

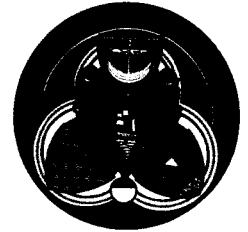
Comhairle Contae Chorcaí Cork County Council

Annabella,
Mallow,
Co. Cork.

Tel: (022) 21123 • Fax: (022) 21983
Email: northcork@corkcoco.ie
Web: www.corkcoco.ie

Annabella,
Mala,
Co. Chorcaí.

Fón: (022) 21123 • Faics: (022) 21983
R-phost: northcork@corkcoco.ie
Suíomh Gréasáin: www.corkcoco.ie



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

June 2009

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

Dear Sir / Madam,

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

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, Table E.3 and F.2

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:

Frank Cronin
Senior Engineer – Water Services

| |
|---|
| Environmental Protection Agency Waste Licensing Received 22 JUN 2009 Initials _____ |
|---|



--This is a draft document and is subject to revision.



Waste Water Discharge Licence Application Form

EPA Ref. N^o:

(Office use only)

Environmental Protection Agency

PO Box 3000, Johnstown Castle Estate, Co. Wexford

Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699

Web: www.epa.ie Email: info@epa.ie

Tracking Amendments to Draft Application Form

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

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

For inspection purposes only. Consent of copying owner required for any other use.

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

CONTENTS

| | Page |
|--|-------------|
| ABOUT THIS APPLICATION FORM | 4 |
| PROCEDURES | 6 |
| SECTION A NON-TECHNICAL SUMMARY | 8 |
| SECTION B GENERAL | 9 |
| SECTION C INFRASTRUCTURE & OPERATION | 19 |
| SECTION D DISCHARGES TO THE AQUATIC ENVIRONMENT | 22 |
| SECTION E MONITORING | 20 |
| SECTION F EXISTING ENVIRONMENT & IMPACT OF THE DISCHARGE(S) | 26 |
| SECTION G PROGRAMME OF IMPROVEMENTS | 25 |
| SECTION H DECLARATION | 27 |
| SECTION I JOINT DECLARATION | 28 |
| ANNEX 1: TABLES/ATTACHMENTS | |
| ANNEX 2: CHECKLIST | |



ABOUT THIS APPLICATION FORM

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

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

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

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

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

PROCEDURES

The procedure for making and processing of applications for waste water discharge licences, and for the processing of reviews of such licences, appear in the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) and is summarised below. The application fees that shall accompany an application are listed in the Third Schedule to the Regulations.

Prior to submitting an application the applicant must publish 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. 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 if it considers that its provision is material to the assessment of the application. Advice should be sought from the Agency where there is doubt about the type of information required or the level of detail.

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

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

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

Note: Drawings. The following guidelines are included to assist applicants:

- All drawings submitted should be titled and dated.
- All drawings should have a unique reference number and should be signed by a clearly identifiable person.
- All drawings should indicate a scale and the direction of north.
- All drawings should, generally, be to a scale of between 1:20 to 1:500, depending upon the degree of detail needed to be shown and the size of the facility. Drawings delineating the boundary can be to a smaller scale of between 1:1000 to 1:10560, but must clearly and accurately present the required level of detail. Drawings showing the waste water treatment plant location, if such a plant exists, can be to a scale of between 1:50 000 to 1:126 720. All drawings should, however, be A3 or less and of an appropriate scale such that they are clearly legible. Provide legends on all drawings and maps as appropriate.
- In exceptional circumstances, where A3 is considered inadequate, a larger size may be requested by the Agency.

It should be noted that it will not be possible to process or determine the application until the required documents have been provided in sufficient detail and to a satisfactory standard.

For inspection purposes only. Not for other use.
Consent of copyright owner required for any other use.

SECTION A: NON-TECHNICAL SUMMARY

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

A non-technical summary of the application is to be included here. The summary should identify all environmental impacts of significance associated with the discharge of waste water associated with the waste water works. This description should also indicate the hours during which the waste water works is supervised or manned and days per week of this supervision.

The following information must be included in the non-technical summary:

A description of:

- the waste water works and the activities carried out therein,
- the sources of emissions from the waste water works,
- the nature and quantities of foreseeable emissions from the waste water works into the receiving aqueous environment as well as identification of significant effects of the emissions on the environment,
- the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the waste water works,
- further measures planned to comply with the general principle of the basic obligations of the operator, i.e., that no significant pollution is caused;
- measures planned to monitor emissions into the environment.

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

For inspection purposes only
Consent of copyright owner required for any other use

SECTION A: NON-TECHNICAL SUMMARY

Ballyclough Village is located on the L1203, circa 7 Km North-West of Mallow town. The village is well developed from the point of public services such as a primary school, shops and amenities.

The waste water from the Clondulane allglomeration is currently treated by a package treatment plant prior to been discharged to the Finnow Stream.

The Waste Water Works and the Activities Carried Out Therein

Ballyclough wastewater treatment plant (WWTP) was constructed in 2002 on the site of a pre-existing septic tank which had previously served the village.

The main elements of the WWTP are;

1. Inlet works: Forward feeding pump sump.
2. Secondary treatment: Sequence Batch Reactor – 2 Tanks
3. Discharge to Finnow Stream

The wastewater in Ballyclough is collected in a partially combined foul and sewer drainage network and gravitates to the wastewater treatment plant. There are two ejector stations which contributing to the gravity. Each station serves a small cluster of houses (8-14 houses).

Ballyclough WWTP is operated by the staff of Cork County Council whose duties also involve 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 Works

The pollution load from the Clondulane 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. There are no industrial waste streams discharging into the sewerage network.

The main source of emissions from the works is via a 300mm open pipe outfall to the Finnow Stream.

The pre-existing septic tank is fitted with an inlet baffle to prevent normal flows to the tank. High storm flows will breach this baffle and enter the tank. The outflow from the tank is at the same level as the inflow. This connects into the main effluent stream where the sampling kiosk is located.

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 wastewater treatment plant treats only municipal waste water from Village and its environs via the sewerage collection system which is discharged to the River Finnow. The normal DWF from the WWTP is of the magnitude of 60-70m³/day (flow meter).

During power black outs, the waste stream will back up the pump sump and will overflow in the pre-existing septic tank which will discharge directly to the effluent stream prior to the discharge point. The number of occasions when this happens and the nature and quantities involved are not known.

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

The treatment works consists of the following elements:

- Inlet works including macerator and Grit trap.
- Forward feeding pump sump.
- Sequence batch reactor (2 tanks)

The treatment plant does not have a backup power generation system.

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

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

There are no planned works for the treatment plant.

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. A composite sampler is located on the outlet from the WWTP compound.

The Cork County Council Environmental Department located in Mallow takes samples from the Finnow Stream 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 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).

SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration: Clondulane & 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.

| | |
|-----------------|--------------------------|
| Name*: | Cork County Council |
| 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 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*: | 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 |
| Address: | Not Applicable |
| | |
| | |
| Tel: | Not Applicable |
| Fax: | Not Applicable |
| e-mail: | Not Applicable |

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

Design, Build & Operate Contractor Details

| | |
|-----------------|----------------|
| Name*: | 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 Walsh |
| Address: | Cork County Council |
| | Annabella |
| | Mallow |
| | Co. Cork |
| Grid ref (6E, 6N) | 149,318E 101.474N |
| Level of Treatment | Secondary |
| Primary Telephone: | 022-30430 |
| Fax: | 022-21983 |
| e-mail: | Pat.Walsh@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 |
|---------------------|-----|----|
| | | √ |

B.3 Location of Primary Discharge Point

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

| | |
|--------------------------|--|
| Type of Discharge | Point discharge - 300mm diameter open pipe |
| Unique Point Code | SW01- BALC |
| Location | WWTP site Ballyclough, Ballyclough. |
| Grid ref (6E, 6N) | 149,349E, 101,796N |

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.

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

Attachment B.4 should contain appropriately scaled drawings / maps ($\leq A3$) 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.

| | |
|--------------------------|-----------------|
| 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@corkcoc.ie |

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

| | | | |
|-------------------------------|---|---------------------------|--|
| has been obtained | √ | is being processed | |
| is not yet applied for | | is not required | |

| | |
|--|---------------|
| Local Authority Planning File Reference No: | Not Available |
|--|---------------|

Attachment B.6 should contain **the most recent** planning permission, including a copy of **all** conditions, and where an EIS was required, copies of any

such EIS and any certification associated with the EIS, should also be enclosed. Where planning permission is not required for the development, provide reasons, relevant correspondence, etc.

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | √ |

B.7 Other Authorities

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

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

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

| Within the SFADCo Area | Yes | No |
|------------------------|-----|----|
| | | √ |

B.7 (ii) Health Services Executive Region

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

| | |
|-----------------|------------------------------|
| Name: | Health Service Executive |
| Address: | North Cork Area Headquarters |
| | Gouldhill |
| | Mallow, Co. Cork |
| Tel: | 022 30200 |
| Fax: | 022 30211 |
| e-mail: | Gerry.oconnell@hse.ie |

B.7 (iii) Other Relevant Water Services Authorities

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

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

| | | |
|------------------------------------|------------|-----------|
| Relevant Authority Notified | Yes | No |
| | | √ |

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

| | | |
|----------------------------|------------|-----------|
| Attachment included | Yes | No |
| | | √ |

B.8 Notices and Advertisements

Regulations 10 and 11 of the Waste Water Discharge (Authorisation) Regulations, 2007 require all applicants to advertise the application in a newspaper 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 |
| | √ | |

B.9 (i) Population Equivalent of Agglomeration

TABLE B.9.1 POPULATION EQUIVALENT OF AGGLOMERATION

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

| | |
|------------------------------|---------------------------------|
| Population Equivalent | 600 |
| Data Compiled (Year) | Census 2006 |
| Method | Based on inflow to plant |

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,
BOD at inlet of 460mg/l
Assumed flow 70m³/day
PE calculation based on loading of 60gBOD/h/d
PE = 460*70/60 = 540PE

Planning is granted for an additional 28 houses on condition that a new WWTP is built to replace the existing plant.

- the percentage of the projected p.e. to be contributed by the non-domestic activities, and
None
- 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 WWTP is operating at circa 70% of its capacity and is treating the effluent to a high standard.

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 €) |
|---|------------|
| Discharges from agglomerations with a PE of 500 to 1000 | €10,000. |

| Appropriate Fee Included | Yes | No |
|--------------------------|-----|----|
| | | |

B.10 Capital Investment Programme

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

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | √ |

B.11 Significant Correspondence

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

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | √ |

B.12 Foreshore Act Licences.

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

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

| | | |
|----------------------------|------------|----------------|
| Attachment included | Yes | No √ |
|----------------------------|------------|----------------|

For inspection purposes only.
 Consent of copyright owner required for any other use.

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.

Description of WWTP

Inlet Works – The flow is directed around the pre-existing (now unused) septic tank and into a grit trap. The grit trap is fitted with an agitator to prevent organics from settling out. The sewerage is then put through a macerator prior to entering the forward feeding pump sump. This is fitted with a duty/standby pump arrangement that forwards flows up to 3 DWF (150m³/day) flow onto the sequence batch reactor tanks. If the sump is surcharged (due to a power outage of excessive flows) the sewerage will overflow into the adjacent septic tank. The septic tank discharges to the WWTP effluent stream prior to the discharge point.

Sequencing Batch Reactor (SBR)– A dual tank arrangement is in place which operates on a circa 8hr cycle per tank. The process employs a five-stage cycle; fill, react, settle, empty and rest. Wastewater enters the reactor during the fill stage. Submerged air diffusion provides aeration during the react stage, the biomass settles in the rest stage. The effluent is decanted during the emptying stage and the sludge is withdrawn from the reactor during the rest stage.

2 number air blowers provide compressed air to the submerged air diffusion system.

Sludge holding tank –Settle biomass is pumped to the sludge holding tank.

Mixed liquor decants from the SBR into a precast concrete tank where gravity separation of the activated sludge occurs.

Post treatment the effluent decant from the SBR and gravity flows to the discharge point. A totaliser flow meter is located on the effluent stream.

Control panels for the electrical plant are located in kiosks within the site compound.

C.1.1 Storm Water Overflows

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

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

There is no storm water overflow in this system.

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 Pumping Stations

There are two Council operated pumping stations within the agglomeration.

Scart Pumping Station

- Grid Reference: 148,840N, 103,325E
- The pumping station serves a cluster of houses (circa 8nr) and forwards domestic waste only.
- There is no emergency overflow from the sump.

The Pumping Station consists of the following elements:

- 2 Nr submersible pumps complete with lifting mechanism
- High level and low level float controls
- The capacity of the sump is unknown.

Cois Cluan Pumping Station

- Grid Reference: 149,497N, 102,005E
- The pumping station serves a cluster of houses (14nr) and forwards domestic waste only. The sump is located in the lowest corner (North) within the housing estate which was taken over by the Local Authority in the last few years
- There is no emergency overflow from the sump. The system will surcharge during a power outage.

The Pumping Station consists of the following elements:

- 2 Nr submersible pumps complete with lifting mechanism
- A macerator is fitting on the sump inlet.
- High level and low level float controls
- High level alarm flashing beacon
- The as built capacity of the sump is unknown.

Attachment C.1 should contain supporting documentation with regard to the plant and process capacity, systems, storm water overflows, emergency overflows, etc., including flow diagrams of each with any relevant additional information. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, D.2, E.3 and F.2.

| Attachment included | Yes | No |
|---------------------|-----|----|
| | √ | |

C.2 Outfall Design and Construction

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

There is one discharge point from the treatment plant, which is located circa 25m due South of the WWTP compound, and this discharges into the Finnow stream. The outfall is an open pipe, above the water level, projects from the river bank. There is no headwall detail at the outfall.

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | √ |

For inspection purposes only. Consent of copyright owner required for any other use.

The capacity of the sump is unknown.

SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

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

Give particulars of the source, location, nature, composition, quantity, level and rate of discharges arising from the agglomeration and, where relevant, the period or periods during which such emissions are made or are to be made.

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

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

D.1 Discharges to Surface Waters

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

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

Cork County Council monitors the influent to the plant, the results of which are included in Attachment D.1

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

| 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 |
|-------------------------------|---|---|---|--|---|--|--|
| Point Code Provide label ID's | Point Type (e.g., Primary/ Secondary/ Storm Water Overflow) | Local Authority Name (e.g., Donegal County Council) | Receiving Water Body Type (e.g., River, Lake, Groundwater, Transitional, Coastal) | Receiving Water Body Name (e.g., River Suir) | Protected Area Type (e.g., SAC, candidate SAC, NHA, SPA etc.) | 6E-digit GPS Irish National Grid Reference | 6N-digit GPS Irish National Grid Reference |
| SW01 BALC | Primary | Cork County Council | River | Finnow Stream | None | 149349 | 101796 |

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.

For inspection purposes only.
 Consent of copyright owner required for any other use.

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/.

Refer to 'epa wwd licensing' web page print off attached.

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/.

Not storm water overflows on the Network

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

There is a flow meter prior to the discharge point. Refer to the Process Diagram in Appendix C.1.

There is no composite sampler in the existing system and there are no plans for the provision of such.

E.2. Monitoring and Sampling Points

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

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

In determining the sampling programme to be carried out, the variability of the emission and its effect on the receiving environment should be considered. Cork County Council Water Services Laboratories sample and monitor in accordance with 'Sampling Methods for examination of water and wastewater' 18th edition 1992. Sampling is carried out on a Bi-annual basis.

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 |
|--|---|---|--|--|----------------------------------|
| Point Code Provide label ID's assigned in section E of application | Point Type (e.g., Primary, Secondary, Storm Water Overflow) | Monitoring Type M = Monitoring S = Sampling | 6E-digit GPS Irish National Grid Reference | 6N-digit GPS Irish National Grid Reference | Y = GPS used N = GPS not used |
| SW01 | Primary | Sampling | 149325 | 101800 | N |
| aSW01u | u/s | Sampling | 149490 | 101985 | N |
| aSW01d | d/s | Sampling | 149490 | 100608 | N |

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

E.4 Sampling Data

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

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

Attachment E.4 should contain any supporting information.

| Attachment included | Yes | No |
|---------------------|-----|----|
| | √ | |

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

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

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

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

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

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

The monitoring results at the discharge point (attachment E4) indicate that the plant is operating well within the requirements of the Urban Waste Water Treatment regulations.

Emissions on Receiving Waters

Assimilative capacity assessment based on the dilution model is shown in the following table.

Assimilative Capacity of the Receiving water

| | | |
|-------|-------------------|-----------------------------|
| 0.06 | m ³ /s | 95% tile flow of River |
| 0.269 | m ³ /s | Median Flow in River |
| 0.001 | m ³ /s | average volume of discharge |

| | | Total Phosphate | Ortho Phosphate | BOD ₅ | SS | Total Nitrogen | Sulphate | Ammonia-N |
|---------------------|------|-----------------|-----------------|------------------|--------|----------------|----------|-----------|
| Median in River | mg/l | 0.060 | 0.044 | 1.500 | 5.200 | 7.400 | 30.000 | 0.070 |
| Median in Discharge | mg/l | 3.800 | 3.800 | 10.200 | 33.400 | 32.160 | 45.000 | 0.160 |
| C _{final} | mg/l | 0.121 | 0.106 | 1.643 | 5.662 | 7.806 | 30.246 | 0.071 |

| | | | | | | | | |
|-------------------|------|-------|-------|-------|-------|-------|-------|-------|
| Increase in River | mg/l | 0.061 | 0.062 | 0.143 | 0.462 | 0.406 | 0.246 | 0.001 |
|-------------------|------|-------|-------|-------|-------|-------|-------|-------|

Note: * Figures based on average of CCCN monitoring as per attachment E4
 Assimilative Capacity Calculations were not performed for the following parameters, as the substances were below the limit of detection in the upstream samples, in the discharge samples and in the downstream samples:
 (Chromium, Copper, Lead, Nickel, Cadmium, Barium, Boron, Zinc, Fluoride)

- o Details of all monitoring of the receiving water should be supplied via the following web based link: http://78.137.160.73/epa_wwd_licensing/. Tables F.1(i)(a) & (b) should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables F.1(i)(a) & (b). Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.
Refer to 'epa wwd licensing' web page print off attached.
- o 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.
Not applicable, there are no secondary discharges from the works
- o Provide details of the extent and type of ground emissions at the works. For larger discharges to groundwaters, e.g., from Integrated Constructed Wetlands, large scale percolation areas, etc., a comprehensive report must be completed which should include, inter alia, topography, meteorological data, water quality, geology, hydrology, and hydrogeology. The latter must in particular present the aquifer classification and vulnerability. The Geological Survey of Ireland Groundwater Protection Scheme Dept of the Environment and Local Government, Geological Survey of Ireland, EPA (1999) methodology should be used for any such classification. This report should also identify all surface water bodies and water wells that may be at risk as a result of the ground discharge.
Not applicable, there are no ground emissions from the works.
- o 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.
Water quality recorded at EPA sampling locations ;

| Sampling Location | EPA Biological Quality Rating (Q values) | | |
|-----------------------------|--|-------------|--------|
| | 1995 -1997 | 2001 - 2003 | Target |
| East of Ballyclough Br. | 3 | 3-4 | 3 |
| Br. u/s of Blackwater River | 3 | 3-4 | 3-4 |

River designations:

- | | |
|--|---|
| Shellfish Regulations S.I.200:1994; | Not designated. |
| Bathing Water Regulations S.I. 178:1998 | Not designated |
| Salmonid Water Regulations S.I. 293: 1998 | Not designated |
| Special Area of Conservation (SAC) | Not designated |
| Special Protection Area (SPA); | Not Designated, however the Blackwater estuary is designated. |
| Sensitive Area (Urban Waste water Treatment Regulations S.I.254:2001) | Not designated |

The River Blackwater is included in the draft Management Plan for the South Western River Basin District (Dec 2008). This can be downloaded at the following address;

<http://www.swrbd.ie/downloads/Web/South%20Western%20RBD%20RMBP.pdf>.

- o 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.
There is no evidence to suggest that there are sources within the agglomeration or in the discharge itself which would lead to emissions of the main polluting substances (as defined in the dangerous substances Regulations SI 12:2001) at levels which would likely to impair the environment.
- o In circumstances where water abstraction points exist downstream of any discharge describe measures to be undertaken to ensure that discharges from the waste water works will not have a significant effect on faecal coliform, salmonella and protozoan pathogen numbers, e.g., Cryptosporidium and Giardia, in the receiving water environment.
There are no downstream water abstraction points.
- o 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)

The development is in the surface water catchment of the River Blackwater, SAC 002170. In accordance with EPA Circular L8/08 Appendix 1, the project must be screened for its impacts. However, due to financial constraints, Cork County Council does not have the resources for the foreseeable future to assess the impacts in accordance with the EPA document, 'Waste Water discharge Licence - Appropriate Assessment'.

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

Not applicable.

- o 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.**

There is no modelling of the sewer network to date.

| 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.

There are no drinking water abstraction points downstream/down-gradient of the discharge point.

Attachment F.2 should contain any supporting information.

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | √ |

SECTION G: PROGRAMMES OF IMPROVEMENTS

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

G.1 Compliance with Council Directives

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

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

There is currently no programme of improvements for the treatment plant.

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.

There is currently no programme of improvements for the treatment plant.

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.

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.

There is currently no programme of improvements for the treatment plant.

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | √ |

G.4 Storm Water Overflow

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

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.

There is currently no programme of improvements for the treatment plant.

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | √ |

Consent of applicant owner required for any other use. For inspection purposes only.

For inspection purposes only.
Consent of copyright owner required for any other use.

SECTION H: DECLARATION

Declaration

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

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

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA and local authority offices, and via the EPA's website.

This consent relates to this application itself and to any further information or submission, whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

Signed by : 
(on behalf of the organisation)

Date : 16 June 2009

Print signature name: TOM STRITCH

Position in organisation: DIRECTOR OF SERVICES

For inspection purposes only.
Consent of copyright owner required for any other use.

SECTION I: JOINT DECLARATION

Joint Declaration Note1

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

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

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA and local authority offices, and via the EPA's website.

This consent relates to this application itself and to any further information or submission whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

Lead Authority

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

Print signature name: _____

Position in organisation: _____

Co-Applicants

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

Print signature name: _____

Position in organisation: _____

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

Print signature name: _____

Position in organisation: _____

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

*For inspection purposes only.
Consent of copyright owner required for any other use.*

Agglomeration details

| | |
|------------------------------|-------------------------------------|
| Leading Local Authority | Cork County Council |
| Co-Applicants | |
| Agglomeration | Ballyclough |
| Population Equivalent | 990 |
| Level of Treatment | Secondary |
| Treatment plant address | Ballyclough, Mallow, Co. Cork |
| Grid Ref (12 digits, 6E, 6N) | 149318 / 101474 |
| EPA Reference No: | |

Contact details

| | |
|------------------|--|
| Contact Name: | Frank Cronin |
| Contact Address: | Water Services Section Cork County Council Northern Division Annabella Mallow Co Cork |
| Contact Number: | 022-21123 |
| Contact Fax: | 022 21983 |
| Contact Email: | frank.cronin@corkcoco.ie |

Consent of copyright owner required for any other use.
For reproduction purposes only.

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

Discharge Point Code: SW-1

| | | |
|---|--|--|
| Local Authority Ref No: | SW01-BALC | |
| Source of Emission: | Ballyclough wastewater treatment plant | |
| Location: | Ballyclough, Mallow, Co. Cork | |
| Grid Ref (12 digits, 6E, 6N) | 149349 / 101796 | |
| Name of Receiving waters: | Finnow Stream | |
| Water Body: | River Water Body | |
| River Basin District | South Western RBD | |
| Designation of Receiving Waters: | u/s of Blackwater River SAC site code 002170 | |
| Flow Rate in Receiving Waters: | 0.45 | m ³ .sec ⁻¹ Dry Weather Flow |
| | 0.25 | m ³ .sec ⁻¹ 95% Weather Flow |
| Additional Comments (e.g. commentary on zero flow or other information deemed of value) | This Sequence Batch reactor operates on 8 hr Cycle. Typical discharge period is 60 mins per 8 hrs. The above figures are based on adverage flows over the day. | |

Emission Details:

| | | | |
|--------------------|---------------------------|--------------------------|--------------------------------|
| (i) Volume emitted | | | |
| Normal/day | 176 m ³ | Maximum/day | 530 m ³ |
| Maximum rate/hour | 22.1 m ³ | Period of emission (avg) | 60 min/hr 24 hr/day 365 day/yr |
| Dry Weather Flow | 0.002 m ³ /sec | | |

For inspection purposes only. Consent of copyright owner required for any other use.

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

Discharge Point Code: SW-1

| Substance | As discharged | | | |
|----------------------------------|---------------------|-----------------|----------------|--------|
| | Unit of Measurement | Sampling Method | Max Daily Avg. | kg/day |
| pH | pH | 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 | 18.55 |
| Ammonia (as N) | mg/l | 24 hr composite | = 0 | 0 |
| Biochemical Oxygen Demand | mg/l | 24 hr composite | = 25 | 13.25 |
| Chemical Oxygen Demand | mg/l | 24 hr composite | = 125 | 66.25 |
| Total Nitrogen (as N) | mg/l | 24 hr composite | = 35 | 18.55 |
| 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 | = 8 | 4.24 |
| OrthoPhosphate (as P) | mg/l | 24 hr composite | = 6 | 3.18 |
| Sulphate (SO ₄) | 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 0.45µm filter paper
 For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

For inspection purposes only.
 Consent of copyright owner required for any other use.

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

Discharge Point Code: SW-1

| Substance | As discharged | | | |
|-----------------|---------------------|-----------------|----------------|--------|
| | Unit of Measurement | Sampling Method | Max Daily Avg. | kg/day |
| Atrazine | µg/l | 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 | = 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 filtered on 0.45µm filter paper

For Phenols: USEPA Method 604, AWWA Standard Method 6246, or equivalent.

For inspection purposes only
Consent of copyright owner required for any other use

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

| Identification Code for Discharge point | Frequency of discharge (days/annum) | Quantity of Waste Water Discharged (m ³ /annum) |
|---|-------------------------------------|--|
| SW-1 | 365 | 64240 |

For inspection purposes only.
Consent of copyright owner required for any other use.

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 |
|---|-------------------------------------|--|--|
|---|-------------------------------------|--|--|

For inspection purposes only.
Consent of copyright owner required for any other use.

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

Primary Discharge Point

| | |
|------------------------------|-----------------|
| Discharge Point Code: | SW-1 |
| MONITORING POINT CODE: | aSW-1d |
| Grid Ref (12 digits, 6E, 6N) | 149490 / 100608 |

| Parameter | Results (mg/l) | | | | Sampling method | Limit of Quantitation | Analysis method / technique |
|----------------------------------|----------------|----------|----------|----------|-----------------|-----------------------|-----------------------------|
| | 24/08/08 | 23/10/08 | 01/01/09 | 28/01/09 | | | |
| pH | | | | = 7.9 | Grab | 2 | Electrochemical |
| Temperature | | | = 0 | | Grab | 0 | Electrochemical |
| Electrical Conductivity (@ 25°C) | | | | = 467 | Grab | 0.5 | Electrochemical |
| Suspended Solids | | | | = 5 | Grab | 0.5 | Gravimetric |
| Ammonia (as N) | | | | < 0.1 | Grab | 0.02 | Colorimetric |
| Biochemical Oxygen Demand | | | | < 1 | Grab | 0.06 | Electrochemical |
| Chemical Oxygen Demand | | | | < 21 | Grab | 8 | Digestion & Colorimetric |
| Dissolved Oxygen | | | = 0 | | Grab | 0 | ISE |
| Hardness (as CaCO ₃) | | | = 0 | | Grab | 0 | Titrimetric |
| Total Nitrogen (as N) | | | | = 5.1 | Grab | 0.5 | Digestion & Colorimetric |
| Nitrite (as N) | | | | = 0.0105 | Grab | 0.013 | Colorimetric |
| Nitrate (as N) | | | | = 5.41 | Grab | 0.04 | Colorimetric |
| Total Phosphorous (as P) | | | | < 0.2 | Grab | 0.2 | Digestion & Colorimetric |
| OrthoPhosphate (as P) | < 0.05 | < 0.05 | | < 0.05 | Grab | 0.02 | Colorimetric |
| Sulphate (SO ₄) | | | | < 30 | Grab | 30 | Turbidimetric |
| Phenols (Sum) | | | | < 0.1 | Grab | 0.1 | GC-MS2 |

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper

For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

| | |
|----------------------|--|
| Additional Comments: | 01/01/09 and 0 used where no results are available |
|----------------------|--|

WWD Licence Application Annex I

| Parameter | Results (mg/l) | | | | Sampling method | Limit of Quantitation | Analysis method / technique |
|----------------------------------|----------------|----------|----------|----------|-----------------|-----------------------|-----------------------------|
| | 11/02/09 | 10/03/09 | 12/03/09 | 16/04/09 | | | |
| pH | = 8 | = 8.1 | | = 8 | Grab | 2 | Electrochemical |
| Temperature | | | | | Grab | 0 | Electrochemical |
| Electrical Conductivity (@ 25°C) | = 578 | = 491 | | = 398 | Grab | 0.5 | Electrochemical |
| Suspended Solids | < 2 | < 2 | | = 3 | Grab | 0.5 | Gravimetric |
| Ammonia (as N) | < 0.1 | < 0.05 | | = 0.06 | Grab | 0.02 | Colorimetric |
| Biochemical Oxygen Demand | < 2 | < 2 | | = 3 | Grab | 0.06 | Electrochemical |
| Chemical Oxygen Demand | < 5 | = 12 | | = 32 | Grab | 8 | Digestion & Colorimetric |
| Dissolved Oxygen | | | | | Grab | 0 | ISE |
| Hardness (as CaCO ₃) | | | | | Grab | 0 | Titrimetric |
| Total Nitrogen (as N) | = 6 | = 3.7 | | = 3 | Grab | 0.5 | Digestion & Colorimetric |
| Nitrite (as N) | | | | | Grab | 0.013 | Colorimetric |
| Nitrate (as N) | | | | | Grab | 0.04 | Colorimetric |
| Total Phosphorous (as P) | = 0.1 | = 0.14 | | = 0.17 | Grab | 0.2 | Digestion & Colorimetric |
| OrthoPhosphate (as P) | = 0.09 | = 0.1 | < 0.05 | = 0.13 | Grab | 0.02 | Colorimetric |
| Sulphate (SO ₄) | | | | | Grab | 30 | Turbidimetric |
| Phenols (Sum) | | | | | 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 where no results are available |
|----------------------|--|

For inspection purposes only. Consent of copyright owner required for any other use.

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

Primary Discharge Point

| | |
|------------------------------|-----------------|
| Discharge Point Code: | SW-1 |
| MONITORING POINT CODE: | aSW-1d |
| Grid Ref (12 digits, 6E, 6N) | 149490 / 100608 |

| Parameter | Results (µg/l) | | | | Sampling method | Limit of Quantitation | Analysis method / technique |
|-----------------|----------------|----------|----------|----------|-----------------|-----------------------|-----------------------------|
| | 01/01/09 | 28/01/09 | 11/02/09 | 10/03/09 | | | |
| Atrazine | | < 0.01 | | | Grab | 0.96 | HPLC |
| Dichloromethane | | < 1 | | | Grab | 1 | GC-MS1 |
| Simazine | | < 0.01 | | | Grab | 0.01 | HPLC |
| Toluene | | < 1 | | | Grab | 0.02 | GC-MS1 |
| Tributyltin | = 0 | | | | Grab | 0.02 | GC-MS1 |
| Xylenes | | < 1 | | | Grab | 1 | GC-MS1 |
| Arsenic | | < 0.96 | | | Grab | 0.96 | ICP-MS |
| Chromium | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Copper | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Cyanide | | < 5 | | | Grab | 5 | Colorimetric |
| Flouride | | = 36 | | | Grab | 100 | ISE |
| Lead | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Nickel | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Zinc | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Boron | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Cadmium | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Mercury | | < 0.2 | | | Grab | 0.2 | ICP-MS |
| Selenium | | = 1.7 | | | Grab | 0.74 | ICP-MS |
| Barium | | = 45 | < 20 | < 20 | Grab | 20 | ICP-OES |

| | |
|----------------------|--|
| Additional Comments: | TBT value is 0.02ug/l as Sn TBT analysis not required |
|----------------------|--|

WWD Licence Application Annex I

| Parameter | Results (µg/l) | | | | Sampling method | Limit of Quantitation | Analysis method / technique |
|-----------------|----------------|----------|--|--|-----------------|-----------------------|-----------------------------|
| | 12/03/09 | 16/04/09 | | | | | |
| Atrazine | | | | | Grab | 0.96 | HPLC |
| Dichloromethane | | | | | Grab | 1 | GC-MS1 |
| Simazine | | | | | Grab | 0.01 | HPLC |
| Toluene | | | | | Grab | 0.02 | GC-MS1 |
| Tributyltin | | | | | Grab | 0.02 | GC-MS1 |
| Xylenes | | | | | Grab | 1 | GC-MS1 |
| Arsenic | | | | | Grab | 0.96 | ICP-MS |
| Chromium | < 20 | < 20 | | | Grab | 20 | ICP-OES |
| Copper | < 20 | < 20 | | | Grab | 20 | ICP-OES |
| Cyanide | | | | | Grab | 5 | Colorimetric |
| Flouride | | | | | 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 | | | | | Grab | 0.2 | ICP-MS |
| Selenium | | | | | Grab | 0.74 | ICP-MS |
| Barium | = 20 | < 20 | | | Grab | 20 | ICP-OES |

| | |
|----------------------|--|
| Additional Comments: | TBT value is 0.02ug/l as Sn TBT analysis not required |
|----------------------|--|

*For inspection purposes only.
Consent of copyright owner required for any other use.*

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

Primary Discharge Point

| | |
|------------------------------|-----------------|
| Discharge Point Code: | SW-1 |
| MONITORING POINT CODE: | aSW-1u |
| Grid Ref (12 digits, 6E, 6N) | 149490 / 101985 |

| Parameter | Results (mg/l) | | | | Sampling method | Limit of Quantitation | Analysis method / technique |
|----------------------------------|----------------|----------|----------|----------|-----------------|-----------------------|-----------------------------|
| | 24/09/08 | 23/10/08 | 01/01/09 | 28/01/09 | | | |
| pH | | | | = 7.8 | Grab | 2 | Electrochemical |
| Temperature | | | = 0 | | Grab | 0 | Electrochemical |
| Electrical Conductivity (@ 25°C) | | | | = 506 | Grab | 0.5 | Electrochemical |
| Suspended Solids | | | | = 5 | Grab | 0.05 | Gravimetric |
| Ammonia (as N) | | | | < 0.1 | Grab | 0.02 | Colorimetric |
| Biochemical Oxygen Demand | | | | < 1 | Grab | 0.06 | Electrochemical |
| Chemical Oxygen Demand | | | | < 21 | Grab | 8 | Digestion & Colorimetric |
| Dissolved Oxygen | | | = 0 | | Grab | 0 | ISE |
| Hardness (as CaCO ₃) | | | = 0 | | Grab | 0 | titrimetric |
| Total Nitrogen (as N) | | | | = 6 | Grab | 0.5 | Digestion & Colorimetric |
| Nitrite (as N) | | | | = 0.0213 | Grab | 0.013 | Colorimetric |
| Nitrate (as N) | | | | = 6.66 | Grab | 0.04 | Colorimetric |
| Total Phosphorous (as P) | | | | < 0.2 | Grab | 0.2 | Digestion & Colorimetric |
| OrthoPhosphate (as P) | < 0.05 | < 0.05 | | < 0.05 | Grab | 0.02 | Colorimetric |
| Sulphate (SO ₄) | | | | < 30 | Grab | 30 | Turbidimetric |
| Phenols (Sum) | | | | < 0.1 | Grab | 0.1 | GC-MS 2 |

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 for default setting where results are not available |
|----------------------|---|

WWD Licence Application Annex I

| Parameter | Results (mg/l) | | | | Sampling method | Limit of Quantitation | Analysis method / technique |
|----------------------------------|----------------|----------|----------|----------|-----------------|-----------------------|-----------------------------|
| | 11/02/09 | 10/03/09 | 12/03/09 | 16/04/09 | | | |
| pH | = 7.9 | = 7.9 | | = 7.9 | Grab | 2 | Electrochemical |
| Temperature | | | | | Grab | 0 | Electrochemical |
| Electrical Conductivity (@ 25°C) | = 604 | = 551 | | = 481 | Grab | 0.5 | Electrochemical |
| Suspended Solids | < 1 | = 2 | | = 10 | Grab | 0.05 | Gravimetric |
| Ammonia (as N) | = 0.05 | = 0.05 | | = 0.05 | Grab | 0.02 | Colorimetric |
| Biochemical Oxygen Demand | < 2 | < 2 | | < 2 | Grab | 0.06 | Electrochemical |
| Chemical Oxygen Demand | = 8 | = 5 | | = 15 | Grab | 8 | Digestion & Colorimetric |
| Dissolved Oxygen | | | | | Grab | 0 | ISE |
| Hardness (as CaCO ₃) | | | | | Grab | 0 | titrimetric |
| Total Nitrogen (as N) | = 6 | = 5 | | = 4 | Grab | 0.5 | Digestion & Colorimetric |
| Nitrite (as N) | | | | | Grab | 0.013 | Colorimetric |
| Nitrate (as N) | | | | | Grab | 0.04 | Colorimetric |
| Total Phosphorous (as P) | = 0.07 | = 0.16 | | = 0.1 | Grab | 0.2 | Digestion & Colorimetric |
| OrthoPhosphate (as P) | = 0.07 | = 0.14 | < 0.05 | = 0.06 | Grab | 0.02 | Colorimetric |
| Sulphate (SO ₄) | | | | | Grab | 30 | Turbidimetric |
| Phenols (Sum) | | | | | Grab | 0.1 | GC-MS 2 |

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 for default setting where results are not available |
|----------------------|---|

For inspection purposes only. Consent of copyright owner required for any other use.

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

Primary Discharge Point

| | |
|------------------------------|-----------------|
| Discharge Point Code: | SW-1 |
| MONITORING POINT CODE: | aSW-1u |
| Grid Ref (12 digits, 6E, 6N) | 149490 / 101985 |

| Parameter | Results (µg/l) | | | | Sampling method | Limit of Quantitation | Analysis method / technique |
|-----------------|----------------|----------|----------|----------|-----------------|-----------------------|-----------------------------|
| | 01/01/09 | 28/01/09 | 11/02/09 | 10/03/09 | | | |
| Atrazine | | < 0.01 | | | Grab | 0.96 | HPLC |
| Dichloromethane | | < 1 | | | Grab | 1 | GC-MS1 |
| Simazine | | < 0.01 | | | Grab | 0.01 | HPLC |
| Toluene | | < 1 | | | Grab | 0.02 | GC-MS1 |
| Tributyltin | = 0 | | | | Grab | 0.02 | GC-MS1 |
| Xylenes | | < 1 | | | Grab | 1 | GC-MS1 |
| Arsenic | | < 0.96 | | | Grab | 0.96 | ICP-MS |
| Chromium | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Copper | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Cyanide | | < 5 | | | Grab | 5 | Colorimetric |
| Flouride | | = 33 | | | Grab | 100 | ISE |
| Lead | | = 23 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Nickel | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Zinc | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Boron | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Cadmium | | < 20 | < 20 | < 20 | Grab | 20 | ICP-OES |
| Mercury | | < 0.2 | | | Grab | 0.2 | ICP-MS |
| Selenium | | = 1.8 | | | Grab | 0.74 | ICP-MS |
| Barium | | = 47 | < 20 | < 20 | Grab | 20 | ICP-OES |

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

WWD Licence Application Annex I

| Parameter | Results (µg/l) | | | | Sampling method | Limit of Quantitation | Analysis method / technique |
|-----------------|----------------|----------|--|--|-----------------|-----------------------|-----------------------------|
| | 12/03/09 | 16/04/09 | | | | | |
| Atrazine | | | | | Grab | 0.96 | HPLC |
| Dichloromethane | | | | | Grab | 1 | GC-MS1 |
| Simazine | | | | | Grab | 0.01 | HPLC |
| Toluene | | | | | Grab | 0.02 | GC-MS1 |
| Tributyltin | | | | | Grab | 0.02 | GC-MS1 |
| Xylenes | | | | | Grab | 1 | GC-MS1 |
| Arsenic | | | | | Grab | 0.96 | ICP-MS |
| Chromium | < 20 | < 20 | | | Grab | 20 | ICP-OES |
| Copper | < 20 | < 20 | | | Grab | 20 | ICP-OES |
| Cyanide | | | | | Grab | 5 | Colorimetric |
| Flouride | | | | | 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 | | | | | Grab | 0.2 | ICP-MS |
| Selenium | | | | | Grab | 0.74 | ICP-MS |
| Barium | < 20 | < 20 | | | Grab | 20 | ICP-OES |

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

For inspection purposes only.
Consent of copyright owner required for any other use.

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, | B.1 | Yes |
| (b) | give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant, | not applicable | Yes |
| (c) | give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the waste water treatment plant and/or the waste water discharge point or points to which the application relates, | B.2 | Yes |
| (d) | state the population equivalent of the agglomeration to which the application relates, | B.9 | 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 the receiving water body and all associated hydrogeological and geological assessments related to the receiving water environment in the vicinity of the discharge. | F.1 | 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, | E.2, E.3 | 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, | E.4 | 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, | G.3 | 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, | F.1 | Yes |
| (l) | give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations, | E.1, E.4 | 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 |
| 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, | B.8 | Yes |
| (b) | where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13, | not applicable | Yes |
| (c) | Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate - | B | Yes |
| (c) (i) | the point or points, including storm water overflows, from which a discharge or discharges take place or are to take place, and | B.3, B.4, B.5 | Yes |
| (c) (ii) | the point or points at which monitoring and sampling are undertaken or are to be undertaken, | E.3 | Yes |
| (d) | such fee as is appropriate having regard to the provisions of Regulations 38 and 39. | B.9 | Yes |

| | | | |
|--|--|-------------------|----------------------|
| Regulation 16(4) An original application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under Regulation 16(3) in hardcopy or in an electronic or other format as specified by the Agency. | | Attachment Number | Checked by Applicant |
| 1 | An Original Application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under regulation 16(3) in hardcopy or in electronic or other format as specified by the agency. | | |
| Regulation 16(5) For the purpose of paragraph (4), all or part of the 2 copies of the said application and associated documents and particulars may, with the agreement of the Agency, be submitted in an electronic or other format specified by the Agency. | | Attachment Number | Checked by Applicant |
| 1 | Signed original. | | Yes |
| 2 | 2 hardcopies of application provided or 2 CD versions of application (PDF files) provided. | | Yes |
| 3 | 1 CD of geo-referenced digital files provided. | | Yes |
| Regulation 17 Where a treatment plant associated with the relevant waste water works is or has been subject to the European Communities (Environmental Impact Assessment) Regulations 1989 to 2001, in addition to compliance with the requirements of Regulation 16, an application in respect of the relevant discharge shall be accompanied by a copy of an environmental impact statement and approval in accordance with the Act of 2000 in respect of the said development and may be submitted in an electronic or other format specified by the Agency | | Attachment Number | Checked by Applicant |
| 1 | EIA provided if applicable | not applicable | Yes |
| 2 | 2 hardcopies of EIS provided if applicable. | not applicable | Yes |
| 3 | 2 CD versions of EIS, as PDF files, provided. | not applicable | Yes |

For inspection purposes only.
Consent of copyright owner required for any other use.

ANNEX 1: TABLES / ATTACHMENT

| Attachment | Description |
|------------|--|
| A1 Map 1 | 1:50,000 Location Map |
| A1 Map 2 | Site Location of WWTP |
| 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 |
| B3 Map 7 | Location of Sampling Points |
| B4 | Not Applicable |
| B5 | Not Applicable |
| B6 | Part VIII |
| B7 | Not Applicable |
| B8 Map 8 | Location of Site Notice |
| B8 | Notice & Advertisement |
| B10 | Not Applicable |
| B 11 | Not Applicable |
| B 12 | Not Applicable |
| C1 Map 9 | Layout Wastewater Treatment Plant |
| C1 Drg 1 | Schematic of Wastewater Treatment Plant |
| C2 | Not Applicable |
| D1 | Inlet monitoring Results |
| Section D2 | Discharge Points |
| E2 | Not Applicable |
| Section E3 | Monitoring & Sampling Points |
| E4 | Sampling Results |
| F1 | Not Applicable |
| F2 | Not Applicable |
| G1 | Not Applicable |
| G2 | Not Applicable |
| G3 | Not Applicable |
| G4 | Not Applicable |