificate period is 500 being the peak PE estimated at end of that period.

B.8 (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 waters.

There are two significant developments proposed and a one off housing development proposed for Durrus that have received planning permission and are yet to be completely constructed. The two significant developments are residential developments comprising of 24nr of houses (06-379) and 4nr of houses (06-1230). Both developments are constructed up to roof level but it appears both sites are closed due to the down turn in the economy and therefore haven't been connected to the public sewer. A one off house (08-2012) is yet to be constructed.

It is considered that all additional PE from pending developments are from domestic activities.

The existing oxidation ditch is capable of treating an effluent generated by a population of 500. At present it is treating a PE of 300. Therefore the plant can cater for an additional PE of 200.

1. Calculated PE of planning permissions granted = 87

2. Percentage of projected pe contributed by non-domestic = 0

3. Ability of waste water works to accommodate extra loading: The waste water treatment plant can cater for a PE of 500. At present it is treating a PE of 300, therefore it can accommodate the extra PE of 87 calculated above.

B.8 (iii) FEES

State the relevant Class of waste water discharge as per Regulation 5, and the appropriate fee as per Columns 2 or 3 of the Third Schedule of the Waste Water Discharges (Authorisation) Regulations 2007, S.I. No. 684 of 2007.

Class of waste water discharge	Fee (in €)
PE < 500	3000

Appropriate Fee Included	Yes	No
		√*

*please see copy of attached letter sent by registered post to Mr F. Clinton ,Programme Manager , Licencing Unit EPA on December 18th 2009

B.9 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 small schemes programme) 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 programme of works prioritised for the development of infrastructure to appropriately collect, convey, treat and discharge waste water from Durrus agglomeration. Durrus Waste Water Treatment Plant was constructed in 2005/06.

Attachment B.9 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
		√

B.10 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 and 2003, as amended by Section 13 of Protection of the Environment Act, 2003.

No section 63 notice has been issued in relation to the waste water works.

Attachment B.10 should contain a summary of any relevant correspondence issued in relation to a Section 63 notice.

Attachment included	Yes	No
		√

B.11 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.

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

Attachment B.11 should contain the most recent licence issued under the Foreshore Act 1933, including a copy of ***all*** conditions attached to the licence and any monitoring returns for the previous 12-month period, if applicable.

Attachment included	**Yes**	**No**
		√

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.

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.

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.

Description of the existing plant process and design capacity:

There are two main sewers which serve the village; the first serving all of the 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 common manhole prior to discharge to treatment plant.

Durrus Wastewater Treatment Plant

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 or max storm 40. 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 here 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 micro-organisms (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 sluge 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.

Stormwater Overflows

There are no stormwater overflows attached to the sewerage scheme. However there is an emergency overflow from the pump sump (labelled stormwater tank on drawings) where the influent enters the treatment plant, in case of pump failure. According to the caretaker of the plant this emergency overflow has never been used. The caretaker has stated that the pump sump (labelled stormwater tank on drawings) has more than sufficient volume to cater for the usual wet weather conditions. The only other possible occurrences could arise when there is failure of both pumps or a power cut, which has not happened to date.

The emergency overflow pipe is directed into the channel where the treated effluent from the final settlement tank receives UV treatment, prior to being discharged.

Pumping Station

The pumping station is located at the start of the treatment process. There are 2nr. 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 there is sufficient storage within the pump sump (labelled stormwater tank on drawings) to allow time for a back up power supply to be put in place when necessary.

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
		√

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 discharges 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://78.137.160.73/epa_wwd_licensing/. ***The applicant should address in particular all discharge points where the substances outlined in Tables 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions' 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(i) Discharges to Surface Waters

Details of all discharges of waste water from the agglomeration should be supplied via the following web based link: http://78.137.160.73/epa_wwd_licensing/. Tables 'Discharge Point Details', 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions', should be completed for the primary discharge point from the agglomeration and for **each** secondary discharge point, where relevant. Table 'Discharge Point Details' should be completed for **each** storm water overflow. Individual Tables must be completed for each discharge point.

Find details of all discharges of waste water from the agglomeration in the web based link.

Where monitoring information is available for the influent to the waste water treatment plant this data should also be provided in response to Section D.1(i).

Supporting information should form **Attachment D.1(i)**

Attachment included	**Yes**	**No**
	√	

D.1(ii) Discharges to Groundwater

Details of all discharges of waste water from the agglomeration should be supplied via the following web based link: http://78.137.160.73/epa_wwd_licensing/. Tables 'Discharge Point Details', 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions', should be completed for the primary discharge point from the agglomeration and for **each** secondary discharge point, where relevant. Table 'Discharge Point Details' should be completed for **each** storm water overflow. Individual Tables must be completed for each discharge point.

There are no discharges of waste waster to groundwater from the agglomeration.

Where monitoring information is available for the influent to the waste water treatment plant this data should also be provided in response to Section D.1(ii).

Supporting information should form **Attachment D.1(ii)**

Attachment included	Yes	No
		√

D.1 (iii) Private Waste Water Treatment Plants

Provide information on all independently owned/operated private waste water treatment plants operating within the agglomeration. Submit a copy of the Section 4 discharge licence issued under the Water Pollution Acts 1977 to 1990, as amended for each discharge.

There are no independently owned/operated private waste water treatment plants operating within the agglomeration.

D.2 Tabular Data on Discharge Points

Applicants should submit the following information for each discharge point:

Table D.2:

PT_CD	PT_TYPE	LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING
SW01 Durr	Primary	Cork County Council	River	Four Mile Water	None	E: 094475	N: 041833

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 'Discharge Point Details' via the following web based link: http://78.137.160.73/epa_wwd_licensing/.

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 'Discharge Point Details' via the following web based link: http://78.137.160.73/epa_wwd_licensing/.

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 monitoring.

No composite sampling or continuous flow monitoring is in place at present on any of the discharge points.

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 discharge 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.

Attachment included	Yes	No
	√	

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
SW01 DURR	Primary	S	094437	041831	N
aSW-1 u	Upstream	S	094764	042207	N
aSW-1 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 24(i) of the Waste Water Discharge (Authorisation) Regulations 2007 requires all applicants in the case of an existing discharge 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 24(m) requires applicants to give details of compliance with any applicable monitoring requirements and treatment standards.

Attachment E.4 should contain any supporting information.

Attachment included	Yes	No
	√	

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

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

Clear and concise 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) and/or the ambient environmental conditions of the groundwater upgradient and downgradient of any discharges.

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. Impact on Receiving Surface water or Groundwater

- Details of monitoring of the receiving surface water should be supplied via the following web based link: http://78.137.160.73/epa_wwd_licensing/. Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' 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 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details'. Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.

Find details of monitoring of the receiving surface water in the web based link.

- Details of monitoring of the receiving ground water should be supplied via the following web based link: http://78.137.160.73/epa_wwd_licensing/. Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed for the primary discharge point. Ground water monitoring locations upgradient and down gradient of the discharge point shall be screened for those substances listed in Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details'. Monitoring of ground water shall be carried out at not less than two points, one upgradient from the discharge location and one downgradient.

There are no groundwater emissions from the existing discharges to which this certificate application pertains.

- For discharges from secondary discharge points Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed.

There are no secondary discharges points to which this certificate application pertains.

- 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 surface or groundwater.

The discharge from the Wastewater treatment plant in Durrus is not within any designated sensitive area under the Urban Wastewater Treatment Regulations 2001. Neither is it located within a European designated site.

a) Mass Balance Equation for Orthophosphate

Median flow of River = 0.7494 m3/sec
Median oPO4-P in River (upstream) = 0.05mg/l

Average volume of Discharge = 0.004 m3/sec
Median value of oPO4-P in discharge = 3.57 mg/l

$$C_{final} = \frac{(0.7494 \times 0.05) + (0.004 \times 3.57)}{0.7494+0.004}$$

Cfinal = 0.068 mg/l oPO4-P

The increase in Orthophosphate due to the discharge of Durrus WWTP is 18µg/l

b) Mass Balance Equation for BOD

Flow of River (95%) = 0.1313 m3/sec
Average BOD in River (upstream) = 2mg/l

Average volume of Discharge = 0.004 m3/sec
Average BOD in Discharge = 5 mg/l

$$C_{final} = \frac{(0.1313 \times 2) + (0.004 \times 5)}{0.1313 + 0.004}$$

Cfinal = 2.1 mg/l BOD

The increase in BOD due to the discharge of Durrus WWTP is 0.1mg/l.

c) Mass Balance Equation for Suspended Solids

Flow of River (95%) = 0.1313 m3/sec
Average SS in River (upstream) = 2.5mg/l

Average volume of Discharge = 0.004 m3/sec
Average SS in Discharge = 7 mg/l

$$\text{Cfinal} = \frac{(0.1313 \times 2.5) + (0.004 \times 7)}{0.1313+0.004}$$

Cfinal = 2.63 mg/l BOD

The increase in SS due to the discharge of Durrus WWTP is 0.13mg/l.

d) Mass Balance Equation Total Phosphate

50% Median flow of River = 0.3747 m3/sec
Median TP in River (upstream) = 0.05mg/l

Average volume of Discharge = 0.004 m3/sec
Median value of TP in discharge = 3.96 mg/l

$$\text{Cfinal} = \frac{(0.3747 \times 0.05) + (0.004 \times 3.96)}{0.3747 + 0.004}$$

Cfinal = 0.09 mg/l TP

The increase in Total Phosphate due to the discharge of Durrus WWTP is 40µg/l.

e) Mass Balance Equation for Total Nitrogen

Flow of River (95%) = 0.1313 m3/sec
Average Total Nitrogen in River (upstream) = 0.777mg/l

Average volume of Discharge = 0.004 m3/sec
Average Total Nitrogen in Discharge = 18.32mg/l

$$\text{Cfinal} = \frac{(0.1313 \times 0.777) + (0.004 \times 18.32)}{0.1313+0.004}$$

Cfinal = 1.3 mg/l Total Nitrogen

The increase in Total Nitrogen due to the discharge of Durrus WWTP is 0.52mg/l.

f) Mass Balance Equation for Sulphate

Saline interference with sample taken upstream.

g) Mass Balance Equation for Ammonia - N

Flow of River (95%) = 0.1313 m3/sec
Average Ammonia-N in River (upstream) = 0.1mg/l

Average volume of Discharge = 0.004 m3/sec
Average Ammonia-N in Discharge = 0.5mg/l

$$C_{final} = \frac{(0.1313 \times 0.1) + (0.004 \times 0.5)}{0.1313+0.004}$$

Cfinal = 0.112 mg/l Ammonia

The increase in Ammonia due to the discharge of Durrus WWTP is 0.012mg/l.

The receiving water for the primary discharge is the Four Mile River. This is classified as good status under the South Western River Basin District status. This river then flows into Dunmanus Bay coastal water and for 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 Dangerous Substances Regulations define the main polluting pesticides, solvents and metals which have significant effects on the environment. As the effluent being discharge is mainly domestic, it can be assumed that the presence of these substances is negligible. This has been confirmed by results of analysis of receiving water outlined in Table E4. The main parameters which impact the receiving environment are limited to BOD, suspended solids and bacteria (total and faecal Streptococci).

- In circumstances where drinking water abstraction points exist downstream/down gradient 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.

No water abstraction points exist down gradient of any 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) a site (until the adoption, in respect of the site, of a decision by the European Commission under Article 21 of Council Directive 92/43/EEC for the purposes of the third paragraph of Article 4(2) of that Directive) —

    (i) notified for the purposes of Regulation 4 of the Natural Habitats Regulations, subject to any amendments made to it by virtue of Regulation 5 of those Regulations,

    (ii) details of which have been transmitted to the Commission in accordance with Regulation 5(4) of the Natural Habitats Regulations, or

    (iii) added by virtue of Regulation 6 of the Natural Habitats Regulations to the list transmitted to the Commission in accordance with Regulation 5(4) of those Regulations,

  (b) a site adopted by the European Commission as a site of Community importance for the purposes of Article 4(2) of Council Directive 92/43/EEC[1] in accordance with the procedures laid down in Article 21 of that Directive,

  (c) a special area of conservation within the meaning of the Natural Habitats Regulations, or

  (d) an area classified pursuant to Article 4(1) or 4(2) of Council Directive 79/409/EEC[2].

  [1]Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ No. L 206, 22.07.1992)

  [2]Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds (OJ No. L 103, 25.4.1979)

Not applicable – None of the above directives apply in this case. Durrus and its environs are not within a designated area.

- This section should also contain details of any modelling of discharges from the agglomeration. Any other relevant information on the receiving environment should be submitted as **Attachment F.1.**

Attachment included	**Yes**	**No**
		√

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.

ABS_CD	AGG_SERVED	ABS_VOL	PT_CD	DIS_DS	EASTING	NORTHING	VERIFIED
Abstraction Code	Agglomeration served	Abstraction Volume in m^3/day	Point Code Provide label ID's	Distance Downstream in meters from Emission Point to Abstraction Point	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used

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

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.

Not applicable - No drinking water abstraction points exist down stream of the discharge location.

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 (2006/113/EC).

Compliance with Council Directives

A new wastewater treatment plant for Durrus was constructed in 2006 and commissioned in 2007. The plant consists of primary, secondary and tertiary treatment. This will ensure that the discharge is in compliance with Urban Wastewater Treatment Directive as follows:

- BOD 25mg/l
- COD 125mg/l
- Total Suspended Solids 35mg/l

Tertiary treatment in the form of UV disinfection entails the elimination of harmful bacteria ensuring no negative impact from discharge on shellfish area in Dunmanus Bay.

Dangerous Substances Directive 2006/11/EC

The effluent from Durrus agglomeration is mainly domestic and with no industrial contribution, we can assume that any dangerous substance mentioned in the Dangerous Substances Regulations will not be present in the discharge.

Water Framework Directive 2000/60/EC

Water Framework Directive 2000/60/EC – The objectives of the Water Framework Directive (WFD) are to protect all high status waters, prevent further deterioration of all waters and to restore degraded surface and ground waters to good status by 2015.

The South Western River Basin District (SWRBD) has classified the Four Mile Water River, where the Waste Water Treatment Plant discharges, as “Good Status”.

Prior to 2007 there was no treatment for the wastewater in Durrus. The new plant treating the wastewater to a tertiary level should ensure further improvement in the receiving water body.

Effluent being discharge is mainly domestic, with no industrial contribution. There is one primary & secondary discharge point. The emissions from the agglomeration will not result in the contravention of the Water Framework Directive.

Birds Directive 79/409/EEC
The directive aims to conserve and manage populations of wild birds throughout Europe by part through the designation of Special Protection Areas (SPA) for birds and their habitats. Durrus's primary discharge point is not located in an area designated as a Natural Heritage Area, a Special Area of Conservation, a Proposed Natural Heritage Area or a Special Protected Area. Consequently, it is not foreseen that any negative impacts will arise from the agglomeration in relation to this directive.

Groundwater Directives 80/68/EEC and 2006/118/EC
There are no emissions to groundwater.

Drinking Water Directives 80/778/EEC
This Directive concerns standards for water intending for human consumption. As there is no drinking water abstraction point downstream of any of the discharge points, this directive is not applicable.

Urban Waste Water Treatment Directive 91/271/EEC
Waste water at the Durrus WWTP is subject to treatment prior to discharge in order to meet with the required discharge standards as set out under the Urban Waste Water Treatment Regulations 2001 as follows:

- BOD 25mg/l
- COD 125mg/l
- Total Suspended Solids 35mg/l

From the sample of the effluent detailed in Attachment E.4 of this application, the BOD level is 5mg/l which doesn't exceed the limit for BOD, 25mg/l as set out in these Regulations. Samples from the treatment plant discharge are analysed for BOD, COD, Ammonia, pH, suspended solids, Total Nitrogen, Total Phosphorus, sulphate, Ortho phosphate and metals.

Habitats Directive 92/43/EEC
Durrus's primary discharge point is not located in an area designated as a Natural Heritage Area, a Special Area of Conservation, a Proposed Natural Heritage Area or a Special Protected Area. Due to this fact, it is not foreseen that any negative impacts will arise from the agglomeration in relation to these directives.

Environmental Liabilities Directive 2004/35/EC
The Environmental Liabilities Directive is about preventing and remedying environmental damage. It aims to hold operators whose activities have caused environmental damage financially liable for remedying this damage.

It is proposed to put a Performance Management System in place in order to ensure proper operation of the Wastewater Treatment Plant. At present all wastewater treatment plants under the control of Cork County Council are monitored and maintained by full time Cork County Council personnel and are regularly desludged, thus reducing the possibility of environmental damage.

Bathing Water Directive 76/160/EEC
In Ireland the legislation governing the quality of bathing waters is set out in the Quality of Bathing Waters Regulations, 1992 (S.I. 155 of 1992) and amendments which transpose the EU Directive 76/160/EC concerning the quality of bathing water.

The Directive, which came into force over thirty years ago, is intended to protect public health and the environment at locations where bathing is not prohibited and is traditionally practised by a large number of bathers, by enforcing the achievement of a number of standards, chemical, physical and microbiological.

There are no designated bathing waters in the vicinity of the discharge.

Shellfish Waters Directive 79/923/EEC
Dunmanus Bay Inner is a shellfish designated area under European Communities (Quality of Shellfish Waters) Regulations, 2006 (S.I. No. 268 of 2006). The Directive sets physical, chemical and microbiological water quality requirements that designated shellfish waters must either comply with ('mandatory' standards) or endeavour to meet ('guideline' standards). They range from heavy metals to salinity; faecal coliforms are regarded as one of the most significant parameters. The water quality improvement plan regulation 6 action programme for designated sites under the European Communities (Quality of Shellfish waters) Regulations 2006 (S.I. no. 268 of 2006) by the Shellfish Waters Management Committee (SWMC), notes that the discharge from the Waste Water Treatment Plant is not impacting on water quality in designated areas due to the dilution available and the distance from the existing outfall location 91.9 km in the case of Durrus). Tertiary treatment was installed in the form of UV disinfection at Durrus WWTP to ensure there was no impact on the shellfish area particularly from coliforms and this along with the secondary treatment should ensure compliance with this Directive.

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**
		√

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. Provide details of any specific measures adopted for waste water works specified in Phosphorus Measures Implementation reports and the progress to date of those measures. Provide details highlighting any waste water works that have been previously identified as the principal sources of pollution under the Phosphorous Regulations (S.I. No. 258 of 1998).

The South Western River Basin District (SWRBD) has classified the Four Mile Water River, where the Waste Water Treatment Plant discharges, as "Good Status".

Prior to 2007 there was no treatment for the wastewater in Durrus. The new plant treating the wastewater to a tertiary level should ensure further improvement in the receiving water body.

The new plant consists of primary, secondary and tertiary treatment. This will ensure that the discharge is in compliance with Urban Wastewater Treatment Directive as follows:

- BOD 25mg/l
- COD 125mg/l
- Total Suspended Solids 35mg/l

Tertiary treatment in the form of UV disinfection entails the elimination of harmful bacteria ensuring no negative impact from discharge on shellfish area in Dunmanus Bay.

As the discharge is to tidal waters and effluent is primarily domestic phosphorus levels are not as critical as would otherwise be the case.

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**
		√

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 programme of improvements proposed for the septic tank and percolation area in the Durrus agglomeration. The fact that the effluent being discharged is mainly domestic and with no industrial contribution it is felt that the waste water treatment plant which has recently been constructed is working satisfactorily and producing effluent to Urban Wastewater Regulations standards that the emissions from the agglomeration will not result in significant environmental pollution.

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
		√

G.4 Storm Water Overflows

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.

Not applicable – There are no storm water overflows pertaining to this application.

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
		√

SECTION H: DECLARATION

Declaration

I hereby make application for a waste water discharge Certificate of Authorisation/revised Certificate of Authorisation, pursuant to the provisions of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

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, any person acting on the Applicant's behalf, or any other person.

Signed by : _____ **Date :** 11-12-09
(on behalf of the organisation)

Print signature name: Moira Murrell

Position in organisation: Director of Service

SECTION I: JOINT DECLARATION

Joint Declaration [Note1]

I hereby make application for a waste water discharge Certificate of Authorisation /revised Certificate of Authorisation, pursuant to the provisions of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

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, any person acting on the Applicant's behalf, or any other person.

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.

ANNEX 1 – TABLES / ATTACHMENTS

Section A - Non Technical Summary

Attachment A1 – DURR A1-01 – Site Location Map of Agglomeration

Section B - General

Attachment B1 – DURR B1-01 – Durrus Agglomeration Boundary Map

Attachment B2 – DURR B2-01 – Site Location of Wastewater Treatment Plant
DURR B2-02 – Layout of Wastewater Treatment Plant

Attachment B3 – DURR B3-01 –Existing Discharge Point

Attachment B6 – Part 8 Planning Permission

Section E – Monitoring

Attachment E2 - Monitoring Programme

Attachment E2 - DURR E2-01 – Locations of Sampling Points

Attachment E4 - Sampling Data

Tables

Agglomeration Details

Tables D.1 – Emissions to Surface

Table E.1 - Wastewater Frequency and Quantity of Discharge

Table F.1 - Surface Monitoring

ANNEX 2 – Checklist

Checklist for Regulation 16 / 17 Compliance

SECTION A

Attachment A1

Map:

- **DURR A1-01** - Site Location Map

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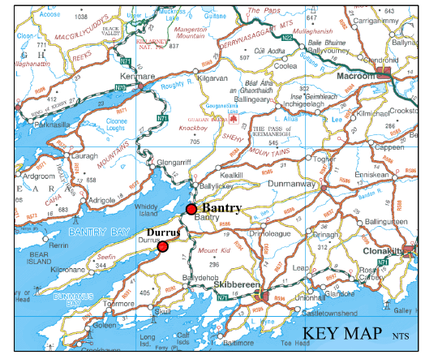


No.	Date	Dwn	Chkd	Revision Description

Cork County Council, Western Division.

N.O'MAHONY,B.E.,
SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:

DURRUS_WASTE WATER_DISCHARGE_CERTIFICATE APPLICATION

Drawing Title:

ATTACHMENT_A.1 AGGLOMERATION_LOCATION_MAP

Prepared By:	Checked By:	Date:
D.O'DONOVAN	D_GROARKE	DEC.2009
Drawing number: DURR_A1_01	**Scales:** NTS	**Rev:** -

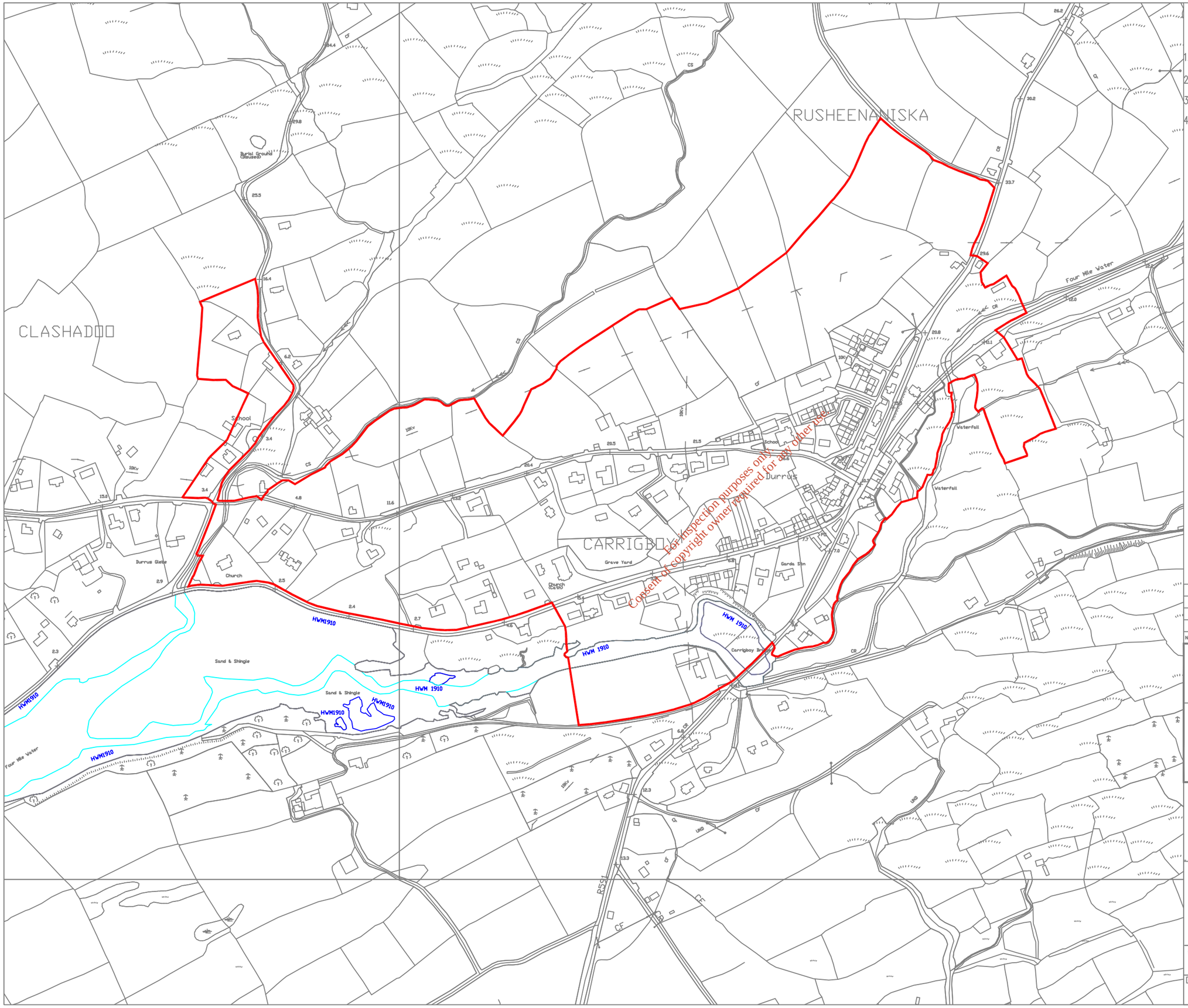
AREA OF INTEREST

SECTION B

Attachment B1

Map:

- **Durr B1-01** – Durrus Agglomeration Boundary Map



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M. MURRELL,
DIRECTOR OF SERVICES
WEST CORK

Job Title:

DURRUS_WASTE WATER_DISCHARGE_CERTIFICATION APPLICATION

Drawing Title:

ATTACHMENT_B.1
AGGLOMERATION_BOUNDARY

Prepared By:	Checked By:	Date:
D.O'DONOVAN	D_GROARKE	DEC.2009
Drawing number: DURR_B1_01	**Scales:** 1/5000	**Rev:** -

Attachment B.2

Attachment B2

Map:

- **Durr B2-01** – Site Location of Wastewater Treatment Plant
- **Durr B2-02** – Site Layout of Wastewater Treatment Plant

Waste Water Treatment Plant

WWTP SITE CO-ORDS
E: 094475
N: 041833

RRIGBOY
Grave Yard
Garda Stn
PO
5.9
6.8
7.7
7.0
3.6
3.1
Carrigboy Bridge
CLUB HOUSE

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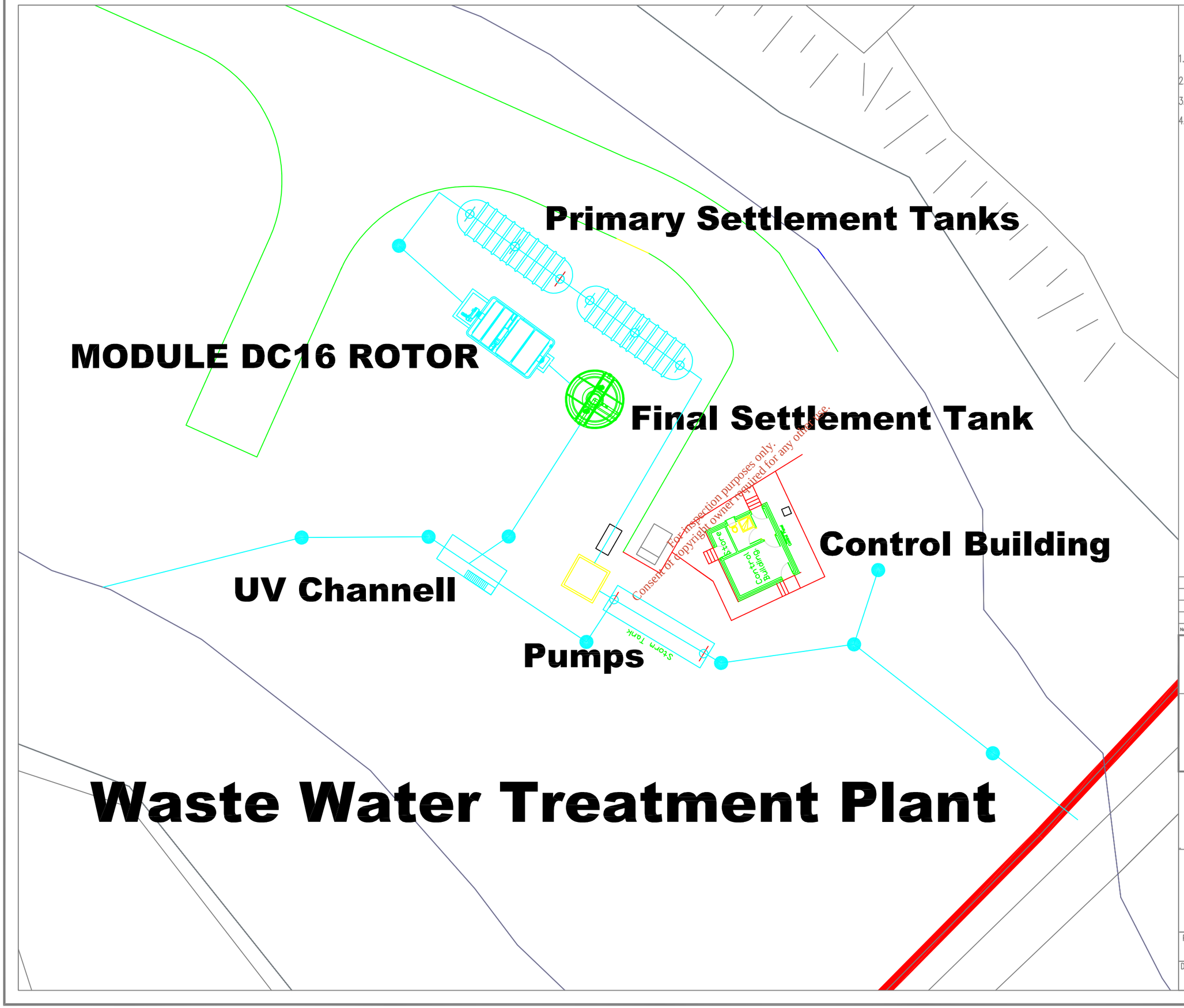
M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
DURRUS_WASTE WATER_DISCHARGE_CERTIFICATE APPLICATION

Drawing Title:
ATTACHMENT_B.2
SITE_LOCATION_OF
WASTE_WATER_TREATMENT_PLANT

Prepared By:	Checked By:	Date:
D.O'DONOVAN	D_GROARKE	DEC.2009

Drawing number:	Scales:	Rev:
DURR_B2_01	1/1000	-



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M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
DURRUS_WASTE WATER_DISCHARGE_CERTIFICATE APPLICATION

Drawing Title:
ATTACHMENT_B.2
LAYOUT_PLAN_OF
WASTE_WATER_TREATMENT_PLANT

Prepared By:	Checked By:	Date:
D.O'DONOVAN	D_GROARKE	DEC.2009

Drawing number:	Scales:	Rev:
DURR_B2_02	1/250	-

Attachment B.3

Attachment B3

Map :

- **DURR B3-01** – Existing Primary Discharge Point

Waste Water Treatment Plant

Primary Discharge Pt
SW01 DURR

E: 094437
N: 041831

CLUB HOUSE

Carrigboy Bridge

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DIRECTOR OF SERVICES
WEST CORK

Job Title:

DURRUS_WASTE WATER_DISCHARGE_CERTIFICATE APPLICATION

Drawing Title:

ATTACHMENT_B.3
LOCATION_OF
PRIMARY_DISCHARGE_POINT

Prepared By:	Checked By:	Date:
D.O'DONOVAN	D_GROARKE	DEC.2009

Drawing number:	Scales:	Rev:
DURR_B3_01	1/500	-

Attachment B.6

Attachment B6

Supporting Information:

- **Part 8 Planning Permission –** County Managers Report on the Durrus Wastewater Treatment Plant

Comhairle Chontae Chorcai

CORK COUNTY COUNCIL (WESTERN DIVISION)

Durrus Sewerage Scheme

PLANNING AND DEVELOPMENT ACT 2000

County Manager's Report on the Durrus Sewerage Scheme in accordance with the provisions of Part 8 of the Planning and Development Regulations 2001.

PROJECTS SECTION
WESTERN DIVISION

April 2005

1 DESCRIPTION OF THE NATURE AND EXTENT OF THE SCHEME

It is proposed to construct a modern Wastewater Treatment Plant (WwTP) in Durrus to cater for the existing and future needs of the area. This proposal is in accordance with Objective INF 2-5 of the Cork County Development Plan 2003 and with the Preliminary Report on Durrus Sewerage Scheme prepared by Malachy Walsh & Partners for Cork County Council Water Services in 1999. The WwTP will be designed to serve a population equivalent of 500 persons, expandable to serve 700 persons. This will cater for population growth and development demand for the next twenty years. It is proposed to construct the new WwTP on a site located in lands to the north west of the R-591, adjacent to the foreshore in the townland of Carrigboy. The wastewater treatment plant will be screened to reduce its visual intrusion.

It is proposed to discharge the treated effluent to the Four Mile Water Estuary as it enters the head of Dunmanus Bay by gravity via the existing outfall.

The new wastewater treatment plant will consist of preliminary treatment, and secondary treatment, to achieve a final effluent of 25 mg/l BOD; 35 mg/l SS; 125 mg/l COD. Mitigation measures will be installed to maintain noise and odour emissions within recognised and acceptable limits at the site boundary. Thickened sludges will be transported by tanker or skip off site for further treatment or disposal in accordance with the Sludge Management Plan for County Cork. Screenings arising from the Preliminary Treatment stage will be disposed of to the nearest licenced landfill site.

The control house and any other building which may be located at the treatment works site will be constructed in blockwork with render finish, and tiled pitched roofs. The appearance of the buildings will reflect the local traditional building styles. The paved areas will consist of concrete pavement and macadam. A 2.2 m high palisade fence will enclose the treatment works with screen planting on the external boundaries.

A connection from the water supply scheme in Durrus will be taken from the adjacent public main to the treatment works. A power supply will be brought to the site from the nearest available location in accordance with the requirements of the Electricity Supply Board.

Drawings accompanying this application:
Dwg. No.04095-8 SL 01 A Wastewater Treatment Plant at Durrus Co. Cork for Cork County Council Site Layout
Dwg. No.04095-8 GA 01 A Wastewater Treatment Plant at Durrus Co. Cork for Cork County Council General Arrangement Elevations & Sections

Dwg. No.04095-8 GA 02 A Wastewater Treatment Plant at Durrus Co. Cork for Cork County Council Site General Arrangement Control House

2 PLANNING EVALUATION

(a) **Development Control:** -

See attached report by Senior Planner in appendix 1. The proposed development is consistent with the proper planning and sustainable development of the area.

(b) Development Plan: -

The proposed development is consistent with the overall strategy and main policy as outlined in chapter 5 (Transport & Infrastructure) of Volume 1 of the Cork County Development Plan 2003, which states that:

- *Investment in the county's infrastructure should be made in a sustainable and efficient manner in order to promote the social and economic well being of the county and its population.*

The proposed development is consistent with the objective for Sewerage Infrastructure as outlined in section 5.2 (Water Supplies, Sewerage and Drainage), which states that (INF 2-5):

- *It is an objective generally to provide support for the funding of sewerage infrastructural requirements as identified by the County Council in order to accommodate the planned levels of growth expected for the county.*
- *It is an objective generally to improve and extend the sewerage infrastructure to serve the planned levels of growth, during the lifetime of this plan, in order to facilitate development.*

The proposed development site is adjacent to and visible from Scenic Route A123 (West) between Durrus and Toormore but is consistent with key objectives as outlined in chapter 4 (Scenic Routes) which state that (ENV 3-4 & ENV 3-5):

- *It is a general objective to preserve the character of all important views and prospects, particularly sea views, river or lake views, views of unspoilt mountain, upland or coastal landscapes, views of historical or cultural significance (including buildings and townscapes) and views of natural beauty.*
- *It is a particular objective to preserve the character of those views and prospects obtainable from scenic routes identified in this plan. These routes are shown on the scenic amenity maps in volume 4 and listed in volume 2 of this plan.*

The proposed development is consistent with section 9.2 Durrus of Part 2 of the West Cork Section of the Cork County Development Plan 1996. The site is just outside the development boundary as shown on map 9.4

3 SUBMISSIONS RECEIVED

Submissions were received from the following:

	Name	Address	Date
1	Michael McPartland, Environmental Officer.	South Western Regional Fisheries Board, 1 Neville's Terrace, Masseytown, Macroom.	14th January 2005

4 SUMMARY OF ISSUES IN SUBMISSIONS

We have considered the issues and our detailed response to the issues raised in the submissions are contained in appendix 2. A summary of the issues and responses is outlined below:

1. **That serious consideration be given to the level of disinfection to ensure no negative impact on shellfish waters –** our recommendation based on the attached report is that Ultra-violet light disinfection be provided at the Wastewater Treatment Works.

2. **That consideration be given to the manner in which all construction works, and particularly those below the waterline, are carried out with a view to minimising suspended solids pollution –** there are no proposals to carry out works below the waterline and conditions will be imposed on the contractor to prevent any activity that may lead to pollution of the adjoining river and sea.

5 MODIFICATIONS

The following modification is recommended: -

Ultra-violet light disinfection of the effluent shall be provided at the Wastewater Treatment Works.

Some conditions in the proposed Construction Contract may be modified or strengthened to take on board some of the issues outlined above.

6 RECOMMENDATION

I recommend that the proposed Construction of a new Wastewater Treatment Works, including ultra-violet disinfection and access road on lands located off the Dunbeacon Road in the Townland of Carrigboy, Durrus be proceeded with as recommended in this report.

Signed: -

_____

Assistant County Manager

SECTION E

Attachment E2

Supporting Information:

- **Monitoring Programme**

Map :

DURR E2-01 – Location of Sampling Points

Attachment E.2 – Durrus Waste Water Discharge Licence Application – Monitoring and Sampling Points

Grab samples have been collected recently of the effluent from the primary discharge as well as receiving waters and the results are included in Attachments E.4 and F.1 of this application.

There is no drinking water abstraction point downstream of the discharge point.

The recent sample analysis has been carried out by the Laboratory of Cork County Council which is accredited for a number of analytical tests under the Irish National Accreditation Board (INAB) under the ISO 17025 international standard. It is currently accredited for the following parameters under that standard system:

- pH
- Biochemical Oxygen Demand
- Chemical Oxygen Demand
- Suspended Solids
- Ammonia
- Ortho Phosphate
- Total Phosphate
- Chloride
- Sulphate

It is proposed to sample the primary discharge effluent and receiving waters once a year for the following parameters at the Cork County Council Laboratory in Skibbereen:

- pH
- Biochemical Oxygen Demand
- Chemical Oxygen Demand
- Suspended Solids
- Ammonia
- Ortho Phosphate
- Total Nitrogen

Sampling Point
aSW-1 u
E: 094764
N: 042207

Sampling Point
aSW-1 d
E: 094293
N: 041828

Sampling Point
SW01 DURR
E: 094437
N: 041831

Waste Water Treatment Plant

Durrus
CARRIGBOY
Grave Yard
Church
(Cath)
School
Garda Stn
Waterfall
Waterfall
Carrigboy Bridge
HWM 1910
CF
10K
10Kv
CR
PO
20.8
20.5
21.5
20.4
16.6
15.5
10.3
7.7
7.0
6.8
5.9
5.4
3.6
3.1

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COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
DURRUS_WASTE WATER_DISCHARGE_CERTIFICATE APPLICATION

Drawing Title:
ATTACHMENT_E.2 LOCATION_OF SAMPLING_POINTS

Prepared By:	Checked By:	Date:
D.O'DONOVAN	D_GROARKE	DEC.2009
Drawing number: DURR_E2_01	Scales: 1/2000	Rev: -

Attachment E4

Supporting Information:

- **Sampling Data**

Attachment E4 Durrus analytical data for certification application

Sample Date	16/09/2009		16/09/2009		16/09/2009		16/09/2009
Sample	**Influent**		**Effluent**		**River Upstream**		**River Downstream**
Sample Code	GT1160		GT1159		GT1161		GT1162
Flow M^3/Day	No result		Not available		Not available		Not available
pH	7.8		7.2		7.9		8.1
Temperature °C	No result		No result		No result		No result
Conductivity uS/cm 20°C	562		398		9400		45500
Suspended Solids mg/L	123		7		<2.5		4
Ammonia-N mg/L	29.9		0.5		<0.1		0.5
BOD mg/L	63		5		2		7
COD mg/L	314		38		65		63
TN-N mg/L	43.41		18.32		0.777		0.752
Nitrite-N mg/L	<0.1		4.48		<0.1		<0.1
Nitrate-N mg/L	<0.5		14.5		<0.5		<0.5
TP-P mg/L	5.21		3.96		<0.05		<0.05
O-PO4-P mg/L	4.05		3.57		<0.05		<0.05
SO4 mg/L	<30		<30		455**		No result
Phenols µg/L	No result		<0.10		no result		<0.10
Atrazine µg/L	No result		<0.01		no result		<0.1
Dichloromethane µg/L	No result		<1		no result		<1
Simazine µg/L	No result		<0.01		no result		<0.01
Toluene µg/L	No result		<0.28		no result		<0.28
Tributyltin µg/L	No required		not required		not required		not required
Xylenes µg/L	No result		<0.73		no result		<1
Arsenic µg/L	No result		1.1		no result		3.2
Chromium ug/L	<20		<20		60.7		127.6
Copper ug/L	29.5		<20		<20		<20
Cyanide µg/L	No result		8		<20		<5
Fluoride µg/L	41		54		177		728
Lead ug/L	<20		<20		<20		<20
Nickel ug/L	<20		<20		<20		<20
Zinc ug/L	50.5		43.2		<20		<20
Boron ug/L	36.7		24.5		617.2		3201
Cadmium ug/L	<20		<20		<20		<20
Mercury µg/L	No result		<0.03		no result		0.2
Selenium µg/L	No result		<0.74		no result		<0.74
Barium ug/L	<20		<20		<20		<20

**=saline interference

Note samples analysed for Dangerous substances in discharge and downstream

Agglomeration details

Leading Local Authority	Cork County Council
Co-Applicants	
Agglomeration	Durrus
Population Equivalent	500
Level of Treatment	Tertiary
Treatment plant address	Carrigboy, Durrus, Co. Cork
Grid Ref (12 digits, 6E, 6N)	094475 / 041833
EPA Reference No:	

Contact details

Contact Name:	Niall O'Mahony
Contact Address:	Water Services West Cork County Council Courthouse Skibbereen Co. Cork
Contact Number:	028-21299
Contact Fax:	028-21995
Contact Email:	niall.omahony@corkcoco.ie

Table D.1(i)(a): EMISSIONS TO SURFACE/GROUND WATERS (Primary Discharge Point)

Discharge Point Code: SW-1

Local Authority Ref No:	SW01 DURR	
Source of Emission:	Primary Discharge	
Location:	Carrigboy	
Grid Ref (12 digits, 6E, 6N)	094437 / 041831	
Name of Receiving waters:	Four Mile Water River	
Water Body:	River Water Body	
River Basin District	South Western RBD	
Designation of Receiving Waters:	None	
Flow Rate in Receiving Waters:	0.7494	$m^3.sec^{-1}$ Dry Weather Flow
	0.1313	$m^3.sec^{-1}$ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)		

Emission Details:

(i) Volume emitted			
Normal/day	112.5 m^3	Maximum/day	337.5 m^3
Maximum rate/hour	14.1 m^3	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	0.004 m^3/sec		

Table D.1(i)(b): EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of The Emission (Primary Discharge Point)

Discharge Point Code: SW-1

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
pH	pH	Grab	= 9	
Temperature	°C	Grab	= 0	
Electrical Conductivity (@ 25°C)	µS/cm	Grab	= 0	
Suspended Solids	mg/l	Grab	= 35	3.94
Ammonia (as N)	mg/l	Grab	= 0.5	0.056
Biochemical Oxygen Demand	mg/l	Grab	= 25	2.81
Chemical Oxygen Demand	mg/l	Grab	= 125	14.06
Total Nitrogen (as N)	mg/l	Grab	= 18.32	2.06
Nitrite (as N)	mg/l	Grab	= 4.48	0.5
Nitrate (as N)	mg/l	Grab	= 14.5	1.63
Total Phosphorous (as P)	mg/l	Grab	= 3.96	0.45
OrthoPhosphate (as P)	mg/l	Grab	= 3.57	0.4
Sulphate (SO_4)	mg/l	Grab	= 0	0
Phenols (Sum)	µg/l	Grab	= 0	0

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Table D.1(i)(c): DANGEROUS SUBSTANCE EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of The Emission (Primary Discharge Point)

Discharge Point Code: SW-1

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
Atrazine	µg/l	Grab	= 0	0
Dichloromethane	µg/l	Grab	= 0	0
Simazine	µg/l	Grab	= 0	0
Toluene	µg/l	Grab	= 0	0
Tributyltin	µg/l	Grab	= 0	0
Xylenes	µg/l	Grab	= 0	0
Arsenic	µg/l	Grab	= 0	0
Chromium	µg/l	Grab	= 0	0
Copper	µg/l	Grab	= 0	0
Cyanide	µg/l	Grab	= 0	0
Flouride	µg/l	Grab	= 0	0
Lead	µg/l	Grab	= 0	0
Nickel	µg/l	Grab	= 0	0
Zinc	µg/l	Grab	= 0	0
Boron	µg/l	Grab	= 0	0
Cadmium	µg/l	Grab	= 0	0
Mercury	µg/l	Grab	= 0	0
Selenium	µg/l	Grab	= 0	0
Barium	µg/l	Grab	= 0	0

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

TABLE E.1(i): WASTE WATER FREQUENCY AND QUANTITY OF DISCHARGE – Primary and Secondary Discharge Points

Identification Code for Discharge point	Frequency of discharge (days/annum)	Quantity of Waste Water Discharged (m^3/annum)
SW-1	365	41062.5

TABLE E.1(ii): WASTE WATER FREQUENCY AND QUANTITY OF DISCHARGE – Storm Water Overflows

Identification Code for Discharge point	Frequency of discharge (days/annum)	Quantity of Waste Water Discharged (m^3/annum)	Complies with Definition of Storm Water Overflow

TABLE F.1(i)(a): SURFACE/GROUND WATER MONITORING

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1d
Grid Ref (12 digits, 6E, 6N)	094293 / 041828

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	16/09/09					
pH		= 8.1			Grab	2	Electrochemical
Temperature	= 0				Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)		= 45500			Grab	0.5	Electrochemical
Suspended Solids		= 4			Grab	0.5	Gravimetric
Ammonia (as N)		= 0.5			Grab	0.02	Colorimetric
Biochemical Oxygen Demand		= 7			Grab	0.06	Electrochemical
Chemical Oxygen Demand		= 63			Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0				Grab	0.2	Electrochemical
Hardness (as $CaCO_3$)	= 0				Grab	1	Titrimetric
Total Nitrogen (as N)		= 0.752			Grab	0.5	Digestion & Colorimetric
Nitrite (as N)		< 0.1			Grab	0.1	colorimetric
Nitrate (as N)		< 0.5			Grab	0.5	Colorimetric
Total Phosphorous (as P)		< 0.05			Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)		< 0.05			Grab	0.02	Colorimetric
Sulphate (SO_4)		= 0			Grab	30	Turbidimetric
Phenols (Sum)		< 0.1			Grab	0.1	GC-MS2

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Additional Comments:	saline interference in sulphate,,Ammonia, COD ,Chromium,Flouride tests, Default of 01/01/09 and 0 where results are not available

TABLE F.1(i)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1d
Grid Ref (12 digits, 6E, 6N)	094293 / 041828

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	16/09/09					
Atrazine		< 0.01			Grab	0.96	HPLC
Dichloromethane		< 1			Grab	1	GC-MS1
Simazine		< 0.01			Grab	0.01	HPLC
Toluene		< 0.28			Grab	0.02	GC-MS1
Tributyltin	= 0				Grab	0.02	GC-MS1
Xylenes		< 1			Grab	1	GC-MS1
Arsenic		= 3.2			Grab	0.96	ICP-MS
Chromium		= 127.6			Grab	20	ICP-OES
Copper		< 20			Grab	20	ICP-OES
Cyanide		< 5			Grab	5	Colorimetric
Flouride		= 728			Grab	100	ISE
Lead		< 20			Grab	20	ICP-OES
Nickel		< 20			Grab	20	ICP-OES
Zinc		< 20			Grab	20	ICP-OES
Boron		= 3201			Grab	20	ICP-OES
Cadmium		< 20			Grab	20	ICP-OES
Mercury		= 0.2			Grab	0.2	ICP-MS
Selenium		< 0.74			Grab	0.74	ICP-MS
Barium		< 20			Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn saline interference in sulphate,,Ammonia, COD ,Chromium,Flouride tests, Default of 01/01/09 and 0 where results are not available TBT testing not required

TABLE F.1(i)(a): SURFACE/GROUND WATER MONITORING

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1u
Grid Ref (12 digits, 6E, 6N)	094764 / 042207

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	16/09/09					
pH		= 7.9			Grab	2	Electrochemical
Temperature	= 0				Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)		= 9400			Grab	0.5	Electrochemical
Suspended Solids		< 2.5			Grab	0.5	Gravimetric
Ammonia (as N)		< 0.1			Grab	0.02	Colorimetric
Biochemical Oxygen Demand		= 2			Grab	0.06	Electrochemical
Chemical Oxygen Demand		= 65			Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0				Grab	0.2	Electrochemical
Hardness (as $CaCO_3$)	= 0				Grab	1	Titimetric
Total Nitrogen (as N)		= 0.777			Grab	0.5	Digestion & Colorimetric
Nitrite (as N)		< 0.1			Grab	0.1	colorimetric
Nitrate (as N)		< 0.5			Grab	0.5	Colorimetric
Total Phosphorous (as P)		< 0.05			Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)		< 0.05			Grab	0.02	Colorimetric
Sulphate (SO_4)		= 455			Grab	30	Turbidimetric
Phenols (Sum)	= 0				Grab	0.1	GC-MS2

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Additional Comments:	default of 0 and 01/01/09 where results are not available, saline interference in flouride ,sulphate and chromium test

TABLE F.1(i)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1u
Grid Ref (12 digits, 6E, 6N)	094764 / 042207

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	16/09/09					
Atrazine	= 0				Grab	0.96	HPLC
Dichloromethane	= 0				Grab	1	GC-MS1
Simazine	= 0				Grab	0.01	HPLC
Toluene	= 0				Grab	0.02	GC-MS1
Tributyltin	= 0				Grab	0.02	GC-MS1
Xylenes	= 0				Grab	1	GC-MS1
Arsenic	= 0				Grab	0.96	ICP-MS
Chromium		= 60.7			Grab	20	ICP-OES
Copper		< 20			Grab	20	ICP-OES
Cyanide	= 0				Grab	5	Colorimetric
Flouride		= 177			Grab	100	ISE
Lead		< 20			Grab	20	ICP-OES
Nickel		< 20			Grab	20	ICP-OES
Zinc		< 20			Grab	20	ICP-OES
Boron		= 617.2			Grab	20	ICP-OES
Cadmium		< 20			Grab	20	ICP-OES
Mercury	= 0				Grab	0.2	ICP-MS
Selenium	= 0				Grab	0.74	ICP-MS
Barium		< 20			Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn default of 0 and 01/01/09 where results are not available, saline interference in flouride ,sulphate and chromium test

Annex 2: Check List For Regulation 16 Compliance

Regulation 16 of the waste water discharge (Authorisation) Regulations 2007 (S.I. No. 684 of 2007) sets out the information which must, in all cases, accompany a discharge licence application. In order to ensure that the application fully complies with the legal requirements of regulation 16 of the 2007 Regulations, all applicants should complete the following.

In each case, refer to the attachment number(s), of your application which contains(s) the information requested in the appropiate sub-article.

Regulation 16(1) **In the case of an application for a waste water discharge licence, the application shall -**		**Attachment Number**	**Checked by Applicant**
(a)	give the name, address, telefax number (if any) and telephone number of the applicant (and, if different, of the operator of any treatment plant concerned) and the address to which correspondence relating to the application should be sent and, if the operator is a body corporate, the address of its registered office or principal office,		
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,		
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the waste water treatment plant and/or the waste water discharge point or points to which the application relates,		
(d)	state the population equivalent of the agglomeration to which the application relates,		
(e)	specify the content and extent of the waste water discharge, the level of treatment provided, if any, and the flow and type of discharge,		
(f)	give details of the receiving water body, including its protected area status, if any, and details of any sensitive areas or protected areas or both in the vicinity of the discharge point or points likely to be affected by the discharge concerned, and for discharges to ground provide details of groundwater protection schemes in place for the receiving water body and all associated hydrogeological and geological assessments related to the receiving water environment in the vicinity of the discharge.		
(g)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and, if Regulation 17 does not apply, provide details of the likely environmental consequences of any such discharges,		
(h)	in the case of an existing waste water treatment plant, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,		
(i)	describe the existing or proposed measures, including emergency procedures, to prevent unintended waste water discharges and to minimise the impact on the environment of any such discharges,		
(j)	give particulars of the nearest downstream drinking water abstraction point or points to the discharge point or points,		
(k)	give details, and an assessment of the effects, of any existing or proposed emissions on the environment, including any environmental medium other than those into which the emissions are, or are to be made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit any pollution caused in such discharges,		
(l)	give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations,		
(m)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work.		
(n)	Any other information as may be stipulated by the Agency.		
Regulation 16(3) **Without prejudice to Regulation 16 (1) and (2), an application for a licence shall be accompanied by -**		**Attachment Number**	**Checked by Applicant**
(a)	a copy of the notice of intention to make an application given pursuant to Regulation 9,	Not applicable	Yes
(b)	where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13,	Not applicable	Yes
(c)	Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate -	B	Yes
(c) (i)	the point or points, including storm water overflows, from which a discharge or discharges take place or are to take place, and	B3	Yes
(c) (ii)	the point or points at which monitoring and sampling are undertaken or are to be undertaken,	E3	Yes
(d)	such fee as is appropriate having regard to the provisions of Regulations 38 and 39.		Yes

Regulation 16(4) 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.		Attachment Number	Checked by Applicant
1	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 electronic or other format as specified by the agancy.		Yes
Regulation 16(5) **For the purpose of paragraph (4), all or part of the 2 copies of the said application and associated documents and particulars may, with the agreement of the Agency, be submitted in an electronic or other format specified by the Agency.**		**Attachment Number**	**Checked by Applicant**
1	Signed original.		Yes
2	2 hardcopies of application provided or 2 CD versions of application (PDF files) provided.		Yes
3	1 CD of geo-referenced digital files provided.		Yes
Regulation 17 **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**		**Attachment Number**	**Checked by Applicant**
3	2 CD versions of EIS, as PDF files, provided.	Not applicable	Yes
1	EIA provided if applicable	Not applicable	Yes
2	2 hardcopies of EIS provided if applicable.	Not applicable	Yes
Regulation 24 **In the case of an application for a waste water discharge certificate of authorisation, the application shall –**		**Attachment Number**	**Checked by Applicant**
(a)	give the name, address, telefax number (if any) and telephone number of the applicant and the address to which correspondence relating to the application should be sent and, if the operator of the waste water works is a body corporate, the address of its registered office or principal office	B.1	Yes
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,	Not applicable	Yes
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the discharge point or points to which the application relates,	B.2	Yes
(d)	state the population equivalent of the agglomeration to which the application relates,	B8	Yes
(e)	in the case of an application for the review of a certificate, specify the reference number given to the relevant certificate in the register,	C, D	Yes
(f)	specify the content and extent of the waste water discharge, the level of treatment provided and the flow and type of discharge,	F.1	Yes
(g)	give details of the receiving water body, its protected area status, if any, and details of any sensitive areas or protected areas, or both, in the vicinity of the discharge point or points or likely to be affected by the discharge concerned,	E.2, E.3	Yes
(h)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and of the likely environmental consequences of any such discharges,	E.4	Yes
(i)	in the case of an existing discharge, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,	G.3	Yes
(j)	describe the existing or proposed measures, including emergency procedures, to prevent unauthorised or unexpected waste water discharges and to minimise the impact on the environment of any such discharges,	F.2	Yes
(k)	give particulars of the location of the nearest downstream drinking water abstraction point or points to the discharge point or points associated with the waste water works,	F.1	Yes
(l)	give details of any designation under any Council Directive or Regulations that apply in relation to the receiving waters,	E.1, E.4	Yes
(m)	give details of compliance with any applicable monitoring requirements and treatment standards,	G.1	Yes
(n)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work,	Not applicable	Yes
(o)	give any other information as may be stipulated by the Agency, and	Not applicable	Yes
(p)	be accompanied by such fee as is appropriate having regard to the provisions of Regulations 38 and 39.		Yes