

# CORK COUNTY COUNCIL WESTERN DIVISION WATER SERVICES

Courthouse, Skibbereen, Co. Cork

APPLICATION FOR WASTE

WATER DISCHARGE CERTIFICATE

KILCROHANE, CO. CORK.

**Application Form 22<sup>nd</sup> December 2009** 



# CORK COUNTY COUNCIL WESTERN DIVISION WATER SERVICES

Courthouse, Skibbereen, Co. Cork

# Re: Waste Water Discharge Certificate Application for the Agglomeration of Kilcrohane

Dear Sir/Madam,

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

The following documentation is enclosed:

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

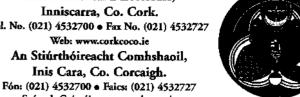
The content of the electronic files is a true copy of the original hardcopy.

Niall O'Mahony, Senior Engineer.

# Comhairle Contae Chorcaí Tel. No. (021) 4532700 • Fex No. (021) 4532727 Cork County Council

Environmental Directorate, Inniscarra, Co. Cork. Web: www.corkcoco.ie An Stiúrthóireacht Comhshaoil. Inis Cara, Co. Corcaigh.

Suíomh Gréasáin: www.corkcoco.ie



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

16<sup>th</sup> December. 2009

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

Dear Mr. Clinton,

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

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

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

Yours faithfully,

Louis Duffy, Director of Service,

**Environment & Emergency Services Directorate** 

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



# Waste Water Discharge Certificate of Authorisation Application Form

EPA Ref. Nº:	
(Office use only)	

#### **Environmental Protection Agency**

PO Box 3000, Johnstown Castle Estate, Co. Wexford Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699

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



#### **Tracking Amendments to Draft Application Form**

Version No.	Date	Amendment since previous version	Reason
V. 1.	12/06/2009	N/A	
V.2.	17/06/2009	Delete reference to Design Build and Operate	To accurately reflect the information required for the small schemes programme
		Delete the requirement to provide contact information for the associated waste water treatment plant	To accurately reflect the information required and the scale of the waste water works
		Replace references to the Water Services investment Programme with the Small Schemes Programme	To accurately reflect the information required for the small schemes frogramme
		Update references to hew legislation	To reflect changes in legislation
		Update references to new legislation  Inclusion the requirement of submit information on WTPs within the agglomeration.	To obtain an overview of all discharges within the agglomeration.



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

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#### ABOUT THIS APPLICATION FORM

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

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

A valid application for a Waste Water Discharge Certificate of Authorisation must contain the information prescribed in the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007). Regulation 24 of the Regulations sets out the statutory requirements for information to accompany a Certificate of Authorisation application. The application form is designed in such a way as to set out these questions in a structured manner and not necessarily in the order presented in the Regulations. In order to ensure a legally valid application with respect to Regulation 24 requirements, please complete the Regulation 24 following Checklist provided in the web based http://78.137.160.73/epa\_wwd\_licensing/

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

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

#### **PROCEDURES**

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

An application for a Certificate of Authorisation must be submitted on the appropriate form (available from the Agency website – <a href="http://www.epa.ie/whatwedo/licensing/wwda/">http://www.epa.ie/whatwedo/licensing/wwda/</a>) 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 pibliography.

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

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

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

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

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

Note: Drawings. The following quidelines 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 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.

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

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

#### A description of:

- the waste water works and the activities carried out therein,
- the sources of emissions from the waste water works,
- the nature and quantities of foreseeable emissions from the waste water works into the receiving aqueous environment as well as identification of significant effects of the emissions on the environment.
- the proposed technology and other techniques for preventing or, where this
  is not possible, reducing emissions from the wastewater 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.

Kilcrohane is a small village located on the Sheep's Head Peninsula, Co. Cork. It is situated just over 8 miles to the west of Durrus. The area is part of the West Cork Tourist Route.

The existing sewerage scheme comprises of a network of sewers gravitating towards the Waste-water Treatment Plant located to the south of the village. The system is a combined one, taking foul and storm flows from buildings as well as acting as a storm sewer for roads.

#### **Kilcrohane Wastewater Treatment Plant**

The wastewater treatment plant consists of primary & secondary treatment. The main elements of the Wastewater Treatment Plant are as follows:

#### 1. Inlet Screen

The raked screen removes all debris & rags etc. from the influent. The inlet screen is located in an influent chamber which has an emergency overflow.

The emergency overflow in the influent chamber is designed with a weir type effect. If the inlet screen becomes blocked from too much debris then the emergency overflow becomes operational. However, according to the curator who closely monitors the plant, this emergency overflow very rarely comes into operation.

#### 2. Rotating Biological Contactor

The Klargester Rotating Biological Contactor is semi-circular in cross section and rectangular in plan. The RBC tank measures 6.75m X 2.7m in plan. The Klargester Rotating Biological Contactor is a three stage sewage treatment plant. The biodiscs themselves treat the sewage effluent after it has passed through a Primary settling tank. The biodisc process involves allowing the wastewater to come in contact with bacteria which grow on he biodiscs and digest the pollutants in the wastewater before discharge of the treated wastewater to the environment. It consists of a series of closely spaced, parallel discs mounted on a motor-driven rotating shaft which is supported just above the surface of the wastewater. The rotation is achieved via a gearbox and bearings on either end of the biodisc shaft. Micro-organisms grow on the surface of the biodiscs where bacterial digestion of the sewage pollutants takes place.

Biofilms, which are biological growths of biomass that become attached to the biodiscs, digest the organic materials in the wastewater. Aeration is provided by the rotating action, which exposes the biodiscs to the air after contact with the wastewater. The biomass on the discs 'breaths and eats' as it rotates. The degree of wastewater treatment is related to the amount of media surface area and the quality and volume of the inflowing wastewater. The treated effluent then flows to a final settlement tank where dead bacteria and small particles settle to the bottom. The supernatant clarified effluent then discharges through the outlet to the percolation area.

The RBC is capable of treating an effluent generated by a population equivalent of 125.

3. Percolation Area
The treated effluent discharges to the percolation which percolates into the ground via perforated pipe-work. In the event of the percolation area itself becoming too saturated there is a secondary discharge point from the percolation area to the River Kilcrohane, a 225mm dia. pipe discharges this excess effluent. According to the curator effluent is rarely discharged through this secondary discharge point.

#### The source of Emissions from the Wastewater Works

The effluent from Kilcrohane agglomeration is mainly domestic and with no industrial contribution. Waste water undergoes secondary treatment prior to being discharged. The peak summer population is 268, approximately 2/2.5 times the winter population. The RBC is capable of treating an effluent generated by a population equivalent of 125.

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

The sources of emissions from the Kilcrohane agglomeration are considered domestic. In recent years there has been a significant number of new dwellings erected, reflecting the area's popularity as a holiday/second home location. These dwellings aren't occupied for a considerable part of the year. The Bantry Electoral Area Local Area Plan states that, given the servicing constraints in Kilcrohane it is pertinent to emphasise that any development proposed in Kilcrohane will need to demonstrate acceptable servicing proposals.

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

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

Regular desludging of the treatment plant is being carried out to ensure proper operation. We will be seeking funding during the licence period to increase the capacity of the treatment plant.

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

During the peak summer period the design capacity of the treatment plant can be exceeded. Regular desludging of the palnt is carried out to ensure proper operation. At present all treatment plants under the control of Cork County Council are monitored and maintained by full time Cork County Council personnel and are desludged when deemed necessary, thus reducing the possibility of environmental damage.

#### Measures planned to monitor emission into the environment

The emissions from the existing sewage system can be monitored through the sampling point GW01 KILCRO.

It is proposed to sample once yearly the influent to and effluent from the treatment plant as well as the primary and secondary discharge points.

Supporting information should for Attachment № A.1

#### **SECTION B: GENERAL**

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

#### **B.1** Agglomeration Details

Name of Agglomeration: Kilcrohane

#### **Applicant's Details**

#### Name and Address for Correspondence

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

Provide a drawing detailing the agglomeration to which the Certificate of Authorisation application relates. It should have the boundary of the agglomeration to which the Certificate of Authorisation application relates <u>clearly marked in red ink</u>.

Name*:	Cork County Council
Address:	Water Services (Western Division)
	Courthouse
	Skibbereen
	Co. Cork
Tel:	028-21299 to the state of the s
Fax:	028-21995 n.t. Leave
e-mail:	Niall.omahony@corkcoco.ie

<sup>\*</sup>This should be the name of the Water Services Authority in whose ownership or control the waste water works is vested.

<sup>\*</sup>Where an application is being submitted on behalf of more than one Water Services Authority the details provided in Section B.1 shall be that of the lead Water Services Authority.

Name*:	Niall O'Mahony
Address:	Cork County Council
	Courthouse
	Skibbereen
	Co. Cork
Tel:	028-21299
Fax:	028-21995
e-mail:	niall.omahony@corkcoco.ie
4-11	the control of the control of the West Control Alberta Control of

<sup>\*</sup>This should be the name of person nominated by the Water Services Authority for the purposes of the application.

#### **Co-Applicant's Details**

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

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

Attachment included	Yes	No
	√	

#### **B.2** Location of Associated Waste Water Treatment Plant(s)

Give the location of the waste water treatment plant associated with the waste water works, if such a plant or plants exists.

Name*:	Ruth O'Brien
Address:	Bantry Area Office
	The Square
	Bantry
	Co. Cork at at
Grid ref (6E, 6N)	E: 081951 N: 037589
Level of Treatment	Secondary No. 100 Secondary

<sup>\*</sup>This should be the name of the person responsible for the supervision of the waste water treatment plant.

**Attachment B.2** should contain appropriately scaled drawings / maps (≤A3) of the site boundary and overall site plan, including labelled discharge, monitoring and sampling points. These drawings / maps should also be provided as georeferenced digital drawing files (e.g., ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Trish 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
	√	

<sup>\*</sup>This should be the name of a Water Services Authority, other than the lead authority, where multiple authorities are the subject of a waste water discharge Certificate of Authorisation application.

#### **B.3** Location of Primary Discharge Point

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

Discharge	Groundwater
to	
Type of	via Percolation area
Discharge	
Unique	GW01 KILCRO
<b>Point Code</b>	
Location	Ground
Grid ref	E: 081939 N: 037570
(6E, 6N)	

**Attachment B.3** should contain appropriately scaled drawings / maps (≤A3) of the discharge point, including labelled monitoring and sampling points associated with the discharge point. These drawings / maps should also be provided as georeferenced 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	y of Yes	No
	ses affor 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.

Discharge	Surface Water
to	C
Type of	225mm dia. Outfall Pipe
Discharge	
Unique	SW01 KILCRO
Point Code	
Location	River Kilcrohane
Grid ref	E: 081939 N: 037531
(6E, 6N)	

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

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

Attachment included	Yes	No
	√	

#### **B.5** Location of Storm Water Overflow Point(s)

Give the location of **all** storm water overflow point(s) associated with the waste water works.

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

**Attachment B.5** should contain appropriately scaled drawings / maps (≤A3) of storm water overflow point(s) associated with the waste water works, including labelled monitoring and sampling points associated with the discharge point(s). These drawings / maps should also be provided as georeferenced 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	ation of redf	Yes	No
	inspectowit		√

#### **B.6 Planning Authority**

Give the name of the planning authority, or authorities, in whose functional area the discharge or discharges take place or are proposed to take place.

Name:	Cork County Council
Address:	Planning Department
	Norton House
	Skibbereen
	Co. Cork
Tel:	028-40340
Fax:	028-21660
e-mail:	

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

has been obtained	is being processed	
is not yet applied for	is not required *	<b>~</b>

<sup>\*</sup>The waste water works was constructed Pre 1995 therefore the development is exempt from planning.

Local Authority Planning File Reference №:	N/A

**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	to see the	Yes	No
	ion puriedur		√

B.7 (ii) Health Services Executive Region

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

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

#### B. 8(i) Population Equivalent of Agglomeration

#### TABLE B.8.1 POPULATION EQUIVALENT OF AGGLOMERATION

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

**Existing** 

Population Equivalent			268	
<b>Data Compiled (Ye</b>	Data Compiled (Year)			
Method			House Count	
•			•	
Residential	80	240 PE		
Commercial	7	14 PE		
Industrial	0	O PE		
Institutional	1	14 PE		

Total 268 PE

**Proposed** 

Population Equivalent	400
Data Compiled (Year)	2009
Method	House Count, Desk
	study, Planning +
	Future Zoning

For the purposes of this application the relevant PE chosen for the licence period is 400 being the peak PE estimated at end of that period.

# B.8 (ii) Pending Development

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

- information on the calculated population equivalent (p.e.) to be contributed to the waste water works as a result of those planning permissions granted,
- the percentage of the projected p.e. to be contributed by the non-domestic activities, and
- the ability of the waste water works to accommodate this extra hydraulic and organic loading without posing an environmental risk to the receiving waters.

There are two significant developments proposed for Kilcrohane that have received planning permission and are yet to be fully completed. The two significant developments are residential developments comprising of 25nr of houses (04-9151) and 14nr of houses (05-6234). Under Planning Permission 04-9151, 15nr houses of the 25nr of houses that have received planning permission are constructed. Under Planning Permission 05-6234, 7nr houses of the 14nr of houses that have received planning permission are constructed.

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

The existing RBC is capable of treating an effluent generated by a population equivalent of 125. At present it is treating a peak PE of 268 for the summer period if all homes are occupied.

- 1. Calculated PE of planning permissions granted =  $51 (17 \times 3)$
- 2. Percentage of projected pe contributed by non-domestic = 0
- 3. Ability of waste water works to accommodate extra loading: The likelihood of such development going ahead during this period of economic uncertainty is small. During the peak summer months the treatment plant is overloaded. We will be seeking funding during the licence period to increase the capacity of the treatment plant.

#### B.8 (iii) FEES

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

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

	رفع المنافع ال	
Appropriate Fee Included	Yes	No
	ouly; any or	√*

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

#### **B.9** Capital Investment Programme

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

We will be seeking funding during the licence period to increase the capacity of the treatment plant.

**Attachment B.9** should contain the most recent development programme, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
		✓

#### **B.10 Significant Correspondence**

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

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

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

Attachment included	Yes	No
		√

#### **B.11** Foreshore Act Licences.

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

There is no Foreshore Act Licence issued in relation to discharges from Kilcrohane waste water works

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

Attachment included	Yes	No
		√

#### SECTION C: INFRASTRUCTURE & OPERATION

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

#### **C.1** Operational Information Requirements

Provide a description of the plant, process and design capacity for the areas of the waste water works where discharges occur, to include a copy of such plans, drawings or maps (site plans and location maps, process flow diagrams) and such other particulars, reports and supporting documentation as are necessary to describe all aspects of the area of the waste water works discharging to the aquatic environment. Maps and drawings must be no larger than A3 size.

#### C.1.1 Storm Water Overflows

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

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

#### C.1.2 Pumping Stations

For each pump station operating within the waste water works, provide details of the following:

- Number of duty and standby pumps at each pump station;
- The measures taken in the event of power failure;
- Details of storage capacity at each pump station;
- Frequency and duration of activation of emergency overflow to receiving waters. Clarify the location where such discharges enter the receiving waters.

#### Description of the existing plant process and design capacity:

The existing sewerage scheme comprises of a network of sewers gravitating towards the Waste-water Treatment Plant located to the south of the village. The existing sewerage system is a combined one, taking foul and storm flows from buildings as well as acting as a storm sewer for roads.

#### **Kilcrohane Wastewater Treatment Plant**

The wastewater treatment plant consists of primary & secondary treatment. The main elements of the Wastewater Treatment Plant are as follows:

#### 1. Inlet Screen

The raked screen removes all debris & rags etc. from the influent. The inlet screen is located in an influent chamber which has an emergency overflow.

The emergency overflow in the influent chamber is designed with a weir type effect. If the inlet screen becomes blocked from too much debris then the emergency overflow becomes operational. However, according to the curator who closely monitors the plant, this emergency overflow very rarely comes into operation.

#### 2. Rotating Biological Contactor

The Klargester Rotating Biological Contactor is semi-circular in cross section and rectangular in plan. The RBC tank measures 6.75m X 2.7m in plan. The Klargester Rotating Biological Contactor is a three stage sewage treatment plant. The biodiscs themselves treat the sewage effluent after it has passed through a Primary settling tank. The biodisc process involves allowing the wastewater to come in contact with bacteria which grow on he biodiscs and digest the pollutants in the wastewater before discharge of the treated wastewater to the environment. It consists of a series of closely spaced, parallel discs mounted on a motor-driven rotating shaft which is supported just above the surface of the wastewater. The rotation is achieved via a gearbox and bearings on either end of the biodisc shaft. Micro-organisms grow on the surface of the biodiscs where bacterial digestion of the sewage pollutants takes place.

Biofilms, which are biological growths of biomass that become attached to the biodiscs, digest the organic materials in the wastewater. Aeration is provided by the rotating action, which exposes the biodiscs to the air after contact with the wastewater. The biomass on the discs 'breaths and eats' as it rotates. The degree of wastewater treatment is related to the amount of media surface area and the quality and volume of the inflowing wastewater. The treated effluent then flows to a final settlement tank where dead bacteria and small particles settle to the bottom. The supernatant clarified effluent then discharges through the outlet to the percolation area.

The existing RBC is capable of treating an effluent generated by a population equivalent of 125.

#### 3. Percolation Area

The treated effluent discharges to the percolation which percolates into the ground via perforated pipe-work. In the event of the percolation area itself becoming too saturated there is a secondary discharge point from the percolation area to the River Kilcrohane, a 225mm dia. pipe discharges this excess effluent. According to the curator effluent is rarely discharged through this secondary discharge point.

#### **Stormwater Overflows**

There are no stormwater overflows attached to the sewerage scheme. However there is an emergency overflow from the manually raked screen chamber. It is designed based on a weir type effect. If the inlet screen becomes blocked from too much debris then the emergency overflow becomes operational. However, according to the curator who closely monitors the plant, this emergency overflow very rarely comes into operation.

#### **Pumping Stations:**

There is no pumping involved in the existing sewerage scheme

#### Frequency & duration of activation of storm overflow to receiving waters:

Not applicable

**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
		√

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#### **SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT**

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

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

Details of all discharges of waste water from the agglomeration should be submitted the following web based via link: http://78.137.160.73/epa wwd licensing/. The applicant should address in particular all discharge points where the substances outlined in Tables 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions' are emitted

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

D.1(i) Discharges to Surface Waters Purpose The Details of all discharges of waste via the fell Details of all discharges of waste water from the agglomeration should be supplied via the following web based link: 137.160.73/epa wwd licensing/. Tables 'Discharge Point Details', 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions', should be completed for the primary discharge point from the agglomeration and for each secondary discharge point, where relevant. Table 'Discharge Point Details' should be completed for **each** storm water overflow. Individual Tables must be completed for each discharge point.

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

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

Supporting information should form Attachment D.1(i)

Attachment included	Yes	No
	√	

#### **D.1(ii)** Discharges to Groundwater

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

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

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

Supporting information should form Attachment D.1(ii)

Attachment included	Yes	No
	<b>√</b> .	

#### D.1 (iii) Private Waste Water Treatment Plants

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

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

#### D.2 Tabular Data on Discharge Points

Applicants should submit the following information for each discharge point:

Table D.2:

PT_CD	PT_TYPE	LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING
GW 01 KILCRO	Primary	Cork County Council	Groundwater	N/A	None	081939	037570
SW 01 KILCRO	Secondary	Cork County Council	Surface Water	River Kilcrohane	None	081939	037531

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

#### SECTION E: MONITORING

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

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

Provide an estimation of the quantity of waste water likely to be emitted in relation to all primary and secondary discharge points applied for. This information should be included in Table 'Discharge Point Details' via the following web based link: <a href="http://78.137.160.73/epa\_wwd\_licensing/">http://78.137.160.73/epa\_wwd\_licensing/</a>.

Provide an estimation of the quantity of waste water likely to be emitted in relation to all storm water overflows within the agglomeration applied for. This information should be included in Table 'Discharge Point Details' via the following web based link: <a href="http://78.137.160.73/epa\_wwd\_licensing/">http://78.137.160.73/epa\_wwd\_licensing/</a>.

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

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

#### **E.2.** Monitoring and Sampling Points

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

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

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

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

Attachment included	Yes	No
	√	

#### E.3. Tabular data on Monitoring and Sampling Points

Applicants should submit the following information for each monitoring and sampling point:

PT_CD	PT_TYPE	MON_TYPE	EASTING	NORTHING	VERIFIED
GW-01 KCRO	Primary Discharge	S	081939	037570	N
aSW-1 u/s	Upstream	S	082061	037847	N
aSW-1 d/s	Downstream	S	082130	037258	N

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

#### E.4 Sampling Data

Regulation 24(i) of the Waste Water Discharge (Authorisation) Regulations 2007 requires all applicants in the case of an existing discharge to specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application.

Regulation 24(m) requires applicants to give details of compliance with any applicable monitoring requirements treatment standards.

**Attachment E.4** should contain any supporting information.

Attachment included Contest	Yes	No
	√	

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

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

Clear and concise information is required to enable the Agency to assess the existing receiving environment. This section requires the provision of information on the ambient environmental conditions within the receiving water(s) upstream and downstream of any discharge(s) and/or the ambient environmental conditions of the groundwater upgradient and downgradient of any discharges.

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

#### F.1. Impact on Receiving Surface water or Groundwater

o Details of monitoring of the receiving surface water should be supplied via the following web based link: <a href="http://78.137.150.73/epa\_wwd\_licensing/">http://78.137.150.73/epa\_wwd\_licensing/</a>. Tables 'Monitoring Details', 'Monitoring Test Details' should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details'. Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.

Not applicable. The primary discharge point has no impact on surface water.

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

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

 For discharges from secondary discharge points Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed. Find details of monitoring for discharges from the secondary discharge point in the web based link.

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

The primary discharge discharges treated effluent to groundwater via a percolation area. The South Western River Basin District (SWRBD) has classified Kilcrohane and its environs groundwater status as "Good Status" and not at significant risk.

The South Western River Basin District (SWRBD) has classified the segment of the River Kilcrohane where the secondary discharge is located and where the River discharges to the sea, as "unassigned". Dunmanus Bay into which the Kilcrohane River flows is rated as not at significant risk by SWRD.

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.

The Dangerous Substances Regulations define the main polluting pesticides, solvents and metals which have significant effects on the environment. As the effluent being discharge is mainly domestic, it can be assumed that the presence of these substances is negligible. This has been confirmed by results of analysis of receiving water outlined in Table F4.

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

No water abstraction points exist down gradient of any of the discharge location.

- 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 site (until the adoption, in respect of the site, of a decision by the European Commission under Article 21 of Council Directive
     92/43/EEC for the purposes of the third paragraph of Article 4(2) of that Directive) —
    - (i) notified for the purposes of Regulation 4 of the Natural Habitats Regulations, subject to any amendments made to it by virtue of Regulation 5 of those Regulations,
    - (ii) details of which have been transmitted to the Commission in accordance with Regulation 5(4) of the Natural Habitats Regulations, or

- (iii) added by virtue of Regulation 6 of the Natural Habitats Regulations to the list transmitted to the Commission in accordance with Regulation 5(4) of those Regulations,
- (b) a site adopted by the European Commission as a site of Community importance for the purposes of Article 4(2) of Council Directive 92/43/EEC<sup>1</sup> in accordance with the procedures laid down in Article 21 of that Directive,
- (c) a special area of conservation within the meaning of the Natural Habitats Regulations, or
- (d) an area classified pursuant to Article 4(1) or 4(2) of Council Directive 79/409/EEC<sup>2</sup>;

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

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

The discharge point from the WWTP is not located within European designated site; however, a proposed Special Area of Conservation is located adjacent to where the River Kilcrohane discharges to the sea. The primary discharge from the treatment plant is to groundwater and thus should have negligible impact on the river quality and consequently the SAC. Due to the distinct available and the distance from the secondary discharge point it is unlikely that there would be any negative impacts on the SAC.

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

Attachment included	Yes	No
		√

#### F.2 Tabular Data on Drinking Water Abstraction Point(s)

Applicants should submit the following information for each downstream or downgradient drinking water abstraction point. The zone of contribution for the abstraction point should be delineated and any potential risks from the waste water discharge to the water quality at that abstraction point identified.

ABS_CD	AGG_SERVED	ABS_VOL	PT_CD	DIS_DS	EASTING	NORTHING	VERIFIED
Abstraction Code	Agglomeration served	Abstraction Volume in m³/day	Point Code Provide label ID's	Distance Downstream in meters from Emission Point to Abstraction Point	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used

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

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

Not applicable - No water abstraction points exist down gradient of any of the discharge location.

**Attachment F.2** should contain any supporting information.

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#### **SECTION G: PROGRAMMES OF IMPROVEMENTS**

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

#### **G.1** Compliance with Council Directives

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

- Dangerous Substances Directive 2006/11/EC,
- Water Framework Directive 2000/60/EC,
- Birds Directive 79/409/EEC,
- Groundwater Directives 80/68/EEC & 2006/118/EC,
- Drinking Water Directives 80/778/EEC,
- Urban Waste Water Treatment Directive 91/271/EEC,
- Habitats Directive 92/43/EEC,
- Environmental Liabilities Directive 2004/35/EC,
- Bathing Water Directive 76/160/EEC, and
- Shellfish Waters Directive (2006/113/EC).

#### **Compliance with Council Directives**

#### Dangerous Substances Directive 2006/11/EC

The effluent from Kilcrohane agglomeration is mainly domestic and with no industrial contribution, it can be assumed that any dangerous substance mentioned in the Dangerous Substances Regulations will not be present in the discharge and therefore this directive is not applicable.

#### Water Framework Directive 2000/60/EC

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

The South Western River Basin District (SWRBD) has classified Kilcrohane and its environs groundwater status as "Good Status".

The South Western River Basin District (SWRBD) has classified the segment of the River Kilcrohane where the secondary discharge is located or where the River discharges to the sea, as "unassigned".

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

#### **Birds Directive 79/409/EEC**

The directive aims to conserve and manage populations of wild birds throughout Europe by part through the designation of Special Protection Areas (SPA) for birds and their habitats. Kilcrohane's primary or secondary discharge points themselves are not located in an area designated as a Natural Heritage Area, a Special Area of Conservation, a Proposed Natural Heritage Area or a Special Protected Area. There is however a Special Area of Conservation, Farranamanagh Lough, located where the River Kilcrohane discharges to the sea. Due to the dilution available and the distance from the existing secondary discharge point to the sea it is unlikely that there would be any negative impacts on the SAC. Due to this fact, it is not foreseen that any negative impacts will arise from the agglomeration in relation to these directives.

#### Groundwater Directives 80/68/EEC and 2006/118/EC

The South Western River Basin District (SWRBD) has classified Kilcrohane and its environs groundwater status as "Good Status". SWRBD's groundwater risk assessment has clearly shown Kilcrohane's and its environs, including the primary discharge point location, within an area classified as not at significant risk. There are no large public groundwater sources in the area. In addition there are no regionally important aquifers. Effluent being discharge is mainly domestic, with no industrial contribution. The emissions from the agglomeration will not result in the contravention of the Groundwater Directives.

#### **Drinking Water Directives 80/778/EEC**

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

#### Urban Waste Water Treatment Directive 91/271/EEC

Waste water at the Kilcrohane WWTP is subject to treatment prior to discharge in order to meet with the required discharge standards as set out under the Urban Waste Water Treatment Regulations 2001. For the sample taken from the effluent at the distribution box prior to the percolation area and the sample taken downstream from the secondary discharge point detailed in Attachment E.4 of this application, readings of 10mg/l and 1mg/l of BOD respectively showed up in the analysis which is considerably below the BOD limit of 25mg/l as set out in these Regulations. Samples from the treatment plant discharge are analysed for BOD, COD, Ammonia, pH, suspended solids, Total Nitrogen, Total Phosphorus, sulphate, Ortho phosphate and metals.

#### **Habitats Directive 92/43/EEC**

Kilcrohane's primary or secondary discharge points themselves are not located in an area designated as a Natural Heritage Area, a Special Area of Conservation, a Proposed Natural Heritage Area or a Special Protected Area. There is however a Special Area of Conservation, Farranamanagh Lough, located where the River Kilcrohane discharges to the sea. Due to the dilution available and the distance from the existing secondary discharge point to the sea it is unlikely that there would be any negative impacts on the SAC. Due to this fact, it is not foreseen that any negative impacts will arise from the agglomeration in relation to these directives.

#### **Environmental Liabilities Directive 2004/35/EC**

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

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

#### **Bathing Water Directive 76/160/EEC**

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

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

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

#### **Shellfish Waters Directive 79/923/EEC**

There are no waters designated for shellfish in the vicinity of the discharge.

**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	it 20 solited.	Yes	No
	tion pured		√
	ape own		

## G.2 Compliance with the European Communities Environmental Objectives (Surface Waters) Regulations 2009

Provide details on a programme of improvements, including any water quality management plans or catchment management plans in place, to ensure that improvements of water quality required under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 are being achieved. Provide details of any specific measures adopted for waste water works specified in Phosphorus Measures Implementation reports and the progress to date of those measures. Provide details highlighting any waste water works that have been previously identified as the principal sources of pollution under the Phosphorous Regulations (S.I. No. 258 of 1998).

The South Western River Basin District (SWRBD) has classified Kilcrohane and its environs groundwater status as "Good Status". SWRBD's groundwater risk assessment has clearly shown Kilcrohane's and its environs, including the primary discharge point location, within an area classified as not at significant risk.

**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.

We will be seeking funding during the licence period to increase the capacity of the treatment plant.

**Attachment G.3** should contain the most recent programme of improvements, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
		√

#### **G.4** Storm Water Overflows

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

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

**Attachment G.4** should contain the most recent programme of improvements, including a copy of any approved funding to the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
Ço'	,	√

#### SECTION H: DECLARATION

#### Declaration

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

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

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

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

Signed by:

(an behalf of the organisation)

Print signature name:

No. 2 of the organisation:

Position in organisation:

Total of the organisation:

### **SECTION I: JOINT DECLARATION**

### Joint Declaration Note1

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

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

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

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

<u>Lead Authority</u>	use.
Signed by :	offer Date:
(on behalf of the organisation)	County, such
Print signature name:	ose <sup>s</sup> ted te
sciton V.	
Position in organisation:	
Co-Applicants & Congression	
Signed by :	Date :
(on behalf of the organisation)	
Signed by: (on behalf of the organisation)  Print signature name:  Position in organisation:  Co-Applicants  Signed by: (on behalf of the organisation)  Print signature name:  Position in organisation:	
Position in organisation:	
Signed by :	Date :
(on behalf of the organisation)	
Print signature name:	
Position in organisation:	

**Note 1**: In the case of an application being lodged on behalf of more than a single Water Services Authority the following declaration must be signed by all applicants.

### **ANNEX 1 – TABLES / ATTACHMENTS**

#### Section A - Non Technical Summary

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

#### Section B - General

Attachment B1 – KCRO B1-01 – Kilcrohane Agglomeration Boundary Map

Attachment B2 - KCRO B2-01 - Site Location of Wastewater Treatment Plant

Attachment B2 - KCRO B2-02 - Site Layout of Wastewater Treatment Plant

Attachment B3 - KCRO B3-01 - Location of the Primary Discharge Point

Attachment B4 - KCRO B4-01 - Location of the Secondary Discharge Point

#### Section E - Monitoring

Attachment E2 - Monitoring Programme

Attachment E2 - KCRO E2-01 - Locations of Sampling Points

Attachment E4 - Sampling Data

### **Tables**

**Agglomeration Details** 

Tables D.1 – Emissions to Ground Waters

Table E.1 - Wastewater Frequency and Quantity of Discharge

Table F.1 - Ground Water Monitoring & Surface Water Monitoring

### **ANNEX 2 - Checklist**

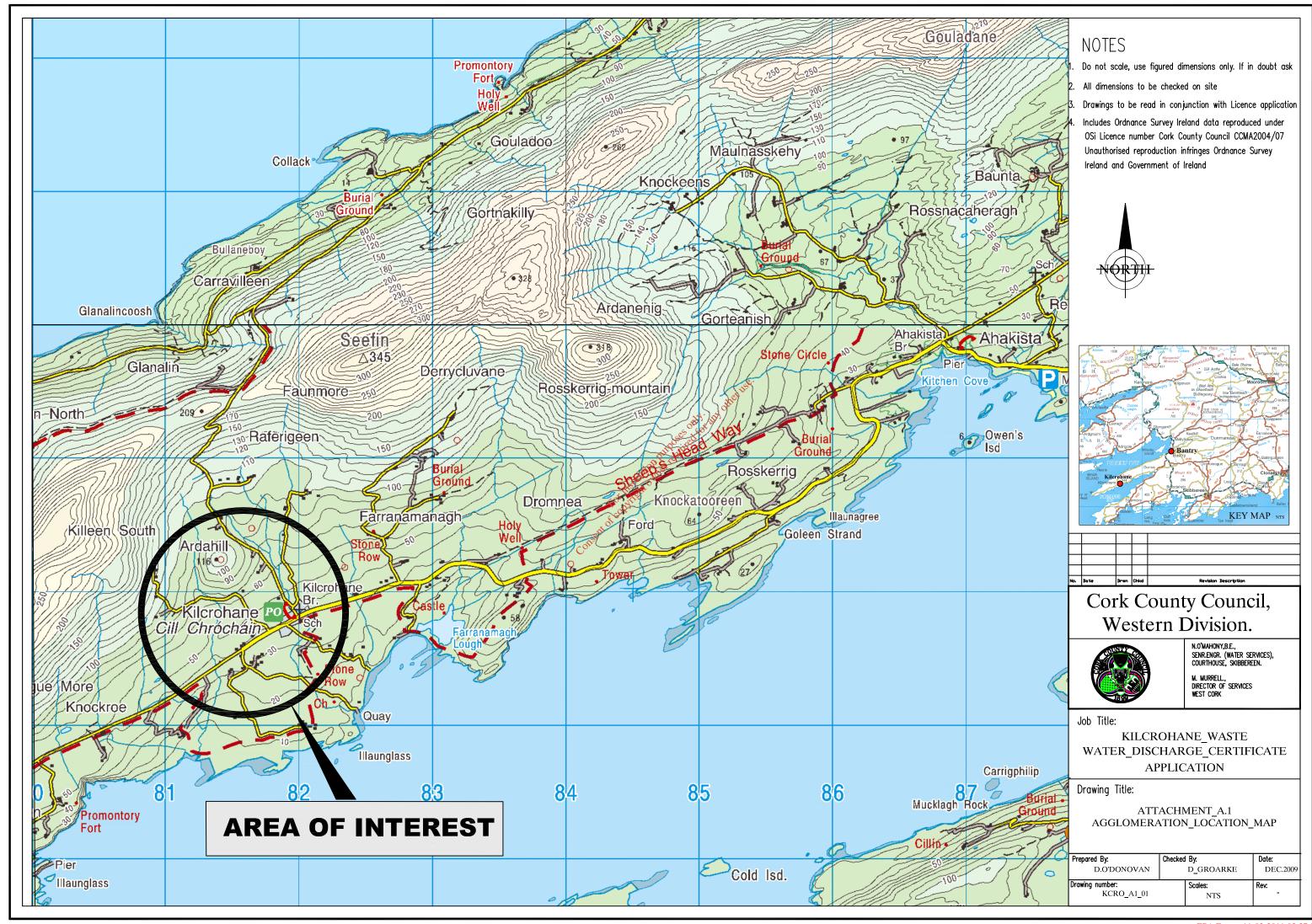
Checklist for Regulation 16/17 Compliance

## **SECTION A**

### **Attachment A1**

### Мар:

• KCRO A1-01 - Site Location Map

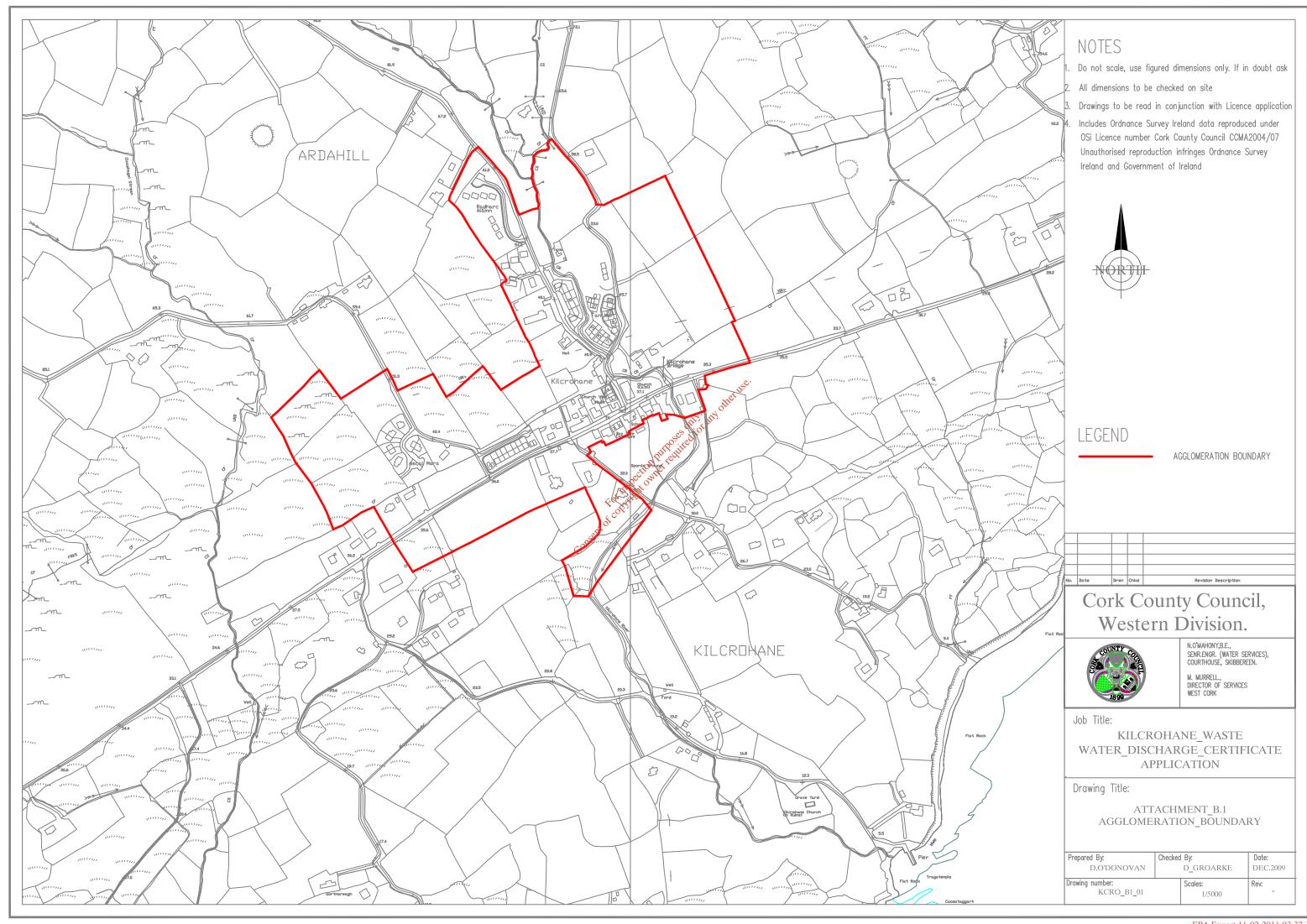


## **SECTION B**

### **Attachment B1**

### <u> Map:</u>

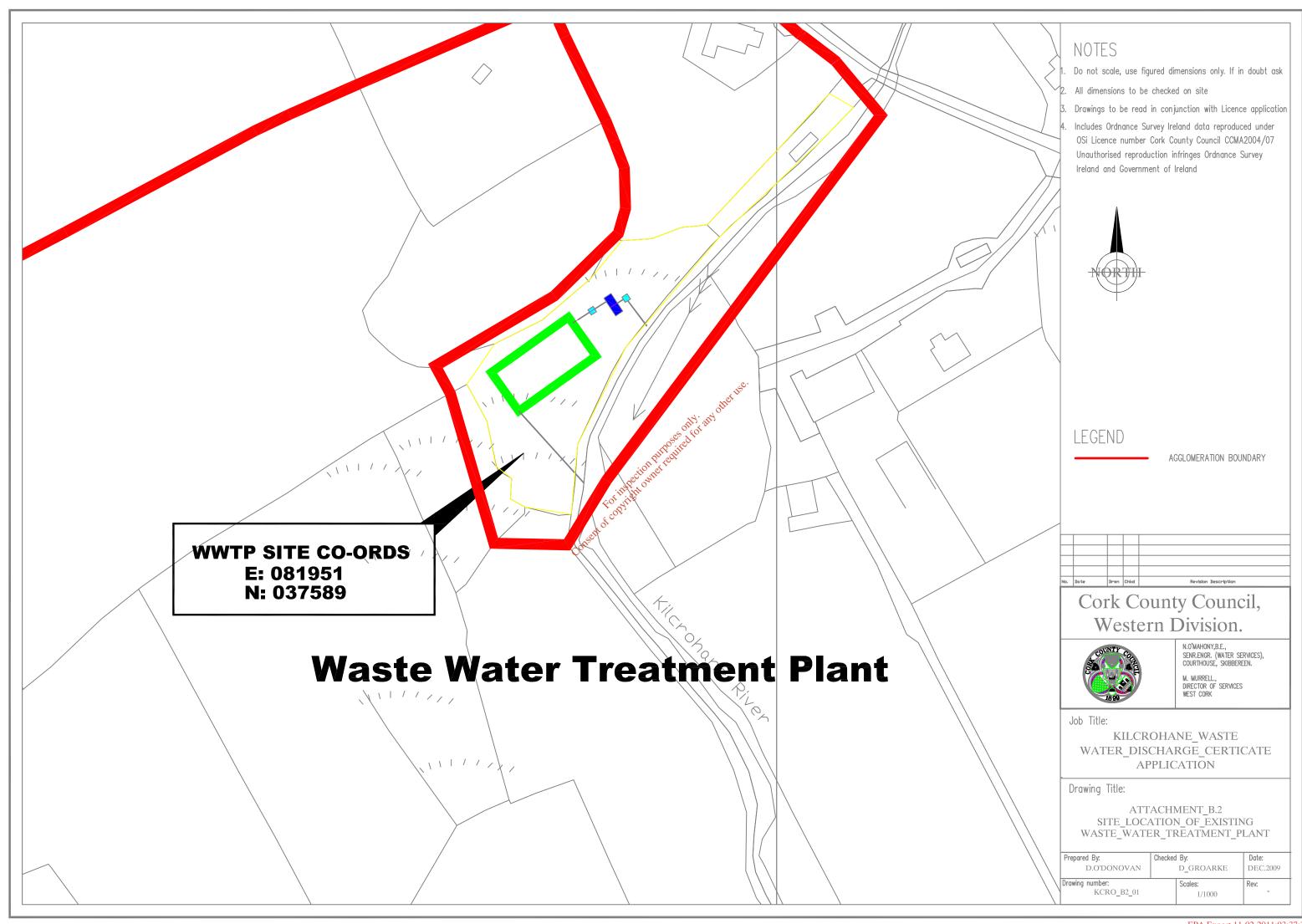
• KCRO B1-01 – Kilcrohane Agglomeration Boundary Map

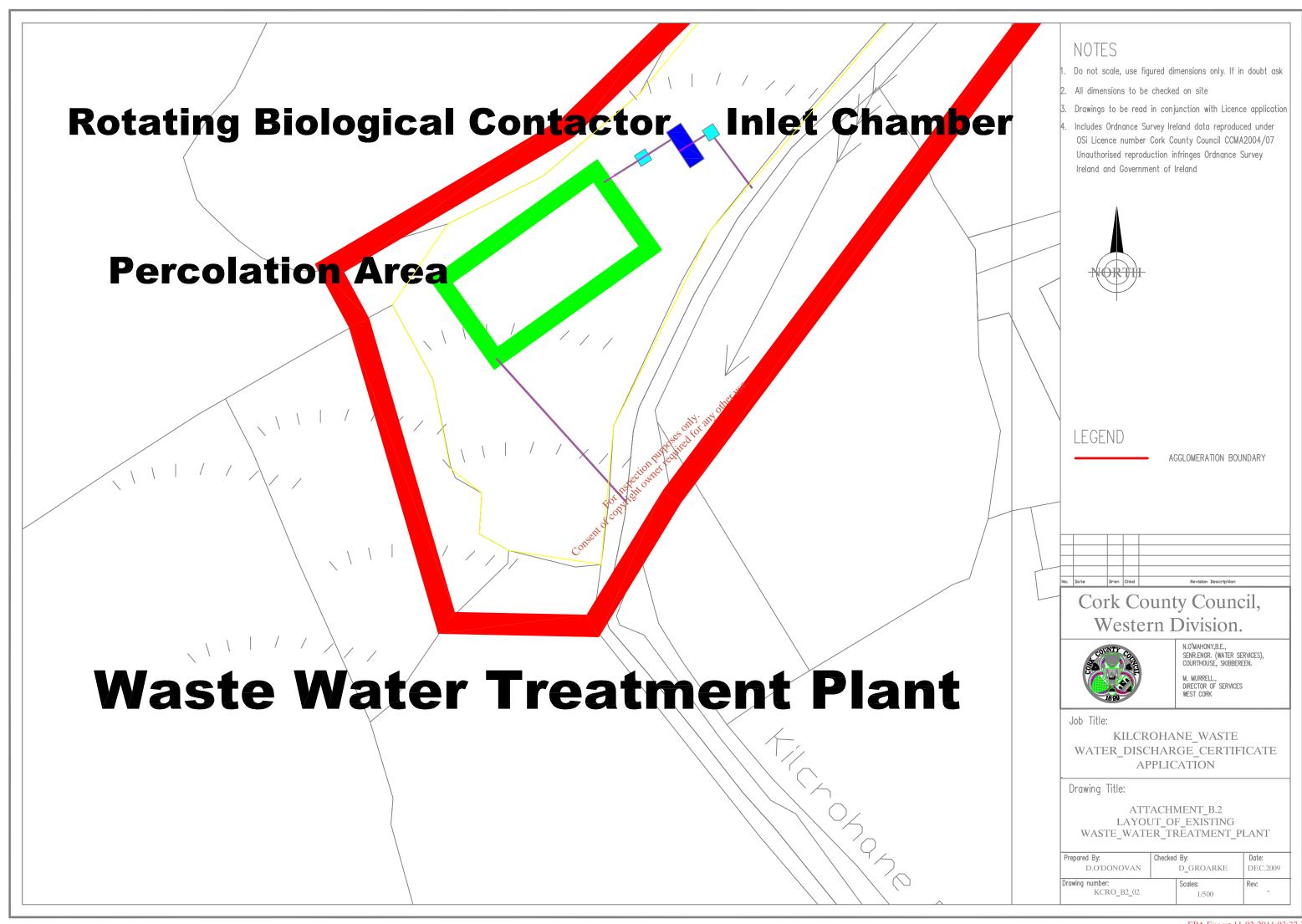


### **Attachment B2**

### Map:

- KCRO B2-01 Site Location of Wastewater Treatment Plant
- KCRO B2-02 Site Layout of Wastewater Treatment Plant

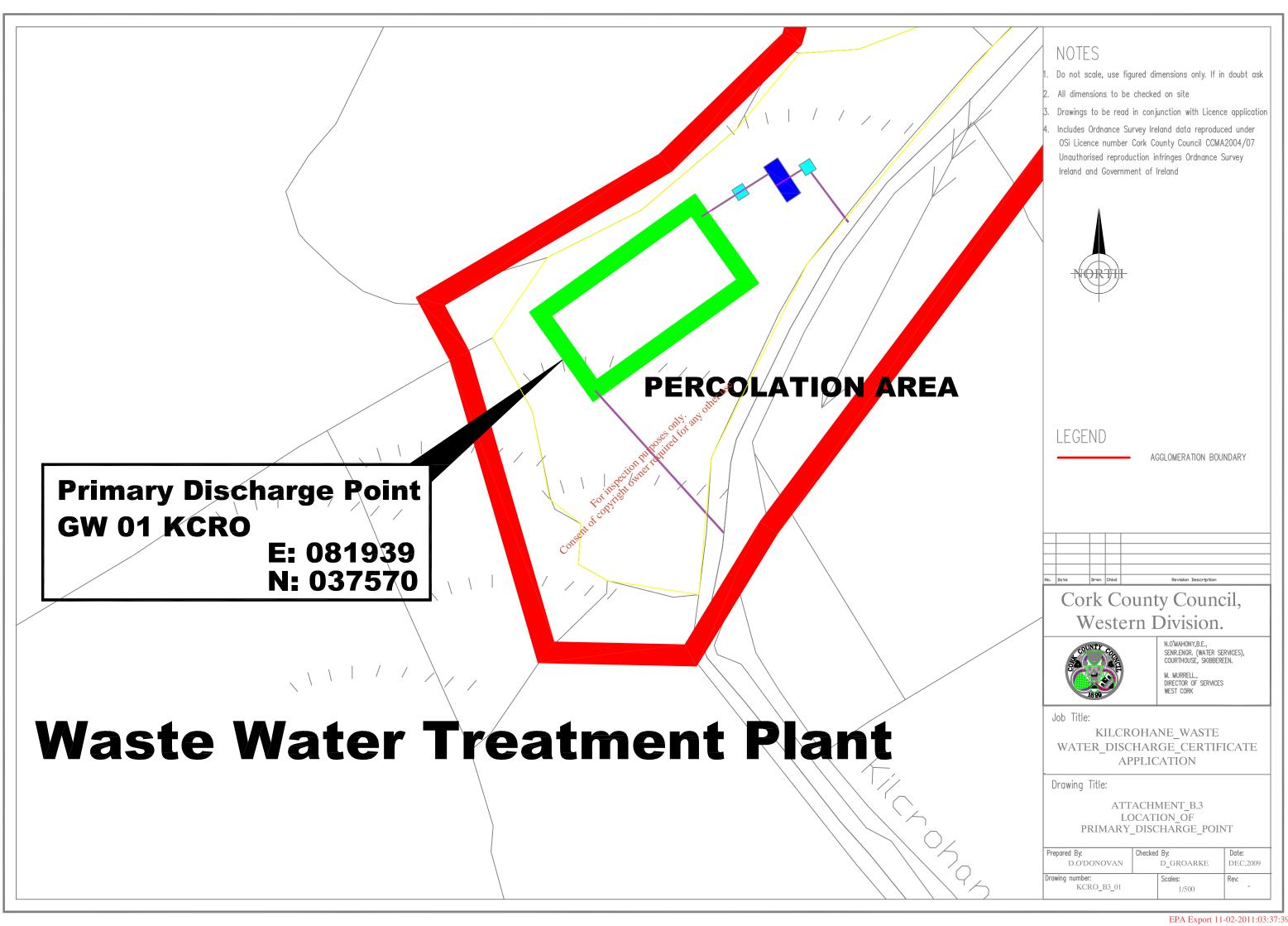




### **Attachment B3**

### <u>Мар :</u>

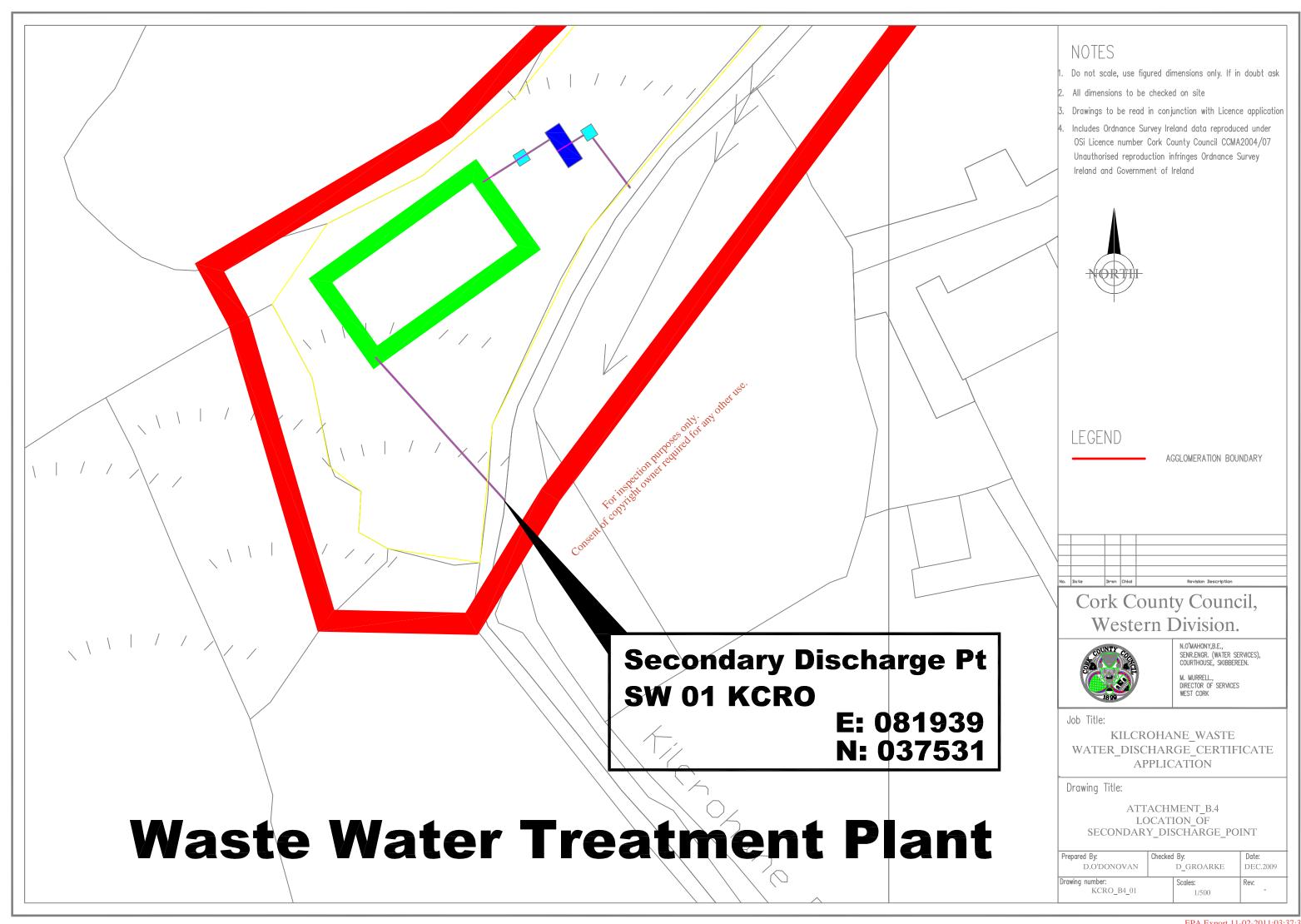
• KCRO B3-01 – Location of the Primary Discharge Point



### **Attachment B4**

### <u>Мар :</u>

• KCRO B4-01 – Location of the Secondary Discharge Point



## **SECTION E**

### **Attachment E2**

### **Supporting Information:**

• Monitoring Programme

### <u> Map :</u>

**KCRO E2-01** – Location of Sampling Points

### <u>Attachment E.2 – Kilcrohane Waste Water Discharge Licence Application – </u> **Monitoring and Sampling Points**

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

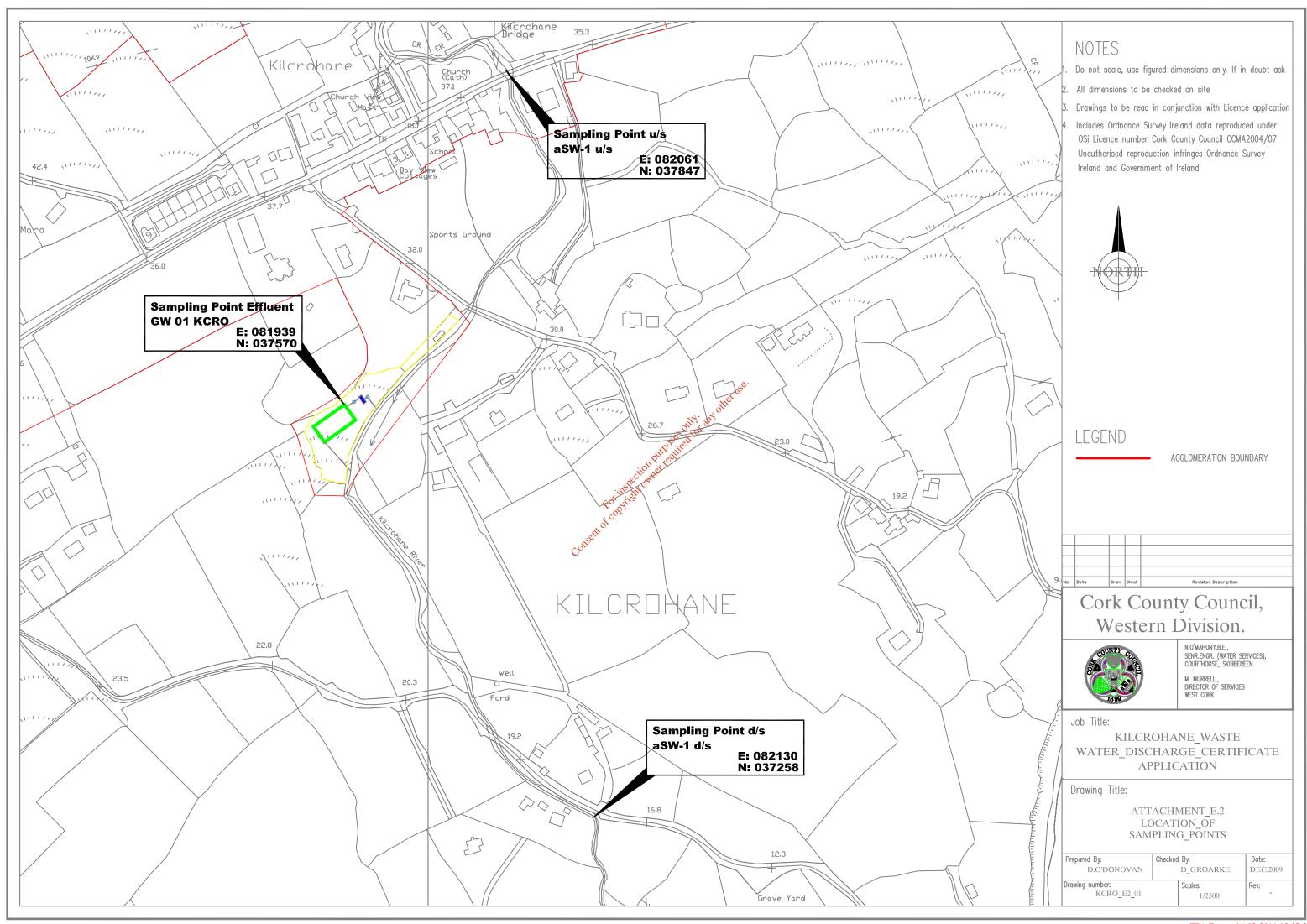
There is no drinking water abstraction point downstream of the discharge point.

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

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

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

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



## Attachment E.4

### **Attachment E4**

### **Supporting Information:**

Sampling Data

Sample Date	29/10/2008	29/10/2008	29/10/2008	29/10/2008
Sample	Influent	Effluent	Upstream	Downstream
Sample Code	GT1311	GT1312	GT1314	GT1313
Flow M <sup>3</sup> /Day	*	*	*	*
pH	7.3	7.0	7.7	7.6
Temperature °C	*	*	*	*
Conductivity uS/cm 20°C	275	275	446	167
Suspended Solids mg/L	12	9	<2.5	<2.5
Ammonia-N mg/L	6.0	1.7	<0.1	<0.1
BOD mg/L	34	10	<1	1
COD mg/L	*	54	33	31
TN-N mg/L	10.22	11.46	1.2	153
Nitrite-N mg/L	<0.01	0.488	<0.1	<0.1
Nitrate-N mg/L	0.69	7.552	0.59	0.83
TP-P mg/L	0.735	1.41	<0.05	<0.05
O-PO4-P mg/L	0.66	1.14	<0.05	<0.05
SO4 mg/L	<30	<30	<30	NO RESULT
Phenols µg/L	*	<0.10	*	<0.10
Atrazine µg/L	*	<0.01	*	<0.01
Dichloromethane μg/L	*	<1	*	<1
Simazine µg/L	*	<0.01	*	<0.01 👯
Toluene µg/L	*	<0.28	*	<0.280
Tributyltin µg/L	Not required	Not required	Not required	Not required
Xylenes μg/L	*	<0.73	*	es of 1
Arsenic μg/L	*	0.5	*	ithe 0.4
Chromium ug/L	<20	<20	<20	1 P 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Copper ug/L	<20	<20	<20 gg/ <sup>V</sup>	wine <20
Cyanide µg/L	*	6	* : 11.5 d.t.	<5
Fluoride µg/L	28	30	26 For High	27
Lead ug/L	<20	<20	<20	<20
Nickel ug/L	<20	<20	<20 <sub>ent</sub>	<20
Zinc ug/L	<20	<20	<20 <sup>0</sup> 10	<20
Boron ug/L	<20	<20	<20	<20
Cadmium ug/L	<20	<20	<20	<20
Mercury μg/L	*	<0.03	*	<0.03
Selenium µg/L	*	2.6	*	2
Barium ug/L	<20	<20	<20	<20
	-	-	-	-

### Agglomeration details

Leading Local Authority	Cork County Council
Co-Applicants	
Agglomeration	Kilcrohane
Population Equivalent	400
Level of Treatment	Secondary
Treatment plant address	Kilcrohane, Co. Cork
Grid Ref (12 digits, 6E, 6N)	081951 / 037589
EPA Reference No:	

### Contact details

Contact Name:	Niall O'Mahony
Contact Address:	Water Services West Cork County Council Courthouse Skibbereen Co. Cork
Contact Number:	028-21299 50 Total
Contact Fax:	028-219950 Title C
Contact Email:	niall.omahony@corkcoco.ie

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

Discharge Point Code: GW-1

Local Authority Ref No:	GW01 KCRO		
Source of Emission:	Primary Discharge		
Location:	Kilcrohane		
Grid Ref (12 digits, 6E, 6N)	081939 / 037570		
Name of Receiving waters:	Not Applicable		
Water Body:	Ground Water Body		
River Basin District	South Western RBD		
Designation of Receiving Waters:	No designation at discharge point		
Flow Rate in Receiving Waters:	m³.sec-1 Dry Weather Flow		
	0 m³.sec⁻¹ 95% Weather Flow		
Additional Comments (e.g.	Flow Rate zero - Groundwater		
commentary on zero flow or other information deemed of value)			
inionnation deemed of value)			

### **Emission Details:**

(i) Volume emitted			other		
Normal/day	90 m³	Maximum/dayouth and	270 m³		
Maximum rate/hour	11.25 m³	Period of emission (avg)	60 min/hr	24 hr/day	365 day/yr
Dry Weather Flow	0.003 m³/sec	action let			
	C Office S	For its direction of the constitution of the c			

WWD Licence Application - Kilcrohane - Page: 2

# 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
рН	pН	Grab	= 9	
Temperature	°C	Grab	= 0	
Electrical Conductivity (@ 25°C)	μS/cm	Grab	= 0	
Suspended Solids	mg/l	Grab	= 35	3.15
Ammonia (as N)	mg/l	Grab	= 1.7	0.15
Biochemical Oxygen Demand	mg/l	Grab	= 25	2.25
Chemical Oxygen Demand	mg/l	Grab	= 125	11.25
Total Nitrogen (as N)	mg/l	Grab	= 35	3.15
Nitrite (as N)	mg/l	Grab	= 0.488	0.044
Nitrate (as N)	mg/l	Grab	= 7.55	0.68
Total Phosphorous (as P)	mg/l	Grab	= 8	0.72
OrthoPhosphate (as P)	mg/l	Grab	= 6	0.54
Sulphate (SO <sub>4</sub> )	mg/l	Grab	= 0	0
Phenols (Sum)	μg/l	Grab	= 0	0

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

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

Discharge Point Code: GW-1

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

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

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

Discharge Point Code: SW-2

Local Authority Dof No.	CMO4 KCDO		
Local Authority Ref No:	SW01 KCRO		
Source of Emission:	Secondary Discharge		
Location:	River Kilcrohane		
Grid Ref (12 digits, 6E, 6N)	081939 / 037531		
Name of Receiving waters:	River Kilcrohane		
Water Body:	River Water Body		
River Basin District	South Western RBD		
Designation of Receiving Waters:	None		
Flow Rate in Receiving Waters:	0 m³.sec⁻¹ Dry Weather Flow		
	0 m <sup>3</sup> .sec <sup>-1</sup> 95% Weather Flow		
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	Information not available. The Secondary Discharge Point is located beyond the Primary Discharge therefore treated effluent would have percolated into the ground prior to reaching the secondary discharge. It is very rarely in operation.		

### **Emission Details:**

(i) Volume emitted				
Normal/day	0 m <sup>3</sup>	Maximum/day	0 m³	
Maximum rate/hour		Period of emission (avg)	0 min/hr 0 hr/day 0 day/yr	
Dry Weather Flow	0 m³/sec	For Wilet		

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

Discharge Point Code: SW-2

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
рН	рН	Grab	= 0	
Temperature	°C	Grab	= 0	
Electrical Conductivity (@ 25°C)	μS/cm	Grab	= 0	
Suspended Solids	mg/l	Grab	= 0	0
Ammonia (as N)	mg/l	Grab	= 0	0
Biochemical Oxygen Demand	mg/l	Grab	= 0	0
Chemical Oxygen Demand	mg/l	Grab	= 0	0
Total Nitrogen (as N)	mg/l	Grab	= 0	0
Nitrite (as N)	mg/l	Grab	= 0	0
Nitrate (as N)	mg/l	Grab	= 0	0
Total Phosphorous (as P)	mg/l	Grab	= 0	0
OrthoPhosphate (as P)	mg/l	Grab	= 0	0
Sulphate (SO <sub>4</sub> )	mg/l	Grab	= 0	0
Phenols (Sum)	μg/l	Grab	= 0	0

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

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

Discharge Point Code: SW-2

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

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

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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	32850		
SW-2	0	0		



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

Identification Code for Discharge	Frequency of discharge		Complies with Definition of Storm
point	(days/annum)	Discharged (m³/annum)	Water Overflow



## 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)	082130 / 037258

Parameter		Result	s (mg/l)		Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	29/10/09					
рН		= 7.6			Grab	2	Electrochemic al
Temperature	= 0				Grab	0.5	Electrochemic al
Electrical Conductivity (@ 25°C)		= 167			Grab	0.5	Electrochemic al
Suspended Solids		< 2.5			Grab	0.5	Gravimetric
Ammonia (as N)		< 0.1			Grab	0.02	Colorimetric
Biochemical Oxygen Demand		= 1			Grab	0.06	Electrochemic al
Chemical Oxygen Demand		= 31		, USE.	Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0			thei	Grab	0.2	ISE
Hardness (as CaCO₃)	= 0			1. 4	Grab	1	Titrimetric
Total Nitrogen (as N)		= 153	Special Bull been been been been been been been be	tot say	Grab	0.5	Digestion & Colorimetric
Nitrite (as N)		< 0.1	alifedilite		Grab	0.1	Colorimetric
Nitrate (as N)		= 0.83	ion of real		Grab	0.5	Colorimetric
Total Phosphorous (as P)		< 0.05	Rection Purposeries		Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)		< 0.05	(18)		Grab	0.02	Colorimetric
Sulphate (SO <sub>4</sub> )	= 0	805	, <u> </u>		Grab	30	Turbidimetric
Phenols (Sum)		< 0.1 cm			Grab	0.1	GC-MS2

Additional Comments:	default of 01/01/09 and 0 where results are not available

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

#### Primary Discharge Point

Discharge Point Code:	GW-1
MONITORING POINT CODE:	aGW-1d
Grid Ref (12 digits, 6E, 6N)	082130 / 037258

Parameter		Results (μg/l)			Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	29/10/09					
Atrazine		< 0.01			Grab	0.96	HPLC
Dichloromethane		< 1			Grab	1	GC-MS1
Simazine		< 0.01			Grab	0.01	HPLC
Toluene		< 0.28			Grab	0.02	GC-MS1
Tributyltin	= 0				Grab	0.02	GC-MS1
Xylenes		< 1			Grab	1	GC-MS1
Arsenic		= 0.4			Grab	0.96	ICP-MS
Chromium		< 20			Grab	20	ICP-OES
Copper		< 20			Grab	20	ICP-OES
Cyanide		< 5		re.	Grab	5	Colorimetric
Flouride		= 27		ner	Grab	100	ISE
Lead		< 20		1. Volt	Grab	20	ICP-OES
Nickel		< 20	ó	Strain other in	Grab	20	ICP-OES
Zinc		< 20	Con Contract of the Contract o	XO.	Grab	20	ICP-OES
Boron		< 20	Section pulled technic		Grab	20	ICP-OES
Cadmium		< 20	ion of reas		Grab	20	ICP-OES
Mercury		< 0.03	Dect Will		Grab	0.2	ICP-MS
Selenium		= 2	12 ght		Grab	0.74	ICP-MS
Barium		< 20	S King		Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as sn TBT testing not required
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## TABLE F.1(i)(a): SURFACE/GROUND WATER MONITORING

#### **Primary Discharge Point**

Discharge Point Code:	GW-1
MONITORING POINT CODE:	aGW-1u
Grid Ref (12 digits, 6E, 6N)	082061 / 037847

Parameter		Result	s (mg/l)		Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	29/10/09					
рН		= 7.7			Grab	2	Electrochemic al
Temperature	= 0				Grab	0.5	Electrochemic al
Electrical Conductivity (@ 25°C)		= 446			Grab	0.5	Electrochemic al
Suspended Solids		< 2.5			Grab	0.5	Gravimetric
Ammonia (as N)		< 0.1			Grab	0.02	Colorimetric
Biochemical Oxygen Demand		< 1			Grab	0.06	Electrochemic al
Chemical Oxygen Demand		= 33		, USE.	Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0			net.	Grab	0.2	ISE
Hardness (as CaCO₃)	= 0			4.204	Grab	1	Titrimetric
Total Nitrogen (as N)		= 1.2	Special purposes of	ford	Grab	0.5	Digestion & Colorimetric
Nitrite (as N)		< 0.1	alifedilite		Grab	0.1	Colorimetric
Nitrate (as N)		= 0.59	ion of rece,		Grab	0.5	Colorimetric
Total Phosphorous (as P)		< 0.05	petion purpositive		Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)		< 0.05	10		Grab	0.02	Colorimetric
Sulphate (SO <sub>4</sub> )		< 30 000			Grab	30	Turbidimetric
Phenols (Sum)	= 0	centor			Grab	0.1	GC-MS2

Additional Comments:	default of 0 and 01/01/01/09 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-1u
Grid Ref (12 digits, 6E, 6N)	082061 / 037847

Parameter		Results (μg/l)		Sampling method	Limit of Quantitation	Analysis method / technique	
	01/01/09	29/10/09					
Atrazine	= 0				Grab	0.96	HPLC
Dichloromethane	= 0				Grab	1	GC-MS1
Simazine	= 0				Grab	0.01	HPLC
Toluene	= 0				Grab	0.02	GC-MS1
Tributyltin	= 0				Grab	0.02	GC-MS1
Xylenes	= 0				Grab	1	GC-MS1
Arsenic	= 0				Grab	0.96	ICP-MS
Chromium		< 20			Grab	20	ICP-OES
Copper		< 20			Grab	20	ICP-OES
Cyanide	= 0			, se.	Grab	5	Colorimetric
Flouride		= 26		net b	Grab	100	ISE
Lead		< 20		4. A Oli	Grab	20	ICP-OES
Nickel		< 20	ó	id and other tra	Grab	20	ICP-OES
Zinc		< 20	See 3	XV.	Grab	20	ICP-OES
Boron		< 20	aliferijie		Grab	20	ICP-OES
Cadmium		< 20	ion extern		Grab	20	ICP-OES
Mercury	= 0		Section author tribile		Grab	0.2	ICP-MS
Selenium	= 0		12 girl		Grab	0.74	ICP-MS
Barium		< 20	350		Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as sn
	default of 0 and 01/01/09 where no results are available, TBT testing not required

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

#### Secondary Discharge Point

Discharge Point Code:	SW-2
MONITORING POINT CODE:	aSW-2d
Grid Ref (12 digits, 6E, 6N)	082130 / 037258

Parameter		Result	s (mg/l)		Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	29/10/09					
рН		= 7.6			Grab	2	Electrochemic al
Temperature	= 0				Grab	0.5	Electrochemic al
Electrical Conductivity (@ 25°C)		= 167			Grab	0.5	Electrochemic al
Suspended Solids		< 2.5			Grab	0.5	Gravimetric
Ammonia (as N)		< 0.1			Grab	0.02	Colorimetric
Biochemical Oxygen Demand		= 1			Grab	0.06	Electrochemic al
Chemical Oxygen Demand		= 31		, USE.	Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0			thei	Grab	0.2	ISE
Hardness (as CaCO₃)	= 0			1. 4	Grab	1	Titrimetric
Total Nitrogen (as N)		= 153	Special Bull been been been been been been been be	tot say	Grab	0.5	Digestion & Colorimetric
Nitrite (as N)		< 0.1	alifedilite		Grab	0.1	Colorimetric
Nitrate (as N)		= 0.83	ion of real		Grab	0.5	Colorimetric
Total Phosphorous (as P)		< 0.05	Rection Purposeries		Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)		< 0.05	(18)		Grab	0.02	Colorimetric
Sulphate (SO <sub>4</sub> )	= 0	805	, <u> </u>		Grab	30	Turbidimetric
Phenols (Sum)		< 0.1 cm			Grab	0.1	GC-MS2

Additional Comments:	default of 01/01/09 and 0 where results are not available

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

#### Secondary Discharge Point

Discharge Point Code:	SW-2
MONITORING POINT CODE:	aSW-2d
Grid Ref (12 digits, 6E, 6N)	082130 / 037258

Parameter		Resu	ılts (μg/l)		Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	29/10/09					
Atrazine		< 0.01			Grab	0.96	HPLC
Dichloromethane		< 1			Grab	1	GC-MS1
Simazine		< 0.01			Grab	0.01	HPLC
Toluene		< 0.28			Grab	0.02	GC-MS1
Tributyltin	= 0				Grab	0.02	GC-MS1
Xylenes		< 1			Grab	1	GC-MS1
Arsenic		= 0.4			Grab	0.96	ICP-MS
Chromium		< 20			Grab	20	ICP-OES
Copper		< 20			Grab	20	ICP-OES
Cyanide		< 5		re.	Grab	5	Colorimetric
Flouride		= 27		ner	Grab	100	ISE
Lead		< 20		1. Volt	Grab	20	ICP-OES
Nickel		< 20	ó	Strain other in	Grab	20	ICP-OES
Zinc		< 20	Con Contract of the Contract o	XO.	Grab	20	ICP-OES
Boron		< 20	Section pulled technic		Grab	20	ICP-OES
Cadmium		< 20	ion of reas		Grab	20	ICP-OES
Mercury		< 0.03	Dect Will		Grab	0.2	ICP-MS
Selenium		= 2	12 ght		Grab	0.74	ICP-MS
Barium		< 20	S King		Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as sn TBT testing not required
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## TABLE F.1(ii)(a): SURFACE/GROUND WATER MONITORING

#### Secondary Discharge Point

Discharge Point Code:	SW-2
MONITORING POINT CODE:	aSW-2u
Grid Ref (12 digits, 6E, 6N)	082061 / 037847

Parameter		Result	s (mg/l)		Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	29/10/09					
рН		= 7.7			Grab	2	Electrochemic al
Temperature	= 0				Grab	0.5	Electrochemic al
Electrical Conductivity (@ 25°C)		= 446			Grab	0.5	Electrochemic al
Suspended Solids		< 2.5			Grab	0.5	Gravimetric
Ammonia (as N)		< 0.1			Grab	0.02	Colorimetric
Biochemical Oxygen Demand		< 1			Grab	0.06	Electrochemic al
Chemical Oxygen Demand		= 33		, USE.	Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0			net.	Grab	0.2	ISE
Hardness (as CaCO₃)	= 0			4.204	Grab	1	Titrimetric
Total Nitrogen (as N)		= 1.2	Special purposes of	ford	Grab	0.5	Digestion & Colorimetric
Nitrite (as N)		< 0.1	alifedilite		Grab	0.1	Colorimetric
Nitrate (as N)		= 0.59	ion of rece,		Grab	0.5	Colorimetric
Total Phosphorous (as P)		< 0.05	petion purpositive		Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)		< 0.05	10		Grab	0.02	Colorimetric
Sulphate (SO <sub>4</sub> )		< 30 000			Grab	30	Turbidimetric
Phenols (Sum)	= 0	centor			Grab	0.1	GC-MS2

Additional Comments:	default of 0 and 01/01/01/09 where results are not available

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

#### Secondary Discharge Point

Discharge Point Code:	SW-2
MONITORING POINT CODE:	aSW-2u
Grid Ref (12 digits, 6E, 6N)	082061 / 037847

Parameter		Results (μg/l)		Sampling method	Limit of Quantitation	Analysis method / technique	
	01/01/09	29/10/09					
Atrazine	= 0				Grab	0.96	HPLC
Dichloromethane	= 0				Grab	1	GC-MS1
Simazine	= 0				Grab	0.01	HPLC
Toluene	= 0				Grab	0.02	GC-MS1
Tributyltin	= 0				Grab	0.02	GC-MS1
Xylenes	= 0				Grab	1	GC-MS1
Arsenic	= 0				Grab	0.96	ICP-MS
Chromium		< 20			Grab	20	ICP-OES
Copper		< 20			Grab	20	ICP-OES
Cyanide	= 0			, se.	Grab	5	Colorimetric
Flouride		= 26		net b	Grab	100	ISE
Lead		< 20		4. A Oli	Grab	20	ICP-OES
Nickel		< 20	ó	id and other tra	Grab	20	ICP-OES
Zinc		< 20	See 3	XV.	Grab	20	ICP-OES
Boron		< 20	aliferijie		Grab	20	ICP-OES
Cadmium		< 20	ion extern		Grab	20	ICP-OES
Mercury	= 0		Section author tribile		Grab	0.2	ICP-MS
Selenium	= 0		12 girl		Grab	0.74	ICP-MS
Barium		< 20	350		Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as sn default of 0 and 01/01/09 where no results are available, TBT testing not required
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#### Annex 2: Check List For Regulation 16 Compliance

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

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

Regula In the	tion 16(1) case of an application for a waste water discharge licence, the application shall -	Attachment Number	Checked by Applicant
(a)	give the name, address, telefax number (if any) and telephone number of the applicant (and, if different, of the operator of any treatment plant concerned) and the address to which correspondence relating to the application should be sent and, if the operator is a body corporate, the address of its registered office or principal office,		
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,		
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the waste water treatment plant and/or the waste water discharge point or points to which the application relates,		
(d)	state the population equivalent of the agglomeration to which the application relates,		
(e)	specify the content and extent of the waste water discharge, the level of treatment provided, if any, and the flow and type of discharge,		
(f)	give details of the receiving water body, including its protected area status, if any, and details of any sensitive areas or protected areas or both in the vicinity of the discharge point or points likely to be affected by the discharge concerned, and for discharges to ground provide details of groundwater protection schemes in place for the receiving water body and all associated hydrogeological and geological assessments related to the receiving water environment in the vicinity of the discharge.	<b>e</b> .	
(g)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and, if Regulation 17 does not apply, provide details of the likely environmental consequences of any such discharges,		
(h)	in the case of an existing waste water treatment plant, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,		
(i)	describe the existing or proposed measures, including emergency procedures, to prevent unintended waste water discharges and to minimise the impact on the environment of any such discharges,		
(j)	give particulars of the nearest downstream drinking water abstraction point or points to the discharge point or points,		
(k)	give details, and an assessment of the effects of any existing or proposed emissions on the environment, including any environmental medium other than those into which the emissions are, or are to be made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit any pollution caused in such discharges,		
(I)	give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations,		
(m)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work.		
(n)	Any other information as may be stipulated by the Agency.		
Withou	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 9,	Not applicable	Yes
(b)	where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13,	Not applicable	Yes
(c)	Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate -	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, B4	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.		Yes

## WWD Licence Application Annex II

An origi	tion 16(4) inal application shall be accompanied by 2 copies of it and of all accompanying ents and particulars as required under Regulation 16(3) in hardcopy or in an electronic r 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	
For the associa	tion 16(5) purpose of paragraph (4), all or part of the 2 copies of the said application and ted documents and particulars may, with the agreement of the Agency, be submitted in tronic 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	
subject to 2001 respect stateme	tion 17 a treatment plant associated with the relevant waste water works is or has been to the European Communities (Environmental Impact Assessment) Regulations 1989, in addition to compliance with the requirements of Regulation 16, an application in of the relevant discharge shall be accompanied by a copy of an environmental impact and approval in accordance with the Act of 2000 in respect of the said development by be submitted in an electronic or other format specified by the Agency	Attachment Number	Checked by Applicant	
3	2 CD versions of EIS, as PDF files, provided.	Not applicable	Yes	
1	EIA provided if applicable	Not applicable	Yes	
2	2 hardcopies of EIS provided if applicable.	Not applicable	Yes	
Regulation the capplication	tion 24 ase of an application for a waste water discharge certificate of authorisation, the tion shall –	Attachment Number	Checked by Applicant	
(a)	give the name, address, telefax number (if any) and telephone number of the applicant and the address to which correspondence relating to the application should be sent and, if the operator of the waste water works is a body corporate, the address of its registered office or principal office	B.1 o·	Yes	
(b)	give the name of the water services authority in whose functional area the relevants waste water discharge takes place or is to take place, if different from that of the applicant,	Not applicable	Yes	
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the discharge point or points to which the application relates,	B.2	Yes	
(d)	state the population equivalent of the agglomeration to which the application relates,	B8	Yes	
(e)	in the case of an application for the review of a certificate, specify the reference number given to the relevant certificate in the register,	C, D	Yes	
(f)	specify the content and extent of the waste water discharge, the level of treatment provided and the flow and type of discharge,	F.1	Yes	
(g)	give details of the receiving water body, its protected area status, if any, and details of any sensitive areas or protected areas, or both, in the vicinity of the discharge point or points or likely to be affected by the discharge concerned,	E.2, E.3	Yes	
(h)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and of the likely environmental consequences of any such discharges,	E.4	Yes	
(i)	in the case of an existing discharge, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,	G.3	Yes	
(j)	describe the existing or proposed measures, including emergency procedures, to prevent unauthorised or unexpected waste water discharges and to minimise the impact on the environment of any such discharges,	F.2	Yes	
(k)	give particulars of the location of the nearest downstream drinking water abstraction point or points to the discharge point or points associated with the waste water works,	F.1	Yes	
(I)	give details of any designation under any Council Directive or Regulations that apply in relation to the receiving waters,	E.1, E.4	Yes	
(m)	give details of compliance with any applicable monitoring requirements and treatment standards,	G.1	Yes	
(n)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work,	Not applicable	Yes	
(-)	give any other information as may be stipulated by the Agency, and	Not applicable	Yes	
(o)	give any enter intermation as may be superiated by the right of and			