Comhairle Contae Chorcaí
Cork County Council

County Hall,
Cork, Ireland.
Tel: (021) 4276891 • Fax: (021) 4276321
Web: www.corkcoco.ie
Halla an Chontae,
Corcaigh, Éire.
Fón: (021) 4276891 • Faics: (021) 4276321
Suíomh Gréasáin: www.corkcoco.ie

Environmental Protection Agency,
Office of Climate change and resource Unit,
Licencing Unit ,
P.O.Box 3000,
Johnstown Castle Estate,
County Wexford.

Our Ref.: MS/DLLad/0209

24th February 2009

Sub.: Waste Water Discharge License Application for the Agglomeration of Carewswood, Ladysbridge ,County Cork.

Dear Sir/Madam,

Please find enclosed the waste water discharge license application for the agglomeration of Carewswood, Ladysbridge in County Cork.

The following are the documents enclosed as per the application guide note.

- 1 No. signed hard copies of originals.
- 1 No. hard copy of originals.
- 2 No. CD-ROM with documentation in electronic searchable PDF,
- 1 No. CD-ROM with GIS Data, Table D.2 ,Table E.3.and ~~Table F.2~~

The content of the electronic files is true copy of the original hard copy.

Also enclosed is a paying order for the application fee of €15,000.

Yours faithfully,

Patricia Power

Director of Services

Recycled

This is a draft document and is subject to revision.

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

		to waste water treatment plants, where available. Amend wording of Section E.1 to request information on composite sampling/flow monitoring provisions.	the plant. To acquire accurate information on the sampling and monitoring provisions for discharges from the works.
V.5	07/07/2008	Amend wording of B.7 (iii) to include reference to Water Services Authorities. Amend Section G.1 to include Shellfish Waters Directive.	To accurately reflect the Water Services Act, 2007 requirements.
V.6	26/08/2008	Amendments to Section D to reflect new web based reporting. Amended requirements for reporting on discharges under E.1 Waste Water Discharge Frequency and Quantities. Amendment to Section F.1 to specify the type of monitoring and reporting required for the background environment. Removal of Annexes to application form.	To clarify the reporting requirements. To streamline reporting requirements. To clarify the reporting requirements for ambient monitoring. To reflect the new web based reporting requirements.

Environmental Protection Agency
Application for a Waste Water Discharge Licence
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 Licence under the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) or for the review of an existing Waste Water Discharge licence.

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

A valid application for a Waste Water Discharge Licence must contain the information prescribed in the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007). Regulation 16 of the Regulations sets out the statutory requirements for information to accompany a licence application. The application form is designed in such a way as to set out these questions in a structured manner and not necessarily in the order presented in the Regulations. In order to ensure a legally valid application in respect of Regulation 16 requirements, please complete the Regulation 16 Checklist provided in Annex 2.

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

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

PROCEDURES

The procedure for making and processing of applications for waste water discharge licences, and for the processing of reviews of such licences, appear in the Waste Water Discharge (Authorisation) Regulations, 2007 (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.

Prior to submitting an application the applicant must publish (within the two weeks prior to date of application) in a newspaper circulating in the area, and erect at the point nearest to the waste water treatment plant concerned or, if no such plant exists, at a location nearest the primary discharge point, a notice of intention to apply. An applicant, not being the local authority in whose functional area the relevant waste water discharge, or discharges, to which the relevant application relates, takes place or is to take place, must also notify the relevant Local Authority, in writing, of their intention to apply.

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

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

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

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

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

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

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

Supporting information should form **Attachment Nº A.1**

Non-Technical Summary

Ladysbridge is located approximately 1.5 kilometres south of Castlemartyr, on regional route R632. The village has experienced some expansion and population growth in the last number of years due to its proximity to Cork City.

The Waste Water Works and the activities carried out therein

Ladysbridge WWTP is designed for a population equivalent (PE) of 1000. The plant was commissioned in 2007. Waste water in Ladysbridge Waste Water Treatment Facility was originally treated in a septic tank. The influent gravitated from the village to the septic tank for treatment before discharge to the Womanagh River. With the development of The Willow Fields housing estate a pumping station (PS01) was constructed to pump the waste water from the housing estate to the septic tank for treatment. The waste water scheme was up-graded in 2007 and the septic tank was decommissioned.

The waste water is treated by a means of activated sludge in the WWTP. The influent entering PS01 is pumped to a second pumping station (PS02). Influent entering the plant from Lanes Housing estate is pumped directly to PS02. The existing waste water sewer from the village is diverted from the original route to the inlet manhole where it merges with flows from PS02. All influent flows, by gravity, to the screening chamber.

Currently the WWTP is receiving flows ranging from approximately 185m^3/d to 45m^3/d with an average of 115m^3/d.

The sources of emissions from the waste water works

The population load for the Ladysbridge agglomeration arises from the following area:

- Domestic population
- Commercial premises
- Tourism

The sewage from all commercial premises is collected via the public sewer and treated in conjunction with the domestic waste at the WWTP.
Other potential emissions from the waste water treatment plant include:

- Odour generated from the treatment process. There have been no recorded issues to date.
- Noise pollution – minor during normal operation. There have been no complaints regarding noise at the plant.

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 emissions on the environment.

The final effluent discharges to the Womanagh River running adjacent to the site. The maximum flow to the existing plant is in the order of 185m^3/d to 45m^3/d with an average inflow of 115m^3/d. At design capacity, the treatment plant will discharge 225m^3/d of treated effluent into the Womanagh River. The final discharge from the plant is a combination of the treated effluent and any storm water from the inlet works.

Analysis of the effluent by both Cork County Council and the Private Operator in 2008, indicates that the discharge is in accordance with the Urban Waste Water Treatment Directive Standards for BOD, COD and Suspended Solids.

Sludge from the plant is dewatered on site by Private Operators and disposed off site to a licensed facility for the treatment of sludge.

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

Technology
The inlet pumping station at Ladysbridge WWTP has two pumps, operating on a duty assist basis.

Techniques
The Service Provider is fully responsible for the provision of all plant, materials including consumables and labour including licences and permits necessary to ensure that the facility is operated and maintained in accordance with the best practice and any performance requirements stipulated in the Employer's Requirements.

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

As part of the operator's contract, failure to meet specified final effluent quality standards results in financial penalties due to non-compliance. The penalties vary depending on the severity if the pollution caused.

Measures planned to monitor emissions into the environment

The Cork County Council Environmental Laboratory carries out sampling of the influent and effluent. The Cork County Council Environmental Department located in Inniscarra takes samples from the river, both upstream and downstream of the wastewater treatment plant outfall.

The private operators also carry out sampling of the influent and effluent to ensure that the plant is operating satisfactorily.

SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration:	Ladysbridge

Applicant's Details

Name and Address for Correspondence

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

Provide a drawing detailing the agglomeration to which the licence application relates. It should have the boundary of the agglomeration to which the licence application relates clearly marked in red ink.

Name*:	Cork County Council Southern Division
Address:	County Hall
	Carrigrohane Road
	Cork
Tel:	021 4276891
Fax:	021 4276321
e-mail:	

*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*:	Patricia Power
Address:	Director of Services: Operational Water Services
	Floor 5 (Tower)
	County Hall
	Cork
Tel:	021 4285285
Fax:	021 4276321
e-mail:	Patricia.power@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:	Not Applicable
Tel:	Not applicable
Fax:	Not applicable
e-mail:	Not applicable

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

Design, Build & Operate Contractor Details

Name*:	Response Engineering Ltd.
Address:	Railway Road
	Charleville
	Cork
Tel:	063 33400
Fax:	063 33401
e-mail:	

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

Attachment B.1 should contain appropriately scaled drawings / maps (≤A3) of the agglomeration served by the waste water works showing the boundary clearly marked in red ink. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g., ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. These drawings should be provided to the Agency on a separate CD-Rom containing sections B.2, B.3, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	**Yes**	**No**
	✓	

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*:	Madeleine Healy
Address:	Carewswood
	Ladysbridge
	Cork
Grid ref (6E, 6N)	E 197033 N 071948
Level of Treatment	Secondary
Primary Telephone:	021 4285233
Fax:	021 4276321
e-mail:	Madeleine.Healy@corkcoco.ie

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

Attachment B.2 should contain appropriately scaled drawings / maps (≤A3) of the site boundary and overall site plan, including labelled discharge, monitoring and sampling points. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g., ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. These drawings should be provided to the Agency on a separate CD-Rom containing sections B.1, B.3, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	**Yes**	**No**
	✓	

B.3 Location of Primary Discharge Point

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

Type of Discharge	Open end concrete pipe to Womanagh River
Unique Point Code	SWO1LADY
Location	Carewswood
Grid ref (6E, 6N)	E 197057 N 071972

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.

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

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	Connects to Primary Discharge*
Unique Point Code	SWO2LADY
Location	Carewswood
Grid ref (6E, 6N)	E 197057 N 071972

***** The storm water overflow joins the final effluent line upstream of the final effluent sampling point. The sampling point will be relocated to ensure that final effluent sampling results are not contaminated.

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
	County Hall
	Carrigrohane Road
	Cork
Tel:	021 4276891
Fax:	021 4276321
e-mail:	planninginfo@corkcoco.ie

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:	Not available*

**Planning was granted under Part 8 of the Planning and Development regulations.*

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 Services Executive Southern Region
Address:	North Lee Local Health Office
	Floor 2, Abbeycourt House
	George's Quay
Tel:	Cork
Fax:	021 496551
e-mail:	
	info@hse.ie

B.7 (iii) Other Relevant Water Services Authorities

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

Name:	Not applicable
Address:	Not applicable
Tel:	Not applicable
Fax:	Not applicable

e-mail:	Not applicable

Relevant Authority Notified	**Yes**	**No**
		✓

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

Attachment included	**Yes**	**No**
		✓

B.8 Notices and Advertisements

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

Attachment B.8 should contain a copy of the site notice and an appropriately scaled drawing (≤A3) showing its location. **The original application must include the original page of the newspaper in which the advertisement was placed**. The relevant page of the newspaper containing the advertisement should be included with the original and one (1) copy of the application.

Attachment included	**Yes**	**No**
	✓	

B.9 (i) Population Equivalent of Agglomeration

TABLE B.9.1 POPULATION EQUIVALENT OF AGGLOMERATION

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

Population Equivalent	**950**
Data Compiled (Year)	**2009**
Method	**CSO data. GeoDirectory assessment**

B.9 (ii) Pending Development

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

- information on the calculated population equivalent (p.e.) to be contributed to the waste water works as a result of those planning permissions granted,
- the percentage of the projected p.e. to be contributed by the non-domestic activities, and

- the ability of the waste water works to accommodate this extra hydraulic and organic loading without posing an environmental risk to the receiving water habitat.

The Cork County Council Planning Application Database identified a number of small developments contributing 172 units of residence, that have been granted planning permission. The 172 additional residential locations, with an average of 2.9 persons per household, equates to a population of 498.
The waste water works will be able to treat this additional load of 498 PE under its current operation without posing an environmental risk.

B.9 (iii) FEES

State the relevant Class of waste water discharge as per Column 1 of the Second Schedule, and the appropriate fee as per Columns 2 or 3 of the Third Schedule of the Waste Water Discharges (Authorisation) Regulations 2007, S.I. No. 684 of 2007.

Class of waste water discharge	Fee (in €)
1000-2000 PE	€15,000

Appropriate Fee Included	Yes	No
	✓	

B.10 Capital Investment Programme

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

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

Attachment included	Yes	No
	✓	

B.11 Significant Correspondence

Provide a summary of any correspondence resulting from a Section 63 notice issued by the Agency in relation to the waste water works under the Environmental Protection Agency Acts, 1992 and 2003, as amended by Section 13 of Protection of the Environment Act, 2003.

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

Attachment included	Yes	No

		✓

B.12 Foreshore Act Licences.

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

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

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.

Operation Information Requirements

Ladysbridge WWTP is designed for a population equivalent (PE) of 1000. The plant was commissioned in 2007. Waste water in Ladysbridge Waste Water Treatment Facility was previously treated in a septic tank. The influent gravitated from the village to the septic tank for treatment before discharge to the Womanagh River. With the development of The Willow Fields housing estate a pumping station (PS01) was constructed to pump the waste water from the housing estate to the septic tank for treatment. The waste water scheme was up-graded in 2007 and the septic tank was decommissioned.

The waste water is treated by means of activated sludge in the WWTP. The influent entering PS01 is pumped to a second pumping station (PS02). Influent entering the plant from Lanes Housing estate is pumped directly to PS02. The existing waste water sewer from the village is diverted from the original route to the inlet manhole where it merges with flows from PS02. All influent flows, by gravity, to the screening chamber.

Inlet screening chamber

Under normal operating conditions all of the influent will be directed through the mechanical screen. An ultrasonic level sensor prior to the screen initiates the screen once a suitable level of influent has accumulated. Screenings of 6mm or larger are elevated by the screen and conveyed to the washing/compaction zone prior to discharge to the collection bin. The washing/compaction operates

once the screen starts. In the event of power failure or a malfunction with the screen the influent bypasses the mechanical screen.

Forward feed / Storm surge pumping station

The screened influent flows, by gravity, to the forward feed/storm pumping station. An ultrasonic level sensor mounted in the pumping station controls the operation of the foul pumps. There are two dedicated foul pumps in the pumping station which operate on a duty/standby basis at a fixed speed. These pumps are designed to pump 3DWF for a PE of 1000 (8l/s). In the event of incoming flows exceeding the capacity of these pumps, there are also two storm surge pumps operating on a duty/standby basis that pump the waste water to the storm surge holding tank. They are also designed to pump an additional 3DWF for a PE of 1000 (8l/s).

Aeration tank

Under normal operating conditions all the influent is pumped to the aeration tank via the foul pump in the forward feed pumping station. The waste water receives extended aeration in the aeration tank. This extended aeration is achieved by air blowers and a network of diffusers installed at the base of the tank. The air blower operates on a duty/standby arrangement with variable speed drive (V.S.D.) control. The speed at which the air blower operates at is directly linked to the reading taken from the dissolved oxygen probe, located in the aeration tank. The mixer installed in the tank ensures that aeration is uniform throughout the tank.

Storm water holding tank

The storm water holding tank has a capacity of 90m^3. On subsidence of storm conditions the storm flows that have collected in the storm holding tank will return, by gravity, to the forward feed station. In the event of storm conditions exceeding the capacity of the storm water holding tank the storm water will overflow and discharge to the outfall prior to the flume and post wash water pumping station.

Clarifier tank

Flow from the aeration tank to the clarifier is directed to the central distribution drum. The distribution drum is designed such that the flows will discharge radially at the bottom. As settlement occurs the clarified effluent rises and overflows the peripheral weir. The heavier activated sludge settles to the floor of the tank. The clarifier contains a rotating bridge. The bridge is centrally supported on a steel tripod and at the perimeter. The bridge is fitted with a series of floor scrapers which continuously clean the floor and direct the sludge to a central hopper. The sludge draw off pipe is located at the base of the hopper and directs the waste to the RAS/WAS pump. Scum floating on the surface of the clarifier is contained by the peripheral scum baffle. A scum board rotating with the bridge directs the scum to a scum collection box. Scum is pumped to the RAS/WAS Pump Sump.

RAS / WAS pumping station

Sludge from the clarifier hydraulically flows to the RAS/WAS pumping station. There are two foul pumps located in this pumping station operating on a duty/standby basis. The ultrasonic level sensor mounted in the pumping station

controls the operation of these foul pumps. Sludge from the pumping station can either be returned to the aeration tank or the operator may decide to waste the sludge. The operator selects this by manually turning the gate valves on the sludge line. The rate of pumping from the pumping station is recorded by the inline flow-meter.

Sludge holding tank

Sludge enters the sludge holding tank from the WAS pump and the scum pocket in the clarifier. The sludge is then allowed to thicken through the separation of the clear liquid and solids by gravity. Clear liquid at the top of the tank then either overflows through the high level decant pipe or is manually decanted at a lower level. This liquor is then returned to the forward feed pumping station. A mixer installed in the tank helps the operator to prevent pockets of heavy sludge's from settling and obstructing tanker draw off.

Outlet

Clarified effluent, discharged from the clarifier, flows to the outfall via the wash water pump sump. The wash water pump provides wash water around the site where required. The flow-rate to discharge is recorded by the ultrasonic level sensor over the outlet flume. A sampler is installed on the outlet to measure effluent standards.

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.

Storm Water Overflows
In the event of incoming flows exceeding the capacity of the pumps, there are two storm pumps operating on a duty/standby basis that pump the waste water to the storm water holding tank that has a capacity of 90 m^3. On subsidence of storm conditions the storm flows that have collected in the storm holding tank will return, by gravity, to the forward feed station. In the event of storm conditions exceeding the capacity of the storm water holding tank the storm water overflows and is discharged to the outfall prior to the flume and post wash water pumping station.
There is no information regarding the frequency of storm water overflows, or the quantities discharged.

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.

Pumping Stations
There are two foul pumps in the pumping station that operate on a duty/standby basis at a fixed speed. The pumps are designed to pump 3DWF for a PE of 1000 (8l/s). In the event of incoming flows exceeding the capacity of the pumps, there are two storm pumps operating on a duty/standby basis which pump the waste water to the storm water holding tank. The pumps are designed to pump 3DWF for a PE of 1000 (8l/s).

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
	✓	

C.2 Outfall Design and Construction
Provide details on the primary discharge point & secondary discharge points and storm overflows to include reference, location, design criteria and construction detail.

Primary Discharge Point
There is one discharge point from the waste water treatment plant. The outlet from the plant conveys treated effluent from the treatment plant to the discharge point at the Dissour River. **Attachment B3_Map6** identifies the location of the outfall.
There is no information regarding the invert of the discharge pipe, nor any technical construction details regarding the outfall.

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

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 emissions are made or are to be made.

Details of all discharges of waste water from the agglomeration should be submitted via the following web based link: http://78.137.160.73/epa_wwd_licensing/. ***The applicant should address in particular all discharge points where the substances outlined in Tables D.1(i), (b) & (c) and D.1(ii), (b) & (c) of Annex 1 are emitted.***

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

D.1 Discharges to Surface Waters

Details of all discharges of waste water from the agglomeration should be supplied via the following web based link: http://78.137.160.73/epa_wwd_licensing/. Tables D.1(i)(a), (b) & (c), should be completed for the primary discharge point from the agglomeration and Tables D.1(ii)(a), (b) & (c) should be completed for **each** secondary discharge point, where relevant. Table D.1(iii)(a) should be completed for **each** storm water overflow. Individual Tables must be completed for each discharge point.

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

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

Attachment included – Provided in E4	**Yes**	**No**
		✓

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
SW01L ADY	Primary	Cork County Council	River	Womanagh River	NHA	E 197057	N 071972

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

SECTION E: MONITORING

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

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

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

E.2. Monitoring and Sampling Points

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

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

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

E.2 Monitoring in respect of Ladysbridge Waste Water Licence Application

The plant is currently monitored by the Environmental Directorate of Cork County Council to measure compliance with the requirements of the Urban Wastewater Directive. Samples are also collected upstream and downstream of the discharge location at this time. The Womanagh River, which is the receiving water body, is monitored in terms of the Freshwater Fish Directive, the Phosphorus Regulations by the Water laboratory of Cork County Council and in recent times the Water Framework Directive as part of the River Basin Project. It is proposed to continue this multi-faceted approach to monitoring the treatment plant and the impacts of the discharge to the receiving waters.

General Laboratory Information

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

in Attachment E.2. The Wastewater Laboratory of Cork County Council is currently accredited for the following parameters under the ISO 17025 system:

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

The laboratory perform a number of analytical tests e.g. fats, oil , grease and metals using an ICP-OES system and while the Wastewater Laboratory of Cork County Council is not currently accredited for extra tests the same analytical procedures and protocol are adhered to by the laboratory as would be required if the tests were accredited. The laboratory also participates in proficiency testing schemes which measure the accuracy of the results and performance of the laboratory in both the EPA scheme and the WRC Aquacheck scheme from the UK. The performance of the laboratory in these schemes is excellent and the non-accredited tests are within the performance criteria for the schemes as evaluated by the scheme coordinators.

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	Primary Discharge	S	E 197062	N 071965	N
aSW01u	Primary Discharge	S	E 196980	N 071900	N
aSW01d	Primary Discharge	S	E 198612	N 072455	N

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

E.4 Sampling Data

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

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

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.

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

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

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

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

- Details of all monitoring of the receiving water should be supplied via the following web based link: http://78.137.160.73/epa_wwd_licensing/. Tables F.1(i)(a) & (b) should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables F.1(i)(a) & (b). Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.

- For discharges from secondary discharge points Tables F.1(ii)(a) & (b) should be completed. Furthermore, provide summary details and an assessment of the impacts of any existing or proposed emissions on the surface water or ground (aquifers, soils, sub-soils and rock environment), including any impact on environmental media other than those into which the emissions are to be made.

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

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

- 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.

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

- 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)

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

Receiving Water Body

The Womanagh River rises in high ground approximately 6km north of the town of Dungourney and flows eastwards across the southern end of the Womanagh catchment before discharging into Youghal Bay. The Womanagh River becomes tidal at Finisk Bridge, immediately downstream of the Womanagh-Dissour confluence and 8km upstream of the bay. The lower stretches of the Womanagh are meandering and characterised by a soft substrate due to silt deposition. The river becomes estuarine near the shoreline.

The receiving water body of the Ladysbridge Waste Water Treatment Plant is the Womanagh River. All effluent from the treatment plant discharges via the discharge point to the Womanagh River. Clonpriest and Pilmore is classified as a Special Area of Conservation (SAC). The SAC includes the Womanagh Estuary and foreshores, the SAC is located approximately 11km from Ladysbridge WWTP discharge point. The site synopses is included in **Attachment F.1.**

Water Quality Standards

The Water Framework Directive (WFD) aims to establish an integrated approach to water protection, improvement and sustainable use. In order to achieve the requirements of the WFD, Ireland has been divided into a number of River Basin Districts. The South Western River Basin District (SWRBD) comprises substantially the counties of Cork and Kerry, all of Cork City, and also parts of counties Limerick, South Tipperary and Waterford.

Hydrometric Area 19 (Lee – Cork Harbour – Youghal Bay) is included in the SWRBD. The overall objectives of the SWRBD project include the following:

- Strengthen compliance with EU Directives and national legislation
- Collect and analyse information to determine water quality and identify possible threats to water status
- Prevent further deterioration and protect / enhance water quality
- Develop a programme of measures to address all significant pressures and sources of impact on aquatic ecosystems and groundwater
- Encourage and facilitate public participation including the maintenance of a project website
- Promote sustainable water use

In order to achieve these objectives the following project tasks have been identified:

- Identify pressures on water bodies and assess risk of not achieving compliance with the Water Framework Directive
- Prepare a Characterisation Report
- Identify Heavily Modified (HMWB) and Artificial Water Bodies (AWB)
- Establish data management system and GIS
- Prepare programme of measures
- Review of monitoring needs
- Design monitoring programme
- Prepare River Basin Management Strategy
- Assist public participation in the project

- Prepare printed reports
- Assist capacity building

The SWRBD have yet to set water quality standards for the Womanagh River under a water quality or catchments management plan. The River Basin Management System currently being developed will include a programme of measures and a River Basin Management Strategy, designed to achieve at least good status for all waters by 2015, and to maintain high status where it exists.

Areas of Conservation

The Department of the Environment, Heritage and Local Government is responsible for the designation of conservation sites in Ireland. It is required under European law and national laws to conserve habitats and species, through designation of conservation areas under Special Areas of Conservation, Natural Heritage Areas and Special Protection Areas.

Special Areas of Conseravtion

Candidate Special Areas of Conservation (cSAC) are protected under the European Union (EU) Habitats Directive (92/43/EEC), as implemented in Ireland by the European Communities (Natural Habitats) Regulations, 1997.

The lower stretches of the Womanagh River, from Clonpriest to the location where the river enters Youghal Bay is a designated Special Area of Conservation. This site's conservation value derives largely from the presence of a number of important coastal habitats listed in Annex I of the European Union Habitats Directive. The Ballymacoda (Clonpriest & Pillmore) Site Synopsis is included in Attachment F.1.

Natural Heritage Areas

The lower stretches of the Womanagh River, from Clonpriest to the location where the Womanagh River enters Youghal Bay is a proposed National Heritage Area. Under the Wildlife Amendment Act 2000, NHAs are legally protected from damage from the date they are formally proposed for designation. An NHA is an area considered important for the habitats present or which holds species of plants and animals whose habitat needs protection.

Special Protection Areas

Special Protection Areas (SPAs) are designated in order to safeguard certain habitats pursuant to EU Directive requirements. The EU Birds Directive (79/409/EEC) requires designation of SPAs for listed rare and vulnerable species, migratory species and wetlands. The lower stretches of the Womanagh River, from Clonpriest to the location where the Womanagh River enters Youghal Bay is a Special Protection Area.

Existing Receiving water

The 2005 EPA Water Quality Report indicated that the water quality in the Womanagh River has a moderate water quality. The biological water quality data for Station 1000 at the bridge in Castlemartyr had a consistent Q3-4 value (moderate water quality) from 2002 up to the most recent values in 2008.

Surface Water Directive

The only surface water abstraction within the Womanagh catchment is on the Dower River at Dower. There are no discharges to this river, either upstream or downstream of its 2km subterranean stretch. Consequently the provisions of the Surface Water Directive do not directly apply.

Groundwater Directives

The Groundwater Directives (80/778/EEC) does not apply, as there are no discharges to ground in the current operation.

Bathing Water Directive

The Bathing Water Regulations 1992 (SI No. 155 of 1992), lay down quality requirements for inland and coastal waters as designated bathing areas. There are no designated inland bathing areas in the Womanagh catchment nor are there any designated beaches on the Womanagh estuary. Consequently Directive 76/160/EEC does not directly apply.

Freshwater Fish Directive & Salmonid Regulations

Neither the Womanagh River nor its tributaries have been designated under the Regulations and it is not expected that they will be designated in the foreseeable future. The Womanagh is an important fishery for sea trout (*Salmo trutta*) and brown trout (*s. trutta*). The Womanagh does not have a large run of salmon (*S. salar*). Sea bass (*Dicentrachus labrax*) have been caught in the Womanagh Estuary. Large shoals of grey mullet (*Chelon labrosus*) move upstream at high tide, while flatfish such as flounder (*Platichthys flesus*) also inhabit the estuary. It has been suggested that smelt (*Osmerus eperlanus*) and/or shad (*Alsoa sp.*) may also be present in the catchment although no data is currently available to confirm this.

EU Shellfish Waters Directive

EU Shellfish Waters Directive (79/923/EEC) on the quality required by shellfish waters, EU Directive on Health Conditions and the placing of Live Molluscs (91/67/EEC) and the associated Quality of Shellfish Waters Regulations 1994 (SI No. 200 of 1994) specify designated coastal and brackish waters needing protection or improvement in order to support shellfish. Specified limit values apply to these areas.

It must be noted that there is a Shellfish Designation in Youghal/Ballymacoda Bay where the Womanagh River discharges to the sea. The effluent from the plant should not affect the Shellfish Waters, due to a distance of approximately 16km from the discharge point to the designated area.

Urban Waste Water Treatment Directive

The Environmental Protection Agency Act 1992 (Urban Waste Water Treatment) Regulations 1994 (SI No. 419 of 1994) were issued to give effect to EU Directive (91/271/EEC) concerning urban waste water treatment. The regulations specify that waste water arising from populations of less than 2000 shall, by the end of 2005, be subject to appropriate treatment prior to discharge. Appropriate treatment is defined as:

…any process and/or disposal system which after discharge allows the receiving waters to meet the relevant provisions of the Directive and of other community Directives.

Relevant Community Directives are Directives 75/440/EEC, 78/160/EEC, 78/659/EEC and 79/923/EEC, all of which have been discussed above. Where the agglomeration served is over 2000PE (10000PE if coastal) the second schedule shall not exceed 25 mg/l and 35 mg/l respectively. The limits specified in the Urban Waste Water Treatment Directive are not considered onerous, and compliance with stricter articles of legislation such as the Fisheries Directive will ensure compliance with the Urban Waste Water Treatment Directive.

Phosphorus Regulations

The Local Government (Water Pollution) Act 1977 (Water Quality Standards for Phosphorus) Regulations 1998 (SI No. 258 of 1998) were introduced to counter eutrophication observed throughout Irish watercourses and also to comply with Council Directive 76/464/EEC on pollution caused by certain dangerous substances discharged into the aquatic environment.

The regulations oblige authorities to maintain or improve the quality at any part of a river by 2007 with reference to the Biological Quality Rating (Q value). The target values are shown in table F1.1.

A Biological Quality Rating of Q4 represents satisfactory water quality. Eutrophication is unlikely to occur in water bodies with a biological quality rating of Q4 or higher.

There are no results currently available from EPA monitoring points downstream of the Ladysbridge Waste Water Treatment Plant final effluent outfall point. The 2008 monitoring data for monitoring point 19D03 1000 show that sites Q-value is on target to meet the requirements.

Water Framework Directive

EU Directive 2000/60/EC establishing a framework for community action in the field of water policy requires member states to restore the quality of their watercourses by 2015. In order to achieve this objective, Irish local authorities are obliged to prepare river basin management plans. Cork County Council have assembled an advisory council which will manage the southwest river basin district within the Womanagh catchment is located. To date no specific quality objectives have been put in place with respect to the catchment.

Water Quality Management Plans

The Local Government (Water Pollution) Act, 1977, provides for one or more local authorities to take co-ordinated action on a river catchment basis by the preparation and implementation of river catchment management plans. Cork County Council has not previously adopted any plan with respect to the Womanagh catchment.

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

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
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

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

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

Attachment F.2 should contain any supporting information.

SECTION G: PROGRAMMES OF IMPROVEMENTS

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

G.1 Compliance with Council Directives

Provide details on a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the;

- Dangerous Substances Directive 2006/11/EC,
- Water Framework Directive 2000/60/EC,
- Birds Directive 79/409/EEC,
- Groundwater Directives 80/68/EEC & 2006/118/EC,
- Drinking Water Directives 80/778/EEC,
- Urban Waste Water Treatment Directive 91/271/EEC,
- Habitats Directive 92/43/EEC,
- Environmental Liabilities Directive 2004/35/EC,
- Bathing Water Directive 76/160/EEC, and
- Shellfish Waters Directive (79/923/EEC).

Compliance with Council Directives

Details of compliance are outlined in Section F1. Analysis of the effluent by both Cork County Council and the Private Operator in 2008, indicates that the discharge is in accordance with the Urban Waste Water Treatment Directive Standards for BOD, COD and Suspended Solids.

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 Water Quality Standards for Phosphorus Regulations (S.I. No. 258 of 1998).

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 Water Quality Standards for Phosphorous Regulations (S.I. No. 258 of 1998) 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 identified as the principal sources of pollution under the P regulations.

Compliance with Water Quality Standards for Phosphorus Regulations (S.I. No. 258 of 1998)

There are no results currently available from EPA monitoring points downstream of the Ladysbridge Waste Water Treatment Plant final effluent discharge point. The 2008 monitoring data for monitoring point 19D03 1000 show that sites Q-value is on target to meet the requirements.
These results are shown in **Table G.2.1**.

Station Nos.	1989	1994	1997	1999	2002	2005	2008
1000	3-4	4	3-4	3	3-4	3-4	3-4

Table G.2.1

Analysis of the effluent by both Cork County Council and the Private Operator in 2008, indicates that the discharge is in accordance with the Urban Waste Water Treatment Directive Standards for BOD, COD and Suspended Solids.

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.

Impact Mitigation
As part of the operator's contract, failure to meet specified final effluent quality standards results in financial penalties due to non-compliance. The penalties vary depending on the severity of the pollution caused.

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 Overflow

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

Storm Water Overflow
There are no overflows other than the primary overflow in the existing WWTP.

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 licence/revised licence, 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 :**_____
(on behalf of the organisation)

Print signature name: _____

Position in organisation:_____

SECTION I: JOINT DECLARATION

Joint Declaration [Note1]

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

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

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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.

SECTION H: DECLARATION

Declaration

I hereby make application for a waste water discharge licence/revised licence, pursuant to the provisions of the Waste Water Discharge (Authorisation) Regulations, 2007 (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 : Patricia Power **Date :** 23rd Feb 09
(on behalf of the organisation)

Print signature name: Patricia Power

Position in organisation: Director of Services

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