Comhairle Contae Chorcaí Cork County Council

Annabella, Mallow, Co. Cork. Tel: (022) 21123 • Fax: (022)21983 Email: northcork@corkcoco.ie Web: www.corkcoco.ie Annabella, Mala, Co. Chorgai



Environmental Protection Agency, Office of Climate change and resource Unit, Licensing Unit, P.O. Box 3000, Johnstown Castle Estate, Co. Wexford. Annabella, Mala, Co. Chorgai vir Gibbs ental Protection R-phost: northcork@corkcoco.ie Agency Suíomh Gréasáin: www.corkcoco.ie Licensing Received 22 JUN 2009 Initials

19th June 2009

Re: Waste Water Discharge Licence Application for the Agglomeration of Churchtown

Dear Sir / Madam,

Please find enclosed Cork County Council's Waste Water Discharge Licence Application for the agglomeration of Churchtown

The following documentation is enclosed

- 1 Nr. signed original in hardcopy
- 1 Nr. copy in hardcopy
- 2 Nr. CD-ROM with all documentation in electronic searchable PDF
- 1 Nr. CD-ROM with AutoCAD, Excel Data, Table D.2 and Table E.3

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

Payment of €10,000 Licence Fee is by Electronic means.

Signed:

had Clay

Frank Cronin Senior Engineer – Water Services



Churchtown & Environs WWDL Application



Waste Water Discharge Licence Application Form

ORSCHU	de
EPA Ref. Nº: (Office use only)	20444-01

Environmental Protection Agency

PO Box 3000, Johnstown Castle Estate, Co. Wexford Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699 Web: <u>www.epa.ie</u>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	Section of the section of the
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'.	To accurately reflect the information required
		Amend wording of Checklist in Annex to reflect wording of Regulation 16(5) of S.I. No. 684 of 2007.	To accurately reflect the Regulations and to obtain the application documentation in appropriate format.
	105	Inclusion of unique point code for each point of discharge and storm water overflow.	To aid in cross-referencing of application documentation.
V.4	18/04/08	Inclusion of requirement to provide of the name of agglomeration to which the application relates.	To accurately determine the agglomeration to be licensed.
		Amend wording of Section B.7. (iii) to reflect the title of Water Services Authority.	To accurately reflect the Water Services Act, 2007.
		Addition of new Section B.9 (ii) in order to obtain information on developments yet to contribute to the waste	To obtain accurate population equivalent figures for the agglomeration.
		Addition of sub-sections	To obtain accurate information on design and spill frequency from these
	1	C.1.1 & C.1.2 in order to clarify information required for Storm water overflow and pumping stations	structures.
		within the works. Amend Section D.1 to	To acquire information on the population loading onto the plant and to
		monitoring data for influent	performance rates within

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Waste Water Discharge Authorisation Application Form

	1		
		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	26/08/2007	Amendments to Section D to reflect new web based reporting.	To clarify the reporting requirements.
		Amended requirements for reporting on discharges under E.1 Waste Water Discharge Frequency and Quantities.	To streamline reporting requirements.
		Amendment to Section F.1 to specify the type of monitoring and reporting required for the background environment.	To clarify the reporting requirements for ambient monitoring.
		Removal of Annexes to application form.	To reflect the new web based reporting

10.9

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Waste Water Discharge Authorisation Application Form

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

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ANNEX 1: TABLES/ATTACHMENTS

ANNEX 2: CHECKLIST

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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 hability 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. 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 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.

Churchtown Application Rev1

Page 6 of 28

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: <u>Drawings.</u> The following guidelines are included to assist applicants:

- All drawings submitted should be titled and dated.
- All drawings should have a <u>unique reference number</u> and should be signed by a clearly identifiable person.
- All drawings should indicate a scale and the <u>direction of north</u>.
- 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.

Consent of copyright on

Supporting information should form Attachment Nº A.1

SECTION A: NON-TECHNICAL SUMMARY

Churchtown is situated 4km west of the N20, half way between Cork and Limerick. The village is located in an area, which is generally referred to as the 'Goldenvale', which comprise an extensive area of predominately flat or undulating topography along the Blackwater valley. The census of 1996 indicated a population of 650, while the census of 2002 showed a population of 686.

The Waste Water Works and the Activities Carried Out Therein

The wastewater in Churchtown is collected in a partially combined foul and separate foul sewerage drainage network. The wastewater from the village gravitates to a pumping station located within the village from where the effluent is pumped to wastewater treatment plant.

Churchtown WWTP is designed for a Population Equivalent (PE) of 1,000, which was commissioned in 2007. Activated Sludge is the process employed at the Churchtown waste water treatment plant. Influent initially gravitates into the inlet works, which consists of an automatic screen, measurement flume and a circular concrete inlet sump, from where the effluent is pumped to an above ground circular aeration tank. The effluent then flows into the adjacent circular clarifier. The solids settle while the supernatant flows over the weir and is directed to the sand filter system. From here the effluent is discharged via an ultraviolet system to a percolation area, which slopes to a stream adjacent to the site boundary.

Sludge may be returned from the charifier to the aeration tank and excess sludge is removed from the clarifier as required to the sludge holding tank.

In the event of high storm flows effluent may bypass the plant via the baffle plate at the inlet manhole. During normal storm periods, effluent overflows at the sump to the storm holding tank, which gravities back to the sump after the sump level reduces. In the event of the storm tank filling, the screened effluent discharges via the outlet pipe.

Currently the WWTP is receiving flows ranging from $120m^3/d$ to $300m^3/d$, with an average DWF of $120m^3/d$ entering the plant. Based average hydraulic load of 200l/d/p, the PE equates to 600.

Churchtown WWTP is operated by Cork County Council. The plant is operated by a caretaker who duties also involves the maintenance of a number of other small WWTP's in the area. The caretaker is on duty from 8.00am to 5.30pm Monday – Saturday.

The sources of emissions from the waste water works

The pollution load for the Churchtown agglomeration arises from the following areas:

- Domestic population
- Commercial premises
- School & crèches
- Infiltration

The sewerage from all commercial premises is collected via the public sewer and treated in conjunction with the domestic waste at the WWTP.

Currently the WWTP is receiving flows ranging from 120m3/d to 300m3/d, with an average DWF of 120m³/d entering 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 the emissions on the environment

The final effluent is discharged to the Percolation Area, which is adjacent to the wastewater treatment plant site. The maximum flow to the existing WWTP is in the order of $120m^3/d$ to $300m^3/d$.

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

Technology

The WWTP has a sufficient number of standby pumps, automatic sample facilities, etc is provided to ensure continuation of the wastewater treatment.

other

only any

The treatment works consists of the following elements:

- Inlet Works .
- Forward Feed Sump
- Aeration Tank
- Settling Tank
- Storm Tank
- Sludge Tank .
- Sand Filters .
- UV System
- Percolation Area

Techniques

tor inspection purposes only. The new WWTP shall be perated and managed in accordance with the Performance Management System, developed by the Water Service National Training Group (WSMTG).

Forins Partin and Participation

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

A complete new WWTP was commissioned for the village in 2007, replacing an overloaded package plant, located at the same site. In addition to the commissioning of the new WWTP, the village pumping station located in the village was upgraded.

There are no further works envisaged to be undertaken on Churchtown WWTP in the near future.

Measures planned to monitor emissions into the environment

The Cork County Council Environmental Laboratory carries out sampling of the influent and effluent biannually. Sampling, Monitoring and analysis of the wastewater sludge is also undertaken by the Environmental Laboratory.

The Cork County Council Environmental Department located in Mallow takes samples from the River Bride upstream and downstream of the wastewater treatment plant approximately 2 times per year. Samples of the influent and effluent are also taken at these times.

The new wastewater treatment plant is equipped with automatic samplers on the inlet, overflow and outlet lines.

The EU Water Framework Directive Monitoring Programme is to be fully operational by the year 2012. This monitoring programme was prepared by the EPA to meet the requirements of the EU Water Framework Directive (2000/60/EC) and National Regulations implementing the Water Framework Directive (S.I. No. 722 of 2003) and National Regulations implementing the Nitrates Directive (S.I. No. 788 of 2005).

Consent of copyright owner required for any other use.

List of Attachments include the following:

- Location Map Scale 1:50,000
- Site Location Map of WWTP
- Attachment A1 Map 1 Attachment A1 Map 2 Attachment A1 Map 3

Site Layout

SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration: Churchtown & Environs

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.

Cork County Council
Northern Division
Annabella
Mallow
Co. Cork
022 21123 ⁰⁰¹ 01 ²⁰
022 21983
Frank.cronin@corkcoco.ie

*This should be the name of the water services withority 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*:	Frank Cronin 🔊
Address:	Northern Division
	Annabella
	Mallow
	Co. Cork
Tel:	022 21123
Fax:	022 21983
e-mail:	Frank.cronin@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	1. No. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
Address:	Not Applicable	
		1
Tel:	Not Applicable	
Fax:	Not Applicable	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
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.

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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 (≤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
	other V	
	- 11 - 21 ·	

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*:	Michael Cotter	
Address:	Cork County Council	
	Ballvadam	
AL NEW WORKS	Churchtown	
	Co. Cork	
Grid ref	150273E 113258N	
(6E, 6N)		
Level of	Tertiary	
Treatment		
Primary	063-81348	
Telephone:		
Fax:	063-21439	
e-mail:	Micahel.cotter@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 georeferenced 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
and the state of the state of the	V	

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	225mm diameter outfall pipe from wastewater treatment plant to
Discharge	Percoaltion Area
Unique	SW - 01 CHTN
Point Code	
Location	WWTP site Ballyadam, Churchtown
Grid ref	150281E 113298N
(6E, 6N)	

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	Its Yes	No
	other V	
	to the	

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	Not Applicable	7
Discharge	~ OTEC	
Unique	Not Applicable	1
Point Code		
Location	Not Applicable	1
Grid ref	Not Applicable	1
(6E, 6N)		

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
		V

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	225mm diameter outfall pipe from pumping station. Open pipe
Unique Point Code	SW - 02 CHTN
Location	Pumping Station at Churchtown
Grid ref (6E, 6N)	150315E 113552N

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.

only any Yes	No
NOS ^{es} Itel V	
	npos ^{es} on ¹³ in ³ Yes

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@corkcoc.ie	

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

has been obtained	\checkmark	is being processed	
is not yet applied for		is not required	

Local Authority Planning File Reference Nº:	Not Applicable

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
and the second of the	1	

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
	linte Stat	1

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 v

Name:	Health Service Executive V 200
Address:	North Cork Area Headquarters
1	Gouldhill
	Mallow, Co. Cork for Street
Tel:	022 30200 Scot
Fax:	022 30211 A
e-mail:	Gerry.oconnell.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
C. P. C. Line	
Tel:	Not Applicable
Fax:	Not Applicable
e-mail:	Not Applicable

Relevant Authority Notified	Yes	No
	Real en a es	V

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

Attachment included	Yes	No
		V

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 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 ($\leq A3$) showing its location. The original application must include the original page of the newspaper in which the advertisement was placed. The relevant page of the newspaper containing the advertisement should be included with the original and two copies of the application.

Attachment included	Yes	No
	USN.	
	1 mot	

B.9 (i) Population Equivalent of Agglomeration

TABLE B.9.1 POPULATION EQUIVALENT OF AGGLOMERATION

The population equivalent (p.e.) of the aggromeration 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	990	
Data Compiled (Year)	2009	
Method Cons	Hydraulic Flow	

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 current population equivalent being treated at Churctown WWTP is 600 based on hydraulic flow assessments.

All developments with granted planning permission and all developments under construction have been included in the agglomeration. The additional p.e due to the granted planning permissions is estimated to be in the order of 390 p.e. There are currently one recently planning permission in relation to non domestic activities.

With the completion of the recently commissioned 1000 p.e WWTP the plant shall be capable of accommodating additional hydraulic and organic loading without posing an environmental risk to the receiving percolation area.

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 €)	
	€10,000	-

Appropriate Fee Included	Yes	No
	V	
	at Use.	

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.

Recently the WWTP and Pumping Station was upgraded at a cost of $\in 0.5$ M. These projects were upgraded under the Water Services Investment Programme 2002 -2006.

No further works are listed to be carried out under the current Water Services Investment Programme 2007 - 2009

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
		V
	and the second sec	

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
		V

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	
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COLIFICATION COLIFICATION		
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Consent		

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.

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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.

General Description of the Wastewater Treatment Plant

Introduction

E.P.S. intend to intend to provide a Waste Water Treatment Plant designed in accordance with BATNEEC and the Urban Waste Water Directive 1994.

The final effluent shall comply with the following discharge limit standards:

Parameter	Concentration (mg/l)	
BOD ₅ (mg/l)	5	
Suspended Solids (mg/l)	5	
COD(mg/l)	70	

TABLE 1 - EFFLUENT LIMITS DISCHARGE

Plant Description

The new Wastewater Treatment Works shall have an ultimate design flow of 1336.8m³/day (6 DWF) for a Population Equivalent of 936.

rany other us

The E.P.S. proposal is based on a Conventional Extended Activated Sludge Treatment Plant.

The following provisions are incorporated in the design:

- Provision for 3 No. Inlet Pumps (Duty/Assist/Standby)
- Automatic Inlet 6 mm Fine Screen (55.7 m³/hr) including screenings disposal facility and a manual screen by-pass
- The Biological Treatment includes 1 No. Aeration tank and 1No. Settlement Tank
- Provision of 21 days on site sludge storage based 3% DS
- Tertiary treatment in the form of a sand filter and constructed wetlands

Inlet Works

The inlet works shall be designed to cater for 936 PE and shall consist of:

- An Automatic Inlet screen that will remove solids in excess of 6 mm.
- A manually raked emergency bypass 6 mm bar screen.
- 3 No. Inlet Pumps (Duty/Assist/Standby)

The Automatic Inlet Screen will be able to cater for 55.7 m^3/hr (6 DWF). All screenings are washed, separated and deposited in skips for removal off site.

An ultrasonic sensor provides level measurement. The transmitter for the flow meter is mounted in the main control panel in the Control building, complete with local flow indicator.

Flows up to 27.85 m³/hr (3 DWF) will receive full treatment. Flows in excess of 3 DWF will overflow from the Inlet Pump Sump to the Storm Holding Tank where it will be stored until storm conditions have subsided and will then be returned to the biological stream for treatment.

Biological Treatment

E.P.S. propose the Conventional Extended Activated Sludge Process.

Conser

The aeration walls shall be contoured so as to give efficient movement of the tank contents and prevent solids accumulation and settlement. Fine Bubble Diffusers on both sides of the chamber inlet, to give a controlled mixing pattern within the tank which maintains the solids in suspension and prevents dead spots, shall introduce air.

The final settlement tank (Secondary Clarifier) shall be connected by inlet ports to the aeration tank. The clarifier walls have a slope of $7\frac{1}{2}^{\circ}$ approximately to

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prevent solids accumulation and ensure that settled solids move by gravity to the bottom of the clarifier.

The settled solids in the bottom of the clarifier hopper return to the Aeration compartment, by RAS pump. The clarifier is also equipped with a scum box to remove scum into sludge chamber by gravity from where it is pumped to the picket fence thickener.

The proposed Settling Tank shall be designed for a hydraulic loading of 27.85m³/hr, i.e. 0.76 m³/m²/hr upward flow velocity, at a hydraulic loading of 3 DWF and a side wall of 3 m. Tanks are equipped with an inlet scum and sludge draw- off pipework, "V" notch weir plate and baffle-plate and scum collector.

The sludge return-pump shall then pump the sludge at a rate of 1 DWF and thus returns settled sludge to the start of the process (i.e. Aeration tank).

The proposed surplus sludge system consists of 2 No. surplus sludge pumps (duty/standby). Surplus sludge shall be pumped to the Sludge Holding Tank. The surplus sludge pumps shall be controlled via AC adjustable frequency drives using set points derived from the metered flows. The transmitter shall be located on the main control panel in the control building.

The plant incorporates a Sludge Holding Tank for the storage and mixing of surplus sludge @ 0.75% D.S from Settlement Tank.

The supernatant from the Sludge Holding Tank overflows by gravity to the adjacent waste return sump and shall be pumped to the inlet works for recycle through the process.

Tertiary Treatment

Sand Filter

In order to achieve the 10mg/I BOD and 10 mg/I SS, a tertiary sand filter in combination is required. The system proposed includes for automatic backwashing. The backwash is returned to the inlet works for recycling

Grass Plots

To achieve the final discharge requirements of 5mg/I BOD and 5mg/I SS, constructed wetlands are used. Grass plots are man-made plots, which are specially designed for the treatment of wastewater. A carefully chosen selection of plants and a specially designed substrate provide the right biological environment for cleansing and reoxygenating the water. These plots are modelled on natural systems, but are designed to achieve optimum treatment efficiencies.

Design Calculations

Inlet Works

Inlet Pump Sump

No. Inlet Pumps Required Flow Rate (1 pump operating) Flow Rate (2 pumps operating) 3 No. (Duty/Assist/Standby) 28.8 m³/hr 36 m³/hr

Inlet Screen

Maximum Flow: No. Required: Screen Type: Aperture Size By-Pass Screen Size:

Consent

on purposes only any other use. 55.7 m³/hr 1 No. (duty) Automatic 6mm 6mm

Storm Tank

Volume Required

50 m³

No. Storm Pumps Flow Rate 2 No. (Duty/Standby) 27.85 m³/hr

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Churchtown & Environs WWDL Application

Biological Treatment

Aeration Tank

BOD Load
[MLSS]
F/M ratio
No: Required
Aeration Volume
Aeration Requirement
Dimensions

56 kg BOD/d 3,500 mg/L 0.05 - 0.1 kg BOD/kg MLSS 1 187 m³ (19.6 h RT @ DWF) 141 kg O2/d \emptyset 7.30 m x 4.5 m side wall

Blowers

No. required Flow Rate Pressure

2 (Duty/Standby) 110 Nm3/h 500 mBar

Settlement Tank

No. Of Units
Flow
Flow 3 DWF
Up flow
Volume
Surface Area
Retention Time
Dimensions

Consent of copyright 9.28 m³/h 27.85 m³/h 0.76 m/h 84.24 m³ 36.95 m² 3h @ 3 DWF Ø 6.85 m x 3.0 m side wall

1 No.

RAS/WAS Pumps

RAS Pumps Flow Rate Estimated WAS produced 2 No. (Duty/Standby) 9.28 m³/h (DWF) 56 kg DS/d

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@ 0.75% 7.5 m³/d

WAS Pumps

Flow Rate

2 No. (Duty/Standby) 7.5 m³/hr

Note: p is assumed at 1,000kg/m³

Sludge Holding Tank

Indigenous Sludge

BOD load	56 kg BOD/d
Kg D.S./kg BOD	1.3
Sludge yield	43 kg
@ 3% DS	1.29 m ³ /d
Volume of Sludge Storage Tank	36 m ³
No. Sludge Storage Tank Required	1 all any other
Dimensions (each)	Ø 4.27 m x 4.26m side wall
Dry Solids	P396110
Retention time	she 27 days
Note: p is assumed at 1,000kg	/m ³
8 ¹ 00,	
The set	
ertiary Treatment	

Tertiary Treatment

Sand Filter

Maximum Flow Rate	30m ³ /hr
BOD entering Sand Filter	25 mg/l
SS entering Sand Filter	35mg/l
BOD leaving Sand Filter	10 mg/l
SS leaving Sand Filter	10 mg/l

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Grass Plots

P.E. of scheme	936
Dry Weather Flow	238 I/P.E./day
Dry Weather Flow	222.8 m ³ /day
3 DWF	668.4 m ³ /day
	27.85 m ³ /hr
Max BOD of Secondary Effluent	10 mg/l
Max TSS of Secondary Effluent	10 mg/l
BOD Final Effluent Required	5 mg/l
SS Final Effluent Required	5 mg/l
Max Organic Loading	2.3 mg/l
Total Bed Area	900 m ²
No. of beds	2
Area per bed	450 ¹ / ₁₀ ²
Width of Constructed Wetland	1510m
Length of Constructed Wetland	upper of the age of th
	51004
Process Design Guarantee	
of copy.	
Consent	
The system described shall produce a fir	al offluent within the cor

The system described shall produce a final effluent within the consent levels outlined in the specification.

Sec. 1	Re	Design	
300 PE	No.	Design based on	Offered based on
Flow	S.I. 419:1994	210 L/Person.d	238 L/Person.d
BOD Load	S.I. 419:1994	60g/Person.d	60g/Person.d
[BOD]	EPA WWT Manuals	100-300 mg/L	261 mg/L (*)
SS	EPA WWT Manuals	100-350 mg/L	280 mg/L (*)
F/M	EPA: Report 1998	0.04 - 0.2 kg BOD/kg MLSS	0.1
MLSS	EPA WWT Manuals	2,000-6,000 mg/L	3,500 mg/L
Sludge Production	EPA WWT Manuals	0.5 - 1.0 kg DS/kg BOD	1.2

General Description of Pumping Station

Co-ordinates: 150240E, 113508N

Raw effluent from combined sources flows into the 1.9metre diameter, 3metre deep Pump Sump located upstream of the new treatment plant. A automatic screen is situated on the inlet line to the sump, which removes all rags/debris etc, preventing clogging of the pumps.

The sump is fitted 3No submersible pumps operating in duty/standby/Standby configuration. Each pump is provided with a hand off auto key on its respective starter. Selecting auto control will enable control by the U/S, provided the following conditions apply;

- Starter is powered up.
- Local emergency stop is not operated.
- Motor protection devices are not operated.

In automatic operation, in the event that the duty pump fails, the standby pump shall be started automatically, provided both pumps are selected to auto and available for operation.

Automatic changeover of the duty pumps will be every 8 hours. The inlet pumping sump is fitted with an ultrasonic level sensor which controls the operation of the pumps. The control set points are as follows;

- Set point 1 Cut in of Duty Pump
- Set point 2 Cut out of Duty Pump
- Set point 3 High level alarm

A low level float switch will activate a low level alarm and cut out the pumps. If the high or low level alarms are activated, an orange beacon will flash on the control kiosk and a text message will be sent to the curator, stating the fault. Should the fault persist, effluent will overflow at a high level to the adjacent unnamed Stream.

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
	V	

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, SW-01 Churchtown

Type of Discharge	225mm diameter concrete outfall pipe from wastewater treatment plant to a constructed percolation area adjacent to the WWTP
Unique Point Code	SW - 01 CHTN
Location	WWTP site Ballyadam, Churchtown
Grid ref (6E, 6N)	150281E 113298N

The primary discharge point, SW-01 Churchtown, is the main outlet from Churchtown Wastewater Treatment Plant. The effluent gravities via the UV Treatment Unit at the WWTP and discharges to an constructed percolation area adjacent to the treatment plant site.

Storm Water Overflow Point, SW-02 Churchtown

Type of	Emergency overflow – 225m diameter concrete pipe
Discharge	This car
Unique	SW 02 - CHTN
Point Code	and the second sec
Location	Pumping Station at Churchtown Village
Grid ref	150315E 113552N
(6E, 6N)	at at

The secondary discharge point, SW-02 Churchtown, is a 225mm uPVC overflow pipe. The outlet from the pumping station runs in a westerly direction for a distance of 30m to an unnamed stream which joins the Awbeg River.

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
		V

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: <u>http://78.137.160.73/epa_wwd_licensing/</u>. 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 wastes water from the agglomeration should be supplied via the following web based link: <u>http://78.137.160.73/epa_wwd_licensing/</u>. 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. <u>Individual Tables must be completed for each discharge point</u>.

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	Yes	No
	State.	

D.2 Tabular Data on Discharge Points

Applicants should submit the following information for each discharge point:

PT_CD	PT_TYPE	LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING
SW- 01 - CHTN	Primary	Cork County Council	Percolation Area	Not Applicable	Not Applicable	150281	113298
SW- 01 - CHTN	Storm	Cork County Council	Stream	Un- named	None	150315	113552

Table D.2:

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.

Consent of copyright owner required for

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 on 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.

Lab Sampling and testing is done in accordance with 'Sampling Methods for examination of water and wastewater' 18th edition 1992.

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

Attachment included	Yes	No
		\checkmark

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	SAMPLING	150273	113258	N
aSW01u	u/s	Sampling	150454	113195	N
aSW01d	d/s	Sampling	150328	115578	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)(I) 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.

Yes	No
V	
	Yes √

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 crossreferences 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: <u>http://www.licensing/</u>. 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. 0 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 The latter must in particular present the aquifer hydrogeology. 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) —
 - 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,
 - details of which have been transmitted to the Commission in accordance with Regulation 5(4) of the Natural Habitats Regulations, or
 - 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,
 - 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)

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

The plant is performing satisfactorily at present and operating within the requirements of the following legislation. As the plant has been recently upgraded there are no improvements planned at present for the Churchtown Wastewater Treatment Plant. Churchtown WWTP discharges to a percolation area adjacent to a un-named stream which is a tributary of the Awbeg River. The distance from the discharge point at the WWTO to the confluence of the stream and the Awbeg River is 2Km.

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 or River Basin Districts or management units. 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.

The Awbeg River is included in the SWRBD The overall objectives of the SWRBD project include the following:

- Strengthen compliance with EV 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 risk to waters from Hazardous Substances
- 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 has proposed water quality standards for the Awbeg River under a water quality / catchments management plan. The Awbeg is classified as Poor

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.

e 200 Date : 15th Signed by : (on behalf of the organisation Print signature name: ITCH DIRECTOR OF SERVICES **Position in organisation:**

Cor

ANNEX 1: TABLES / ATTACHMENT

Attachment	Description
A1 Map 1	1:50,000 Location Map
A1 Map 2	Site Location of WWTP & Pumping Station
A1 Map 3	Wastewater Treatment Plant – Site Layout
B1 Map 4	Agglomeration
B2 Map 5	Layout of Waste Water Treatment Plant
B3 Map 6	Location of Primary Discharge Point SW01 CHTN
B3 Map 7	Location of Sampling Points
B4	Not Applicable
B5 Map 8	Location of Storm Water Overflow Point SW02 CHTN
B6	Part VIII Planning
B7	Not Applicable
B8 Map 9	Location of Site Notice
B8	Notice & Advertisement
B10	Not Applicable
B 11	Not Applicable
B 12	Not Applicable
C1 Map 10	Layout Wastewater Treatment Plant
C1 Drg 1	Schematic of Wastewater Treatment Plant
C2	Not Applicable
D1	Not Applicable
Section D2	Discharge Points
E2	Not Applicable
Section E3	Monitoring & Sampling Points
E4	Sampling results the
F1	Draft River basin Management Plan for the SWRBD
	SAC Blackwater River Site Synopsis
F2	Not Applicable
G1	SAC Blackwater River Site Synopsis
G2	Not Applicable
G3	Not Applicable
G4	Not Applicable

Agglomeration details

Leading Local Authority	Cork County Council	
Co-Applicants		
Agglomeration	Churchtown	
Population Equivalent	990	
Level of Treatment	Tertiary	
Treatment plant address	Ballyadam, Churchtown, Co. Cork	
Grid Ref (12 digits, 6E, 6N)	150273 / 113258	
EPA Reference No:		

Contact details

Frank Cronin	
Water Services Section Section Cork County Council Jerres Northern Division Annabella Mallow Co Cork	4
022-213230	
022-21983	
Frank.cronin@corkcoco.ie	
Consent of COR	
	Vater Services Section e. Cork County Council et and Northern Division of the Annabella of and Mallow cost of the Co Cork provided 022-21323 control 022-21383 Erank.cronin@corkcoco.ie

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

Discharge Point Code: GW-1

Local Authority Ref No:	SW-01 CHTN		
Source of Emission:	Churchtown Wastewater Treatment Plant		
Location:	Ballyadam, Chuchtown		
Grid Ref (12 digits, 6E, 6N)	150281 / 113291		
Name of Receiving waters:	Un-named		
Water Body:	Ground Water Body		
River Basin District	South Western RBD		
Designation of Receiving Waters:	Not designated		
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)	Flow rate of waters unknown		

Emission Details:

Normal/day	220 m ³	Maximum/dayally and	660 m ³		
Maximum rate/hour	27.5 m ³	Period of emission (avg)	60 min/hr	24 hr/day	365 day/yr
Dry Weather Flow	0.0025 m ³ /sec	otionert			Line Balan
Dry weather Flow	0.0025 m ³ /sec	Inspirit owne			
		FOLVING			
		x of CO			
	(5N -			

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	рН	24 hr composite	= 9	
Temperature	°C	24 hr composite	= 30	
Electrical Conductivity (@ 25°C)	µS/cm	24 hr composite	= 1000	
Suspended Solids	mg/l	24 hr composite	= 35	23
Ammonia (as N)	mg/l	24 hr composite	= 0	0
Biochemical Oxygen Demand	mg/l	24 hr composite	= 25	16.5
Chemical Oxygen Demand	mg/l	24 hr composite	= 125	82.5
Total Nitrogen (as N)	mg/l	24 hr composite	= 15	10
Nitrite (as N)	mg/l	24 hr composite	= 0	0
Nitrate (as N)	mg/l	24 hr composite	= 0	0
Total Phosphorous (as P)	mg/l	24 hr composite	= 2	1.3
OrthoPhosphate (as P)	mg/l	24 hr composite	= 1.7	1.1
Sulphate (SO4)	mg/l	24 hr composite	= 0	0
Phenols (Sum)	µg/l	24 hr composite	.≂0	0

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45 th filter paper For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent of the association of the standard method 6240, or equivalent of the standard method 6240 for equivalent of t 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	24 hr composite	= 0	0	
Dichloromethane	µg/l	24 hr composite	= 0	0	
Simazine	µg/l	24 hr composite	= 0	0	
Toluene	µg/l	24 hr composite	= 0	0	
Tributyltin	µg/l	24 hr composite	= 0	0	
Xylenes	µg/l	24 hr composite	= 0	0	
Arsenic	µg/l	24 hr composite	= 0	0	
Chromium	µg/l	24 hr composite	= 0	0	
Copper	µg/l	24 hr composite	= 0	0	
Cyanide	µg/l	24 hr composite	= 0	0	
Flouride	µg/l	24 hr composite	= 0	0	
Lead	µg/l	24 hr composite	= 0	0	
Nickel	µg/l	24 hr composite	= 0	0	
Zinc	µg/l	24 hr composite	= 0	0	
Boron	µg/l	24 hr composite	<u>م</u> = 0	0	
Cadmium	µg/l	24 hr composite	= 0	0	
Mercury	µg/l	24 hr composite	= 0	0	
Selenium	µg/l	24 hr composite	= 0	0	
Barium	µg/l	24 hr composite	= 0	0	

For Orthophosphate: this monitoring should be undertaken on a sample aftered on 0.45µm filter paper For Phenols: USEPA Method 604, AWWA Standard Method 6249, or equivalent.

Table D.1(iii)(a): EMISSIONS TO SURFACE/GROUND WATERS (Storm Overflow)

Discharge Point Code: SW-2

Local Authority Ref No:	SW-02 CHTN		
Source of Emission:	Emergency overflow at pumping station		
Location:	Churchtown village Pumping Station		
Grid Ref (12 digits, 6E, 6N)	150315 / 113552		
Name of Receiving waters:	un-named stream		
Water Body:	River Water Body		
River Basin District	South Western RBD		
Designation of Receiving Waters:	u/s of salmonid river		
Flow Rate in Receiving Waters:	0 m ³ .sec ⁻¹ Dry Weather Flow m ³ .sec ⁻¹ 95% Weather Flow		
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	No data on emergency overflow or data for receiving waters		

(i) Volume emitted		all al	8
Normal/day	m ³	Maximum/day & tot	m ³
Maximum rate/hour	m ³	Period of emission (avg)	min/hr hr/day day/yr
Dry Weather Flow	m ³ /sec	SPC OWIT	
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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 (m³/annum)
GW-1	365	80300

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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	Quantity of Waste Water	Complies with Definition of Storm
	(days/annum)	Discharged (m³/annum)	Water Overflow
SW-2			No

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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-1d
Grid Ref (12 digits, 6E, 6N)	150328 / 115578

Parameter Re		sults (mg/l)		Sampling method	Limit of Quantitation	Analysis method / technique	
1211111111	10/04/08	13/06/08	01/01/09	17/02/09			
pН				= 7.5	Grab	2	Electrochemic
Temperature			= 0		Grab	0.5	Electrochemic
Electrical Conductivity (@ 25°C)				= 693	Grab	0.5	Electrochemic
Suspended Solids			1129632	= 3	Grab	0.5	Gravimetric
Ammonia (as N)				= 0.05	Grab	0.02	Colorimetric
Biochemical Oxygen Demand				= 2	Grab	0.06	Electrochemic
Chemical Oxygen Demand			a serie	< 5	o. Grab	8	Digestion & Colorimetric
Dissolved Oxygen			= 0	ther	Grab	0	ISE
Hardness (as CaCO ₃)			= 0		Grab	0	Titimetric
Total Nitrogen (as N)			_دو	01 56	Grab	0.5	Digestion & Colorimetric
Nitrite (as N)			all	no	Grab	0.013	Colorimetric
Nitrate (as N)			an P. reu		Grab	0.04	Colorimetric
Total Phosphorous (as P)			SPC TIC WHEL	= 0.05	Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05	< 0.05	1. All	= 0.05	Grab	0.02	Colorimetric
Sulphate (SO4)		T d	27		Grab	30	Turbidimetric
Phenols (Sum)		्री			Grab	0.1	GC-MS2

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

Additional Comments:

01/01/09 and 0 used as default where results are not available

Parameter		Res	sults (mg/l)	Sampling method	Limit of Quantitation	Analysis method / technique	
	02/04/09	08/04/09	12/05/09	14/05/09			
рН		= 7.6	= 7.5	= 7.3	Grab	2	Electrochemic
Temperature					Grab	0.5	Electrochemic
Electrical Conductivity (@ 25°C)		= 716	= 692	= 612	Grab	0.5	Electrochemic
Suspended Solids		= 2	= 4	= 3	Grab	0.5	Gravimetric
Ammonia (as N)		= 0.07	= 0.07	= 0.3	Grab	0.02	Colorimetric
Biochemical Oxygen Demand		= 2	< 2	= 3	Grab	0.06	Electrochemic
Chemical Oxygen Demand		< 5	< 5	< 21	Grab	8	Digestion & Colorimetric
Dissolved Oxygen					Grab	0	ISE
Hardness (as CaCO ₃)		1			Grab	0	Titimetric
Total Nitrogen (as N)		= 5	= 6.77	= 10.05	Grab	0.5	Digestion & Colorimetric
Nitrite (as N)		-		< 0.1	Grab	0.013	Colorimetric
Nitrate (as N)		1		= 4.67	Grab	0.04	Colorimetric
Total Phosphorous (as P)		= 0.13	= 0.12	= 0.171	Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05	= 0.06	= 0.09	= 0.11	Grab	0.02	Colorimetric
Sulphate (SO4)				< 30	Grab	30	Turbidimetric
Phenols (Sum)				< 0.1	Srab	0.1	GC-MS2

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For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.450m filter paper For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent

Additional Comments:

01/01/09 and 0 used as default where results are not available

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

Primary Discharge Point

Discharge Point Code:	GW-1
MONITORING POINT CODE:	aGW-1d
Grid Ref (12 digits, 6E, 6N)	150328 / 115578

Parameter		Re	sults (µg/l)	Sampling method	Limit of Quantitation	Analysis method / technique	
Niele .	01/01/09	17/02/09	02/04/09	08/04/09			
Atrazine					Grab	0.96	HPLC
Dichloromethane			1		Grab	1	GC-MS1
Simazine			1.1.1.1.		Grab	0.01	HPLC
Toluene					Grab	0.02	GC-MS1
Tributyltin	= 0			1. 1. 1. 1. 1. 1.	Grab	0.02	GC-MS1
Xylenes					Grab	1	GC-MS1
Arsenic					Grab	0.96	ICP-MS
Chromium		< 20	< 20	< 20	Grab	20	ICP-OES
Copper		< 20	< 20	< 20	Grab	20	ICP-OES
Cyanide				~e.	Grab	5	Colorimetric
Flouride				net	Grab	100	ISE
Lead		< 20	< 20	< 20 00	Grab	20	ICP-OES
Nickel		< 20	< 20	SP ≤ 20	Grab	20	ICP-OES
Zinc		< 20	< 20 లో	× < 20	Grab	20	ICP-OES
Boron		< 20	< 20 119 11	< 20	Grab	20	ICP-OES
Cadmium		< 20	< 20 9, 100	< 20	Grab	20	ICP-OES
Mercury			ection 10		Grab	0.2	ICP-MS
Selenium			15 AL		Grab	0.74	ICP-MS
Barium		< 20 0	× 20	< 20	Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn		
	TBT testing not required		

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12/05/0 Atrazine Dichloromethane Simazine Toluene Tributyltin Xylenes Arsenic Chromium < 20 Copper < 20 Cyanide	9 14/05/09 < 0.01 < 1 < 0.01 < 1 < 0.28 < 1 < 20 < 20		Grab Grab Grab Grab Grab Grab Grab	0.96 1 0.01 0.02 0.02 1 0.96	HPLC GC-MS1 HPLC GC-MS1 GC-MS1 GC-MS1
Atrazine Image: Constraint of the second s	< 0.01 < 1 < 0.01 < 0.28 < 1 < 0.96 < 20 < 20 < 20		Grab Grab Grab Grab Grab Grab Grab	0.96 1 0.01 0.02 0.02 1 0.96	HPLC GC-MS1 HPLC GC-MS1 GC-MS1 GC-MS1
Dichloromethane Simazine Toluene Tributyltin Xylenes Arsenic Chromium < 20 Copper < 20 Cyanide	< 1 < 0.01 < 0.28 < 1 < 0.96 < 20 < 20		Grab Grab Grab Grab Grab Grab	1 0.01 0.02 0.02 1 0.06	GC-MS1 HPLC GC-MS1 GC-MS1 GC-MS1
Simazine Toluene Tributyltin Xylenes Arsenic Chromium < 20 Copper < 20 Cyanide Eluvide	< 0.01 < 0.28 < 1 < 0.96 < 20 < 20	3459 3459	Grab Grab Grab Grab Grab	0.01 0.02 0.02 1	HPLC GC-MS1 GC-MS1 GC-MS1
Toluene Tributyltin Xylenes Arsenic Chromium < 20 Copper < 20 Cyanide Eluvide	< 0.28 < 1 < 0.96 < 20 < 20		Grab Grab Grab Grab	0.02 0.02 1 0.96	GC-MS1 GC-MS1 GC-MS1
Tributyltin Xylenes Arsenic Chromium < 20 Copper < 20 Cyanide	< 1 < 0.96 < 20 < 20	305	Grab Grab Grab	0.02	GC-MS1 GC-MS1
Xylenes Arsenic Chromium < 20 Copper < 20 Cyanide	< 1 < 0.96 < 20 < 20		Grab Grab	1	GC-MS1
Arsenic Chromium < 20 Copper < 20 Cyanide	< 0.96 < 20 < 20		Grab	0.96	
Chromium < 20 Copper < 20 Cyanide	< 20 < 20			0.50	ICP-MS
Copper < 20 Cyanide	< 20		Grab	20	ICP-OES
Cyanide			Grab	20	ICP-OES
Flourida	< 5		Grab	5	Colorimetric
Flouride	= 146		Grab	100	ISE
Lead < 20	< 20	1.	Grab	20	ICP-OES
Nickel < 20	< 20		Grab	20	ICP-OES
Zinc < 20	< 20		Grab	20	ICP-OES
Boron < 20	< 20		Grab	20	ICP-OES
Cadmium < 20	< 20		Grab	20	ICP-OES
Mercury	< 0.2		Grab	0.2	ICP-MS
Selenium	= 1.9	7-	Grab	0.74	ICP-MS
Barium < 20	= 27.615		Grab	20	ICP-OES
Additional Comments: TBT value TBT testing	s 0.02ug/l as Sn not required	other us	Z)•		

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)	150454 / 113195

Parameter		Res	sults (mg/l)	Sampling method	Limit of Quantitation	Analysis method / technique	
	01/01/09	17/02/09	02/04/09	08/04/09			
pН		= 7.5		= 7.5	Grab	2	Electrochemic
Temperature	= 0		(croch	1101	Grab	0.5	Electrochemic
Electrical Conductivity (@ 25°C)		= 755		= 681	Grab	0.5	Electrochemic
Suspended Solids		= 11		= 12	Grab	0.5	Gravimetric
Ammonia (as N)		= 0.05		= 0.07	Grab	0.02	Colorimetric
Biochemical Oxygen Demand		< 2		= 3	Grab	0.06	Electrochemic
Chemical Oxygen Demand		< 5		= 5	o. Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0			ther	Grab	0	ISE
Hardness (as CaCO ₃)	= 0			the the	Grab	0	Titimetric
Total Nitrogen (as N)		= 5	e.	011 07 3	Grab	0.5	Digestion & Colorimetric
Nitrite (as N)			in Mar	sec	Grab	0.013	Colorimetric
Nitrate (as N)			an P. rea		Grab	0.04	Colorimetric
Total Phosphorous (as P)		= 0.05	50 CTIC MILEE	= 0.1	Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)		= 0.05	0.08	= 0.06	Grab	0.02	Colorimetric
Sulphate (SO4)		50	5,		Grab	30	Turbidimetric
Phenols (Sum)		्री			Grab	0.1	GC-MS2

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

Additional Comments:

01/01/09 and 0 used as default setting where results are not available

Parameter	Results (mg/l)			Sampling method	Limit of Quantitation	Analysis method / technique
1.1 1 1 1 1 1 1 1 1 1	12/05/09	14/05/09				
pН	= 7.4	= 7.6		Grab	2	Electrochemic
Temperature				Grab	0.5	Electrochemic
Electrical Conductivity (@ 25°C)	= 680	= 614		Grab	0.5	Electrochemic
Suspended Solids	= 4	= 3		Grab	0.5	Gravimetric
Ammonia (as N)	= 0.06	< 0.1		Grab	0.02	Colorimetric
Biochemical Oxygen Demand	<2	= 2		Grab	0.06	Electrochemic
Chemical Oxygen Demand	< 5	< 21	Det 1	Grab	8	Digestion & Colorimetric
Dissolved Oxygen				Grab	0	ISE
Hardness (as CaCO ₃)				Grab	0	Titimetric
Total Nitrogen (as N)	= 6	= 7.02		Grab	0.5	Digestion & Colorimetric
Nitrite (as N)		< 0.1		Grab	0.013	Colorimetric
Nitrate (as N)		= 5.58		Grab	0.04	Colorimetric
Total Phosphorous (as P)	= 0.1	= 0.053		Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	= 0.07	= 0.05		Grab	0.02	Colorimetric
Sulphate (SO ₄)		< 30	1	Grab	30	Turbidimetric
Phenols (Sum)		< 0.1	e.	Grab	0.1	GC-MS2

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For Orthophosphate: this monitoring should be undertaken on a sample filtered on 9,45pm filter paper For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent

Additional Comments:

01/01/09 and 0 used as default setting where results are not available For inspection

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)	150454 / 113195

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	17/02/09	02/04/09	08/04/09		11.	
Atrazine					Grab	0.96	HPLC
Dichloromethane					Grab	1	GC-MS1
Simazine			a set of the		Grab	0.01	HPLC
Toluene			62.0		Grab	0.02	GC-MS1
Tributyltin	= 0				Grab	0.02	GC-MS1
Xylenes					Grab	1	GC-MS1
Arsenic					Grab	0.96	ICP-MS
Chromium		< 20	< 20	< 20	Grab	20	ICP-OES
Copper		< 20	< 20	< 20	Grab	20	ICP-OES
Cyanide				e e	Grab	5	Colorimetric
Flouride				net	Grab	100	ISE
Lead		< 20	< 20	< 20 00	Grab	20	ICP-OES
Nickel		< 20	< 20	A 20	Grab	20	ICP-OES
Zinc		< 20	< 20	× < 20	Grab	20	ICP-OES
Boron		< 20	< 20 1	× 20	Grab	20	ICP-OES
Cadmium		< 20	< 20 9 100	< 20	Grab	20	ICP-OES
Mercury	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		ection ne.	Nº LA DEBRIN	Grab	0.2	ICP-MS
Selenium			15 ht		Grab	0.74	ICP-MS
Barium		< 20 601	× 20	< 20	Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn	
	TBT testing not required	

Parameter		Results (µg/l)	Sampling method	Limit of Quantitation	Analysis method / technique
	12/05/09	14/05/09			
Atrazine		< 0.01	Grab	0.96	HPLC
Dichloromethane		<1	Grab	1	GC-MS1
Simazine		< 0.01	Grab	0.01	HPLC
Toluene		< 0.28	Grab	0.02	GC-MS1
Tributyltin			Grab	0.02	GC-MS1
Xylenes		<1	Grab	1	GC-MS1
Arsenic		< 0.96	Grab	0.96	ICP-MS
Chromium	< 20	< 20	Grab	20	ICP-OES
Copper	< 20	< 20	Grab	20	ICP-OES
Cyanide		< 5	Grab	5	Colorimetric
Flouride		= 169	Grab	100	ISE
Lead	< 20	< 20	Grab	20	ICP-OES
Nickel	< 20	< 20	Grab	20	ICP-OES
Zinc	< 20	< 20	Grab	20	ICP-OES
Boron	< 20	< 20	Grab	20	ICP-OES
Cadmium	< 20	< 20	Grab	20	ICP-OES
Mercury		< 0.2	Grab	0.2	ICP-MS
Selenium		= 2.1	Grab	0.74	ICP-MS
Barium	< 20	< 20	Grab	20	ICP-OES

other

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Additional Comments:

TBT value is 0.02ug/l as Sn TBT testing not required

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,	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,	Not Applicable	Yes
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the waste water treatment plant and/or the waste water discharge point or points to which the application relates,	B2	Yes
(d)	state the population equivalent of the agglomeration to which the application relates,	Not Applicable	Yes
(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,	C,D	Yes
(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 state receiving water body and all associated hydrogeological and geological assessments related to the receiving water environment in the vicinity of the discharge.	F1	Yes
(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,	E3	Yes
(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,	E4	Yes
(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,	Not Applicable	Yes
(j)	give particulars of the nearest downstream drinking water abstraction point or points to the discharge point or points,	Not Applicable	Yes
(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,	F1	Yes
(I)	give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations,	E4	Yes
(m)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work.	Not Applicable	Yes
(n)	Any other information as may be stipulated by the Agency.	Not Applicable	Yes
Regula	tion 16(3) t prejudice to Regulation 16 (1) and (2), an application for a licence shall be panied by -	Attachment Number	Checked by Applicant
(a)	a copy of the notice of intention to make an application given pursuant to Regulation	B8	Yes
(b)	where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13.	Not Applicable	Yes
(c)	Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate -	В	Yes
(c) (i)	the point or points, including storm water overflows, from which a discharge or discharges take place or are to take place, and	B3,B5	Yes
(c) (ii)	the point or points at which monitoring and sampling are undertaken or are to be undertaken,	E3	Yes
(d)	such fee as is appropriate having regard to the provisions of Regulations 38 and 39.	B9(III)	Yes

Regu An o docu or ot	lation 16(4) Iginal application shall be accompanied by 2 copies of it and of all accompanying ments and particulars as required under Regulation 16(3) in hardcopy or in an electronic ter format as specified by the Agency.	Attachment Number	Checked by Applicant
1	An Original Application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under regulation 16(3) in hardcopy or in electronic or other format as specified by the agancy.		Yes
Regu For tasso an el	lation 16(5) ne purpose of paragraph (4), all or part of the 2 copies of the said application and clated documents and particulars may, with the agreement of the Agency, be submitted in ectronic or other format specified by the Agency.	Attachment Number	Checked by Applicant
1	Signed original.		Yes
2	2 hardcopies of application provided or 2 CD versions of application (PDF files) provided.		Yes
3	1 CD of geo-referenced digital files provided.		Yes
Regu Whe subjecto 20 respectate and r	lation 17 the a treatment plant associated with the relevant waste water works is or has been of to the European Communities (Environmental Impact Assessment) Regulations 1989 01, in addition to compliance with the requirements of Regulation 16, an application in oct of the relevant discharge shall be accompanied by a copy of an environmental impact ment and approval in accordance with the Act of 2000 in respect of the said development nay be submitted in an electronic or other format specified by the Agency	Attachment Number	Checked by Applicant
1	EIA provided if applicable		Yes
2	2 hardcopies of EIS provided if applicable.		Yes
3	2 CD versions of EIS, as PDF files, provided.		Yes

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