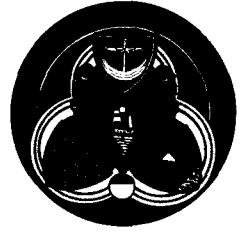


Comhairle Contae Chorcaí Cork County Council

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

A0441-01



Environmental Protection Agency,
Headquarters,
Office of Climate, Licensing and Resource Unit,
P.O. Box 3000,
Johnstown Castle Estate,
County Wexford.

Our Ref.: GW01 / Innis

22 December 2009

Sub.: Waste Water Discharge Certificate Application for the Agglomeration of Inniscarra Waterworks Site, County Cork.

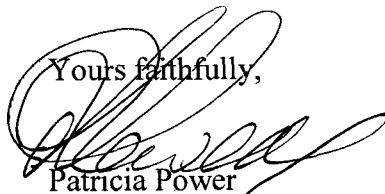
Dear Sir/Madam,

Please find enclosed the waste water discharge certificate application for the agglomeration of Inniscarra Waterworks Site.

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.

Yours faithfully,

Patricia Power
Director of Service

Environment Protection Agency
Receiver
18 NOV 2010
Initials



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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,

A handwritten signature in black ink, appearing to read 'Louis Duffy'.

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



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This is a draft document and is subject to revision.



Waste Water Discharge Certificate of Authorisation Application Form

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

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



Tracking Amendments to Draft Application Form

Version No.	Date	Amendment since previous version	Reason
V. 1.	23/03/09	N/A	

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

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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. The abbreviation "N/A" should not be used.

Additional information may need to be submitted beyond that which is explicitly requested on this form. Any references made should be supported by a bibliography. The Agency may request further information (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.

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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.

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

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SECTION A: NON-TECHNICAL SUMMARY

Inniscarra Waterworks is located approximately 5 Km west of the town of Ballincollig. It is situated on the R 618 regional road on the northern shore of the Inniscarra Lake on the River Lee, upstream of the ESB Hydro-Electric Station.

The Inniscarra Waterworks site hosts the principal Treatment works for drinking water supply to the Cork Harbour and City region, Cork County Council's Environmental Directorate (Administrative Offices, Water and Instrumentation Laboratory & Food Hygiene Building) and the EPA Regional Inspectorate, Cork.

From Monday to Friday (9am – 5pm) there could be up to 125 people on site at any one time and at the weekend there is only 2 Cork County Council staff to operate the waterworks treatment process.

There are 3 No. bungalows adjacent to the site which also feed into the waste water treatment plant.

The Waste Water Works and the activities carried out therein

The Treatment plant serving the Inniscarra Waterworks treats domestic wastewater and is an activated sludge treatment system incorporating pre-screening, extended aeration and sludge storage. It is designed for a Population Equivalent (PE) of 100 and is capable of handling a hydraulic load of 23m³/day and a BOD loading of 6 Kg/day and was commissioned in 1993.

Currently the WWTP is receiving flows ranging from 6m³/d to 13m³/d, with an average DWF of 8.8m³/d entering the plant. Based on hydraulic flows the PE equates to 63. The final effluent is discharged to a constructed percolation area which is adjacent to the wastewater treatment plant.

The Treatment works consists of the following elements:

- Inlet Mechanically Raked Screen
- Aeration Tank
- Settlement Tank
- Collection Manhole and Percolation Area
- Sludge storage tank

The Source of Emissions for the Wastewater Works

The source of emissions from the Inniscarra Site Wastewater works is considered domestic.

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 final effluent is discharged to a constructed percolation area which is adjacent to the wastewater treatment plant. The maximum flow to the WWTP is in the order of 6m³/d to 13m³/d. Recent sampling results give an average BOD on the effluent from the plant of 5 mg/l.

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

The WWTP has a rotating brush screen, 2 No. (Duty and Standby) grinder type submersible pumps, 2 No. (Duty and Standby) Air blowers and 2 No. sludge return pumps to ensure continuation of the wastewater treatment plant.

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

The wastewater treatment plant is monitored by the Waterworks Staff to ensure the plant is operating within specification. The running hours of the pumps, blowers and grinders are noted and the probes are cleaned regularly to ensure the Dissolved Oxygen reading in the Aeration Tank is correct.

Measures planned to monitor emissions into the environment

The emissions from the Wastewater Treatment Plant can be monitored through the sampling point GW01 Innis, results of which are attached to this application.

List of Attachments Include the following:

- | | |
|---|----------------------|
| • Location Map (Scale 1/50,000) | Attachment A1 Map 1. |
| • Inniscarra Waterworks Site Location Map | Attachment A1 Map 2. |
| • Site Layout Map | Attachment A1 Map 3. |
| • Waste water Treatment Plant Site Layout Map | Attachment A1 Map 4. |

SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration:	Inniscarra Waterworks Site
-------------------------------	----------------------------

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*:	Patricia Power
Address:	Water Services Section
	Cork County Council
	Southern Division
	Carrigrohane Road, Cork.
Tel:	021 4276891
Fax:	021 4276321
e-mail:	patricia.power@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*:	Patricia Power
Address:	Water Services Section
	Cork County Council
	Southern Division
	Carrigrohane Road, Cork.
Tel:	021 4276891
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 Certificate of Authorisation application.

Design, Build & Operate Contractor Details

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

*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 ($\leq A3$) 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*:	Pat Murphy_SEE
Address:	Cork County Council
	Inniscarra Waterworks
	Inniscarra
	Co. Cork
Grid ref (6E, 6N)	153949E, 72325N
Level of Treatment	Secondary
Primary Telephone:	021 4532772
Fax:	021 4532777
e-mail:	pata.murphy@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 ($\leq A3$) 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

	√	
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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	Groundwater
Type of Discharge	Treated Effluent via 150mm diameter pvc pipe from Wastewater Treatment plant to Percolation.
Unique Point Code	GW01Innis
Location	Inniscarra Waterworks Site, Inniscarra, Co. Cork.
Grid ref (6E, 6N)	153950E, 72316N

Attachment B.3 should contain appropriately scaled drawings / maps ($\leq A3$) 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	Ground Water
Type of Discharge	Discharge from Septic tank to Soakpit.
Unique Point Code	GW02Innis
Location	Inniscarra Waterworks Site, Inniscarra, Co. Cork.
Grid ref (6E, 6N)	153926E, 72293N

Attachment B.4 should contain appropriately scaled drawings / maps ($\leq A3$) 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. **None**

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

Attachment B.5 should contain appropriately scaled drawings / maps ($\leq A3$) of storm water overflow point(s) associated with the waste water works, including labelled monitoring and sampling points associated with the discharge point(s). 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
	Carriagrohane Road
	Cork
Tel:	021 4276891
Fax:	021 4867007
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 N^o:	Part X Report for the development of Offices and Laboratory Facilities at Inniscarra Waterworks. Part 8 Report for the Construction of new Water Laboratory at Inniscarra, Co. Cork.
---	---

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.

Not Applicable

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:	South Cork Area Headquarters
	Abbeycourt House
	George's Quay, Co. Cork.
Tel:	021 4963822
Fax:	021 4965511
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.

Population Equivalent	63 (Design 100)
Data Compiled (Year)	2009
Method	Hydraulic Flow

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.

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 €)
	€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 Water Services Investment Plans) 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.

No works are listed to be carried out under the current Water Services Investment Programme 2010 – 2012.

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.

No Programme in 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 Wastewater 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.

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.

Not Applicable

Attachment included	Yes	No
		√

List of Attachments Include the following:

- | | |
|---|----------------------|
| • Boundary of Agglomeration Map | Attachment B1 Map 5. |
| • Waste water Treatment Plant Site Layout | Attachment B2 Map 6. |
| • Location of Primary Discharge | Attachment B3 Map 7. |
| • Location of Secondary Discharge point | Attachment B4 Map 8. |
| • Location of Sampling Point | Attachment B3 Map 9. |

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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.

The main elements of the Wastewater Treatment plant are as follows:

1. Inlet Mechanically Raked Screen

Flow to the plant is by gravity to the screening chamber at the inlet to the plant. It is fitted with a rotating brush type of screen, which removes any gross solids from the flow to protect the treatment unit from damage and to prevent blockages in the sludge system. The removed screenings are then shredded by a grinder type of submersible pump. This then pumps the reduced screenings into the treatment system, where the organics receive further treatment and the inert solids can be removed in the settled sludge. This eliminates the necessity for separate removal and disposal of unsightly screenings.

2. Aeration Tank

The screened sewage gravitates into the aeration tank, where it is treated by extended aeration. Micro-organism growth and activity is promoted in the aeration tank to bring about reduction in BOD in the sewage. This requires an external supply of oxygen for BOD oxidation as well as for endogenous respiration of the micro-organism population. This is provided by an external Rootes type of air into the aeration tank using a sub-surface diffused air aeration system installed at the base of the aeration tank. For optimum performance of the treatment system it is essential to operate the aeration tank at a consistent F/M (Food / Micro-organism) ratio, in this case at 0.05 kg BOD / kg MLSS.

3. Settlement Tank

From the aeration tank the sewage liquor overflows into the adjoining settlement tank. Solids settle in the hoppers bottom of the settlement tank because they are more dense than water, from where they are removed in the form of sludge by a sludge pump. The sludge pump returns sludge to the aeration tank to maintain the micro-organism population and the MLSS concentration.

4. Collection Manhole and Percolation Area

Clarified effluent overflows from the settlement tank via the decanting channels to the collection manhole and out of the treatment plant to the percolation area via a 150mm PVC pipe to the junction manhole and the constructed percolation area.

5. Sludge Storage Tank

The continuous growth of micro-organisms and subsequent die-off would result in an increase in the concentration of solids in the system. To maintain the suspended solids concentration at the required level some of the sludge is withdrawn from the system on a regular basis. This is pumped by the sludge pump into the adjacent storage tank, via a valved branch. To prevent the contents of this sludge storage tank becoming septic and from generating odours this tank is aerated. Sludge is removed from this tank regularly for further treatment and disposal.

Storm Water Overflows

There are no Storm Water Overflows discharge points in the Inniscarra Waterworks Wastewater Treatment Plant.

PS 1 Environment Building Pumping Station (153812 E, 72384N)

The pumping station is located approximately 15m North West of Cork County Council's Environmental Department Offices. The pumping station has a design capacity of 325 PE. There are two submersible pumps (duty and standby) in place which are commanded by an Ultrasonic level controller.

Pump Capacity 7.5 l/sec (650 m³ / day)
 PE 3500 @ 185 l/h/d

Pump Sump Design Details:
 Sump dimensions 2.1m diameter
 Area 3.46m²
 Depth 5.1m Approx
 Volume 17.66m³

Emergency Overflow Chamber
 Chamber dimensions are not known

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
	√	

List of Attachments Include the following:

- Wastewater Treatment Plant Site Layout Attachment C1 Map 10.
- Schematic Showing Treatment Plant Process Attachment C1 Drawing 1.
- Details of Treatment Plant Attachment C1 Drawing 2.
(Plan and Section)
- Details of Septic Tank and Soakpit Attachment C1 Drawing 3.

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.

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.

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.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	NORTHIN G
GW01 Innis	Primary	Cork County Council	Groundwater	Not Applicable	Not Applicable	153950	72316
GW02 Innis	Secondary	Cork County Council	Groundwater	Not Applicable	Not Applicable	153926	72293

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.

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
GW01 Innis	Primary	Sampling	153950	72316	Y
aGW-1u	Primary	Sampling	153950	72316	Y
aGW-1u	Secondary	Sampling	153926	72293	Y

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.
- 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.
- 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.

- 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.
 - 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 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.
 - 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/EEC¹ 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/EEC²;
- ¹Council 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)

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

- o 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 the WWTP has no impact on any abstraction Point.

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).

Dangerous Substances Directive 2006/11/EC

A screening programme was undertaken for all of the substances listed in S.I. No 12/2001 – Water Quality (Dangerous Substances) Regulations, 2001 with the exception of tributyltin.

The assessment for atrazine, dichloromethane, simazine, toluene, xylenes, arsenic, chromium, lead and nickel showed that the discharge from the WWTP were all below the level required by the Regulations.

The plant is operating satisfactorily at present and is operating within the requirements of the relevant legislation, outlined above

Water Framework Directive 2000/60/EC

The River Lee has been determined to have Poor Status under the Water Framework Directive with an objective to Restore.

Birds Directive 79/409/EEC

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.

There is a Special Area of Conservation located in The Gearagh, approximately 20 km upstream of the discharge point. The discharge and normal operation of the Treatment plant has no impact on this area.

Groundwater Directives 2006/118/EC

The Groundwater Directive 2006/118/EC has been developed in response to the requirements of Article 17 of the Water Framework Directive: Strategies to prevent and control pollution to groundwater. Groundwater Quality standards are to be established by the end of 2008.

With the proper mitigation measures in place it is expected that the operation of the wastewater treatment plant does not have any significant negative impacts on the existing groundwater.

Drinking Water Directives 80/778/EEC

Water is abstracted from the Inniscarra lake for treatment at the Inniscarra Waterworks. The abstraction point is located 470m upstream of the WWTP discharge point. A maximum of 228,000m³ is abstracted per day from the reservoir. The raw water intake at Inniscarra is tested each day for pH, temperature, colour and turbidity. Testing is carried out weekly since 2007 on the raw water intake and the treated water for Cryptosporidium and Giardia. Sampling of upstream and downstream of the discharge by the Environment Department for the Water Framework Directive and the Salmonid Regulations show that the discharge to the groundwater is having no significant effect on the receiving waters.

The Lee Road City Waterworks is much further downstream of the discharge point. The discharge should have no effect on the raw water intake at that location given the assimilative capacity of the river.

The discharge from the wastewater treatment plant to groundwater is downstream of the Inniscarra Abstraction point and therefore has no impact and is not applicable.

Urban Waste Water Treatment Directive 91/271/EEC

The Urban Waste Water Treatment Directive is not applicable as the treatment plant is rated below 500 PE.

Shellfish Directive 79/923/EEC

The River Lee is not a designated Shellfish Area under the Shellfish Waters Regulations, S.I. 200 of 1994.

Habitats Directive 92/43/EEC

Candidate Special Areas of Conservation (cSACs) 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 cSAC is designated on the basis of the presence of a large number of EU Habitats Directive Annex 1 habitats and Annex 2 species.

The area which includes the River Lee is not a Candidate Special Area of Conservation.

Environmental Liabilities Directive 2004/35/EC

The Environmental Liability 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, and it aims to hold those whose activities have caused an imminent threat of environmental damage liable for taking preventive actions.

Cork County Council's Waste Water Laboratory carries out monitoring of the effluent from the waste water treatment plant on a regular basis.

Failure to meet the specified treated effluent standards may result in final penalties to Cork County Council. As a result, the risk of environmental pollution from the treatment plant may be reduced.

Bathing Water Directive 76/160/EEC

The River Lee is not designated Bathing Waters under the Bathing Water Regulations, S.I. 178 of 1998 as amended.

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.

The Phosphorous Regulations are not applicable as the Treatment plant discharges to ground water.

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.

The waste water treatment plant is a relatively new plant and was commissioned in 1993, the plant is working satisfactorily.

Discharges from the WWTP do not affect groundwater. Nor should it affect the Special Area of Conservation or Designated Bathing Waters located downstream.

There are no Special Protection Areas, Natural Heritage Areas or European Sites which discharges from the WWTP affects. Nor are there any areas designated for the protection of shellfish or fresh water fish, or any water

abstraction locations intended for human consumption that will be affected by the WWTP discharges.

Incoming nitrogen was nitrified from ammonia to nitrate causing the pH to drop to a level of 4.7. The aeration time was reduced at night time when no load was entering the WWTP, which resulted in reduced nitrification and a pH of 6.7 as the norm.

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.

There are no stormwater overflows from the agglomeration of Inniscarra Waterwork Wastewater treatment plant.

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

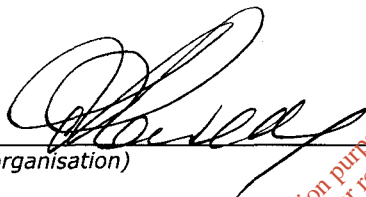
Declaration

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 : 
(on behalf of the organisation)

Date : 17th Dec 09

Print signature name: P. POWER

Position in organisation: Director of Services

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Annex 1: Tables / Attachments

Attachment	Description
A1 Map 1	Location Map (Scale 1/50,000)
A1 Map 2	Inniscarra Waterworks Site Location Map
A1 Map 3	Site Layout Map
A1 Map 4	Waste water Treatment Plant Site Layout Map
B1 Map 5	Boundary of Agglomeration Map
B2 Map 6	Waste water Treatment Plant Site Layout Map
B3 Map 7	Location of Primary Discharge Point
B3 Map 8	Location of Sampling Point
B4 Map 9	Location of Secondary Discharge Point
B5	Not Applicable
B6	Not Applicable
B7	Not Applicable
B8	Not Applicable
B9	Not Applicable
B10	Not Applicable
B11	Not Applicable
C1 Map 10	Waste water Treatment Plant Site Layout Map
C1 Drawing 1	Schematic Showing Treatment Plant Process
C1 Drawing 2	Details of Treatment Plant (Plan and Section)
C1 Drawing 3	Details of Septic Tank and Soakpit
C2	Not Applicable
D1	Not Applicable
Section D2	Discharge Points
E1	Not Applicable
E2	Not Applicable
Section E3	Monitoring and Sampling Points
E4	Sampling Results
F1	Not Applicable
F2	Not Applicable
G1	Not Applicable
G2	Not Applicable
G3	Not Applicable
G4	Not Applicable

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Agglomeration details

Leading Local Authority	Cork County Council
Co-Applicants	
Agglomeration	Inniscarra Waterworks Site
Population Equivalent	100
Level of Treatment	secondary treatment
Treatment plant address	Cork County Council Inniscarra waterworks Inniscarra Co. Cork
Grid Ref (12 digits, 6E, 6N)	153904 / 072371 (Verified using GPS)
EPA Reference No:	

Contact details

Contact Name:	Patricia Power
Contact Address:	Water Services Section Cork County Council Southern Division Carrigrohane Road Cork
Contact Number:	021-4276891
Contact Fax:	021-4276321
Contact Email:	patricia.power@corkcoco.ie

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

Discharge Point Code: GW-1

Local Authority Ref No:	GW01Innis
Source of Emission:	treated effluent
Location:	Inniscarra
Grid Ref (12 digits, 6E, 6N)	153950 / 072316 (Verified using GPS)
Name of Receiving waters:	not applicable
Water Body:	Ground Water Body
River Basin District	South Western RBD
Designation of Receiving Waters:	not applicable
Flow Rate in Receiving Waters:	0 m ³ .sec ⁻¹ Dry Weather Flow 0 m ³ .sec ⁻¹ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	groundwater discharge - flow rates of receiving waters etc coded as 0 -default

Emission Details:

(i) Volume emitted			
Normal/day	8.8 m ³	Maximum/day	15 m ³
Maximum rate/hour	1.5 m ³	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	8.8 m ³ /sec		

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

Discharge Point Code: GW-1

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
pH	pH	Grab	= 9	
Temperature	°C	Grab	= 25	
Electrical Conductivity (@ 25°C)	µS/cm	Grab	= 1000	
Suspended Solids	mg/l	Grab	= 35	0.525
Ammonia (as N)	mg/l	Grab	= 5	0.075
Biochemical Oxygen Demand	mg/l	Grab	= 25	0.375
Chemical Oxygen Demand	mg/l	Grab	= 125	1.875
Total Nitrogen (as N)	mg/l	Grab	= 25	375
Nitrite (as N)	mg/l	Grab	= 0	0
Nitrate (as N)	mg/l	Grab	= 0	0
Total Phosphorous (as P)	mg/l	Grab	= 10.25	11
OrthoPhosphate (as P)	mg/l	Grab	= 9.46	10
Sulphate (SO ₄)	mg/l	Grab	= 38.6	50
Phenols (Sum)	µg/l	Grab	< 0.1	0.0000015

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

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

Discharge Point Code: GW-1

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
Atrazine	µg/l	Grab	< 0.01	0.00000015
Dichloromethane	µg/l	Grab	< 1	0.000015
Simazine	µg/l	Grab	< 0.01	0.00000015
Toluene	µg/l	Grab	< 0.28	0.0000042
Tributyltin	µg/l	Grab	= 0	0
Xylenes	µg/l	Grab	< 0.73	0.0000109
Arsenic	µg/l	Grab	< 0.96	0.0000144
Chromium	µg/l	Grab	< 20	0.0003
Copper	µg/l	Grab	< 20	0.0003
Cyanide	µg/l	Grab	< 5	0.000075
Flouride	µg/l	Grab	= 150	0.00225
Lead	µg/l	Grab	< 20	0.0003
Nickel	µg/l	Grab	≤ 20	0.0003
Zinc	µg/l	Grab	= 150	0.00225
Boron	µg/l	Grab	< 20	0.0003
Cadmium	µg/l	Grab	< 20	0.0003
Mercury	µg/l	Grab	< 0.03	0.0000004
Selenium	µg/l	Grab	< 0.74	0.0000109
Barium	µg/l	Grab	= 30	0.0003

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.

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

Discharge Point Code: GW-2

Local Authority Ref No:	GW02Innis
Source of Emission:	septic discharge to soakpit
Location:	Inniscarra
Grid Ref (12 digits, 6E, 6N)	153926 / 072293 (Verified using GPS)
Name of Receiving waters:	none
Water Body:	Ground Water Body
River Basin District	South Western RBD
Designation of Receiving Waters:	none at discharge location
Flow Rate in Receiving Waters:	0 m ³ .sec ⁻¹ Dry Weather Flow 0 m ³ .sec ⁻¹ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	No data available- overflow which has never overflowed- emergency protection measure

Emission Details:

(i) Volume emitted			
Normal/day	0 m ³	Maximum/day	0 m ³
Maximum rate/hour	0 m ³	Period of emission (avg)	0 min/hr 0 hr/day 0 day/yr
Dry Weather Flow	0 m ³ /sec		

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

Discharge Point Code: GW-2

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	= 0	0
Ammonia (as N)	mg/l	Grab	= 0	0
Biochemical Oxygen Demand	mg/l	Grab	= 0	0
Chemical Oxygen Demand	mg/l	Grab	= 0	0
Total Nitrogen (as N)	mg/l	Grab	= 0	0
Nitrite (as N)	mg/l	Grab	= 0	0
Nitrate (as N)	mg/l	Grab	= 0	0
Total Phosphorous (as P)	mg/l	Grab	= 0	0
OrthoPhosphate (as P)	mg/l	Grab	= 0	0
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.

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

Discharge Point Code: GW-2

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.

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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)
GW-1	365	3212
GW-2	0	0

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

Primary Discharge Point

Discharge Point Code:	GW-1
MONITORING POINT CODE:	aGW-1u
Grid Ref (12 digits, 6E, 6N)	153950 / 072316

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09						
pH	= 0				Grab	2	Electrochemical
Temperature	= 0				Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)	= 0				Grab	0.5	Electrochemical
Suspended Solids	= 0				Grab	0.5	Gravimetric
Ammonia (as N)	= 0				Grab	0.02	Colorimetric
Biochemical Oxygen Demand	= 0				Grab	0.06	Electrochemical
Chemical Oxygen Demand	= 0				Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0				Grab	0	ISE
Hardness (as CaCO ₃)	= 0				Grab	0	Titrimetric
Total Nitrogen (as N)	= 0				Grab	0.5	Digestion & Colorimetric
Nitrite (as N)	= 0				Grab	0.013	Colorimetric
Nitrate (as N)	= 0				Grab	0.04	Colorimetric
Total Phosphorous (as P)	= 0				Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	= 0				Grab	0.02	Colorimetric
Sulphate (SO ₄)	= 0				Grab	30	Turbidimetric
Phenols (Sum)	= 0				Grab	0.1	GC-MS2

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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 01/01/09 and 0- no monitoring of location
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TABLE F.1(i)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Primary Discharge Point

Discharge Point Code:	GW-1
MONITORING POINT CODE:	aGW-1u
Grid Ref (12 digits, 6E, 6N)	153950 / 072316

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09						
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	= 0				Grab	20	ICP-OES
Copper	= 0				Grab	20	ICP-OES
Cyanide	= 0				Grab	5	Colorimetric
Flouride	= 0				Grab	100	ISE
Lead	= 0				Grab	20	ICP-OES
Nickel	= 0				Grab	20	ICP-OES
Zinc	= 0				Grab	20	ICP-OES
Boron	= 0				Grab	20	ICP-OES
Cadmium	= 0				Grab	20	ICP-OES
Mercury	= 0				Grab	0.2	ICP-MS
Selenium	= 0				Grab	0.74	ICP-MS
Barium	= 0				Grab	20	ICP-OES

Additional Comments:	default of 0 and 01/01/09- no monitoring data available
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TABLE F.1(ii)(a): SURFACE/GROUND WATER MONITORING

Secondary Discharge Point

Discharge Point Code:	GW-2
MONITORING POINT CODE:	aGW-2u
Grid Ref (12 digits, 6E, 6N)	153926 / 072293

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09						
pH	= 0				Grab	2	Electrochemical
Temperature	= 0				Grab	0	Electrochemical
Electrical Conductivity (@ 25°C)	= 0				Grab	0.5	Electrochemical
Suspended Solids	= 0				Grab	0.5	Gravimetric
Ammonia (as N)	= 0				Grab	0.02	Colorimetric
Biochemical Oxygen Demand	= 0				Grab	0.06	Electrochemical
Chemical Oxygen Demand	= 0				Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0				Grab	0	ISE
Hardness (as CaCO ₃)	= 0				Grab	0	Titrimetric
Total Nitrogen (as N)	= 0				Grab	0.5	Digestion & Colorimetric
Nitrite (as N)	= 0				Grab	0.013	Colorimetric
Nitrate (as N)	= 0				Grab	0.04	Colorimetric
Total Phosphorous (as P)	= 0				Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	= 0				Grab	0.02	Colorimetric
Sulphate (SO ₄)	= 0				Grab	30	Turbidimetric
Phenols (Sum)	= 0				Grab	0.1	GC-MS2

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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 01/01/09 and 0- no monitoring of location
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TABLE F.1(ii)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Secondary Discharge Point

Discharge Point Code:	GW-2
MONITORING POINT CODE:	aGW-2u
Grid Ref (12 digits, 6E, 6N)	153926 / 072293

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09						
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	= 0				Grab	20	ICP-OES
Copper	= 0				Grab	20	ICP-OES
Cyanide	= 0				Grab	5	Colorimetric
Flouride	= 0				Grab	100	ISE
Lead	= 0				Grab	20	ICP-OES
Nickel	= 0				Grab	20	ICP-OES
Zinc	= 0				Grab	20	ICP-OES
Boron	= 0				Grab	20	ICP-OES
Cadmium	= 0				Grab	20	ICP-OES
Mercury	= 0				Grab	0.2	ICP-MS
Selenium	= 0				Grab	0.74	ICP-MS
Barium	= 0				Grab	20	ICP-OES

Additional Comments:	default of 01/01/09 and 0- no monitoring of location
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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 appropriate 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,		No
(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,		No
(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,		No
(d)	state the population equivalent of the agglomeration to which the application relates,		No
(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,		No
(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.		No
(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,		No
(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,		No
(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,		No
(j)	give particulars of the nearest downstream drinking water abstraction point or points to the discharge point or points,		No
(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,		No
(l)	give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations,		No
(m)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work.		No
(n)	Any other information as may be stipulated by the Agency.		No
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,		No
(b)	where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13,		No
(c)	Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate -		No
(c) (i)	the point or points, including storm water overflows, from which a discharge or discharges take place or are to take place, and		No
(c) (ii)	the point or points at which monitoring and sampling are undertaken or are to be undertaken,		No
(d)	such fee as is appropriate having regard to the provisions of Regulations 38 and 39.		No

WWD Licence Application Annex II

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 agency.		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.		
2	2 hardcopies of application provided or 2 CD versions of application (PDF files) provided.		
3	1 CD of geo-referenced digital files provided.		
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.		
1	EIA provided if applicable		
2	2 hardcopies of EIS provided if applicable.		
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	B1	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,	B1	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,	B2	Yes
(d)	state the population equivalent of the agglomeration to which the application relates,	B8 (i)	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;		Yes
(f)	specify the content and extent of the waste water discharge, the level of treatment provided and the flow and type of discharge,	A, C & D	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,	D1 (ii)	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,	E3	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,	E4	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,	G	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,	F1	Yes
(l)	give details of any designation under any Council Directive or Regulations that apply in relation to the receiving waters,	G	Yes
(m)	give details of compliance with any applicable monitoring requirements and treatment standards,	G3	Yes
(n)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work,	G	Yes
(o)	give any other information as may be stipulated by the Agency, and		Yes
(p)	be accompanied by such fee as is appropriate having regard to the provisions of Regulations 38 and 39.	B8 (iii)	Yes

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