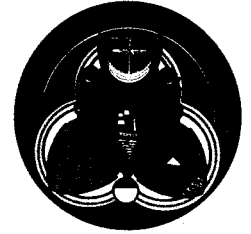


Comhairle Contae Chorcaí Cork County Council

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



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

Annabella,
Mala,
Co. Chorcaí.

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

Environmental Protection Agency Waste Licensing Received 22 JUN 2009 Initials _____
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June 2009

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

Dear Sir / Madam,

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

The following documentation is enclosed:

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

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

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

Signed:

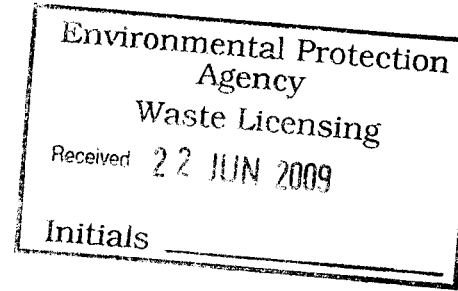
Frank Cronin
Senior Engineer – Water Services



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This is a draft document and is subject to revision.



Waste Water Discharge Licence Application Form

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EPA Ref. N^o: <i>(Office use only)</i>	00442-01
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Environmental Protection Agency
PO Box 3000, Johnstown Castle Estate, Co. Wexford
Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699
Web: www.epa.ie Email: info@epa.ie

Tracking Amendments to Draft Application Form

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



Waste Water Discharge Authorisation Application Form

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

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

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

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

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

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

PROCEDURES

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

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

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

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

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

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

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

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

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

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

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

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

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SECTION A: NON-TECHNICAL SUMMARY

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

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

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

A description of:

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

Supporting information should form **Attachment N^o A.1**

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SECTION A: NON-TECHNICAL SUMMARY

Kildorrery Village is located on the N73, 11 Km west of Mitchelstown. The village is well developed from the point of public services such as a primary school, shops and amenities.

The waste water from the Kildorrery allglomeration is currently treated by a package treatment plant prior to been discharged to the River Funshion.

The Waste Water Works and the Activities Carried Out Therein

Kildorrery wastewater treatment plant (WWTP) was constructed in 2000 on the site of a pre-existing septic tank which had previously served the village. The area of the treatment works compound is circa 450m².

The main elements of the WWTP are;

1. Preliminary Treatment: Grit Trap and Automatic Screen
2. Secondary treatment: Activated Sludge (Aeration Tank and Clarifier)
3. Discharge to River Funshion

The wastewater in Kildorrery is collected in a partially combined foul and sewer drainage network and gravitates to the wastewater treatment plant.

In a high storm water event, the inlet works surcharge and the excess waste stream is diverted to a storm water holding tank where it is stored until the storm surge has abated.

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

The Sources Of Emissions From The Works

The pollution load from the Kildorrery agglomeration arises from the following areas:

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

The sewerage from all commercial premises is collected via the public sewer and treated in conjunction with the domestic waste at the WWTP. There are no industrial waste streams discharging into the sewerage network.

The main source of emissions from the works is via a 225mm open pipe outfall to the River Funshion.

The storm water holding tank is fitted with a baffled overflow discharge to the River Funshion which may come into use during prolonged storm water events.

The Nature And Quantities Of Foreseeable Emissions From The Waste Water Works Into The Receiving Aqueous Environment As Well As

Identification Of Significant Effects Of The Emissions On The Environment

The wastewater treatment plant treats only municipal waste water from Village and its environs via the sewerage collection system.

The final effluent is discharged to the Funshion River. The effluent is treated to a 25/35 BOD/SS standard or better. The normal flows from the WWTP are in the order of 60-100m³/d

There are no reports of significant effects on the receiving waters due to the discharges from the plant.

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

The treatment works consists of the following elements:

- Grit trap and automatic screen with manual screen bypass. Screenings are macerated and dewatered and stored in a wheelie bin for suitable disposal off-site.
- Aeration Tank with surface mounted aerator.
- Clarifier with Sludge return/wasting pumps.
- Surface water holding tank with duty/standby forward feed pumps and screened emergency overflow baffle.
- Waste Sludge holding tank with 3 level decanting pipework and e

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

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

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

There are no planned works for the treatment plant.

Measures planned to monitor emissions into the environment

The Cork County Council Environmental Laboratory carries out sampling of the influent and effluent biannually. Sampling, Monitoring and analysis of the wastewater sludge is also undertaken by the Environmental Laboratory. A composite sampler is located on the outlet from the WWTP compound.

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

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

SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration: Killdorrery & Environs

Applicant's Details

Name and Address for Correspondence

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

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

Name*:	Cork County Council
Address:	Northern Division
	Annabella
	Mallow
	Co. Cork
Tel:	022 21123
Fax:	022 21983
e-mail:	Frank.cronin@corkcoco.ie

*This should be the name of the water services authority in whose ownership or control the waste water works is vested.

*Where an application is being submitted on behalf of more than one water services authority the details provided in Section B.1 shall be that of the lead water services authority.

Name*:	Frank Cronin
Address:	Northern Division
	Annabella
	Mallow
	Co. Cork
Tel:	022 21123
Fax:	022 21983
e-mail:	Frank.cronin@corkcoco.ie

*This should be the name of person nominated by the water services authority for the purposes of the application.

Co-Applicant's Details

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

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

Design, Build & Operate Contractor Details

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

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

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

Attachment included	Yes	No
	√	

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

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

Name*:	Brendan O Gorman
Address:	Cork County Council
	Annabella
	Mallow
	Co. Cork
Grid ref (6E, 6N)	171550E 110663N
Level of Treatment	Secondary
Primary Telephone:	025-24944
Fax:	025-84072
e-mail:	Brendan.OGorman@corkcoco.ie

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

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

Attachment included	Yes	No
	√	

B.3 Location of Primary Discharge Point

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

Type of Discharge	Point discharge 225mm diameter Open pipe
Unique Point Code	SW01-KILD
Location	WWTP site Kildorrery, Kildorrery
Grid ref (6E, 6N)	172300E 110754N

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

Attachment included	Yes	No
	√	

B.4 Location of Secondary Discharge Point(s)

Give the location of **all** secondary discharge point(s) associated with the waste water works. Please refer to Guidance Note for information on Secondary discharge points.

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

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

Attachment included	Yes	No
		√

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

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

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

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

Attachment included	Yes	No
		√

B.6 Planning Authority

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

Name:	Cork County Council
Address:	Planning Department County Hall Carriagrohane Road Cork
Tel:	021 4276891
Fax:	021 4867007
e-mail:	Planninginfo@corkcoc.ie

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

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

Local Authority Planning File Reference N^o:	Not Available
---	---------------

Attachment B.6 should contain **the most recent** planning permission, including a copy of **all** conditions, and where an EIS was required, copies of any such EIS and any certification associated with the EIS, should also be enclosed.

Where planning permission is not required for the development, provide reasons, relevant correspondence, etc.

Attachment included	Yes	No
		√

B.7 Other Authorities

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

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

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

Within the SFADCo Area	Yes	No
		√

B.7 (ii) Health Services Executive Region

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

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

B.7 (iii) Other Relevant Water Services Authorities

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

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

Relevant Authority Notified	Yes	No
		√

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

Attachment included	Yes	No
		√

B.8 Notices and Advertisements

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

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

Attachment included	Yes	No
	√	

B.9 (i) Population Equivalent of Agglomeration

TABLE B.9.1 POPULATION EQUIVALENT OF AGGLOMERATION

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

Population Equivalent	850
Data Compiled (Year)	2008
Method	Hydraulic Flow

B.9 (ii) Pending Development

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

- information on the calculated population equivalent (p.e.) to be contributed to the waste water works as a result of those planning permissions granted,

Description	No. of Units	PE/unit	PE
Planning granted, construction not started - Domestic	120	2.8	336
Planning granted, construction not started - Commercial	2	5	10
		Total	346

- the percentage of the projected p.e. to be contributed by the non-domestic activities,

Circa 2% of PE contributed by non-domestic activities.

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

The plant is currently catering for 500PE and has adequate capacity to cater for additional planned loading.

B.9 (iii) FEES

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

Class of waste water discharge	Fee (in €)
Discharges from agglomerations with a PE of 500 to 1000	€10,000

Appropriate Fee Included	Yes	No
	√	

B.10 Capital Investment Programme

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

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

Attachment included	Yes	No
		√

B.11 Significant Correspondence

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

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

Attachment included	Yes	No
		√

B.12 Foreshore Act Licences.

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

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

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

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SECTION C: INFRASTRUCTURE & OPERATION

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

C.1 Operational Information Requirements

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

Inlet Works – Preliminary treatment is provided with grit removal, screening and stormwater overflow facilities. Screening is provided by a 6mm automatic screen with a manual screen bypass. Screenings are dewatered, compacted and discarded into a wheelie bin for off-site disposal.

Flows up to 3 DWF (560m³/d) flow onto the aeration basin. Flows in excess of 3 DWF are direct to the stormwater holding tanks and returned to the primary waste stream when the storm flow have abated.

Storm water holding tank – The pre-existing septic tank was repaired and modified to perform as a storm water holding tank. The tank is fitted with a duty/standby pumps to forward feed back into the treatment stream prior to the inlet works. An overflow screened baffle pipe allows high water levels in the storm holding tank to be directed towards the discharge point. The pumps are operated on a high and low level control.

Aeration Tank – Oxygenation and agitation is preformed by a 5.5kW surface mounted mechanical aerator. The Aeration tank has an operating volume of circa 175m³. The aerator is operates on an automated timer system.

Clarifier –Mixed liquor decants from the aeration basin into a 3 hopper bottom clarifier where gravity separation of the activated sludge ocures. The tank is fitted with 3 no duty pumps to forward return activated sludge (RAS) to the aeration basin or waste activated sludge (WAS) to the sludge holding tank. The sludge return operates on an automated timer system and which is baised to return sludge. The operator must manually operate valves to waste activated sludge to the sludge holding tank.

The final effluent decants from the clarifier and gravity flows to the discharge point. A composite sampler is located on the final effluent stream within the WWTP compound.

Sludge holding tank – The sludge holding tank is a precast unit with circa 30m³ storage capacity. The tank is fitted with 2 level decanting pipework in a normally shut position and a high level decanting pipe in a always open position. Decanted liquor is directed back into the aeration basin. The tank is desludged on a regular basis by a Contractor and taken to Mitchelstown WWTP for dewatering.

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

C.1.1 Storm Water Overflows

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

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

The volume of the storm water holding tank below the overflow baffle is circa 31m³. The tank is fitted with a duty and standby pump which circulate the attenuated storm load back into the main waste stream.

A high level outlet from the tank may discharge to the effluent stream within the WWTP compound. There is no record to the frequency or quantity of discharges from the storm water holding tank.

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.

There are pump stations within the waste water works.

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

Attachment included	Yes	No
	√	

C.2 Outfall Design and Construction

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

There is one discharge point from the treatment plant. The discharge located circa 750m due east of the WWTP compound.

The Outfall is an open pipe that is partially submerged. There is no headwall detail.

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

Attachment included	Yes	No
		√

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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 emissions are made or are to be made.

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

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

D.1 Discharges to Surface Waters

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

Where monitoring information is available for the influent to the plant this data should also be provided in response to Section D.1. Cork County Council monitors the influent to the plant, the results of which are included in Attachment D

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

Attachment included	Yes	No
	√	

D.2 Tabular Data on Discharge Points

Applicants should submit the following information for each discharge point:

Table D.2:

PT_CD	PT_TYPE	LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING
Point Code Provide label ID's	Point Type (e.g., Primary/ Secondary/ Storm Water Overflow)	Local Authority Name (e.g., Donegal County Council)	Receiving Water Body Type (e.g., River, Lake, Groundwater, Transitional, Coastal)	Receiving Water Body Name (e.g., River Suir)	Protected Area Type (e.g., SAC, candidate SAC, NHA, SPA etc.)	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference
SW01 KILD	Primary	Cork County Council	River	River Funshion	None	172300 E	110754N

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.

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SECTION E: MONITORING

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

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

Provide an estimation of the quantity of waste water likely to be emitted in relation to all primary and secondary discharge points applied for. This information should be included in Table E.1(i) via the following web based link: http://78.137.160.73/epa_wwd_licensing/.

Refer to 'epa_wwd_licensing' web page print off attached.

Provide an estimation of the quantity of waste water likely to be emitted in relation to all storm water overflows within the agglomeration applied for. This information should be included in Table E.1(ii) via the following web based link: http://78.137.160.73/epa_wwd_licensing/.

No storm water overflows on the Network

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

There is a Composite sampler located on the outlet manhole prior to the discharge point.

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

E.2. Monitoring and Sampling Points

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

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

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

Cork County Council Water Services Laboratories sample and monitor in accordance with 'Sampling Methods for examination of water and wastewater' 18th edition 1992. Sampling is carried out on a Bi-annual basis.

Details of any accreditation or certification of analysis should be included.

Attachment E.2 should contain any supporting information.

Attachment included	Yes	No
		√

E.3. Tabular data on Monitoring and Sampling Points

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

PT_CD	PT_TYPE	MON_TYPE	EASTING	NORTHING	VERIFIED
Point Code Provide label ID's assigned in section E of application	Point Type (e.g., Primary, Secondary, Storm Water Overflow)	Monitoring Type M = Monitoring S = Sampling	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used
SW01	Primary	Sampling	172300E	110754N	N
aSW01u	u/s	Sampling	172311E	110784N	N
aSW01d	d/s	Sampling	1172033E	109580N	N

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

E.4 Sampling Data

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

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

Attachment E.4 should contain any supporting information.

Attachment included	Yes	No
	√	

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

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

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

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

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

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

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

Emissions on Receiving Waters

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

Assimilative Capacity of the Receiving water

0.75	m ³ /s	95%tileflow of River
1.16	m ³ /s	Median River Flow
0.002	m ³ /s	average volume of discharge

		Total Phosphate	Ortho Phosphate	BOD ₅	SS	Total Nitrogen	Sulphate	Ammonia-N
Median in River	mg/l	0.110	0.110	2.500	3.670	3.340	<30	0.130
Median in Discharge	mg/l	2.110	1.750	32.800	48.000	18.400	<30	0.870
C _{final}	mg/l							

Increase in River mg/l

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

- o Details of all monitoring of the receiving water should be supplied via the following web based link: http://78.137.160.73/epa_wwd_licensing/. Tables F.1(i)(a) & (b) should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables F.1(i)(a) & (b). Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.
Refer to 'epa wwd licensing' web page print off attached
- o For discharges from secondary discharge points Tables F.1(ii)(a) & (b) should be completed. Furthermore, provide summary details and an assessment of the impacts of any existing or proposed emissions on the surface water or ground (aquifers, soils, sub-soils and rock environment), including any impact on environmental media other than those into which the emissions are to be made.
Not applicable, there are no secondary discharges from the works.
- o Provide details of the extent and type of ground emissions at the works. For larger discharges to groundwaters, e.g., from Integrated Constructed Wetlands, large scale percolation areas, etc., a comprehensive report must be completed which should include, inter alia, topography, meteorological data, water quality, geology, hydrology, and hydrogeology. The latter must in particular present the aquifer classification and vulnerability. The Geological Survey of Ireland Groundwater Protection Scheme Dept of the Environment and Local Government, Geological Survey of Ireland, EPA (1999) methodology should be used for any such classification. This report should also identify all surface water bodies and water wells that may be at risk as a result of the ground discharge.
Not applicable, there are no ground emissions from the works.
- o Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Submit a copy of the most recent water quality management plan or catchment management plan in place for the receiving water body. Give details of any designation under any Council Directive or Regulations that apply in relation to the receiving water.

Water quality recorded at EPA sampling locations ;

Sampling Location	EPA Biological Quality Rating (Q values)		
	1995 -1997	2001 - 2003	Target
Glenavuddig Br.	3	4	4
1.5km d/s of Ballymaurke Br.	4	4	4

Designation of River in relation to

Shellfish Regulations Not designated.
S.I.200:1994;

Bathing Water Regulations S.I. Not designated
178:1998

Salmonid Water Regulations Designated.
S.I. 293: 1998

Special Area of Conservation Designated, Site code 002170
(SAC) The site synopsis can be found @

<http://www.npws.ie/en/media/Media,4178,en.pdf>

Special Protection Area (SPA); Not Designated, however the Blackwater estuary is designated.

Sensitive Area (Urban Waste water Treatment Regulations S.I.254:2001) Not designated.

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

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

- o Provide a statement as to whether or not emissions of main polluting substances (as defined in the *Dangerous Substances Regulations S.I. No. 12 of 2001*) to water are likely to impair the environment.

There is no evidence to suggest that there are sources within the agglomeration or in the discharge itself which would lead to emissions of the main polluting substances (as defined in the dangerous substances Regulations SI 12:2001) at levels which would likely to impair the environment

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

There are no downstream water abstraction points.

- o Indicate whether or not emissions from the agglomeration or any plant, methods, processes, operating procedures or other factors which affect such emissions are likely to have a significant effect on –

(a) a site (until the adoption, in respect of the site, of a decision by the European Commission under Article 21 of Council Directive 92/43/EEC for the purposes of the third paragraph of Article 4(2) of that Directive) –

(i) notified for the purposes of Regulation 4 of the Natural Habitats Regulations, subject to any amendments made to it by virtue of Regulation 5 of those Regulations,

(ii) details of which have been transmitted to the Commission in accordance with Regulation 5(4) of the Natural Habitats Regulations, or

(iii) added by virtue of Regulation 6 of the Natural Habitats Regulations to the list transmitted to the Commission in accordance with Regulation 5(4) of those Regulations,

(b) a site adopted by the European Commission as a site of Community importance for the purposes of Article 4(2) of Council Directive 92/43/EEC¹ in accordance with the procedures laid down in Article 21 of that Directive,

- (c) a special area of conservation within the meaning of the Natural Habitats Regulations, or
- (d) an area classified pursuant to Article 4(1) or 4(2) of Council Directive 79/409/EEC²;

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

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

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

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

Not applicable.

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

There is no modelling of the sewer network to date.

Attachment included	Yes	No

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

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

ABS_CD	AGG_SERVED	ABS_VOL	PT_CD	DIS_DS	EASTING	NORTHING	VERIFIED
Abstraction Code	Agglomeration served	Abstraction Volume in m ³ /day	Point Code Provide label ID's	Distance Downstream in meters from Emission Point to Abstraction Point	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used

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

An individual record (i.e. row) is required for each abstraction point. Acceptable file formats include Excel, Access or other upon agreement with the Agency. A standard Excel template can be downloaded from the EPA website at

www.epa.ie. This data should be submitted to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, C.1, D.2 and E.3.

Attachment F.2 should contain any supporting information.

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

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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 (79/923/EEC).

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

Attachment G.1 should contain the most recent programme of improvements, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
		√

G.2 Compliance with Water Quality Standards for Phosphorus Regulations (S.I. No. 258 of 1998).

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

Attachment G.2 should contain the most recent programme of improvements and any associated documentation requested under Section G.3 of the application.

Attachment included	Yes	No
		√

G.3 Impact Mitigation

Provide details on a programme of improvements to ensure that discharges from the agglomeration will not result in significant environmental pollution.

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

There are no planned works for upgrading the existing plant.

Attachment included	Yes	No
		√

G.4 Storm Water Overflow

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

There are no planned works for upgrading the existing plant.

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

Attachment included	Yes	No
		√

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SECTION H: DECLARATION

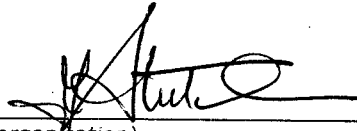
Declaration

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

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

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

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

Signed by : 
(on behalf of the organisation)

Date : 16th June 2009

Print signature name: TOM STRITCH

Position in organisation: DIRECTOR OF SERVICES

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SECTION I: JOINT DECLARATION

Joint Declaration ^{Note1}

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

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

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

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

Lead Authority

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

Print signature name: _____

Position in organisation: _____

Co-Applicants

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

Print signature name: _____

Position in organisation: _____

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

Print signature name: _____

Position in organisation: _____

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

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WWD Licence Application

Agglomeration details

Leading Local Authority	Cork County Council
Co-Applicants	
Agglomeration	Kildorrery
Population Equivalent	990
Level of Treatment	Secondary
Treatment plant address	Killdorrery, Mithcelstown, Co. Cork
Grid Ref (12 digits, 6E, 6N)	171550 / 110663 (Verified using GPS)
EPA Reference No:	

Contact details

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

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

Discharge Point Code: SW-1

Local Authority Ref No:	SW01-KILD	
Source of Emission:	Kildorrery WWTP	
Location:	Scart, Kildorrery, Mitchelstown, Co. Cork	
Grid Ref (12 digits, 6E, 6N)	172300 / 110754 (Verified using GPS)	
Name of Receiving waters:	River Funshion	
Water Body:	River Water Body	
River Basin District	South Western RBD	
Designation of Receiving Waters:	None, U/s of Salmoid River	
Flow Rate in Receiving Waters:	0.37	m ³ .sec ⁻¹ Dry Weather Flow
	0.75	m ³ .sec ⁻¹ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)		

Emission Details:

(i) Volume emitted			
Normal/day	190 m ³	Maximum/day	560 m ³
Maximum rate/hour	23.33 m ³	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	0.0022 m ³ /sec		

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

Discharge Point Code: SW-1

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Dally Avg.	kg/day
pH	pH	24 hr composite	= 9	
Temperature	°C	24 hr composite	= 30	
Electrical Conductivity (@ 25°C)	µS/cm	24 hr composite	= 1000	
Suspended Solids	mg/l	24 hr composite	= 35	19.6
Ammonia (as N)	mg/l	24 hr composite	= 0	0
Biochemical Oxygen Demand	mg/l	24 hr composite	= 25	14
Chemical Oxygen Demand	mg/l	24 hr composite	= 125	70
Total Nitrogen (as N)	mg/l	24 hr composite	= 35	19.6
Nitrite (as N)	mg/l	24 hr composite	= 0	0
Nitrate (as N)	mg/l	24 hr composite	= 0	0
Total Phosphorous (as P)	mg/l	24 hr composite	= 8	4.48
OrthoPhosphate (as P)	mg/l	24 hr composite	= 6	3.36
Sulphate (SO ₄)	mg/l	24 hr composite	= 0	0
Phenols (Sum)	µg/l	24 hr composite	= 0	0

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

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

Discharge Point Code: SW-1

Substance	As discharged			kg/day
	Unit of Measurement	Sampling Method	Max Daily Avg.	
Atrazine	µg/l	24 hr composite	= 0	0
Dichloromethane	µg/l	24 hr composite	= 0	0
Simazine	µg/l	24 hr flow proportional	= 0	0
Toluene	µg/l	24 hr composite	= 0	0
Tributyltin	µg/l	24 hr composite	= 0	0
Xylenes	µg/l	24 hr composite	= 0	0
Arsenic	µg/l	24 hr composite	= 0	0
Chromium	µg/l	24 hr composite	= 0	0
Copper	µg/l	24 hr composite	= 0	0
Cyanide	µg/l	24 hr composite	= 0	0
Flouride	µg/l	24 hr composite	= 0	0
Lead	µg/l	24 hr composite	= 0	0
Nickel	µg/l	24 hr composite	= 0	0
Zinc	µg/l	24 hr composite	= 0	0
Boron	µg/l	24 hr composite	= 0	0
Cadmium	µg/l	24 hr composite	= 0	0
Mercury	µg/l	24 hr composite	= 0	0
Selenium	µg/l	24 hr composite	= 0	0
Barium	µg/l	24 hr composite	= 0	0

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

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

Identification Code for Discharge point	Frequency of discharge (days/annum)	Quantity of Waste Water Discharged (m ³ /annum)
SW-1	365	69350

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

Identification Code for Discharge point	Frequency of discharge (days/annum)	Quantity of Waste Water Discharged (m ³ /annum)	Complies with Definition of Storm Water Overflow
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TABLE F.1(i)(a): SURFACE/GROUND WATER MONITORING

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1d
Grid Ref (12 digits, 6E, 6N)	172033 / 109580

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	13/11/08	01/01/09	04/02/09	19/02/09			
pH			= 7.6		Grab	2	Electrochemical
Temperature		= 0			Grab	0.5	electrochemical
Electrical Conductivity (@ 25°C)			= 365		Grab	0.5	Electrochemical
Suspended Solids			= 6		Grab	0.5	Gravimetric
Ammonia (as N)			= 0.2		Grab	0.02	Colorimetric
Biochemical Oxygen Demand			= 3		Grab	0.06	Electrochemical
Chemical Oxygen Demand			< 5		Grab	8	Digestion & Colorimetric
Dissolved Oxygen		= 0			Grab	0	ISE
Hardness (as CaCO ₃)		= 0			Grab	0	titrimetric
Total Nitrogen (as N)			= 3.9		Grab	0.5	Digestion & Colorimetric
Nitrite (as N)					Grab	0.013	colorimetric
Nitrate (as N)					Grab	0.04	Colorimetric
Total Phosphorous (as P)			= 0.06		Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05		< 0.05	< 0.05	Grab	0.02	Colorimetric
Sulphate (SO ₄)					Grab	30	Turbidimetric
Phenols (Sum)					Grab	0.1	GC-MS2

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

Additional Comments:	default of 01/01/09 and 0 where results are not available
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WWD Licence Application Annex I

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	05/03/09	11/03/09	21/04/09	14/05/09			
pH		= 7.6	= 8	= 8.1	Grab	2	Electrochemical
Temperature					Grab	0.5	electrochemical
Electrical Conductivity (@ 25°C)		= 348	= 542	= 460	Grab	0.5	Electrochemical
Suspended Solids		= 4	= 2	< 2.5	Grab	0.5	Gravimetric
Ammonia (as N)		< 0.05	= 0.05	< 0.1	Grab	0.02	Colorimetric
Biochemical Oxygen Demand		< 2	< 2	= 2	Grab	0.06	Electrochemical
Chemical Oxygen Demand		= 123	< 5	< 21	Grab	8	Digestion & Colorimetric
Dissolved Oxygen					Grab	0	ISE
Hardness (as CaCO ₃)					Grab	0	titrimetric
Total Nitrogen (as N)		= 2	= 3	= 4.49	Grab	0.5	Digestion & Colorimetric
Nitrite (as N)				< 0.1	Grab	0.013	colorimetric
Nitrate (as N)				= 3.71	Grab	0.04	Colorimetric
Total Phosphorous (as P)		= 0.1	= 0.19	= 0.093	Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	= 0.09	= 0.08	= 0.16	= 0.07	Grab	0.02	Colorimetric
Sulphate (SO ₄)				< 30	Grab	30	Turbidimetric
Phenols (Sum)				< 0.1	Grab	0.1	GC-MS2

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

Additional Comments:	default of 01/01/09 and 0 where results are not available
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TABLE F.1(i)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1d
Grid Ref (12 digits, 6E, 6N)	172033 / 109580

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	04/02/09	19/02/09	05/03/09			
Atrazine					Grab	0.96	HPLC
Dichloromethane					Grab	1	GC-MS1
Simazine					Grab	0.01	HPLC
Toluene					Grab	0.02	GC-MS1
Tributyltin	= 0				Grab	0.02	GC-MS1
Xylenes					Grab	1	GC-MS1
Arsenic					Grab	0.96	ICP-MS
Chromium		< 20	< 20	< 20	Grab	20	ICP-OES
Copper		< 20	< 20	< 20	Grab	20	ICP-OES
Cyanide					Grab	5	Colorimetric
Flouride					Grab	100	ISE
Lead		< 20	< 20	< 20	Grab	20	ICP-OES
Nickel		< 20	< 20	< 20	Grab	20	ICP-OES
Zinc		< 20	< 20	< 20	Grab	20	ICP-OES
Boron		< 20	< 20	< 20	Grab	20	ICP-OES
Cadmium		< 20	< 20	< 20	Grab	20	ICP-OES
Mercury					Grab	0.2	ICP-MS
Selenium					Grab	0.74	ICP-MS
Barium		< 20	= 21	< 20	Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn TBT analysis not required
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WWD Licence Application Annex I

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	11/03/09	21/04/09	14/05/09				
Atrazine			< 0.01		Grab	0.96	HPLC
Dichloromethane			< 1		Grab	1	GC-MS1
Simazine			< 0.01		Grab	0.01	HPLC
Toluene			< 0.28		Grab	0.02	GC-MS1
Tributyltin					Grab	0.02	GC-MS1
Xylenes			< 1		Grab	1	GC-MS1
Arsenic			< 0.96		Grab	0.96	ICP-MS
Chromium	< 20	< 20	< 20		Grab	20	ICP-OES
Copper	< 20	< 20	< 20		Grab	20	ICP-OES
Cyanide			< 5		Grab	5	Colorimetric
Flouride			= 127		Grab	100	ISE
Lead	< 20	< 20	< 20		Grab	20	ICP-OES
Nickel	< 20	< 20	< 20		Grab	20	ICP-OES
Zinc	< 20	< 20	< 20		Grab	20	ICP-OES
Boron	< 20	< 20	< 20		Grab	20	ICP-OES
Cadmium	< 20	< 20	< 20		Grab	20	ICP-OES
Mercury			< 0.2		Grab	0.2	ICP-MS
Selenium			= 1.8		Grab	0.74	ICP-MS
Barium	= 21.6	< 20			Grab	20	ICP-OES

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

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1u
Grid Ref (12 digits, 6E, 6N)	172311 / 110784

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	13/11/08	01/01/09	04/02/09	19/02/09			
pH			= 7.6		Grab	2	Electrochemical
Temperature		= 0			Grab	0.5	electrochemical
Electrical Conductivity (@ 25°C)			= 339		Grab	0.5	Electrochemical
Suspended Solids			= 7		Grab	0.5	Gravimetric
Ammonia (as N)			= 0.2		Grab	0.02	Colorimetric
Biochemical Oxygen Demand			= 3		Grab	0.06	Electrochemical
Chemical Oxygen Demand			= 12		Grab	8	Digestion & Colorimetric
Dissolved Oxygen		= 0			Grab	0	ISE
Hardness (as CaCO ₃)		= 0			Grab	0	titrimetric
Total Nitrogen (as N)			= 3.3		Grab	0.5	Digestion & Colorimetric
Nitrite (as N)					Grab	0.013	colorimetric
Nitrate (as N)					Grab	0.04	Colorimetric
Total Phosphorous (as P)			0.06		Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05		0.05	< 0.05	Grab	0.02	Colorimetric
Sulphate (SO ₄)					Grab	30	Turbidimetric
Phenols (Sum)					Grab	0.1	GC-MS2

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

Additional Comments:	default of 01/01/09 and 0 where results are not available
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WWD Licence Application Annex I

Parameter	Results (mg/l)			Sampling method	Limit of Quantitation	Analysis method / technique
	11/03/09	21/04/09	14/05/09			
pH	= 7.5	= 7.9	= 8.1	Grab	2	Electrochemical
Temperature				Grab	0.5	electrochemical
Electrical Conductivity (@ 25°C)	= 353	= 501	= 452	Grab	0.5	Electrochemical
Suspended Solids	= 2	= 2	< 2.5	Grab	0.5	Gravimetric
Ammonia (as N)	< 0.05	= 0.05	< 0.1	Grab	0.02	Colorimetric
Biochemical Oxygen Demand	< 2	< 2	= 2	Grab	0.06	Electrochemical
Chemical Oxygen Demand	= 10		< 21	Grab	8	Digestion & Colorimetric
Dissolved Oxygen				Grab	0	ISE
Hardness (as CaCO ₃)				Grab	0	titrimetric
Total Nitrogen (as N)	= 2.7	= 3	= 4.37	Grab	0.5	Digestion & Colorimetric
Nitrite (as N)			< 0.1	Grab	0.013	colorimetric
Nitrate (as N)			= 3.65	Grab	0.04	Colorimetric
Total Phosphorous (as P)	= 0.09	= 0.19	= 0.088	Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	= 0.07	= 0.18	= 0.07	Grab	0.02	Colorimetric
Sulphate (SO ₄)			< 30	Grab	30	Turbidimetric
Phenols (Sum)			< 0.1	Grab	0.1	GC-MS2

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

Additional Comments:	default of 01/01/09 and 0 where results are not available
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TABLE F.1(i)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1u
Grid Ref (12 digits, 6E, 6N)	172311 / 110784

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	04/02/09	19/02/09	11/03/09			
Atrazine					Grab	0.96	HPLC
Dichloromethane					Grab	1	GC-MS1
Simazine					Grab	0.01	HPLC
Toluene					Grab	0.02	GC-MS1
Tributyltin	= 0				Grab	0.02	GC-MS1
Xylenes					Grab	1	GC-MS1
Arsenic					Grab	0.96	ICP-MS
Chromium		< 20	< 20	< 20	Grab	20	ICP-OES
Copper		< 20	< 20	< 20	Grab	20	ICP-OES
Cyanide					Grab	5	Colorimetric
Flouride					Grab	100	ISE
Lead		< 20	< 20	< 20	Grab	20	ICP-OES
Nickel		< 20	< 20	< 20	Grab	20	ICP-OES
Zinc		< 20	< 20	< 20	Grab	20	ICP-OES
Boron		< 20	< 20	< 20	Grab	20	ICP-OES
Cadmium		< 20	< 20	< 20	Grab	20	ICP-OES
Mercury					Grab	0.2	ICP-MS
Selenium					Grab	0.74	ICP-MS
Barium		< 20	= 23	= 22	Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn TBT analysis not required
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WWD Licence Application Annex I

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	21/04/09	14/05/09					
Atrazine		< 0.01			Grab	0.96	HPLC
Dichloromethane		< 1			Grab	1	GC-MS1
Simazine		< 0.01			Grab	0.01	HPLC
Toluene		< 0.28			Grab	0.02	GC-MS1
Tributyltin					Grab	0.02	GC-MS1
Xylenes		< 1			Grab	1	GC-MS1
Arsenic		< 0.96			Grab	0.96	ICP-MS
Chromium	< 20	< 20			Grab	20	ICP-OES
Copper	< 20	< 20			Grab	20	ICP-OES
Cyanide		< 5			Grab	5	Colorimetric
Flouride		< 100			Grab	100	ISE
Lead	< 20	< 20			Grab	20	ICP-OES
Nickel	< 20	< 20			Grab	20	ICP-OES
Zinc	< 20	< 20			Grab	20	ICP-OES
Boron	< 20	< 20			Grab	20	ICP-OES
Cadmium	< 20	< 20			Grab	20	ICP-OES
Mercury		< 0.2			Grab	0.2	ICP-MS
Selenium		< 1.6			Grab	0.74	ICP-MS
Barium	< 20	= 29.02			Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02µg/l as Sn TBT analysis 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.

Regulation 16(1) In the case of an application for a waste water discharge licence, the application shall -		Attachment Number	Checked by Applicant
(a)	give the name, address, telefax number (if any) and telephone number of the applicant (and, if different, of the operator of any treatment plant concerned) and the address to which correspondence relating to the application should be sent and, if the operator is a body corporate, the address of its registered office or principal office,	B .1	Yes
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,	not applicable	Yes
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the waste water treatment plant and/or the waste water discharge point or points to which the application relates,	B.2	Yes
(d)	state the population equivalent of the agglomeration to which the application relates,	B.9	Yes
(e)	specify the content and extent of the waste water discharge, the level of treatment provided, if any, and the flow and type of discharge,	C,D	Yes
(f)	give details of the receiving water body, including its protected area status, if any, and details of any sensitive areas or protected areas or both in the vicinity of the discharge point or points likely to be affected by the discharge concerned, and for discharges to ground provide details of groundwater protection schemes in place for the receiving water body and all associated hydrogeological and geological assessments related to the receiving water environment in the vicinity of the discharge.	F.1	Yes
(g)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and, if Regulation 17 does not apply, provide details of the likely environmental consequences of any such discharges,	E.2, E.3	Yes
(h)	in the case of an existing waste water treatment plant, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,	E.4	Yes
(i)	describe the existing or proposed measures, including emergency procedures, to prevent unintended waste water discharges and to minimise the impact on the environment of any such discharges,	G.3	Yes
(j)	give particulars of the nearest downstream drinking water abstraction point or points to the discharge point or points,	not applicable	Yes
(k)	give details, and an assessment of the effects, of any existing or proposed emissions on the environment, including any environmental medium other than those into which the emissions are, or are to be made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit any pollution caused in such discharges,	F.1	Yes
(l)	give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations,	E.1,E.4	Yes
(m)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work.	not applicable	Yes
(n)	Any other information as may be stipulated by the Agency.	not applicable	Yes
Regulation 16(3) Without prejudice to Regulation 16 (1) and (2), an application for a licence shall be accompanied by -		Attachment Number	Checked by Applicant
(a)	a copy of the notice of intention to make an application given pursuant to Regulation 9,	B .8	Yes
(b)	where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13,	not applicable	Yes
(c)	Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate -	B	Yes
(c) (i)	the point or points, including storm water overflows, from which a discharge or discharges take place or are to take place, and	B.3, B.4, B.5	Yes
(c) (ii)	the point or points at which monitoring and sampling are undertaken or are to be undertaken,	E.3	Yes
(d)	such fee as is appropriate having regard to the provisions of Regulations 38 and 39.	B.9	Yes

WWD Licence Application Annex II

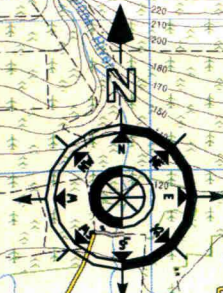
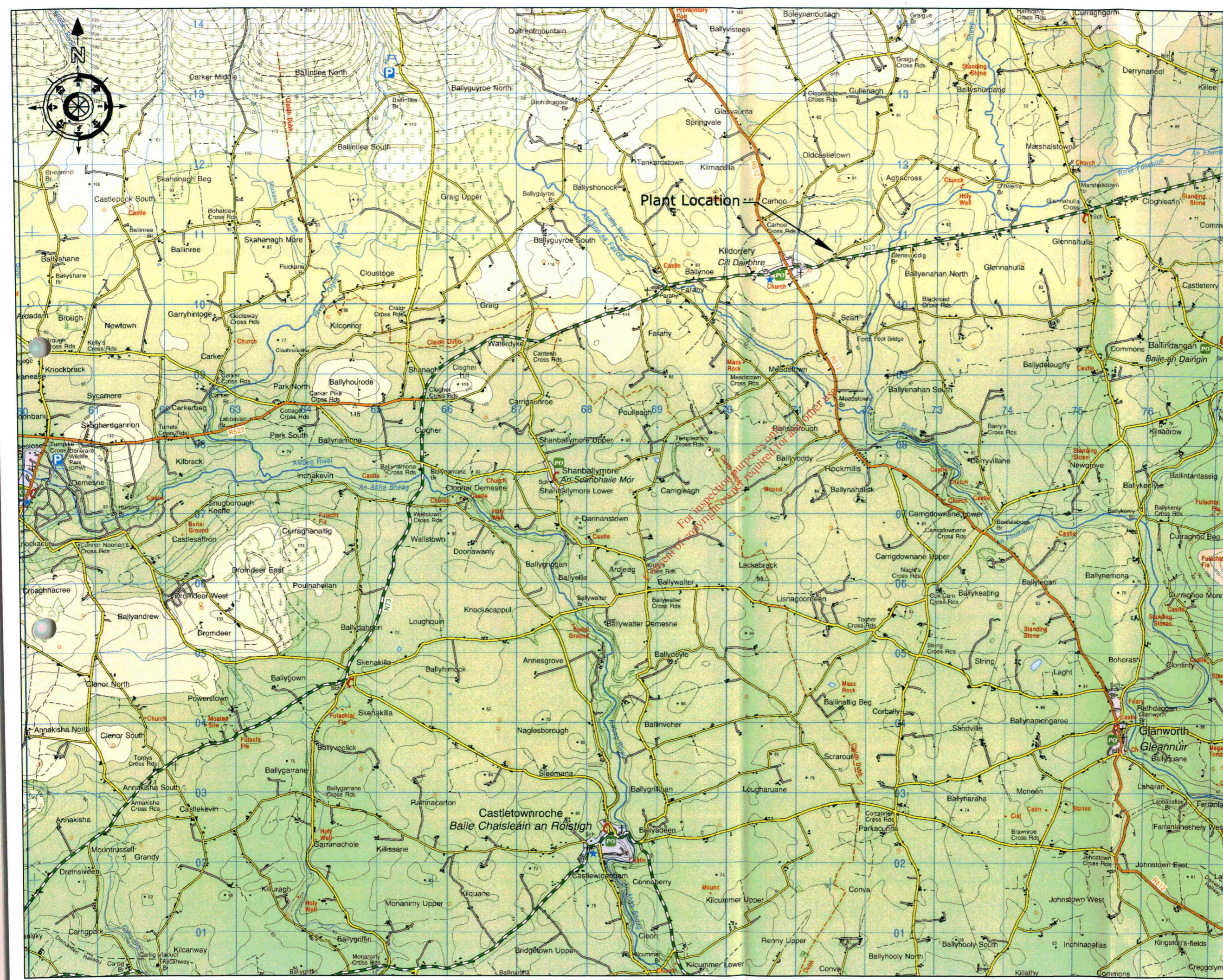
Regulation 16(4) An original application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under Regulation 16(3) in hardcopy or in an electronic or other format as specified by the Agency.		Attachment Number	Checked by Applicant
1	An Original Application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

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ANNEX 1: TABLES / ATTACHMENT

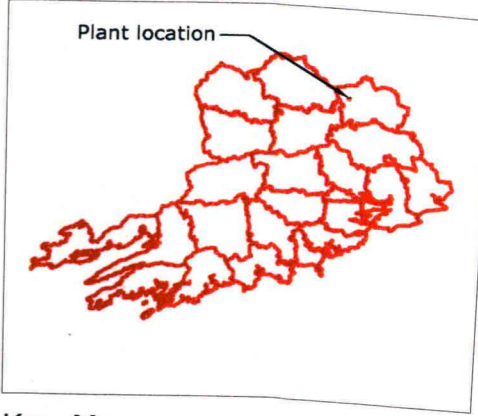
Attachment	Description
A1 Map 1	1:50,000 Location Map
A1 Map 2	Site Location of WWTP
A1 Map 3	Wastewater Treatment Plant – Site Layout
B1 Map 4	Agglomeration
B2 Map 5	Layout of Waste Water Treatment Plant
B3 Map 6	Location of Primary Discharge Point
B3 Map 7	Location of Sampling Points
B4	Not Applicable
B5	Not Applicable
B6	Part VIII
B7	Not Applicable
B8 Map 8	Location of Site Notice
B8	Notice & Advertisement
B10	Not Applicable
B 11	Not Applicable
B 12	Not Applicable
C1 Map 9	Layout Wastewater Treatment Plant
C1 Drg 1	Schematic of Wastewater Treatment Plant
C2	Not Applicable
D1	Inlet monitoring Results
Section D2	Discharge Points
E2	Not Applicable
Section E3	Monitoring & Sampling Points
E4	Sampling Results
F1	Not Applicable
F2	Not Applicable
G1	Not Applicable
G2	Not Applicable
G3	Not Applicable
G4	Not Applicable

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NOTES

1. Dimensions are not to be scaled from drawing. For any discrepancies found consult with the design office.
2. This drawing is to be read in conjunction with the Specification.
3. This drawing is to be read in conjunction with all other contract drawings.



Key Map

Plant Location

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No.	Date	Drawn	Survey	Checked	Revision	Description

**Cork County Council,
Northern Division.**

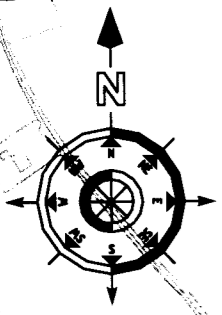
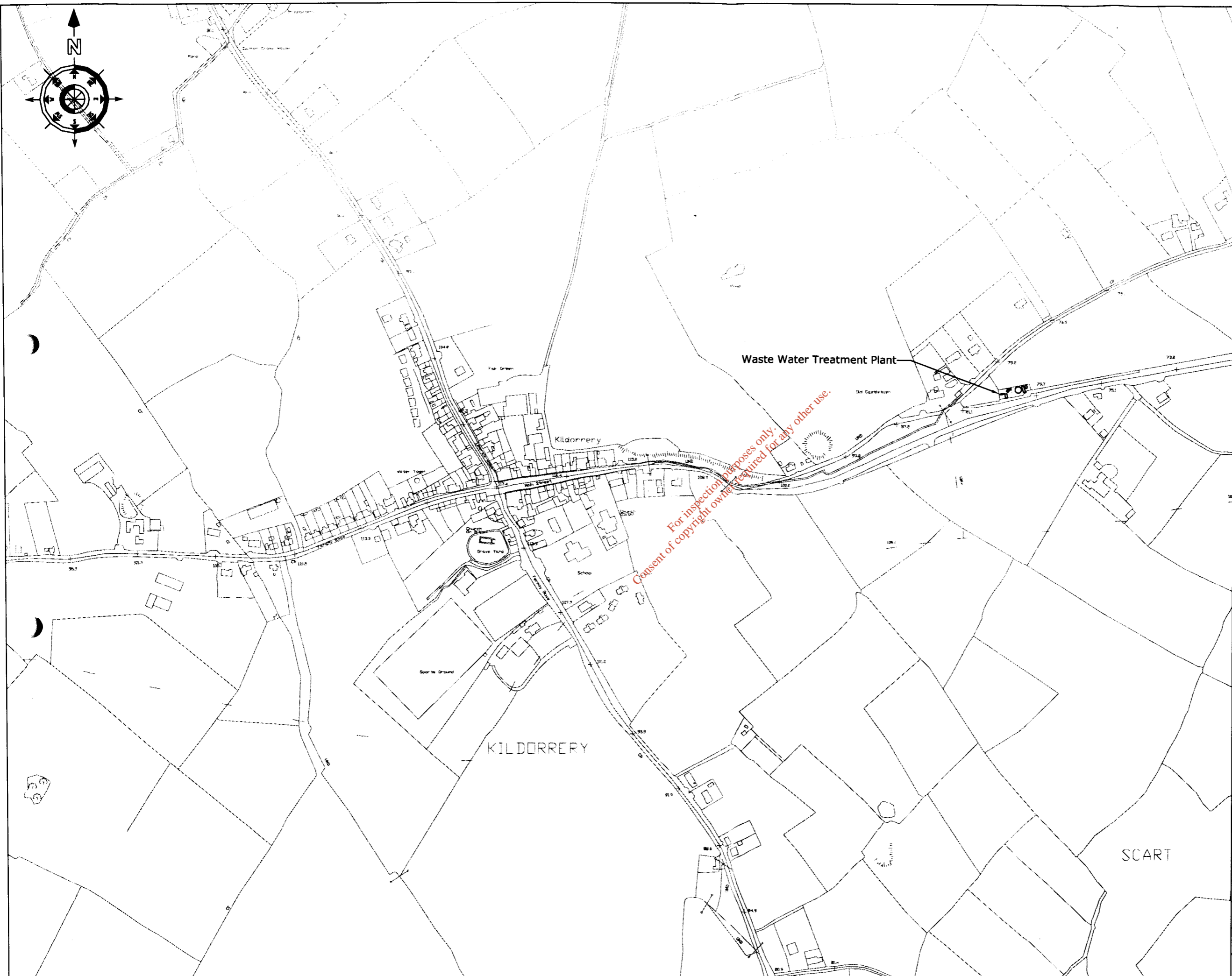


**N. O'KEEFE, B.E.,
COUNTY ENGINEER,
COUNTY HALL,
CORK.**

**Job Title: Kildorrery & Environs
Waste Water Discharge
Licence Application**

**Drawing Title:
Location Map
Scale - 1:50,000
Attachment A1 - Map 1**

Scales: 1:50,000 @ A3	Surveyed by: D.L.	Drawn by: D.L.
Designed by: E.M.	Checked by: F.C.	Date: June 2009
Drawing number: A1 - Map 1	Rev:	



- NOTES**
1. Dimensions are not to be scaled from drawing. For any discrepancies found consult with the design office.
 2. This drawing is to be read in conjunction with the Specification.
 3. This drawing is to be read in conjunction with all other contract drawings.

No.	Date	Drawn	Checked	Revision Description

Cork County Council,
Northern Division.

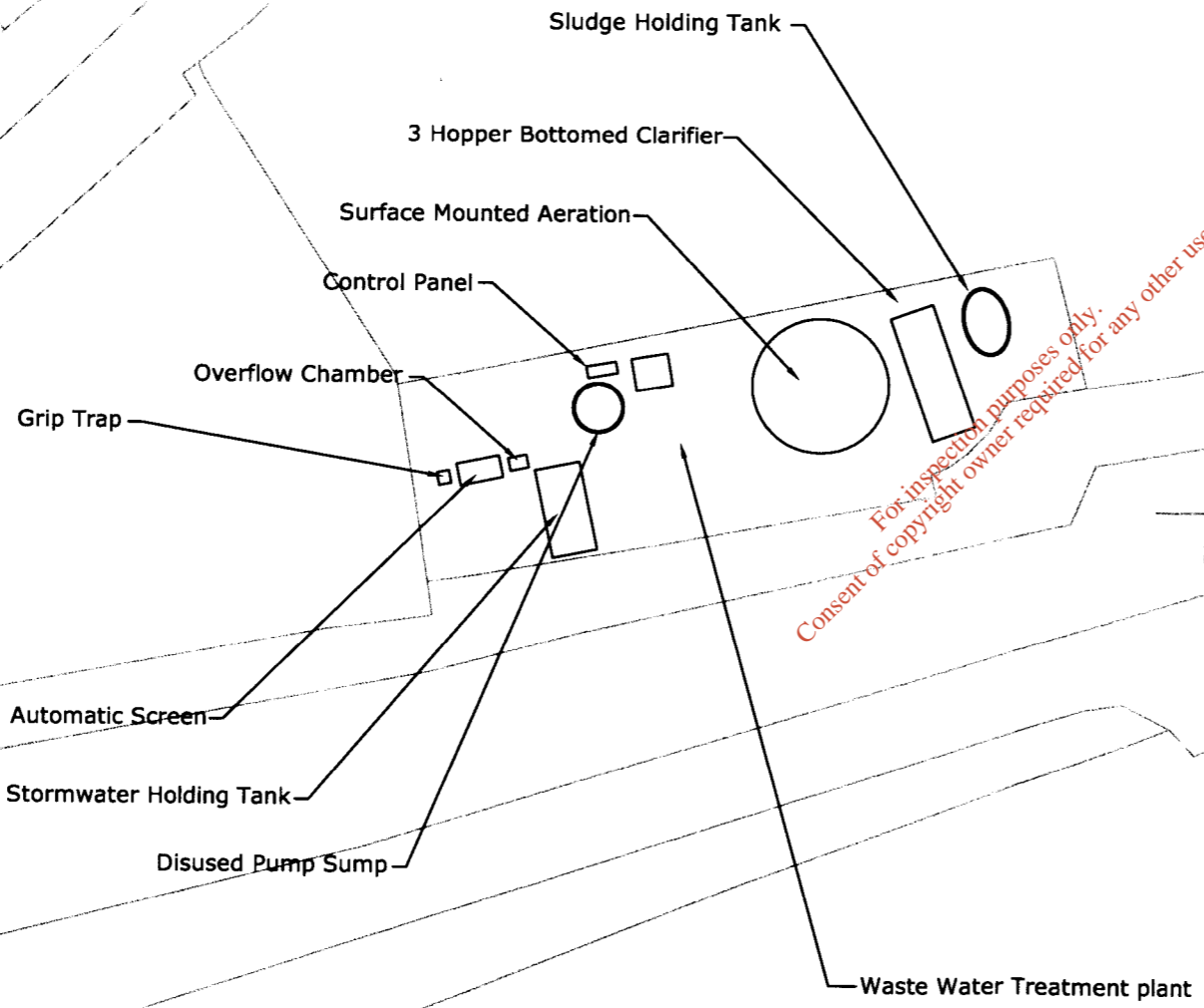
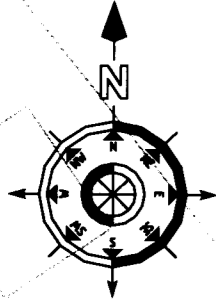


N. O'KEEFE, B.E.,
COUNTY ENGINEER,
COUNTY HALL,
CORK.

Job Title:
**Kildorrery & Environs
Waste Water Discharge
Licence Application**

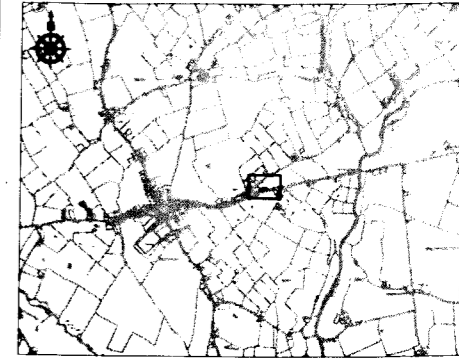
Drawing Title:
**Site Locations of W.W.T.P.
Attachment A1 - Map 2**

Scale: 1:5000 @ A3	Surveyed by: D.L.	Drawn by: D.L.
Designed by: E.M.	Checked by: F.C.	Date: June 2009
Drawing number: A1-Map2	Rev:	-



NOTES

1. Dimensions are not to be scaled from drawing. For any discrepancies found consult with the design office.
2. This drawing is to be read in conjunction with the Specification.
3. This drawing is to be read in conjunction with all other contract drawings.



KEY PLAN

No.	Date	Drawn	Survey	Checked	Revision Description

**Cork County Council,
Northern Division.**

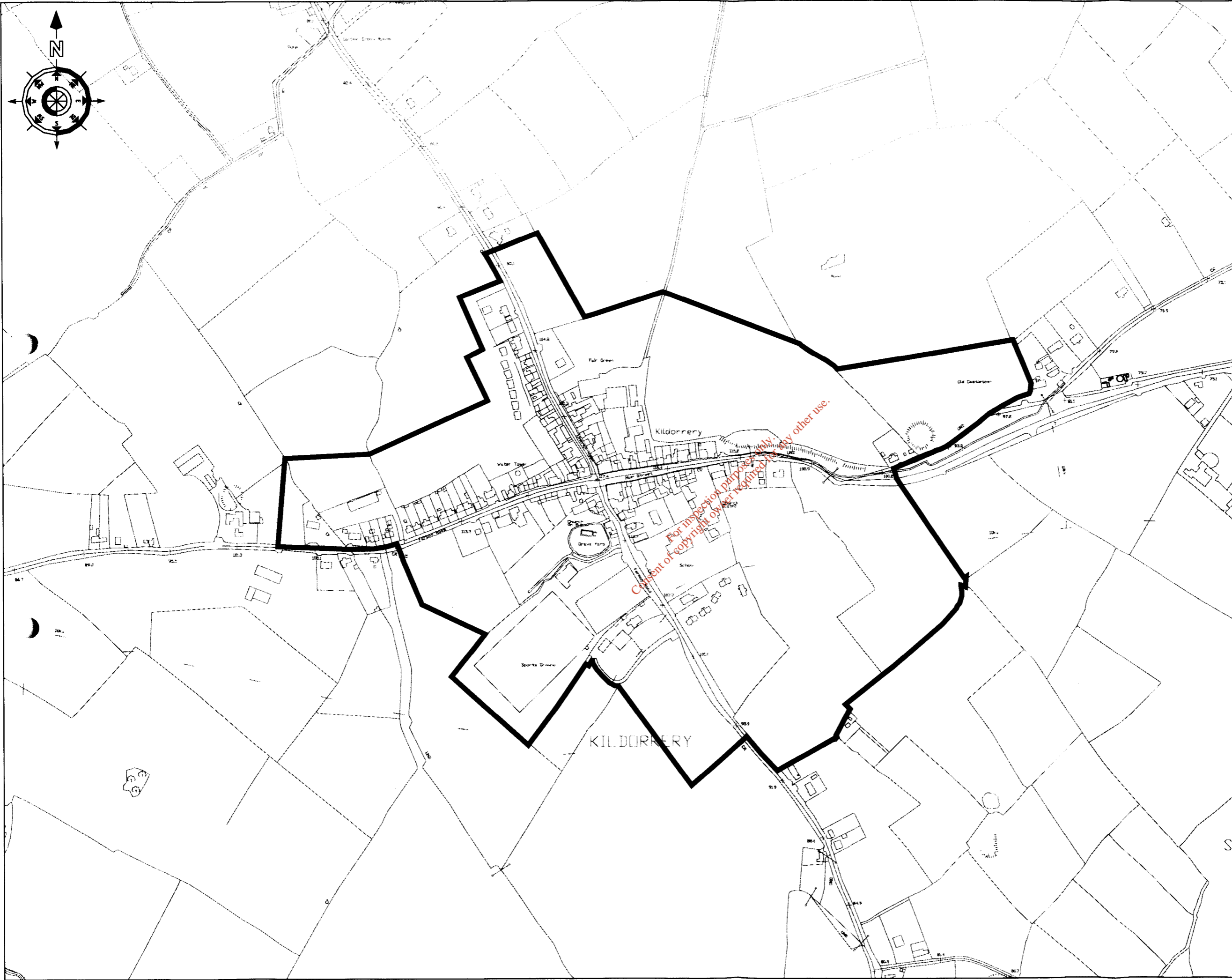


**N. O'KEEFFE, B.E.,
COUNTY ENGINEER,
COUNTY HALL,
CORK.**

Job Title:
Kildorrery & Environs
Waste Water Discharge
Licence Application

Drawing Title:
Waste Water Treatment Plant
Site Layout
Attachment A1 - Map 3

Scale: 1:500 @ A3	Surveyed by: D.L.	Drawn by: D.L.
Designed by: E.M.	Checked by: F.C.	Date: June 2009
Drawing number: A1 - Map 3		Rev: -



NOTES

1. Dimensions are not to be scaled from drawing. For any discrepancies found consult with the design office.
2. This drawing is to be read in conjunction with the Specification.
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No.	Date	Drawn/Checked	Revision Description

Cork County Council,
Northern Division.

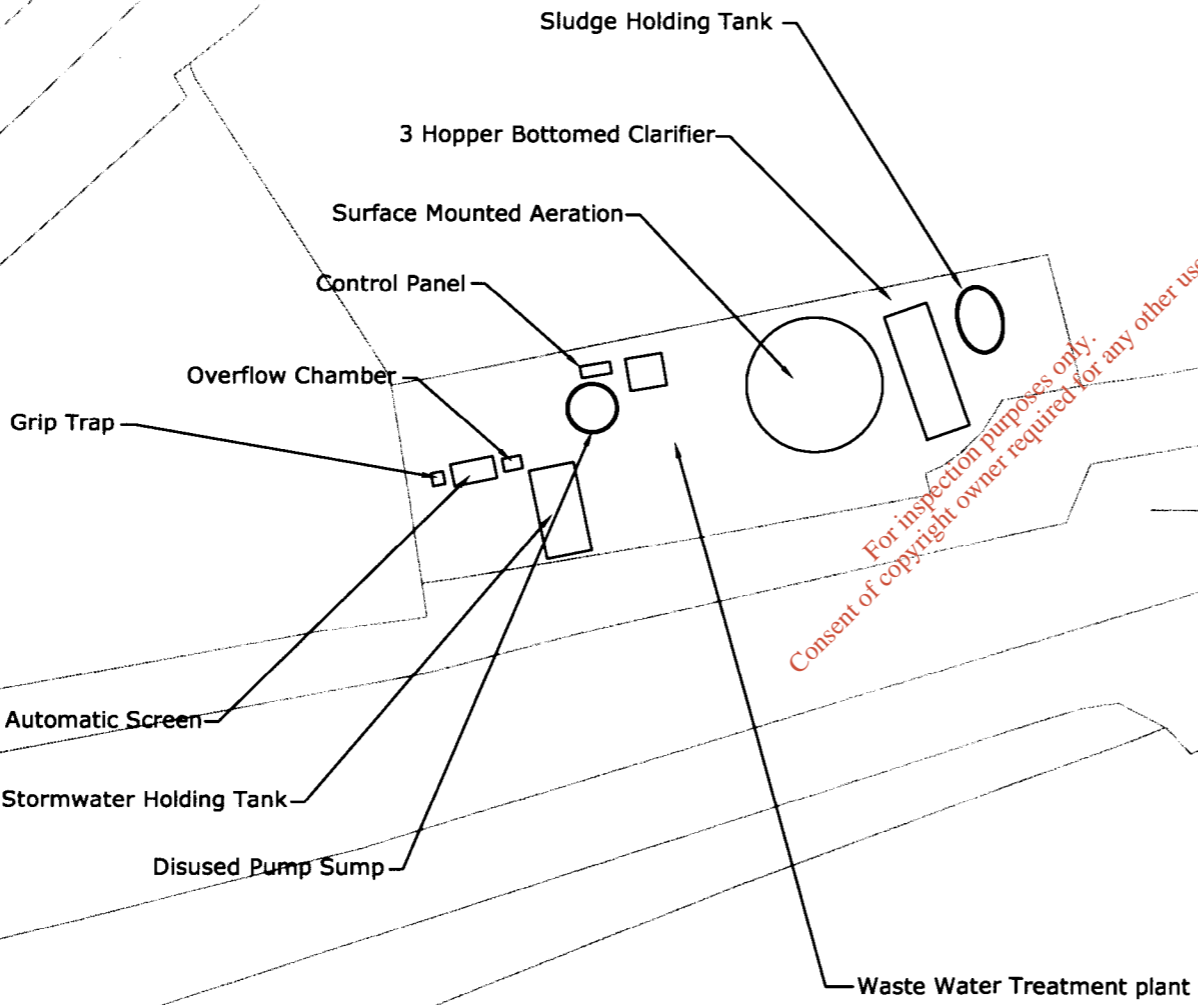
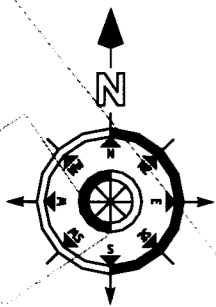


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Job Title: **Kildorrery & Environs
Waste Water Discharge
Licence Application**

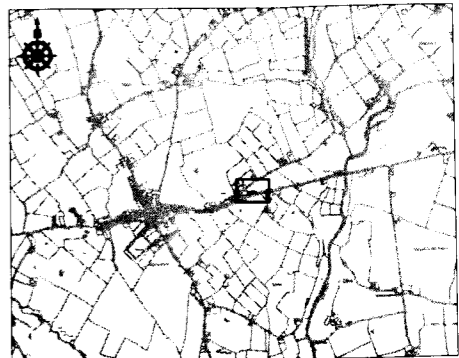
Drawing Title:
**Agglomeration Boundary
Attachment B1 - Map 4**

Scale: 1:5,000 @ A3	Surveyed by: D.L.	Drawn by: D.L.
Designed by: E.M.	Checked by: F.C.	Date: June 2009
Drawing number: B1 - Map 4		Rev: -



NOTES

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KEY PLAN

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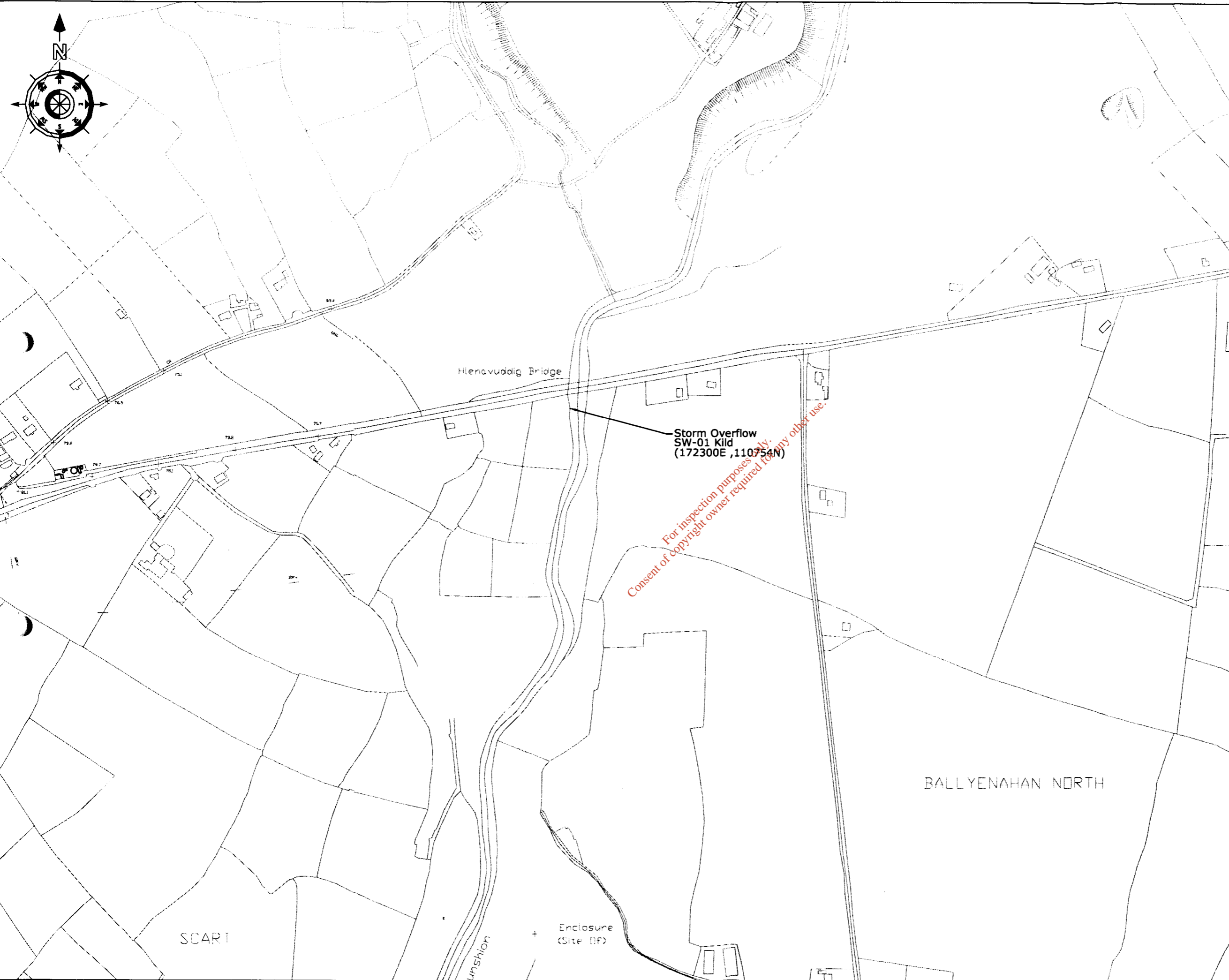


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COUNTY ENGINEER,
COUNTY HALL,
CORK.

Job Title:
Kildorrery & Environs
Waste Water Discharge
Licence Application

Drawing Title:
Waste Water Treatment Plant
Site Layout
Attachment B2 - Map 5

Scale: 1:500 @ A3	Surveyed by: D.L.	Drawn by: D.L.
Designed by: E.M.	Checked by: F.C.	Date: June 2009
Drawing number: B2 - Map 5		Rev: -




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COUNTY ENGINEER,
COUNTY HALL,
CORK.**

Job Title: Kildorrery & Environs
Waste Water Discharge
Licence Application

Drawing Title:
Location of Primary Discharge
Point SW01 - Kild
Attachment B3 - Map 6

Scale: 1:500 @ A3	Surveyed by: D.L.	Drawn by: D.L.
Designed by: E.M.	Checked by: F.C.	Date: June 2009
Drawing number: B3 - Map 6		Rev: -




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No.	Date	Drawn/Survey/Checked	Revision	Description

**Cork County Council,
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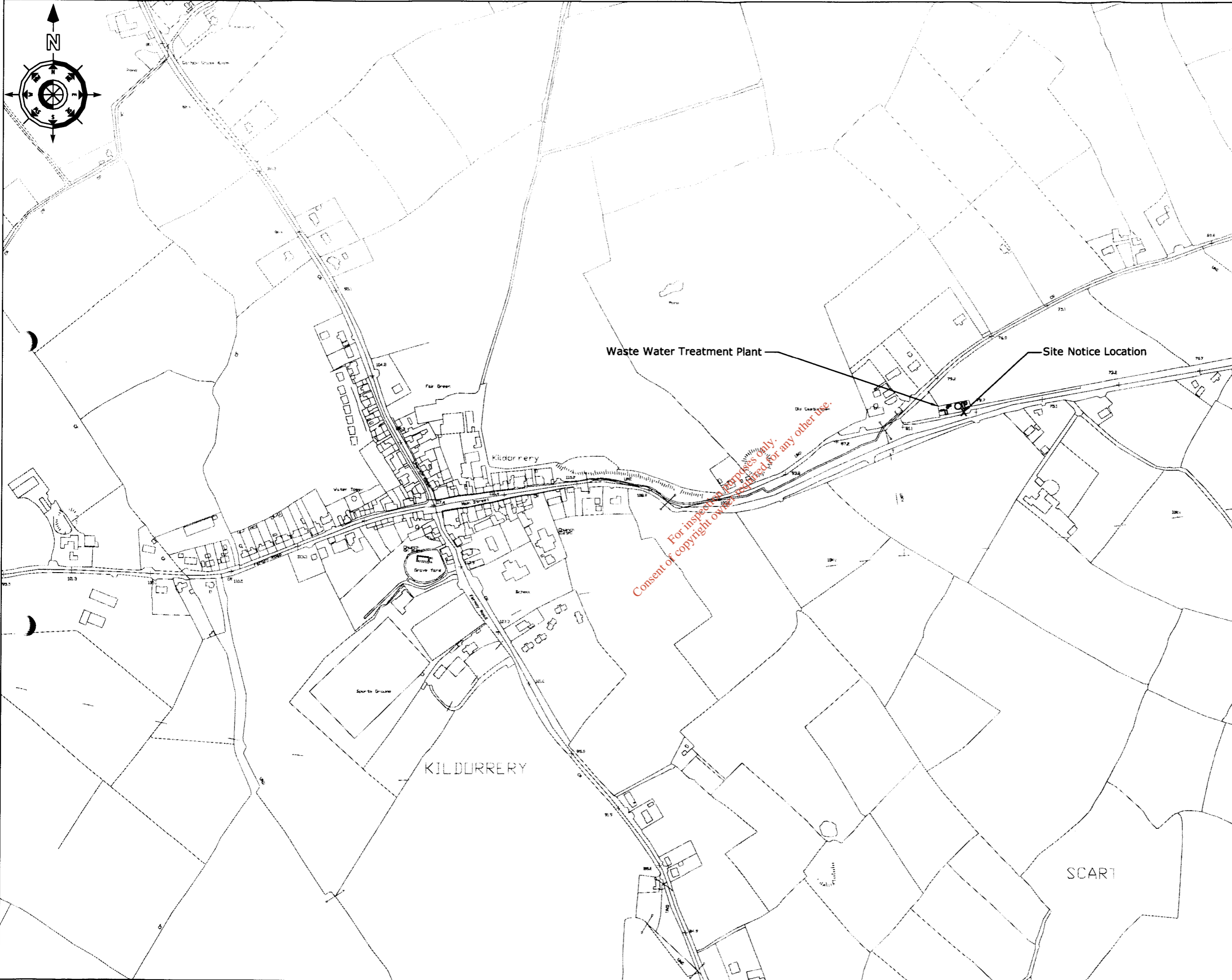


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CORK.

Job Title: Kildorrery & Environs
Waste Water Discharge
Licence Application

Drawing Title:
Locations of sampling points
Attachment B3 - Map 7

Scale: 1:10,000 @ A3	Surveyed by: D.L.	Drawn by: D.L.
Designed by: E.M.	Checked by: F.C.	Date: June 2009
Drawing number: B3 - Map 7		Rev: -



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COUNTY HALL,
CORK.

Job Title: **Kildorrery & Environs
Waste Water Discharge
Licence Application**

Drawing Title:
**Location of Site Notice
Attachment B8 - Map 8**

Scale: 1:5,000 @ A3	Surveyed by: D.L.	Drawn by: D.L.
Designed by: E.M.	Checked by: F.C.	Date: June 2009
Drawing number: B8 - Map 8		Rev: -



CORK COUNTY COUNCIL

SITE NOTICE

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A WASTEWATER DISCHARGE LICENCE

In accordance with the Waste Water Discharge (Authorisation) Regulations 2007, Water Services Northern Division, Cork County Council, Annabella, Mallow is applying to the Environmental Protection Agency for a Waste Water Discharge Licence for the agglomeration of Kildorrery at the following locations:

Plant Name	Location	National Grid Ref.
Kildorrery	Scart, Kildorrery	171550E, 110663N

Discharge	Function	Townland	Receptor	Grid Reference
Primary	main	Scart	River Funshion	172300E, 110754N

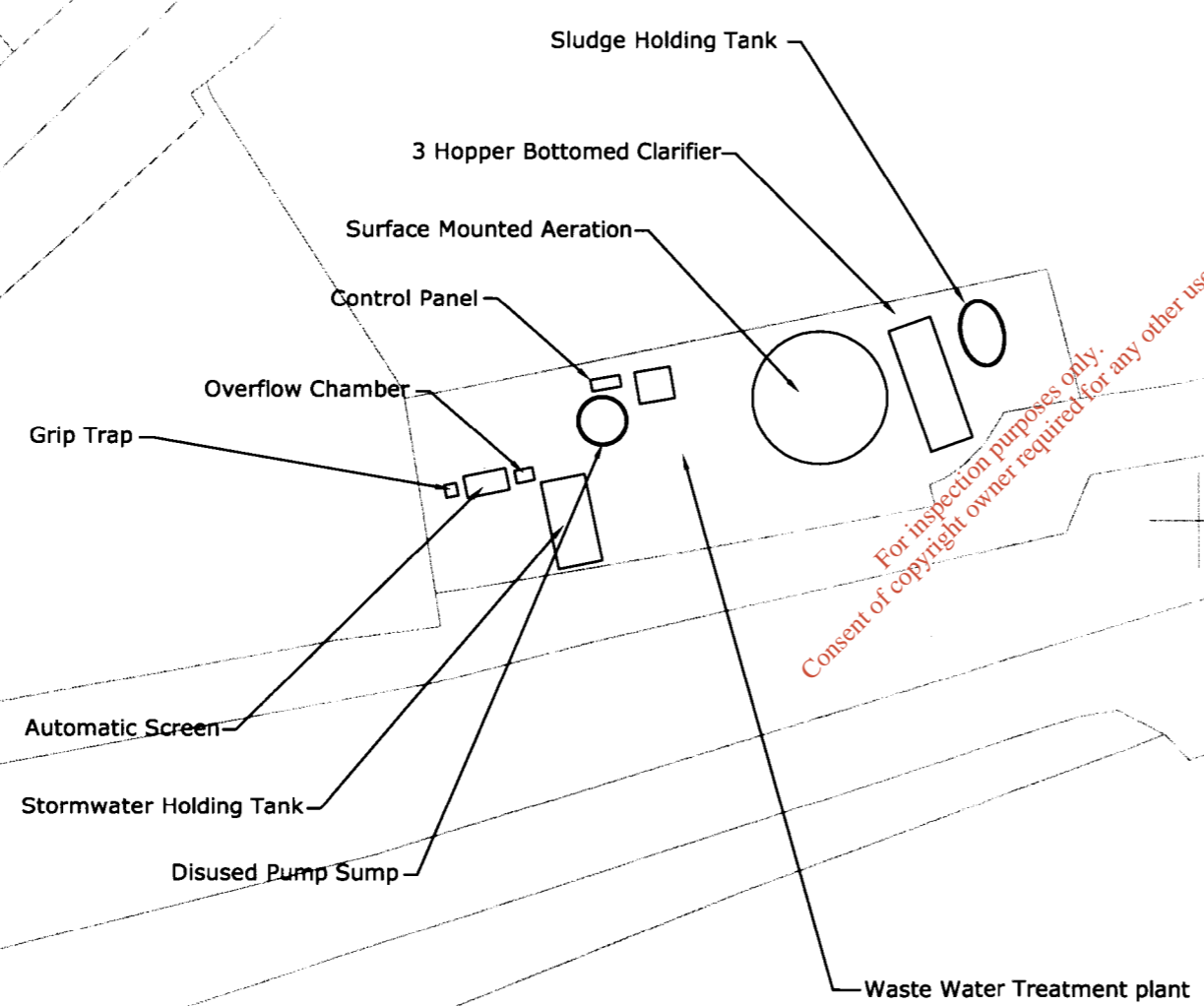
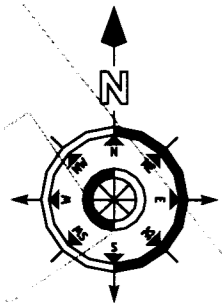
A copy of the application for the Waste Water Discharge Licence and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the Application shall as soon as is practicable after receipt by the Agency be available for inspection or purchase at the

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

and at

- Cork County Council Offices, Annabella, Mallow, Co. Cork, Telephone: 022-21123 Fax: 022-21983

Submissions in relation to the application may be made to the Environmental Protection Agency at its headquarters described above.

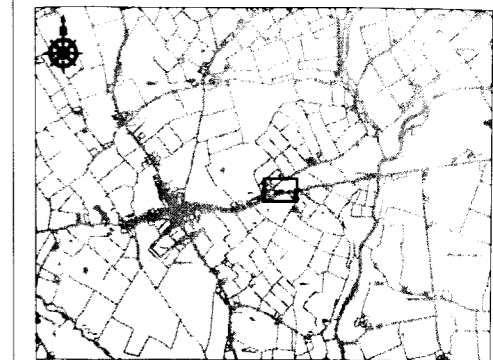


+ 81.1

79.7

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KEY PLAN

No.	Date	Drawn	Surv	Checked	Revision	Description

Cork County Council,
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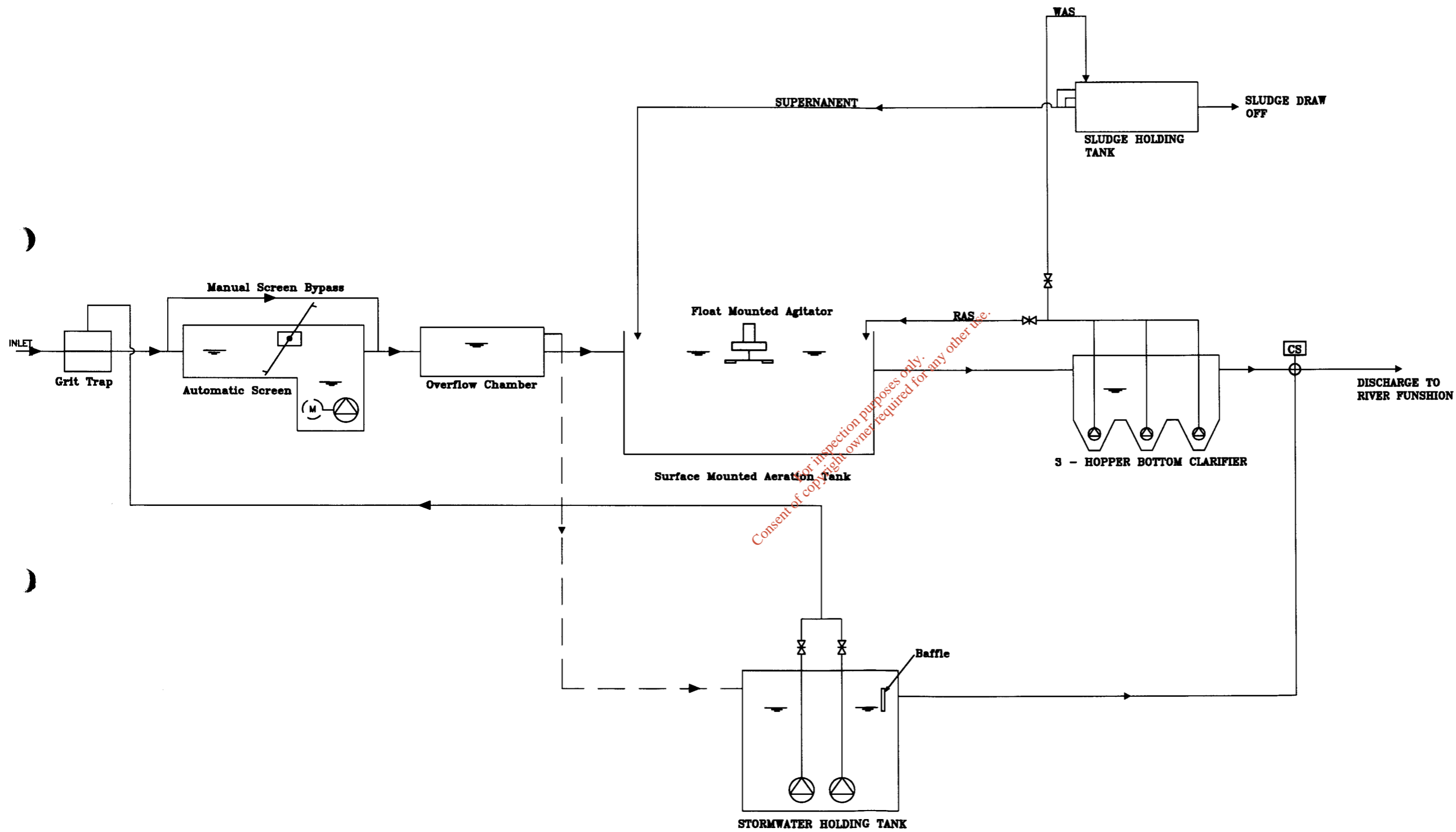


N. O'KEEFE, B.E.,
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COUNTY HALL,
CORK.

Job Title:
Kildorrery & Environs
Waste Water Discharge
Licence Application

Drawing Title:
Waste Water Treatment Plant
Site Layout
Attachment C1 - Map 9

Scale: 1:500 @ A3	Surveyed by: D.L.	Drawn by: D.L.
Designed by: E.M.	Checked by: F.C.	Date: June 2009
Drawing number: C1 - Map 9		Rev: -



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Northern Division.



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COUNTY ENGINEER,
COUNTY HALL,
CORK.

Job Title: Kildorrery & Environs
Waste Water Discharge
Licence Application

Drawing Title:
Schematic showing Existing
Treatment Plant Process
Attachment C1 - Drawing 1

Scale: 1:5000 @ A3	Surveyed by: D.L.	Drawn by: D.L.
Designed by: E.M.	Checked by: F.C.	Date: June 2009
Drawing number: C1 - Drawing 1	Rev:	-

PT_CD	PT_TYPE	LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING	VERIFIED
SW01 KILD	Primary	cork county council	river	Funshion	none	172300	110754	N

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Attachment E4 Kildorrery Inlet Table E4

Sample Date	04/02/2009	11/03/2009	21/04/2009	14/05/2009	
Sample	Influent	Influent	Influent	Influent	Average
Sample Code	GT248		GT715	GT672	
Flow M ³ /Day	*	*	*	*	7.85
pH	7.9	7.8	8.1	7.6	
Temperature °C	*	*	*	*	1703
Cond 20°C	3250	1492	1169	901	95.25
SS mg/L	54	118	78	131	37.05
NH ₃ mg/L	20	56	48	24.2	152.75
BOD mg/L	97	225	152	137	334.5
COD mg/L	192	461	443	242	39.775
TN mg/L	25	36	54	44.1	<0.10
Nitrite mg/L	*	*	*	<0.10	<0.50
Nitrate mg/L	*	*	*	<0.50	<0.50
TP mg/L	*	4.5	6.5	2.32	4.44
O-PO4-P mg/L	1.9	3.8	4.8	1.6	3.025
SO4 mg/L	2.6	*	*	<30	2.6
Phenols µg/L	*	*	*	<0.10	<0.10
Atrazine µg/L	*	*	*	<0.01	<0.01
Dichloromethane µg/L	*	*	*	<0.01	<0.01
Simazine µg/L	*	*	*	<0.28	<0.28
Toluene µg/L	*	*	*	*	*
Tributyltin µg/L	*	*	*	<1	<1
Xylenes µg/L	*	*	*	<0.96	<0.96
Arsenic µg/L	<20	*	<20	<20	<20
Chromium ug/L	<20	*	54.2	56	55.1
Copper ug/L	*	*	*	<5	<5
Cyanide µg/L	*	*	*	50	50
Fluoride µg/L	<20	*	<20	<20	<20
Lead ug/L	<20	*	<20	<20	<20
Nickel ug/L	104.	*	70.4	47	73.83333
Zinc ug/L	<20	*	<20	<20	<20
Boron ug/L	<20	*	<20	<20	<20
Cadmium ug/L	*	*	*	<0.2	<0.2
Mercury µg/L	*	*	*	2.3	2.3
Selenium µg/L	*	*	*	21.3	10
Barium ug/L	25.58	*	*	*	18.96

HALF OF LOD FOR STATISTICAL PURPOSES

PT_CD	PT_TYPE	MON_TYPE	EASTING	NORTHING	VERIFIED
SWO1	Primary	Sampling	172300	110754	N
aSW01u	u/s	Sampling	172311	110784	N
aSW01u	d/s	Sampling	172033	109580	N

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Attachment E4 Kildorrery Upstream Table E4

Sample Date	13/11/2008	04/02/2009	19/02/2009	11/03/2009	21/04/2009	14/05/2009	Average
Sample	River	River	River	River	River	River	
Sample Code	GS1231	GT250	GT226	GT402	GT717	GT670	
Flow M ³ /Day	*	*	*	*	*	*	
pH	*	7.6	*	7.5	7.9	8.1	7.775
Temperature °C	*	*	*		*	*	
Cond 20°C	*	339	*	353	501	452	411.25
SS mg/L	*	7	*	2	2	<2.5	3.66666667
NH ₃ mg/L	*	0.2	*	<0.05	0.05	<0.1	0.125
BOD mg/L	*	3	*	<2	<2	2	2.5
COD mg/L	*	12	*	10	<5	<21	11
TN mg/L	*	3.3	*	2.7	3	4.37	3.3425
Nitrite mg/L	*	*	*	*	*	<0.10	<0.10
Nitrate mg/L	*	*	*	*	*	3.65	3.65
TP mg/L	*	0.06	*	0.09	0.19	0.088	0.107
O-PO4-P mg/L	<0.05	<0.05	<0.05	0.07	0.18	0.07	0.10666667
SO4 mg/L	*	*	*	*	*	<30	<30
Phenols µg/L	*	*	*	*	*	<0.10	<0.10
Atrazine µg/L	*	*	*	*	*	<0.01	<0.01
Dichloromethane	*	*	*	*	*	<1	<1
Simazine µg/L	*	*	*	*	*	<0.01	<0.01
Toluene µg/L	*	*	*	*	*	<0.28	<0.28
Tributyltin µg/L	*	*	*	*	*	not required	not required
Xylenes µg/L	*	*	*	*	*	<1	<1
Arsenic µg/L	*	*	*	*	*	<0.96	<0.96
Chromium ug/L	*	<20	<20	<20	<20	<20	<20
Copper ug/L	*	<20	<20	<20	<20	<20	<20
Cyanide µg/L	*	*	*	*	*	<5	<5
Fluoride µg/L	*	*	*	*	*	<100	<100
Lead ug/L	*	<20	<20	<20	<20	<20	<20
Nickel ug/L	*	<20	<20	<20	<20	<20	<20
Zinc ug/L	*	<20	<20	<20	<20	<20	<20
Boron ug/L	*	<20	<20	<20	<20	<20	<20
Cadmium ug/L	*	<20	<20	<20	<20	<20	<20
Mercury µg/L	*	*	*	*	*	<0.2	<0.2
Selenium µg/L	*	*	*	*	*	1.6	1.6
Barium ug/L	*		23	22		29.02	18.804

HALF OF LOD FOR STATISTICAL PURPOSES

Attachment E4 Kildorrery Downstream Table E4

Sample Date	13/11/2008	04/02/2009	19/02/2009	05/03/2009	11/03/2009	21/04/2009	14/05/2009	
Sample	River	River	River	River	River	River	River	Average
Sample Code	GS1233	GT251	GT227	GT327	GT403	GT718	GT673	
Flow M ³ /Day	*	*	*	*	*	*	*	
pH	*	7.6	*	*	7.6	8	8.1	7.825
Temperature °C	*	*	*	*		*	*	
Cond 20°C	*	365	*	*	348	542	460	428.75
SS mg/L	*	6	*	*	4	2	<2.5	4
NH ₃ mg/L	*	0.2	*	*	<0.05	0.05	<0.1	0.125
BOD mg/L	*	3	*	*	<2	<2	2	2.5
COD mg/L	*	<5	*	*	123	<5	<21	123
TN mg/L	*	3.9	*	*	2	3	4.49	3.3475
Nitrite mg/L	*	*	*	*	*	*	<0.10	<0.10
Nitrate mg/L	*	*	*	*	*	*	3.71	3.71
TP mg/L	*	0.06	*	*	0.1	0.19	0.093	0.11075
O-PO4-P mg/L	*	<0.05	*	0.09	0.08	0.16	0.07	0.085
SO4 mg/L	*	*	*	*	*	*	<30	<30
Phenols µg/L	*	*	*	*	*	*	<0.10	<0.10
Atrazine µg/L	*	*	*	*	*	*	<0.01	<0.01
Dichloromethane	*	*	*	*	*	*	<1	<1
Simazine µg/L	*	*	*	*	*	*	<0.01	<0.01
Toluene µg/L	*	*	*	*	*	*	<0.28	<0.28
Tributyltin µg/L	*	*	*	*	*	*	not required	not required
Xylenes µg/L	*	*	*	*	*	*	<1	<1
Arsenic µg/L	*	*	*	*	*	*	<0.96	<0.96
Chromium ug/L	*	<20	<20	<20	<20	<20	<20	<20
Copper ug/L	*	<20	<20	<20	<20	<20	<20	<20
Cyanide µg/L	*	*	*	*	*	*	<5	<5
Fluoride µg/L	*	*	*	*	*	*	127	127
Lead ug/L	*	<20	<20	<20	<20	<20	<20	<20
Nickel ug/L	*	<20	<20	<20	<20	<20	<20	<20
Zinc ug/L	*	<20	<20	<20	<20	<20	<20	<20
Boron ug/L	*	<20	<20	<20	<20	<20	<20	<20
Cadmium ug/L	*	<20	<20	<20	<20	<20	<20	<20
Mercury µg/L	*	*	*	*	*	*	<0.2	<0.2
Selenium µg/L	*	*	*	*	*	*	1.8	1.8
Barium ug/L	*		21		21.6			14.52

HALF OF LOD FOR STATISTICAL PURPOSES

Attachment E4 Kildorrery Inlet Table E4

Sample Date	04/02/2009	11/03/2009	21/04/2009	14/05/2009	
Sample	Influent	Influent	Influent	Influent	Average
Sample Code	GT248		GT715	GT672	
Flow M ³ /Day	*	*	*	*	
pH	7.9	7.8	8.1	7.6	7.85
Temperature °C	*	*	*	*	
Cond 20°C	3250	1492	1169	901	1703
SS mg/L	54	118	78	131	95.25
NH ₃ mg/L	20	56	48	24.2	37.05
BOD mg/L	97	225	152	137	152.75
COD mg/L	192	461	443	242	334.5
TN mg/L	25	36	54	44.1	39.775
Nitrite mg/L	*	*	*	<0.10	<0.10
Nitrate mg/L	*	*	*	<0.50	<0.50
TP mg/L	*	4.5	6.5	2.32	4.44
O-PO ₄ -P mg/L	1.9	3.8	4.8	1.6	3.025
SO ₄ mg/L	2.6	*	*	<30	2.6
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	<0.28
Tributyltin µg/L	*	*	*	*	*
Xylenes µg/L	*	*	*	<1	<1
Arsenic µg/L	*	*	*	<0.96	<0.96
Chromium ug/L	<20	*	<20	<20	<20
Copper ug/L	<20	*	54.2	56	55.1
Cyanide µg/L	*	*	*	<5	<5
Fluoride µg/L	*	*	*	50	50
Lead ug/L	<20	*	<20	<20	<20
Nickel ug/L	<20	*	<20	<20	<20
Zinc ug/L	104.1	*	70.4	47	73.83333
Boron ug/L	<20	*	<20	<20	<20
Cadmium ug/L	<20	*	<20	<20	<20
Mercury µg/L	*	*	*	<0.2	<0.2
Selenium µg/L	*	*	*	2.3	2.3
Barium ug/L	25.58	*	21.3	10	18.96

HALF OF LOD FOR STATISTICAL PURPOSES

Attachment E4 Kildorrery Discharge Outlet Table E4

Sample Date	13/11/2008	04/02/2009	19/02/2009	11/03/2009	26/03/2009	02/04/2009	21/04/2009	14/05/2009	Average
Sample	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	
Sample Code	GS1232	GT249	GT225		GT356	GT465	GT716	GT671	
Flow M ³ /Day	*	*	*		*	*	*	*	
pH	*	7.5	7.7	7.3	7.5	7.7	7.6	8.1	7.628571
Temperature °C	*	*	*	*	*	*	*	*	
Cond 20°C	*	957	*	925	*	*	1005	965	963
SS mg/L	21	6	33	189	13	6	1	115	48
NH ₃ mg/L	*	0.5	*	2.3	*	*	0.18	0.5	0.87
BOD mg/L	4.62	6	20	117	5	7	6	97	32.8275
COD mg/L	36	25	56	250	31		19	194	77.6875
TN mg/L	*	10	*	3.3	15.7	22	21	38.1	18.35
Nitrite mg/L	*	*	*	*	*	*	*	0.155	0.155
Nitrate mg/L	*	*	*	*	*	*	*	19.945	19.945
TP mg/L	*	0.7	*	2.2	2.35	2.25	2.4	2.81	2.118333
O-PO4-P mg/L	*	0.6	*	1.4	*	*	2.4	2.62	1.755
SO4 mg/L	*	*	*		*	*	*	<30	<30
Phenols µg/L	*	*	*		*	*	*	<0.10	<0.10
Atrazine µg/L	*	*	*		*	*	*	<0.01	<0.01
Dichloromethane	*	*	*		*	*	*	<1	<1
Simazine µg/L	*	*	*		*	*	*	<0.01	<0.01
Toluene µg/L	*	*	*		*	*	*	<0.28	<0.28
Tributyltin µg/L	*	*	*		*	*	*	not required	not required
Xylenes µg/L	*	*	*		*	*	*	<1	<1
Arsenic µg/L	*	*	*		*	*	*	<0.96	<0.96
Chromium ug/L	*	<20	<20		<20	<20	<20	<20	<20
Copper ug/L	*							51	16.83333
Cyanide µg/L	*	*	*		*	*	*	<5	<5
Fluoride µg/L	*	*	*		*	*	*	<100	<100
Lead ug/L	*	<20	<20		<20	<20	<20	<20	<20
Nickel ug/L	*	<20	<20		<20	<20	<20	<20	<20
Zinc ug/L	*	24	84.31					118	42.71833
Boron ug/L	*		33.65					<20	14.73
Cadmium ug/L	*	<20	<20		<20	<20	<20	<20	<20
Mercury µg/L	*	*	*		*	*	*	<0.2	<0.2
Selenium µg/L	*	*	*		*	*	*	1.2	1.2
Barium ug/L	*							35	14.16667

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