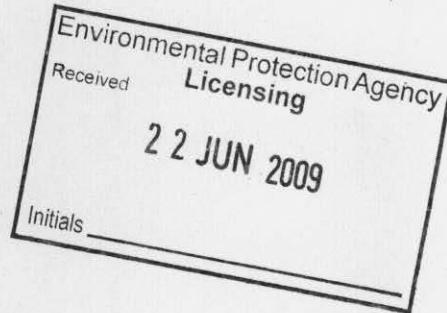


Comhairle Contae Chorcaí Cork County Council

County Hall,
Cork, Ireland.
Tel: (021) 4276891 • Fax: (021) 4276321
Web: www.corkcoco.ie
Halla an Chontae,
Corcaigh, Éire.
Fón: (021) 4276891 • Faics: (021) 4276321
Suíomh Gréasáin: www.corkcoco.ie



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



Our Ref.: MS/RIV/0609

15th June 2009

Sub.: Waste Water Discharge License Application for the Agglomeration of Riverstick , County Cork.

Dear Sir/Madam,

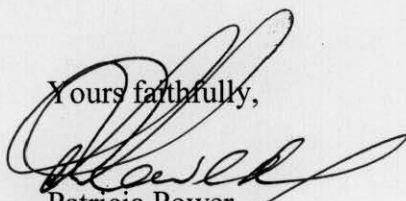
Please find enclosed the waste water discharge license application for the agglomeration of Riverstick .

The following are the documents enclosed as per the application guide note.

- 1 No. signed hard copies of Originals.
- 1 No. hard copy of Originals.
- 2 No. CD-ROM with documentation in electronic searchable PDF,
- 1 No. CD-ROM with GIS Data, Table D.2 ,Table E.3.and Table F.2

The content of the electronic files is true copy of the original hard copy.

Yours faithfully,


Patricia Power
Director of Services

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CORK COUNTY COUNCIL
(Southern Division)

APPLICATION TO THE ENVIRONMENTAL PROTECTION
AGENCY FOR A WASTEWATER DISCHARGE LICENCE

under the Wastewater Discharge Authorisation Regulations S.I. 684 of 2007



Location : The agglomeration of Riverstick , County Cork

Category of application : 500 to 1000 PE

Date Application Lodged : 22nd June 2009



Waste Water Discharge Licence Application Form

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EPA Ref. N^o: <i>(Office use only)</i>	<input type="text"/>
--	----------------------

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

Tracking Amendments to Draft Application Form

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

		to waste water treatment plants, where available. Amend wording of Section E.1 to request information on composite sampling/flow monitoring provisions.	the plant. To acquire accurate information on the sampling and monitoring provisions for discharges from the works.
V.5	07/07/2008	Amend wording of B.7 (iii) to include reference to Water Services Authorities. Amend Section G.1 to include Shellfish Waters Directive.	To accurately reflect the Water Services Act, 2007 requirements.
V.6	26/08/2008	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 (within the two weeks prior to date of application) 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° A.1**

Non-Technical Summary

Riverstick Village is located approximately 8 kilometres to the north of Kinsale and 11 kilometres to the east of Inishannon. The busy Regional Route, the R600, which links Kinsale with Cork City, runs through the village. The lands to the east and west of the village core are elevated and overlook the village centre, the R600 and the River Stick. Riverstick is designated as a village within the Bandon Electoral Area Local Area Plan. The village has experienced significant residential development in recent years.

The Waste Water Works and the activities carried out therein

The sewerage network in Riverstick comprises two catchments, the existing village and environs and the Curra Woods Developments. Waste water from the village and environs flow by gravity to a pumping station located at Waterford Bridge. The Waterford Bridge pumping station pumps the waste water to a discharge manhole on the R600, which is located close to the WWTP. Waste water from the Curra Woods Developments flows directly to the WWTP by gravity. Cork County Council constructed a sewerage network within the older part of the village in 2003. Both existing properties and more recent developments are connected to this network.

Riverstick WWTP is currently operated by a private operator under a short term Operation and Maintenance Contract. The Service Provider is fully responsible for

the provision of all plant materials including consumables and labour and also licences and permits necessary to ensure that the facility is operated and maintained in accordance with the best practice and any performance requirements stipulated in the Employer's Requirements.

A review of the treatment works at Riverstick has indicated that the treatment plant is in very poor condition in terms of operational efficiency and a low residual value exists. The plant comprises the following:

- Inlet Manual coarse screen
- Primary Settlement Tank
- Two Aeration Tanks
- Passive Clarifier and 1 No. Sludge Return and Waste Return Pump
- Alum Tank, bund and dosing pumps
- Control Room above aeration tank
- Sludge Holding Tank
- Reed Bed for tertiary treatment
- Effluent flow meter and sampler

There is an inlet manual bar screen that has 20-25mm spacing. There is a passive screen in the primary tank and the suction pipe of the pump is located within a fine screen mesh to protect the suction. There is an outlet weir in the primary tank. There are two aeration tanks and a clarifier with a slotted pipe outlet. The sludge holding tank is not in use because there is no sludge; it is usually washed out in the effluent. The plant was reseeded twice and washed out in heavy flow conditions. The reed bed contents would also be considered contaminated as a result of various washout periods. This may be the cause of the obvious odour at the treatment plant. The Western Bundle report carried out by Nicholas O'Dwyer Consulting Engineers recommends that the existing plant be demolished and a new plant be constructed on the existing site. This can be achieved by locating the new plant on the existing reed bed while the old plant remains in operation.

There have been several major operational difficulties identified with the Riverstick WWTP these include:

- The inlet pumps are not able to deal with the high flows caused by heavy rainfall. Larger capacity pumps are required, this would require a 3 phase electricity supply.
- The RAS pumps are continually getting blocked and tripping out. The sludge is sitting in the clarifier instead of the aeration tanks and gets washed out when high hydraulic loads enter the plant.
- Air blowers are not operated under DO readings.

Samples are taken weekly and analysed for pH, BOD, COD and Suspended Solids and monthly for Total Phosphates. The design capacity of the plant is 450PE, it is proposed to construct a 1000PE plant. The current contribution to the plant is estimated at 417PE (max) in terms of flow and 934PE (max) in terms of BOD as indicated in Response Engineering monthly reports and outlined in the **Table A.1.1**. The plant has experienced overload conditions on some occasions due to the washout

of the biomass. The plant is designed to provide a required effluent quality of 10mg/l and 15mg/l for BOD and Suspended Solids respectively due to the low assimilative capacity of the receiving waters.

Influent	Jan-09	Feb-09	Mar-09	Apr-09
PE(Flow)	325	417	301	341
PE(BOD)	181	566	310	227
Flow (m3/d)	65	83	60	68
COD Avg. (mg/l)	368	1262	1242	544
BOD Avg. (mg/l)	167	509	502	257
S.S. Avg. (mg/l)	115	539	120	52
T.P. Avg. (mg/l)	4.5	15.5	13.3	12.4
pH Avg	6.81	7.13	7.26	7.03

Effluent	Jan-09	Feb-09	Mar-09	Apr-09
COD Avg. (mg/l)	196	213	293	161
BOD Avg. (mg/l)	73	66	131	62
S.S. Avg. (mg/l)	15	21	29	20
T.P. Avg. (mg/l)	3	1	7.3	7
pH Avg	7	7.2	7.3	7.2

Table A.1.1 Riverstick Influent and Effluent Data

The sources of emissions from the waste water works

The population load for the Riverstick agglomeration arises from the following area:

- Domestic population
- Non Domestic population

The sewage from all non-domestic premises is collected via the public sewer network and treated in conjunction with the domestic waste at the WWTP. Riverstick WWTP does not receive any other sludge imported from other municipal waste water sources, or septic tanks.

Other potential emissions from the waste water treatment plant include:

- Odour generated from the treatment process.
- Noise pollution – minor during normal operation.

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 emissions on the environment.

The final effluent discharges to the River Stick running parallel to the northern boundary of the site. The maximum flow to the existing plant is in the order of 76m³/d to 113m³/d with an average inflow of 95m³/d entering the plant per day. The proposed plant will be designed for 1,000 PE and shall be designed to cater for 3DWF.

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

Technology

The new WWTP will include the following elements:

- Inlet Screening
- Aeration tank
- Final Settlement Tank
- Phosphorus Removal

Techniques

The new WWTP shall be operated and maintained in accordance with the best practice and any performance requirements stipulated in the Employer's Requirements.

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

The upgrading of the plant will ensure that the basic obligations of the operator are being adhered to. There is sufficient space on the existing site to cater for the proposed upgrade.

Measures planned to monitor emissions into the environment

The Cork County Council Environmental Laboratory carries out sampling of the influent and effluent. The Cork County Council Environmental Department located in Inniscarra takes samples from the stream upstream and downstream of the existing wastewater treatment plant outfall.

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SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration: Riverstick
--

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:	County Hall
	Carrigrohane Road
	Cork
Tel:	021 4276891
Fax:	021 4276321
e-mail:	

*This should be the name of the water services authority in whose ownership or control the waste water works is vested.
 *Where an application is being submitted on behalf of more than one water services authority the details provided in Section B.1 shall be that of the lead water services authority.

Name*:	Patricia Power
Address:	Director of Services: Operational Area South
	Floor 5 (Tower)
	County Hall
	Cork
Tel:	021 4285285
Fax:	021 4276321
e-mail:	Patricia.power@corkcoco.ie

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

Co-Applicant's Details

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

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

Design, Build & Operate Contractor Details

Name*:	Response Engineering Ltd.
Address:	Railway Road
	Charleville
	Cork
Tel:	063 33400
Fax:	063 33401
e-mail:	

*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*:	Madeleine Healy
Address:	Curra
	Riverstick
	Co. Cork
Grid ref (6E, 6N)	165912E, 057429N
Level of Treatment	Secondary
Primary Telephone:	021 4285233
Fax:	021 4276321
e-mail:	Madeleine.healy@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	Pipe to River
Unique Point Code	SW01RVRST
Location	River Stick
Grid ref (6E, 6N)	165975E, 057389N

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	Pipe to River
Unique Point Code	SW02RVRST
Location	River Stick
Grid ref (6E, 6N)	165975E, 057389N

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 Carrigrohane Road Cork
Tel:	021 4276891
Fax:	021 4867007
e-mail:	planninginfo@corkcoco.ie

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

<i>has been obtained</i>		<i>is being processed</i>	
<i>is not yet applied for</i>	✓	<i>is not required</i>	

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
----------------------------	------------	-----------

		✓
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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 Services Executive Southern Region
Address:	North Lee Local Health Office
	Floor 2, Abbeycourt House
	George's Quay
Tel:	021 4965511
Fax:	
e-mail:	info@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 (within two weeks prior to date of application) and by way of a site notice. See *Guidance Note*.

Attachment B.8 should contain a copy of the site notice and an appropriately scaled drawing ($\leq A3$) showing its location. **The original application must include the original page of the newspaper in which the advertisement was placed.** The relevant page of the newspaper containing the advertisement should be included with the original and one (1) copy 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	550
Data Compiled (Year)	2009
Method	Geodirectory Assessment

B.9 (ii) Pending Development

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

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

A PE of 500 was obtained by a geodirectory assessment. An additional 10% has been added to this figure in order to account for future development. This allows for a potential increase in the PE of up to 550 during the course of the licence.

B.9 (iii) FEES

State the relevant Class of waste water discharge as per Column 1 of the Second Schedule, and the appropriate fee as per Columns 2 or 3 of the Third Schedule of

the Waste Water Discharges (Authorisation) Regulations 2007, S.I. No. 684 of 2007.

Class of waste water discharge	Fee (in €)
	10,000

Appropriate Fee Included	Yes	No
	✓	

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
		✓

SECTION C: INFRASTRUCTURE & OPERATION

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

C.1 Operational Information Requirements

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

C.1.1 Storm Water Overflows

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

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

C.1.2 Pumping Stations

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

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

C.1 Operational Information Requirements

Riverstick Village is located approximately 8 kilometres to the north of Kinsale and 11 kilometres to the east of Inishannon. The busy Regional Route, the R600, which also serves Kinsale runs through the village. The lands to the east and west of the village core are elevated and overlook the village centre, the R600 and the River Stick. Riverstick is designated as a village within the Bandon Electoral Area. The village has experienced significant residential development in recent years.

The Riverstick Waste Water Treatment Plant is currently operated under a short term Operate and Maintain Contract by Response Engineering. The WWTP is located adjacent to the River Stick into which the final effluent discharges.

The sewerage network in Riverstick comprises two catchments, the existing village and environs and the Curra Woods Developments. Waste water from the village and environs flows by gravity to a pumping station at Waterford Bridge. The Waterford Bridge pumping station pumps the waste water to a discharge manhole on the R600, waste water flows from there by gravity to the WWTP. The Curra Woods

Developments flows directly to the WWTP by gravity. Cork County Council constructed a sewerage network within the older part of the village. Both existing properties and new developments were connected up to this network.

A scoping study of Riverstick Waste Water Treatment Plant by Nicholas O'Dwyer Consulting Engineers has indicated that the works is in very poor condition in terms of operational efficiency and a low residual value exists. The plant comprises the following:

- Inlet Manual coarse screen
- Primary Settlement Tank
- Two Aeration Tanks
- Passive Clarifier and 1 No. Sludge Return and Waste pump
- Alum Tank, bund and dosing pumps
- Control Room above aeration tank
- Sludge Holding Tank
- Reed bed for tertiary treatment
- Effluent flow meter and sampling

Primary Treatment

Under normal operating conditions all of the influent will be directed through the manual bar screen. Screenings of 20-25mm or larger are separated from the influent. Baffles have been fitted to retain rags. The waste water is then conveyed to the primary settlement tank, which has a volume of 32m³. Here the heavy solids settle at the bottom of the tank. Waste water flows from the primary settlement tank to the two aeration tanks.

Secondary Treatment

The secondary treatment consists of two aeration tanks, each with a capacity of 32m³ and a clarifier also with a capacity of 32m³. Each of the aeration tanks has twelve diffusion disks at the bottom of the tank. Eight air blowers supply these diffusion disks, four for each tank. The air blower compresses the air and blows it to the diffusion disks at the bottom of the tank. Fine air bubbles rise up through the waste water providing oxygen for the bacteria. The activated sludge then flows to the clarifier, here the sludge settles at the bottom of the tank and the supernatant overflows the weir to the reed bed. The sludge that has settled at the bottom of the clarifier is returned to the aeration tank.

At intervals some of the sludge is wasted to the sludge holding tank. This is to ensure that the sludge is at the correct age and that excess levels of sludge solids do not build up. There is an option of dosing aluminium sulphate, which will remove phosphates from the waste water. This should be dosed at the outlet of the aeration tank.

Tertiary Treatment

The tertiary treatment consists of a reed bed which acts as a filter to remove residual BOD and SS in the clarified effluent. Oxygen is taken in through the leaves and stem

of the reed plant. This is passed down to a hollow rhizome in the root of the plant. It is then diffused out into the surrounding soil and water and the associated bacteria breakdown the residual BOD. It also acts as a physical filter for fine solids remaining in the clarified effluent. It is believed that the reed bed is not operating efficiently.

A review of the existing plant has highlighted various operational difficulties as follows:

- The inlet pumps are not able to deal with the high flows caused by heavy rainfall. Larger capacity pumps are required on the site. However a 3 phase electricity supply would be required. The status of the network is unknown and investigations are currently being undertaken by Cork County Council to determine the cause of the high flows.
- The screen has been by-passed with high flows causing the level of rags and heavy solids in the plant to build up.
- The RAS pumps are continually getting blocked and tripping out. The sludge is sitting in the clarifier instead of the aeration tank and gets washed out when a hydraulic surge flows through the plant.
- A standby blower should be provided, although with the current arrangement and the single phase supply this may not be possible.
- Air blowers should be operated under DO readings.
- Manhole covers need to be investigated as they are very dangerous and can fall directly into the tanks.

Details of the sampling results (influent and effluent) extracted from the Western Bundle Report are shown in **Table C1.1**.

Influent	Design	April 2007	May 2007	June 2007	July 2007	Aug 2007	Sept 2007	Oct 2007	Nov 2007
Flow (m3/d)	81	34	28	30	40	24	28	42	35
COD Avg. (mg/l)		630	661	119	403	371	554	518	527
BOD Avg. (mg/l)		294	340	241	197	168	258	227	224
S.S. Avg. (mg/l)		194	121	305	74	78	111	103	154
T.P. Avg. (mg/l)		2.8	28	24	5.3	6.8	10.2	11	11
pH Avg.		7.01	7.2	7.47	7.13	7.15	7.27	7.34	8.04

Effluent	Design	April 2007	May 2007	June 2007	July 2007	Aug 2007	Sept 2007	Oct 2007	Nov 2007
COD Avg. (mg/l)	125	119	186	85	70	52	81	93	163
BOD Avg. (mg/l)	10	45	84	36	16	13	18	24	34
S.S. Avg. (mg/l)	15	14	38	35	15	15	13	16	24
T.P. Avg. (mg/l)		0.2	6	3	2	3	7.5	5	6
pH Avg.		6.92	7.0	6.95	6.95	7.23	7.23	7.15	7.27

Table C1.1

The treatment plant at Riverstick appears to be continuously exceeding its design effluent standard and the treatment plant appears to be near or at full capacity in terms of design load.

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.

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.

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

Attachment included – Provided in E4	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
SW01R VRST	Primary	Cork County Council	River	Stick	None	E165975	N057389
SW02R VRST	Secondary	Cork County Council	River	Stick	None	E165975	N057389

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/.

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

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

E.2. Monitoring and Sampling Points

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

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

E.2 Monitoring in respect of Riverstick Waste Water Licence Application

The plant is currently monitored by the Environmental Directorate of Cork County Council to measure compliance with the requirements of the Urban Wastewater Directive. Samples are also collected upstream and downstream of the discharge location at this time. The River Stick, which is the receiving water body, is monitored in terms of the Freshwater Fish Directive, the Phosphorus Regulations by the Water laboratory of Cork County Council and in recent times the Water Framework Directive as part of the River Basin Project. It is proposed to continue this multi-faceted approach to monitoring the treatment plant and the impacts of the discharge to the receiving waters.

General Laboratory Information

The Wastewater Laboratory of Cork County Council is accredited for a number of analytical tests under the Irish National Accreditation Board (INAB) under the ISO 17025 international standard. The details of the Accreditation can be found in Attachment E.2. The Wastewater Laboratory of Cork County Council is currently accredited for the following parameters under the ISO 17025 system:

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

The laboratory perform a number of analytical tests e.g. fats, oil , grease and metals using an ICP-OES system and while the Wastewater Laboratory of Cork County Council is not currently accredited for extra tests the same analytical procedures and protocol are adhered to by the laboratory as would be required if the tests were accredited. The laboratory also participates in proficiency testing schemes which measure the accuracy of the results and performance of the laboratory in both the EPA scheme and the WRC Aquacheck scheme from the UK. The performance of the laboratory in these schemes is excellent and the non-accredited tests are within the performance criteria for the schemes as evaluated by the scheme coordinators.

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

Attachment included	Yes	No
	✓	

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E.3. Tabular data on Monitoring and Sampling Points

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

PT_CD	PT_TYPE	MON_TYPE	EASTING	NORTHING	VERIFIED
SW01	Primary Discharge	S	165966 E	057386 N	N
aSW01u	Primary Discharge	S	165827 E	057946 N	N
aSW01d	Primary Discharge	S	165966 E	057194 N	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

- Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.
- Details of all monitoring of the receiving water should be supplied via the following web based link: http://38.437.160.73/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.
- For discharges from secondary discharge points Tables F.1(ii)(a) & (b) should be completed. Furthermore, provide summary details and an assessment of the impacts of any existing or proposed emissions on the surface water or ground (aquifers, soils, sub-soils and rock environment), including any impact on environmental media other than those into which the emissions are to be made.
- Provide details of the extent and type of ground emissions at the works. 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.
- 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.

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

Existing Environment & Impact of Discharges

The River Stick (20S03) is contained within Hydrometric Area 20 and is located entirely in County Cork. The River Stick rises near Coolkirky and flows in a southerly direction past Riverstick continuing on towards Belgooly. At Belgooly River Stick discharges to Oyster Haven, water becomes transitional at this point. There is no water quality management plan or catchment management plan in place for the River Stick.

The River Stick has been classified as ‘at risk’ of not achieving ‘good’ status by 2015 under the Water Framework Directive Article 5 Characterisation (2004). Oyster Haven Bay has been classified as ‘expected’ to achieve ‘good’ status by 2015.

The 1998 Phosphorus Regulations set targets for phosphorus levels and biological quality (Q-values) for rivers and lakes. Where water quality is satisfactory it must be maintained and where water quality is unsatisfactory it must be improved. For levels of phosphorus the baseline Q-value determines the median molybdate-reactive phosphorus (MRP) to be achieved.

Water quality in the River Stick is monitored by the EPA at four different locations. The EPA monitoring station 0300 at the Bridge east of Coolkirky is located approximately 2.2km up-stream of Riverstick WWTP primary discharge point. The sampling results show that the quality of the River Stick at this location went from ‘slightly polluted’ status in 2003 to ‘unpolluted’ in 2006. The EPA monitoring station 0240 at the bridge up-stream of the confluence with main channel is located approximately 0.7km down-stream of the discharge point. Water quality at this station has achieved unpolluted status since 2000. Sampling results from 2006 show a Q-value of 4 at this location. A Biological Quality Rating of Q4 represents satisfactory water quality. Eutrophication is unlikely to occur in water bodies with a biological quality rating of Q4 or higher. The sampling results are shown in **Table F1.1**.

Station	1989	1994	1997	2000	2003	2006
0240	-	4	3-4	4	4-5	4
0300	3	3	3	3	3-4	4

Table F1.1.

The River Stick is not designated as salmonid water under the European Communities (Quality of Salmonid Waters Regulations, 1988 (S.I. No. 293/1988)). The Sovereign Islands which are located approximately 14km downstream of the Riverstick waste water discharge point is a Special Protection Area (SPA) and a Natural Heritage Area

(NHA). It is unlikely that the waste water treatment plant will have a negative impact on the site due to the distance between the discharge point and the Sovereign Islands. There are no other SPAs or NHAs down-stream of the discharge point.

- 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.

Cork County Council have monitored for the main polluting substances as defined in the Dangerous Substances Regulations S.I. No. 12 of 2001. The results are presented in Table D and F.

- 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 is no abstraction point down-stream of the Riverstick WWTP primary discharge point.

- 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 discharge point from Riverstick WWTP is not located within a European designated site.

Water Framework Directive 2000/60/EC

The objectives of the Water Framework Directive (WFD) are to protect all high status waters, prevent further deterioration of all waters and to restore degraded surface and ground water status by 2015. Cork County Council monitors the inlet and outlet flows from Inishannon septic tank to ensure compliance with the relevant standards. Up-stream and down-stream locations are also monitored. A copy of the Water Quality Management Plan for this area has been included in **Attachment F**.

Birds Directive 79/409/EEC

The directive aims to conserve and manage populations of wild birds throughout Europe partly through the designation of Special Protection Areas (SPA) for birds and their habitats. The discharge point is not located within an SPA.

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

Not applicable as there are no emissions to groundwater.

Urban Waste Water Treatment Directive 91/271/EEC

The Urban Waste Water Treatment Regulations, (S.I. 254 of 2001) gives effect to provisions of the Urban Wastewater Treatment Directive (91/271/EEC). The 2001 Irish Regulations in relation to the collection and treatment of urban wastewater.

Article 7 (a) states that *Member States shall ensure that, by 31 December 2005, urban waste water entering collecting systems shall before discharge be subject to appropriate treatment as defined in Article 2 (9) in the following cases:*

- *for discharges to fresh-water and estuaries from agglomerations of less than 2 000 p.e.,*
- *for discharges to coastal waters from agglomerations of less than*

Appropriate treatment is described as that which will allow compliance with other relevant Directives. *10,000 p.e*'.

Habitats Directive 92/43/EEC

There are no Special Areas of Conservation (SAC) or Special Protection Areas (SPA) under the Habitats Directive in the vicinity of the waste water discharge.

Bathing Water Directive 76/160/EEC

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

Shellfish Waters Directive (79/923/EEC)

There are two main EU directives relating to Shellfish Waters. These are the Shellfish Directives (79/923/EEC) as implemented by the Quality of Shellfish Waters Regulations 2006 (S.I. No 268 of 2006), and the Directive on Health Conditions and the placing on the market of Live Bivalve Molluscs (91/67/EEC) and its associated amendments.

The Shellfish Waters Directive is designed to put in place concrete measures to protect waters, including shellfish waters, against pollution and to safeguard certain shellfish populations from various harmful consequences, resulting from the discharge of pollutant substances into the sea. The Directive applies to the aquatic habitat of bivalve and gastropod molluscs only.

The Directive sets physical, chemical and microbiological water quality requirements that designated shellfish waters must either comply with ('mandatory' standards) or endeavour to meet ('guideline' standards). The parameters for testing are pH, temperature, coloration (after filtration), suspended solids, salinity, dissolved oxygen, petroleum hydrocarbons, organohalogenated substances, metals (dissolved), faecal coliforms and substances affecting the taste of the shellfish, faecal coliforms are regarded as one of the most significant parameters. Waters must meet certain mandatory values based on the monitoring regime. Designated waters must conform to the set limit values for the certain parameters within six years of designation.

The Department of Communications, Marine and Natural Resources Live Bivalve Molluscs (Production Areas) Designated 2006 has confirmed that Oysterhaven is a licensed area for the cultivation of shellfish such as oysters as detailed in **Table F.1.2**.

Production Area	Boundaries	Bed Name	Species	Previous Classification	Current Classification
Oysterhaven	Ballymacus Point to Kinure Point	All Beds	Oyster	B	B

Table F.1.2 Designation Bivalve Molluscs Production Areas in Ireland – October 2006

In accordance with the Live Bivalve Molluscs (Production Areas) designation 2006 and Council Directive 91/492/EEC, Oysterhaven has a category B status which means that shellfish from this area have to be treated in a purification centre or a relay bed before they can be placed on the market for human consumption. The water quality standards for shellfish in Category B waters is summarised in **Table F.1.3**.

Category of Waters	Faecal Coliforms / 100g of Flesh	Compliance of Samples	Furhter Treatment
A- Immidiate Human Consumption	< 300	100% < 300	Not Required
B- Human Consumption After Treatment	300 - 6,000	90% < 6,000	Purification After Relaying

C- Human Consumption After Treatment	6,000 - 60,000	100% < 60,000	Relaying for long period - Intensive Purification
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Table F.1.3 Requirements for Faecal Coliform levels for Live Bivalve Molluscs in Accordance with Directive 91/492/EEC

Riverstick WWTP primary discharge point is located approximately 8.5km up-stream of the shellfish designation at Oysterhaven.

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

Not applicable

- This section should also contain full details of any modelling of discharges from the agglomeration.

There was no modelling study conducted for the discharges from Riverstick waste water treatment plant.

F.1 (I) Waste Assimilative Capacity of Receiving Waters

Assimilative Capacity

Receiving waters should have a capacity to assimilate effluent discharges without showing signs of pollution. It is desirable that any effluent discharge to the River Stick should not:

- increase the BOD₅ level in the water by more than 1 mg/l;
- increase the overall BOD₅ in the water to more than 4mg/l (ideally 3mg/l);
- increase the Ortho Phosphate level in the water to more than 0.03mg/l;

Assimilative Capacity of the Receiving Water

Mass Balance Equation for Orthophosphates:

Median flow of River (SWRBD) = 0.617m³/sec
 Median oPO₄-P in River (upstream) = 0.05mg/l

Average volume of discharge = 0.001 m³/sec
 Median value for oPO₄-P in discharge = 5.62mg/l

$$C_{\text{final}} = \frac{(0.617 \times 0.05) + (0.001 \times 5.62)}{(0.617 + 0.001)}$$

$$C_{\text{final}} = 0.059 \text{ mg/l oPO}_4\text{-P}$$

The increase in Orthophosphate due to the discharge of Riverstick WWTP is 0.009 mg/l.

Mass Balance Equation for BOD:

Flow of River (95%ile) = $0.08 \text{ m}^3/\text{sec}$
 Median BOD in River (upstream) = 1.0 mg/l

Average volume of discharge = $0.001 \text{ m}^3/\text{sec}$
 Median value for BOD in discharge = 83 mg/l

$$C_{\text{final}} = \frac{(0.08 \times 1.0) + (0.001 \times 83)}{(0.08 + 0.001)}$$

$$C_{\text{final}} = 2.01 \text{ mg/l BOD}$$

The increase in BOD due to the discharge of Riverstick WWTP is 1.01 mg/l .

Mass Balance Equation for Suspended Solids:

Flow of River (95%ile) = $0.08 \text{ m}^3/\text{sec}$
 Median SS in River (upstream) = 2.5 mg/l

Average volume of discharge = $0.001 \text{ m}^3/\text{sec}$
 Median value for SS in discharge = 21 mg/l

$$C_{\text{final}} = \frac{(0.08 \times 2.5) + (0.001 \times 21)}{(0.08 + 0.001)}$$

$$C_{\text{final}} = 2.73 \text{ mg/l Suspended Solids}$$

The increase in Suspended Solids due to the discharge of Riverstick WWTP is 0.73 mg/l .

Mass Balance Equation for Total Phosphates:

Median Flow of River (SWRBD) = $0.617 \text{ m}^3/\text{sec}$
 Median TPO₄-P in River (upstream) = 0.05 mg/l

Average volume of discharge = $0.001 \text{ m}^3/\text{sec}$
 Median value for TPO₄-P in discharge = 5.07 mg/l

$$C_{\text{final}} = \frac{(0.617 \times 0.05) + (0.001 \times 5.07)}{(0.617 + 0.001)}$$

$$C_{\text{final}} = 0.058 \text{ mg/l Total Phosphates}$$

The increase in Total Phosphates due to the discharge of Riverstick WWTP is 0.005g/l.

Mass Balance Equation for Total Nitrogen:

$$\text{Flow of River (95\%ile)} = 0.08 \text{ m}^3/\text{sec}$$

$$\text{Median Total Nitrogen in River (upstream)} = 5.01 \text{ mg/l}$$

$$\text{Average volume of discharge} = 0.001 \text{ m}^3/\text{sec}$$

$$\text{Median value for Total Nitrogen in discharge} = 37.55 \text{ mg/l}$$

$$C_{\text{final}} = \frac{(0.08 \times 5.01) + (0.001 \times 37.55)}{(0.08 + 0.001)}$$

$$C_{\text{final}} = 5.41 \text{ mg/l Total Nitrogen}$$

The increase in Total Nitrogen due to the discharge of Riverstick WWTP is 0.40mg/l.

Mass Balance Equation for Sulphates:

$$\text{Flow of River (95\%ile)} = 0.08 \text{ m}^3/\text{sec}$$

$$\text{Median Sulphates in River (upstream)} = 30.0 \text{ mg/l}$$

$$\text{Average volume of discharge} = 0.001 \text{ m}^3/\text{sec}$$

$$\text{Median value for Sulphates in discharge} = 32.0 \text{ mg/l}$$

$$C_{\text{final}} = \frac{(0.08 \times 30.0) + (0.001 \times 32)}{(0.08 + 0.001)}$$

$$C_{\text{final}} = 30.02 \text{ mg/l Sulphates}$$

The increase in Sulphates due to the discharge of Riverstick WWTP 0.02mg/l.

Mass Balance Equation for Ammonia - N:

$$\text{Flow of River (95\%ile)} = 0.08 \text{ m}^3/\text{sec}$$

$$\text{Median Ammonia in River (upstream)} = 0.1 \text{ mg/l}$$

Average volume of discharge = 0.001m³/sec
 Median value for Ammonia in discharge = 42.8mg/l

$$C_{\text{final}} = \frac{(0.08 \times 0.1) + (0.001 \times 42.8)}{(0.08 + 0.001)}$$

$C_{\text{final}} = 0.63\text{mg/l}$ Total Ammonia

The increase in Ammonia due to the discharge of Riverstick WWTP is 0.53mg/l.

Proposed Assimilative Capacity of the Receiving Water

Mass Balance Equation for BOD:

Flow of River (95%ile) = 0.08m³/sec
 Median BOD in River (upstream) = 1.0mg/l

Average volume of discharge = 0.003 m³/sec
 Median value for BOD in discharge = 10mg/l

$$C_{\text{final}} = \frac{(0.08 \times 1.0) + (0.003 \times 10)}{(0.08 + 0.003)}$$

$C_{\text{final}} = 1.33 \text{ mg/l BOD}$

The increase in BOD due to the discharge of the proposed upgrade is 0.33 mg/l.

Mass Balance Equation for Suspended Solids:

Flow of River (95% ile) = 0.08m³/sec
 Median SS in River (upstream) = 2.5mg/l

Average volume of discharge = 0.003 m³/sec
 Median value for SS in discharge = 15mg/l

$$C_{\text{final}} = \frac{(0.08 \times 2.5) + (0.003 \times 15)}{(0.08 + 0.003)}$$

$C_{\text{final}} = 2.95 \text{ mg/l Suspended Solids}$

The increase in Suspended Solids due to the discharge of the proposed upgrade is 0.45 mg/l

Mass Balance Equation for Total Phosphates:

Median Flow of River (SWRBD) = 0.617m³/sec
 Median TPO₄-P in River (upstream) = 0.05mg/l

Average volume of discharge = 0.003 m³/sec
 Median value for TPO₄-P in discharge = 1mg/l

$$C_{\text{final}} = \frac{(0.617 \times 0.05) + (0.003 \times 1.0)}{(0.617 + 0.003)}$$

C_{final} = 0.055mg/l Total Phosphates

The increase in Total Phosphates due to the discharge of the proposed upgrade is 0.005 mg/l.

- 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**.

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
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

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.

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).

Riverstick Waste Water Treatment System discharges to the River Stick. The River is small and does not have the assimilative capacity to take effluent at the standard it is been treated to at the moment.

Cork County Council proposes to upgrade the River Stick Waste Water Treatment System under a project called the Western Bundle. This project consists of a number of similar sized sewerage scheme projects in the western part of the South Cork Sanitary Authority functional area. The Council has proposed a strategy of combining these projects into a single project for procurement with a view to creating a viable project size in PPP terms. Details of compliance are outlined in **Section F1**

Funding has not yet been secured for this upgrade under the Water Services Investment Programme 2007-2009. Cork County Council WSIP section has applied to the DEHLG for funding under the Serviced Land Initiative.

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.

Water quality in the River Stick is monitored by the EPA at four different locations. The EPA monitoring station 0300 at the Bridge east of Coolkirky is located approximately 2.2km up-stream of Riverstick WWTP primary discharge point. The sampling results show that the quality of the River Stick at this location went from 'slightly polluted' status in 2003 to 'unpolluted' in 2006. The EPA monitoring station 0240 at the bridge up-stream of the confluence with Main Channel is located approximately 0.7km down-stream of the discharge point. Water quality at this station has achieved unpolluted status since 2000. Sampling results from 2006 show a Q-value of 4 at this location. The results are shown in **Table G.2.1**.

Biological Quality Ratings (Q Values)						
Station	1989	1994	1997	2000	2003	2006
0240	-	4	3-4	4	4-5	4
0300	3	3	3	3	3-4	4

Table G.2.1

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.

G.3 Impact Mitigation

There are proposals to upgrade the Riverstick Waste Water Treatment System to a 1,300 PE plant, this upgrade will include:

- Inlet Works
- Storm water Holding Tank
- Sludge Thickening and Storage facilities
- 2 No. Aeration Tanks c/w diffused aeration
- 2 No. Final Settlement Tanks with sludge return and waste facilities
- Phosphorus Dosing Facility

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

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

		✓
--	--	---

G.4 Storm Water 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 is a storm water overflow provided at the inlet sump pre-screening which conveys any excess hydraulic load directly to the reed beds. The storm water discharges from the reed beds to the River Stick via the primary discharge point. There are no storm water overflow outfalls provided in the existing WWTP other than the primary discharge point.

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

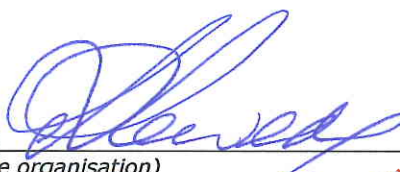
Declaration

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 :  **Date :** 17th June 09
(on behalf of the organisation)

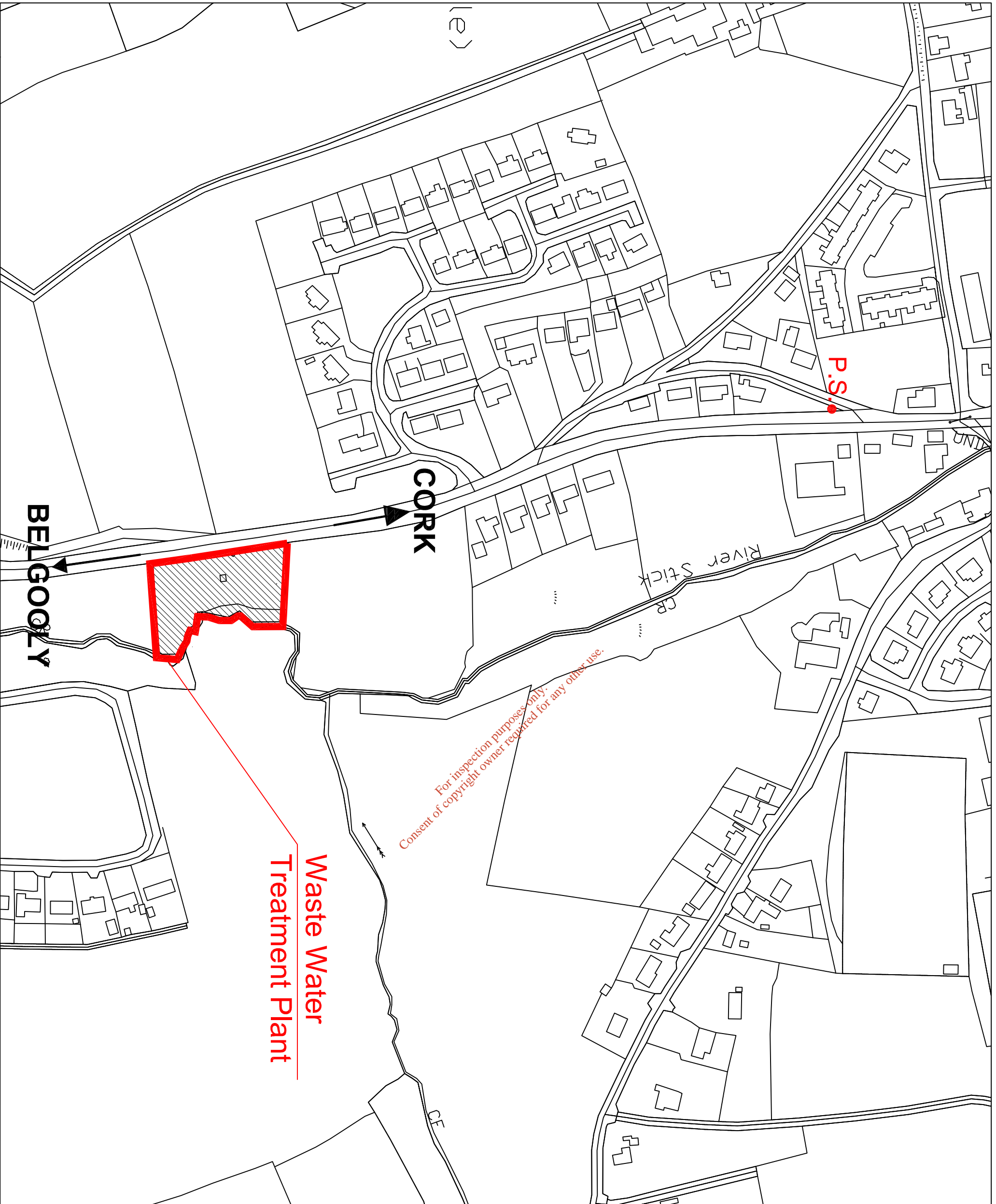
Print signature name: P. Tower

Position in organisation: D.O.S.

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ATTACHMENTS TABLE OF CONTENTS		
ATTACHMENTS	ITEM	TITLE
A.1	Map 1	Location Plan of WWTP
A.1	Map 2	Location of WWTP
B.1	Map 3	Agglomeration Boundary
B.2	Map 4	Location of WWTP
B.2	Map 5	Location of Monitoring Points
B.3	Map 6	Location of Primary Discharge Point
B.3	Map 7	Location of Monitoring Points
B.5	Map 8	Location Plan of WWTP
B.5	Map 9	Location of Monitoring Points
B.8	Text	Newspaper Site Notice & Site Notice
B.8	Map 10	Location of Site Notice
B.10	Text	Proposed Upgrade
B.10	Text	Capital Investment Programme
C.1	Dwg 1	Operation Information Section
C.1	Dwg 2	Operation Information Section
C.1	Map 11	Operation Information Requirements
E.2	Text	Accreditation
E.2	Map 12	Location of Monitoring Points
E.4	Table	Monitoring Results
F.1	Map	Shellfish Designation
F.1	Text	Water Quality Management Plan
Online Data	Table	Online Data

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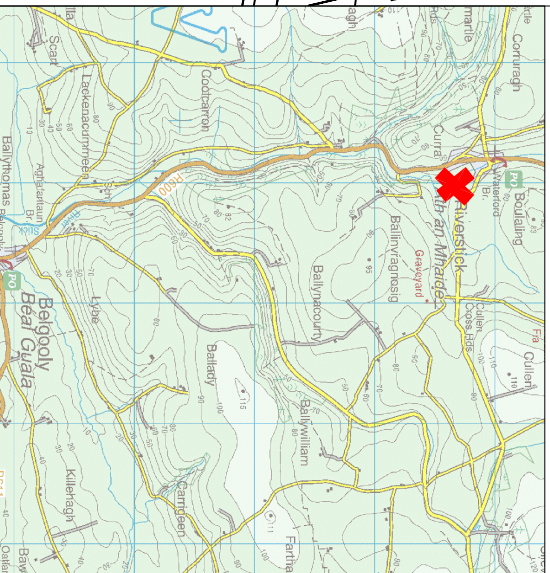
**Waste Water
Treatment Plant**

NOTES:

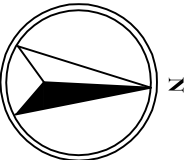
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 Pumping Station



Key Map
Not to Scale



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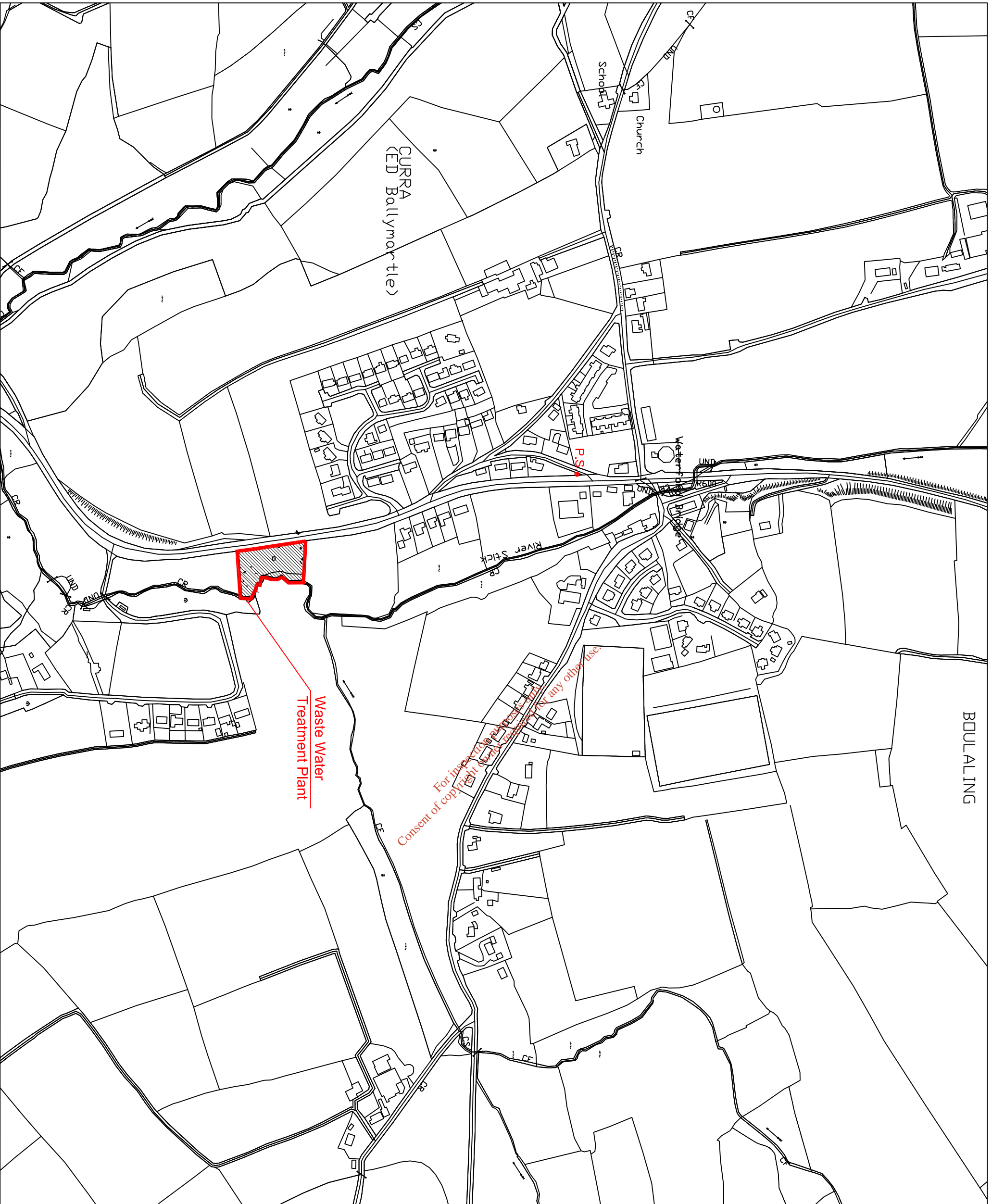
Niall O'Keefe, B.E. CEng, Eur Ing F.I.E.L.M.C.E.
County Engineer
County Hill, Cork.

Patricia Power,
Director of Services,
Area Operations South

Project:
RIVERSTICK
WWTP WASTE WATER
DISCHARGE LICENCE APPLICATION

Title:
Application Form
Attachment A1_Map1
Location Plan of Waste Water Treatment Plant

Designat	Checked	Series	Drawing No
ER	MH	T: 2,500 @ A3	A1_Map1
Drawn: MM	Approved: MH	Date: April '09	Rev: 0

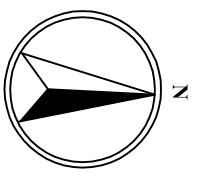


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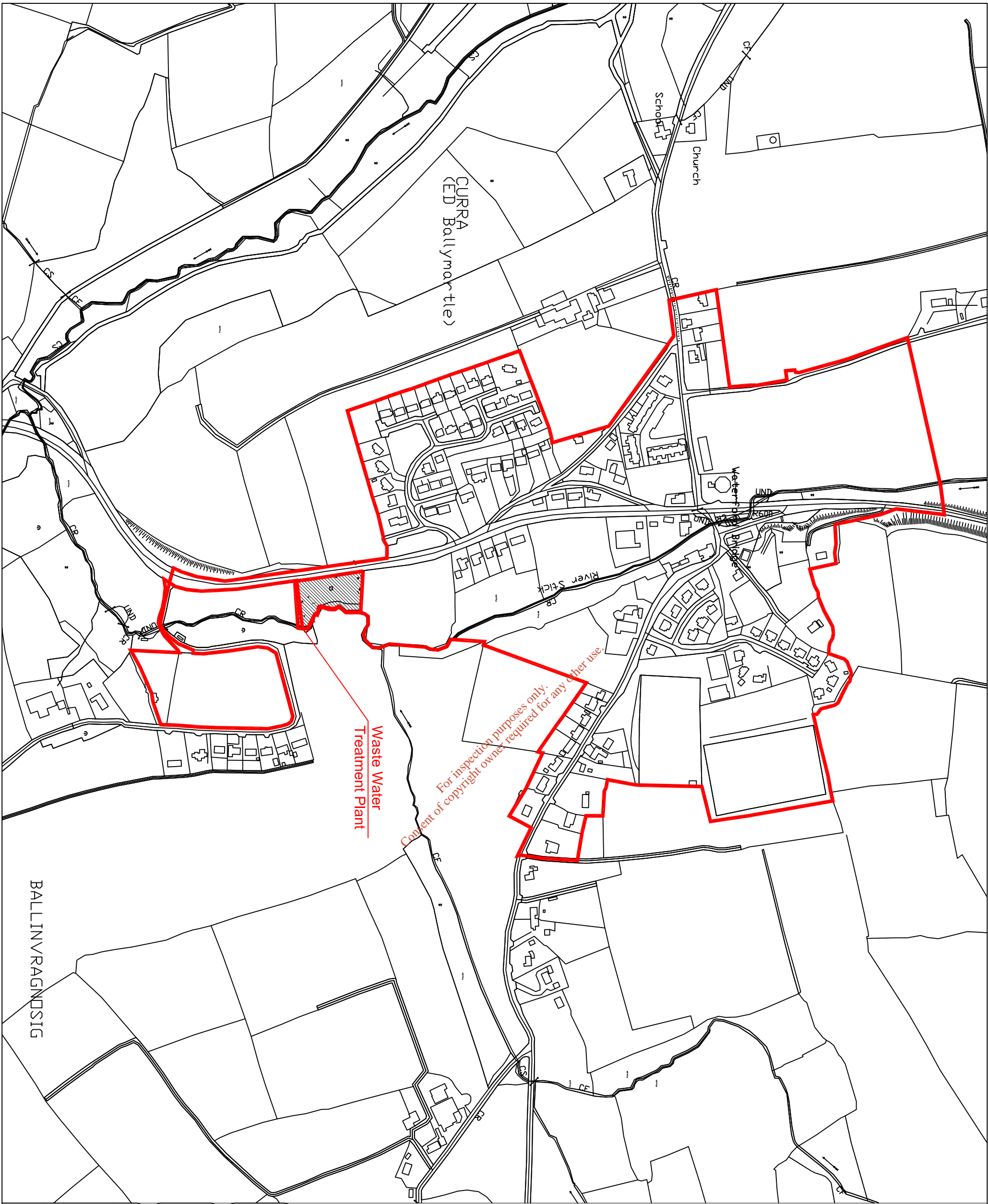
CORK COUNTY COUNCIL
SOUTHERN DIVISION
Noel O'Keefe, B.E. Chief Executive
County Hall, Cork.
Patricia Power,
Director of Services,
Area Operations South

Project: RIVERSTICK
WWTP WASTE WATER
DISCHARGE LICENCE APPLICATION

Title: Application Form
Attachment A1_Map2
Location of WWTP

Designat	ER	Checked:	MH	Scales:	T: 5,000 @ A3	Drawing No:
Drawn:	MM	Approved:	MH	Date:	April '09	A1_Map2
File Path:		Status:		Rev:	0	

Rev	Date	By	Description

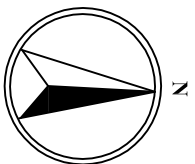


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AGGLOMERATION BOUNDARY



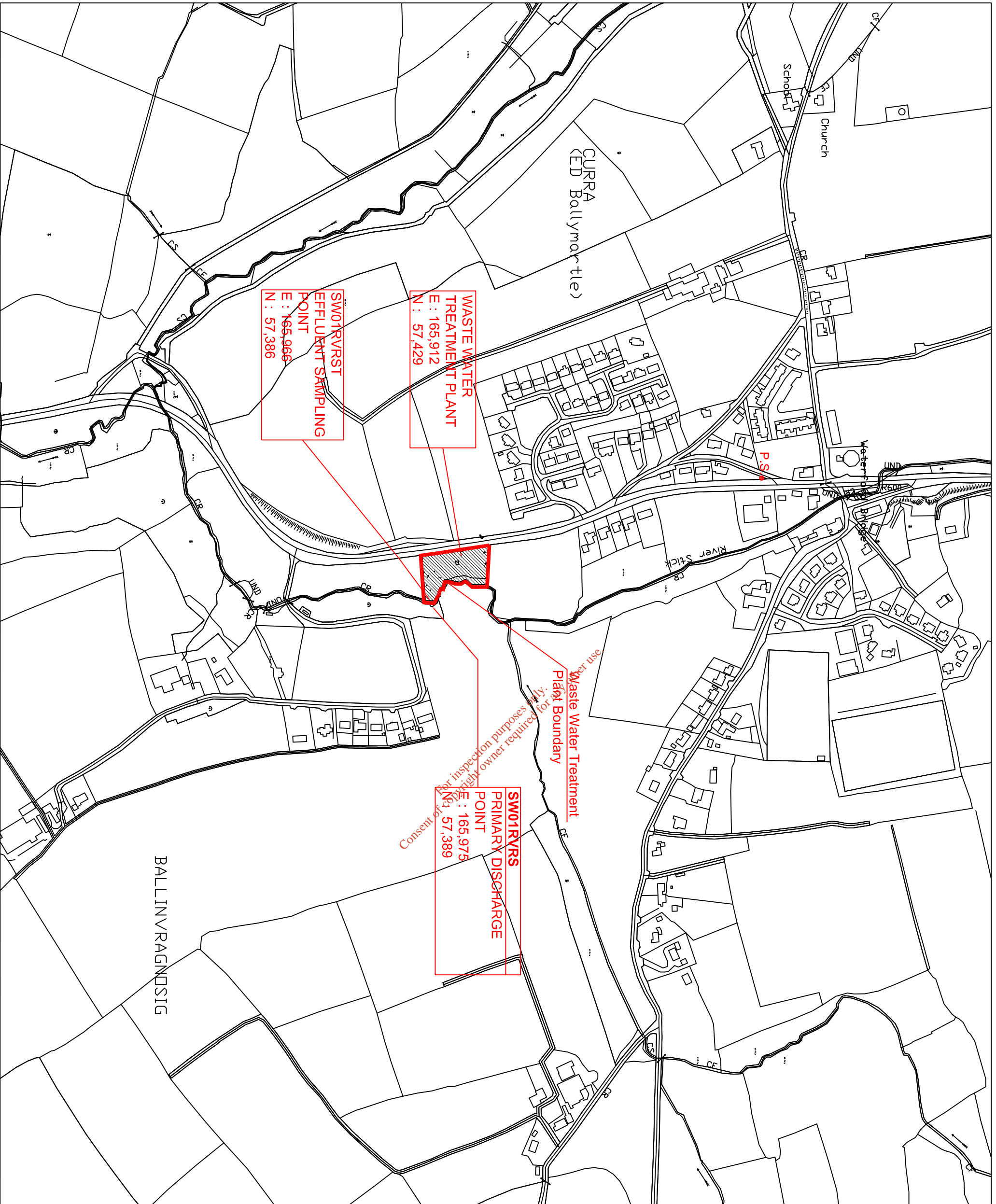
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SOUTHERN DIVISION
 Noel O'Keefe, B.E. C.Eng. Furling, F.I.E.M.C.E. County Engineer, County Hall, Cork.
 Patricia Power, Director of Services, Area Operations South.

Project: RIVERSTICK
 WWTP WASTE WATER
 DISCHARGE LICENCE APPLICATION


Title: Application Form
 Attachment B1_Map3
 Agglomeration Boundary Served By
 Waste Water Treatment Works

Designed: ER	Checked: MH	Scale: 1:5,000 @ A3	Drawing No: B1_Map3
Drawn: MM	Approved: MH	Date: Mar '09	Rev: 0
File Path:	Sheet:		

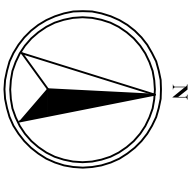
Rev.	Date	By	Description




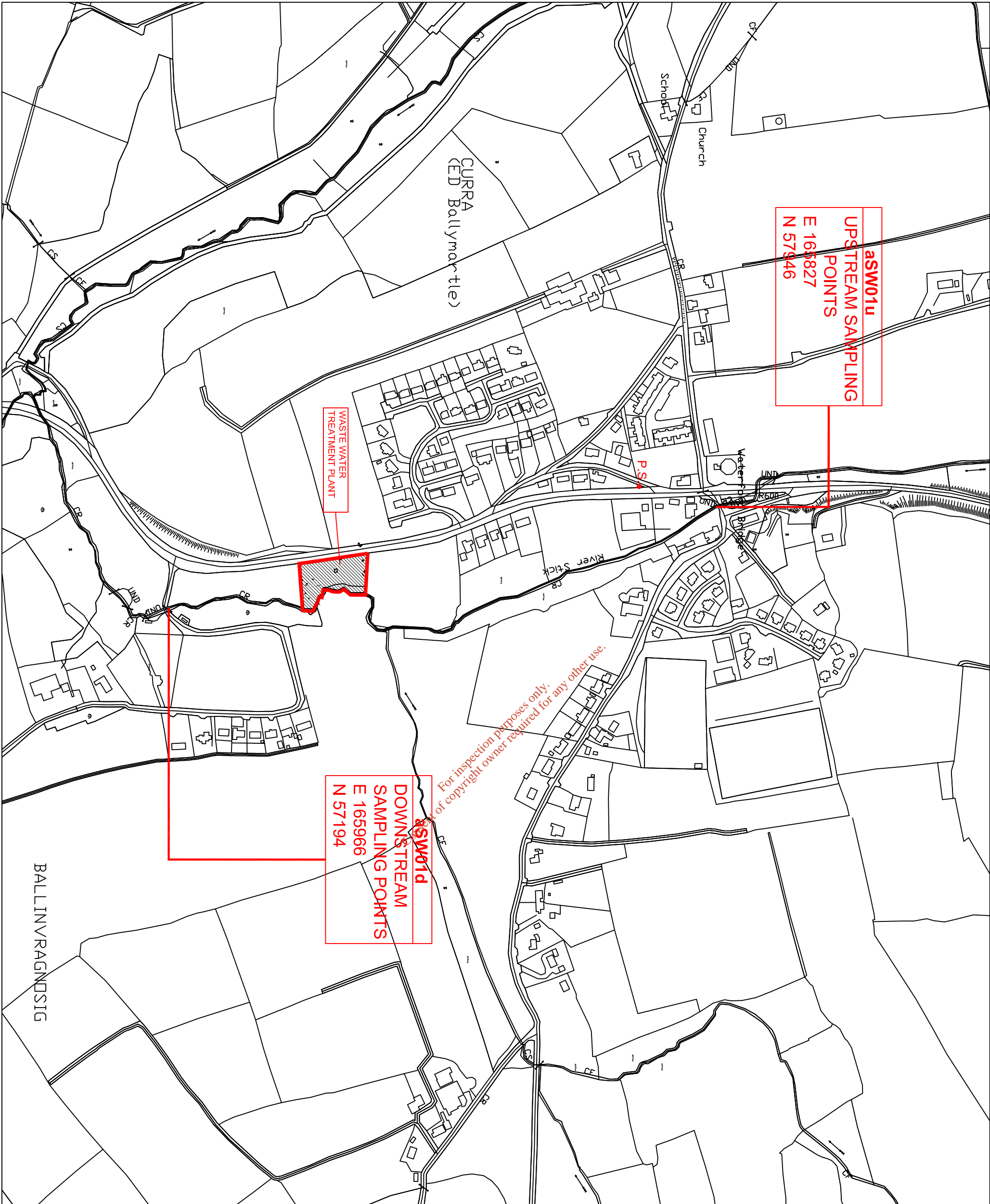
Project: RIVERSTICK WWTP WASTE WATER DISCHARGE LICENCE APPLICATION			
Title: Application Form Attachment B2 Map4 Location Plan of Waste Water Treatment Plan			
Designed:	ER	Checked:	MH
Drawn:	MM	Approved:	MH
Scale:	1:3,000 @ A3	Date:	April '09
File Path:		Status:	
		Rev:	0


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 County Engineer,
 County Hall, Cork.
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 Director of Services,
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- LEGEND**
-  Pumping Station

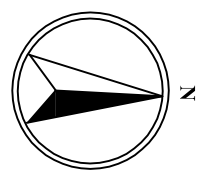


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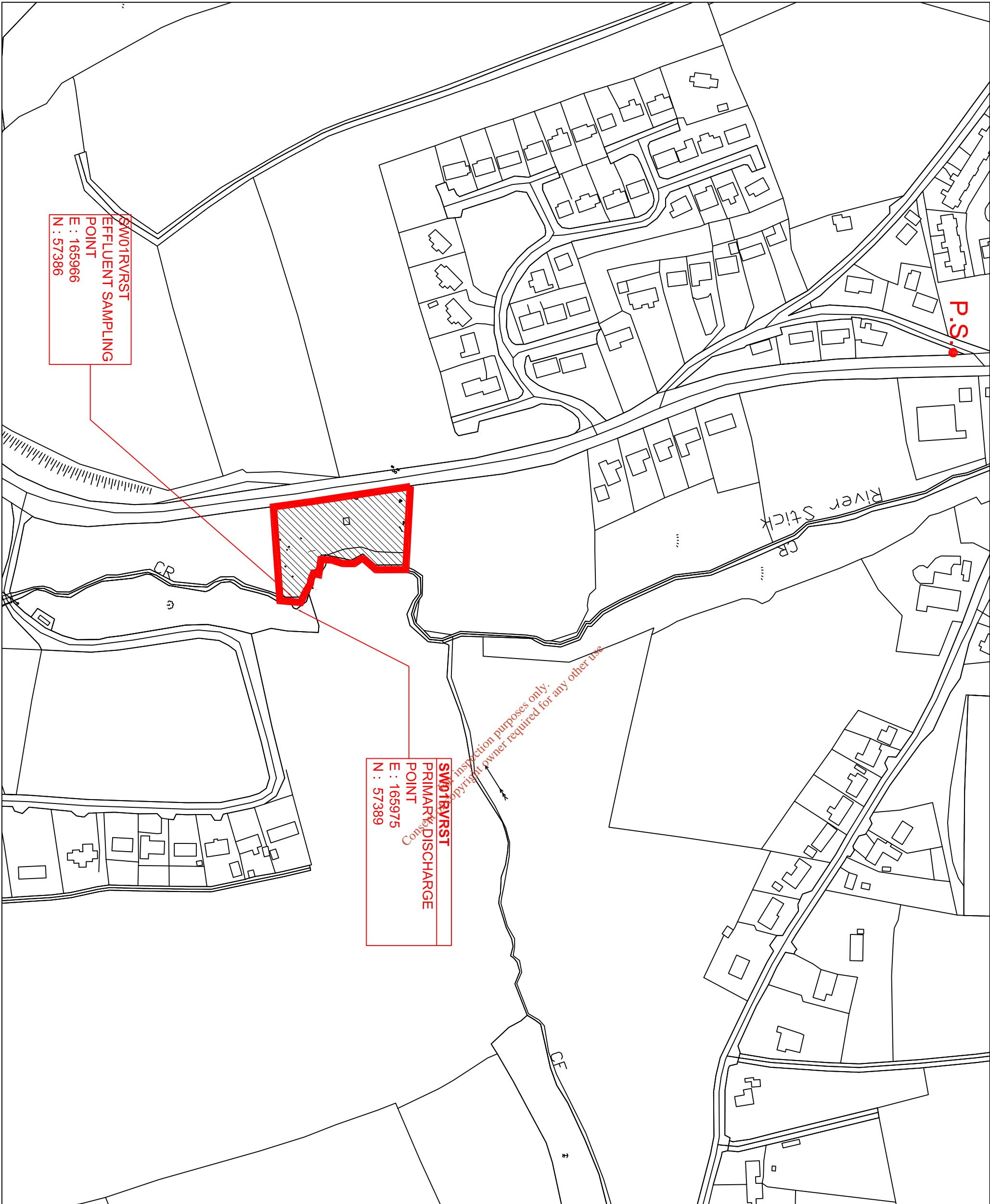
Noel O'Keefe, B.E. C.Eng. F.Eng. F.I.E.L.M.C.E.
County Engineer
County Hall, Cork

Patricia Power,
Director of Services,
Area Operations South

Project: RIVERSTICK
WWTP WASTE WATER
DISCHARGE LICENCE APPLICATION

Title: Application Form
Attachment B2, Map5
Location of Upstream & Downstream Monitoring Points.

Designed: ER	Checked: MH	Scale: 1:5,000 @ A3	Drawing No: B2_Map5
Drawn: MM	Approved: MH	Date: April '09	Revs: 0
File Path:			

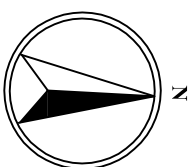


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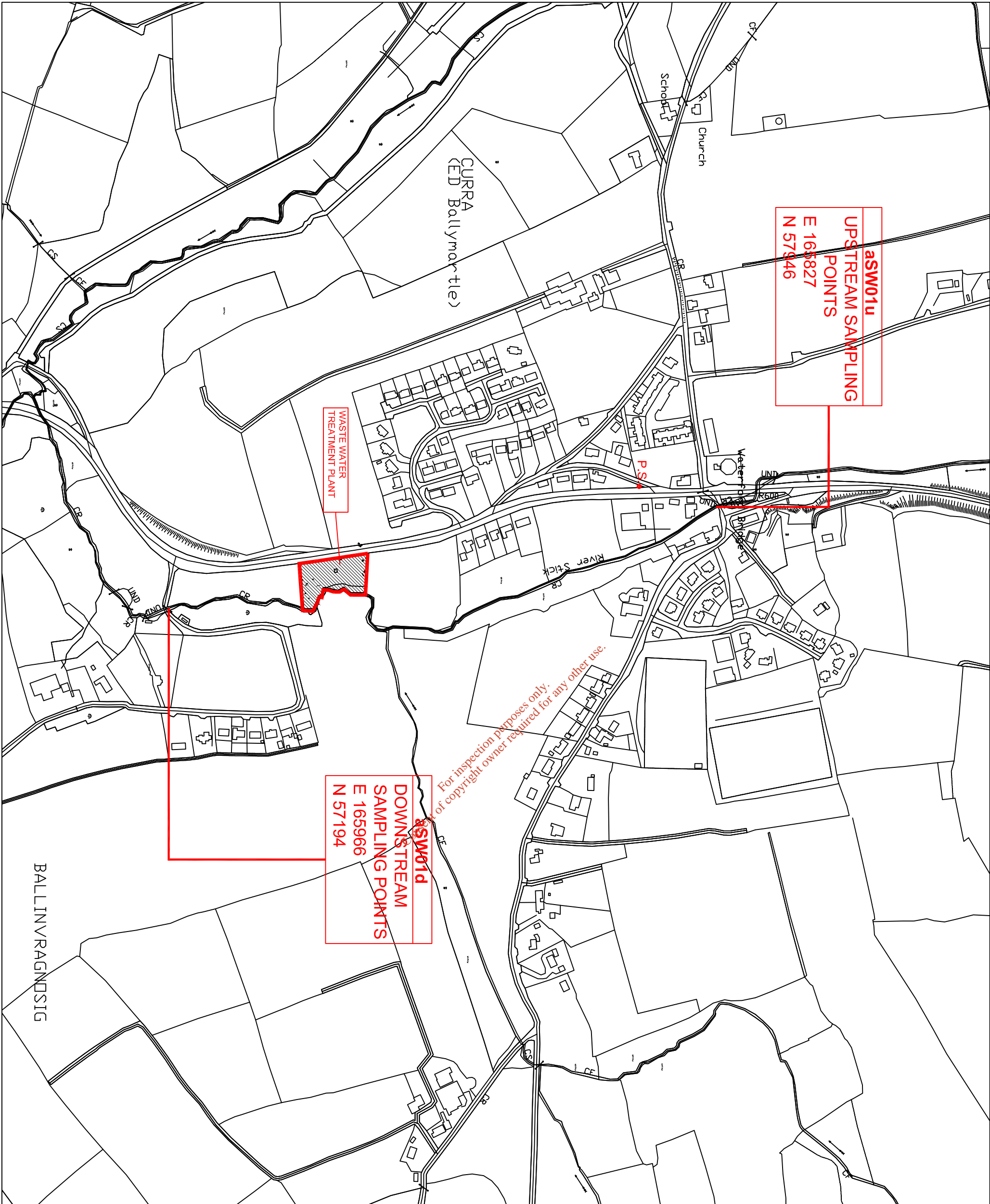
Noel O'Keefe, B.E. CEng. Furling F.E.L.M.I.C.E.
County Engineer
County Hall, Cork.

Patricia Power,
Director of Services,
Area Operations South

Project: RIVERSTICK
WWTP WASTE WATER
DISCHARGE LICENCE APPLICATION

Title: Application Form
Attachment B3, Map6
Location of Primary Discharge Points.

Designed:	ER	Checked:	MH	Scale:	1:2,500 @ A3	Drawing No:	B3_Map6	
Drawn:	MM	Approved:	MH	Date:	April '09	Status:	0	
File Path:							Rev:	0

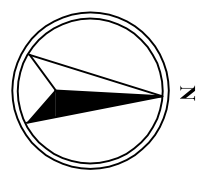


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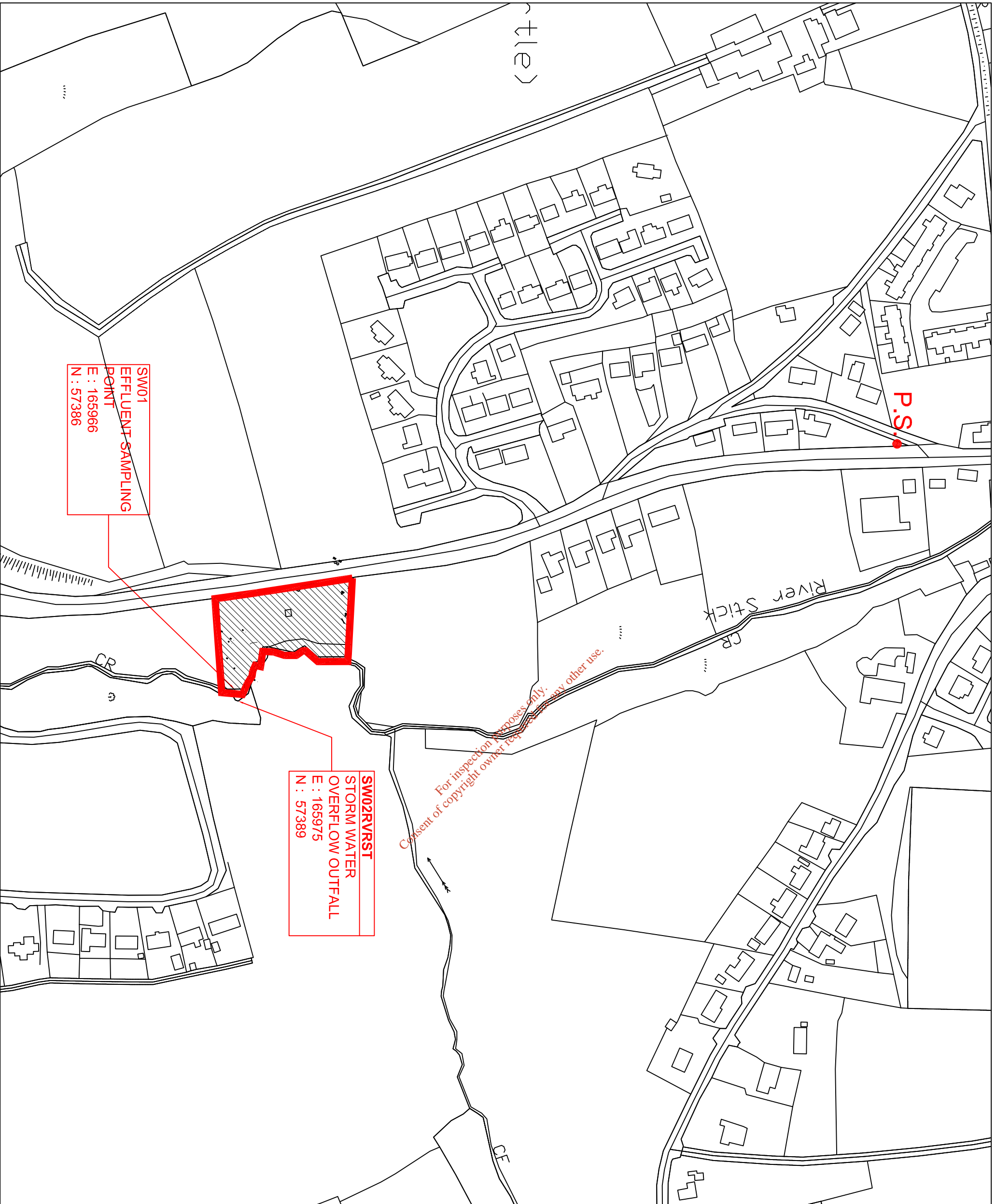
Noel O'Keefe, B.E. C.Eng. F.Eng. F.E.L.M.C.E.
County Engineer
County Hall, Cork

Patricia Power,
Director of Services,
Area Operations South

Project: RIVERSTICK
WWTP WASTE WATER
DISCHARGE LICENCE APPLICATION

Title: Application Form
Attachment B3, Map7
Location of Upstream & Downstream Monitoring Points.

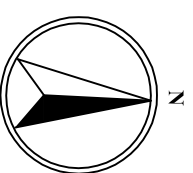
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Drawn: MM	Approved: MH	Date: April 09	Revis: 0
File Path:			



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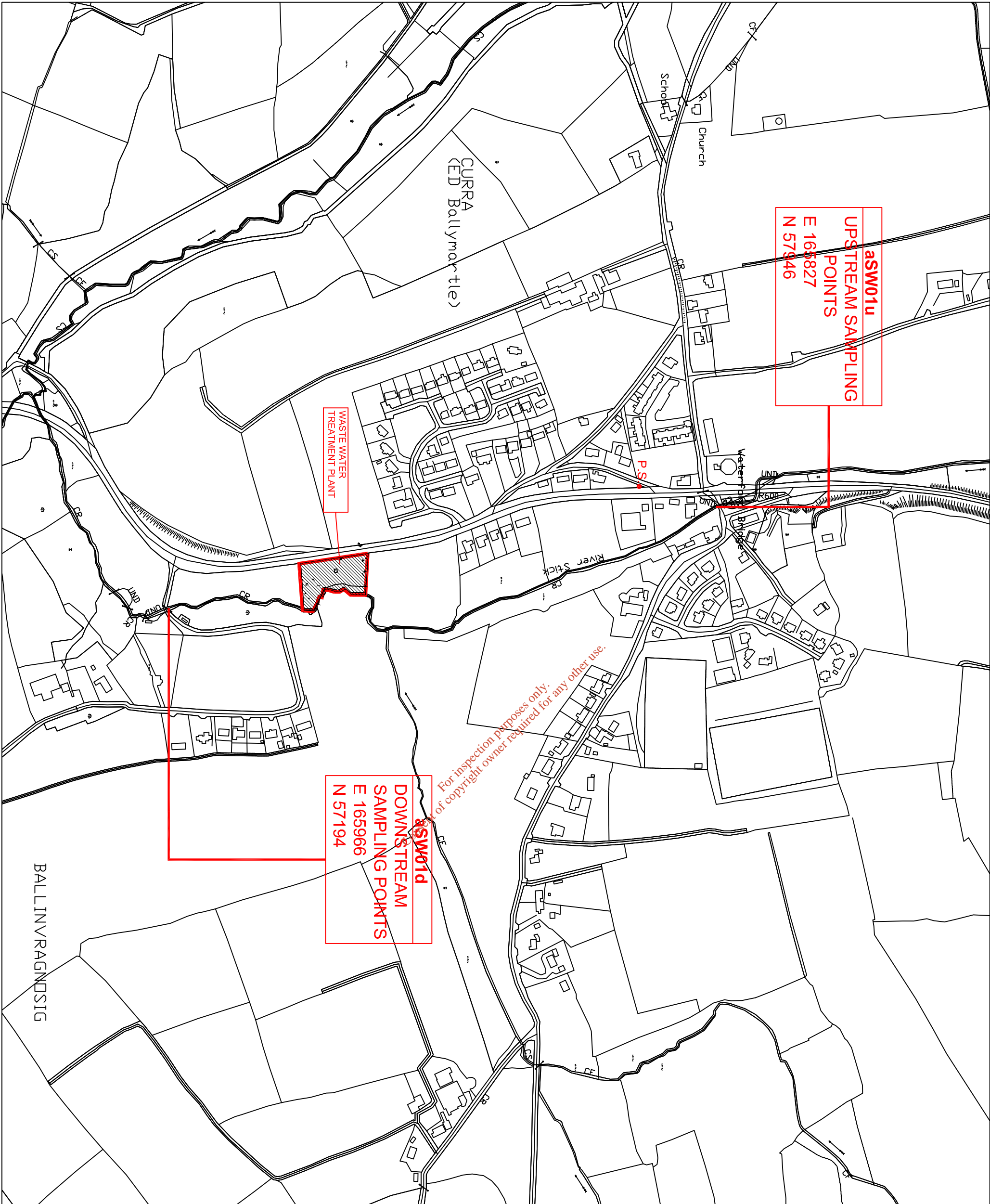
Noel O'Keefe, B.E. C.Eng. Eur Ing F.I.E.M.I.C.E.
County Engineer
County Hill, Cork.

Patricia Power,
Director of Services,
Area Operations South

Project: RIVERSTICK
WWTP WASTE WATER
DISCHARGE LICENCE APPLICATION

Title: Application Form
Attachment B5, Map8
Location Plan of Waste Water Treatment Plan

Designed:	ER	Checked:	MH	Scale:	T: 2,500 @ A3	Drawing No:	B5_Map8	
Drawn:	MM	Approved:	MH	Date:	April '09	Status:	—	
File Path:							Rev:	0



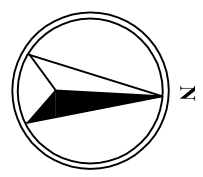
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CORK COUNTY COUNCIL
SOUTHERN DIVISION

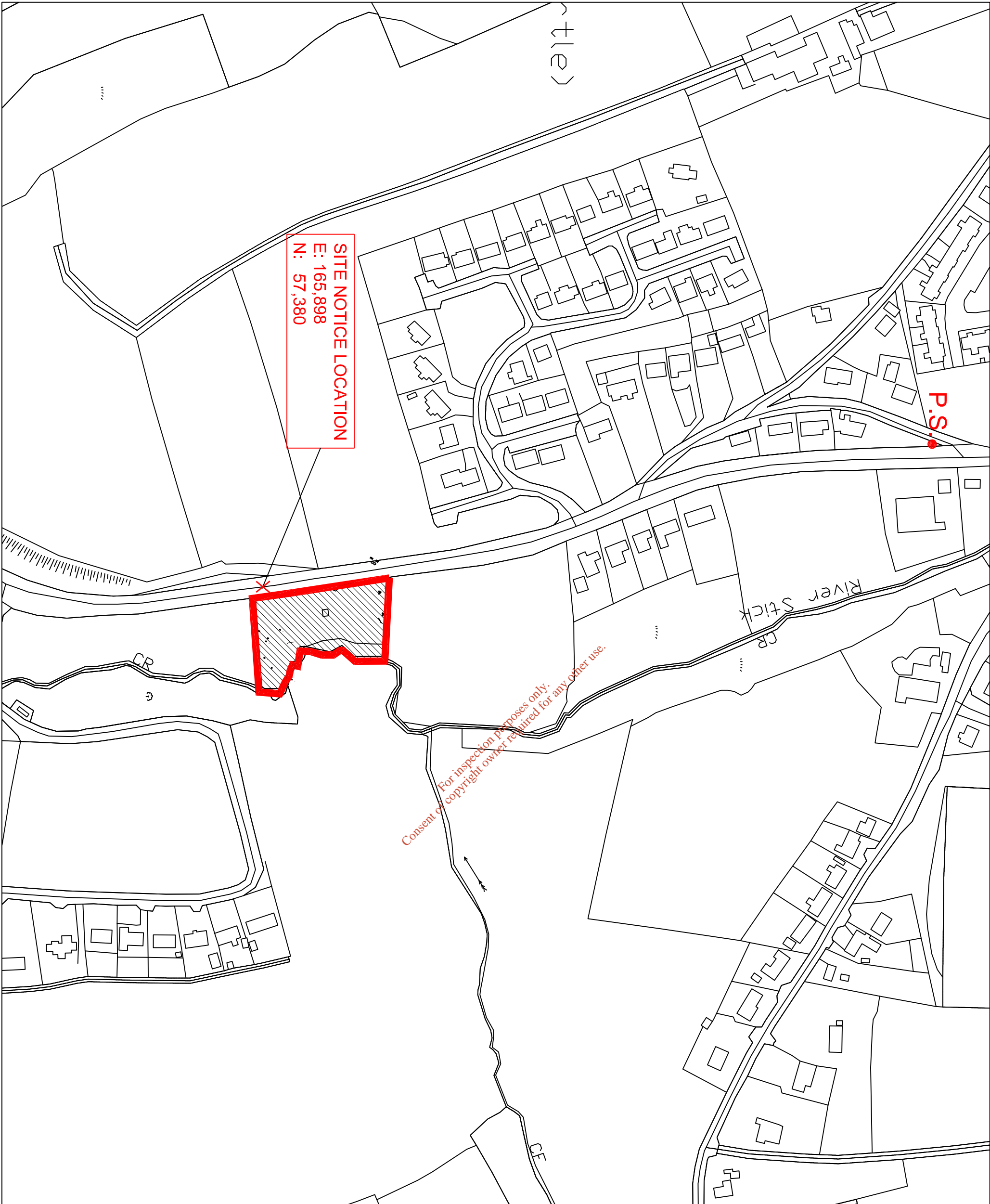
Noel O'Keefe, B.E. C.Eng. F.Eng. F.I.E.L.M.C.E.
County Engineer
County Hall, Cork

Patricia Power,
Director of Services,
Area Operations South

Project: RIVERSTICK
WWTP WASTE WATER
DISCHARGE LICENCE APPLICATION

Title: Application Form
Attachment B5, Map9
Location of Upstream & Downstream Monitoring Points.

Designed: ER	Checked: MH	Scale: 1:5,000 @ A3	Drawing No: B5_Map9
Drawn: MM	Approved: MH	Date: April '09	Revis: 0
File Path:			

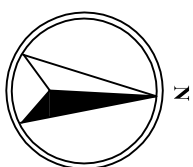


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LEGEND

 Pumping Station



Rev.	Date	By	Description



CORK COUNTY COUNCIL
SOUTHERN DIVISION

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County Engineer
County Hall, Cork

Patricia Power,
Director of Services,
Area Operations South

Project: RIVERSTICK
WMWTP WASTE WATER
DISCHARGE LICENCE APPLICATION

Title: Application Form
Attachment B8_Map10
Location of Site Notice

Designed:	ER	Checked:	MH	Scale:	1:2,500 @ A3	Drawing No:	B8_Map10	
Drawn:	MM	Approved:	MH	Date:	April '09	Status:	0	
File Path:							Rev:	0

Newspaper Advertisement

Cork County Council Southern Division

**APPLICATION TO THE ENVIRONMENTAL
PROTECTION AGENCY FOR A WASTEWATER
DISCHARGE LICENCE**

In accordance with the Waste Water Discharge (Authorisation) Regulations 2007, Water Services Southern Division of Cork County Council, Carrigrohane Road, Cork is applying to the Environmental Protection Agency for a Waste Water Discharge Licence for the Agglomeration of Riverstick at the following locations:

Plant Name	Location	National Grid Ref.
Riverstick WWTP	Curra, Riverstick	E 165912 N 057429

Discharge	Function	Townland	Receptor	Grid Reference
Primary	Main	Riverstick	Stick	E 165975 N 057389

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, Water Services South, County Hall, Carrigrohane Road, Co. Cork, Telephone: 021 - 4276891 Fax: 021 - 4276321.**

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



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 Southern Division of Cork County Council, Carrigrohane Road, Cork is applying to the Environmental Protection Agency for a Waste Water Discharge Licence for the Agglomeration of Ladysbridge at the following locations:

Plant Name	Location	National Grid Ref.
Riverstick WWTP	Curra, Riverstick	E 165912 N 057429

Discharge	Function	Townland	Receptor	Grid Reference
Primary	Main	Riverstick	Stick	E 165975 N 057389

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

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Cork County Council Southern Division



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 Southern Division of Cork County Council, Carrigrohane Road, Cork is applying to the Environmental Protection Agency for a Waste Water Discharge Licence for the Agglomeration of Riverstick at the following locations:

Plant Name	Location	National Grid Ref.
Riverstick WWTP	Curra, Riverstick	E 165912 N 057429

Discharge	Function	Townland	Receptor	Grid Reference
Primary	Main	Riverstick	Stick	E 165975 N 057389

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

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- **Cork County Council Offices, Water Services South, County Hall, Carrigrohane Road, Co. Cork, Telephone: 021 - 4276891 Fax: 021 - 4276321.**

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

1. RIVERSTICK SEWERAGE SCHEME

1.1 Summary of Brief

The brief for Riverstick is to develop and include the wastewater treatment plant in the operation and maintenance contract for the Western Bundle Scheme. It was outlined that the existing population of Riverstick is 450 p.e. and the design of the existing treatment plant is 450 p.e. The estimated cost of operating the plant for one year is €40,290.

1.2 Existing Situation

Riverstick is located approximately 8 km to the north of Kinsale and 11 km to the east of Innishannon on the R600 Cork to Kinsale Road. The village is considered a Village in the hierarchial system of settlement status set out in the Bandon Electoral Area Local Area Plan 2005 (BEALAP). The village is well established and in recent years has experienced significant residential development. Current services within the village include a church, post office, public houses, shop, community centre, petrol station, garage and sports pitch. A 450 p.e. plant was recently constructed as part of the housing development on the south side of the village (Curra Woods). The plant is located adjacent to the River Stick to which the final effluent discharges. The plant is being operated under a short term Operate and Maintain contract. The network comprises two separate catchments, the Curra Woods development and the existing village and environs. Cork County Council constructed a sewerage network within the older part of the village which permitted the connection of both existing properties and also other new developments. The Curra Woods development drains directly by gravity to the plant. The existing village and environs drains by gravity to a central pumping station at Waterford Bridge and is pumped to a discharge manhole on the R600 close to the plant. The treatment plant is currently being operated under an Operate and Maintain Contract by Response Engineering.

A review of the treatment works at the Riverstick has indicated that the works is in a very poor condition in terms of operational efficiency and a low residual value exists. The plant comprises of the following:

- Inlet Manual coarse screen.

- Primary Settlement Tank
- Two Aeration Tanks
- Passive Clarifier and 1 No. Sludge Return and Waste pump
- Alum Tank, bund and dosing pumps
- Control Room above the aeration tank
- Sludge holding tank
- Reed Bed for tertiary treatment
- Effluent flow meter and sampling

There is an inlet manual bar screen that has 20-25mm spacing. There is a passive screen in the primary tank and the suction pipe of the pump is located within a fine screen mesh to protect the suction. There is an outlet weir in the primary tank. There are two aeration tanks and one clarifier with a slotted pipe outlet. The sludge holding tank is not in use because there is no sludge; it is usually washed out in the effluent. The plant was reseeded twice and washed out on heavy flow conditions. The discharge to the reed bed is not in use in the winter.

The power to the site is a 220 volt single phase supply. Aeration is provided by a series of (8) 220 volt blowers type Nitto, Kohki Co. Ltd, Medo Compressor 220V. The control room is located above the aeration tank and it appears that gasses are migrating into the control room. These leaks should be sealed immediately as they constitute a significant health and safety risk.

There is an obvious odour when you arrive at the plant. There are no welfare facilities and signs of vermin infestation. We would recommend demolishing the existing plant and building a new plant on the existing site. This can be achieved by locating the new plant on the existing reed bed while the old plant remains in operation. The reed bed contents would be considered contaminated as a result of the various washout periods. This may also be the cause of the odour on site.

Samples are taken weekly and analysed for pH, B.O.D., COD and suspended solids and monthly for total phosphates. The design capacity of the plant is 450 p.e., but it is anticipated that ultimately a design capacity of 1000 p.e. will be required. The current contribution to the plant is estimated at 208 p.e. (max.) in terms of flow and 471 p.e. (max.) in

terms of BOD, as indicated in the monthly reports and outlined in the tables below. The plant has experienced overload conditions on some occasions due to the washout of the biomass. The plant is designed to provide a required effluent quality of 10mg/l and 15mg/l for BOD and Suspended Solids respectively.

A review of the existing plant has highlighted various operational difficulties as follows:

- The inlet pumps are not able to deal with the high flows caused by heavy rainfall. Larger capacity pumps are required on the site. However a 3 phase electricity supply would be required. The status of the network is unknown and will require investigation to determine the cause of the high flows.
- The screen has been by-passed with high flows causing the level of rags and heavy solids in the plant building up.
- The RAS pumps are continually getting blocked and tripping out. The sludge is sitting in the clarifier instead of the aeration tank and gets washed out when a surge of flow comes through the plant.
- A standby blower should be provided, although with the current arrangement and the single phase supply this may not be possible.
- Air blowers should be operated under DO readings.
- Manhole covers need to be investigated as they are very dangerous and can fall directly into the tanks.

Details of the sampling results (influent and effluent) extracted from the monthly reports are as follows:

Table 16.1 Riverstick Influent and Effluent Data

Influent	Design	April 2007	May 2007	June 2007	July 2007	Aug 2007	Sept 2007	Oct 2007	Nov 2007
Flow (m3/d)	81	34	28	30	40	24	28	42	35
COD Avg. (mg/l)		630	661	119	403	371	554	518	527
BOD Avg. (mg/l)		294	340	241	197	168	258	227	224
S.S. Avg. (mg/l)		194	121	305	74	78	111	103	154
T.P. Avg. (mg/l)		2.8	28	24	5.3	6.8	10.2	11	11
pH Avg.		7.01	7.2	7.47	7.13	7.15	7.27	7.34	8.04

Effluent	Design	April 2007	May 2007	June 2007	July 2007	Aug 2007	Sept 2007	Oct 2007	Nov 2007
COD Avg. (mg/l)	125	119	186	85	70	52	81	93	163
BOD Avg. (mg/l)	10	45	84	36	16	13	18	24	34
S.S. Avg. (mg/l)	15	14	38	35	15	15	13	16	24

T.P. Avg. (mg/l)		0.2	6	3	2	3	7.5	5	6
pH Avg.		6.92	7.0	6.95	6.95	7.23	7.23	7.15	7.27

The treatment plant at Riverstick appears to be continuously exceeding its design effluent standard and the treatment plant appears to be at near or full capacity in terms of design load.

1.3 Population Projections

To determine the existing population for the town of Riverstick, the Geodirectory was examined and it was determined that the number of residential premises within the local area plan boundary (Bandon Electoral Area Local Area Plan 2005) is 140 units. The 2006 Census indicated that the average occupancy rate for town areas in Cork County was approximately 2.81 persons per household. Therefore the current population is estimated at 393 people.

Riverstick has not been listed in the 2006 Census. The geodirectory indicates a population of 393, the design brief states an existing population of 450, while the monthly reports imply a population of 471 (maximum). More specific details will be obtained during the flow and load survey which is due to commence shortly.

An assessment of the existing non domestic contribution has also been determined by examining the Geodirectory. It consists of a number of commercial properties contributing a total population equivalence of 30. There are currently no known industrial developments proposed.

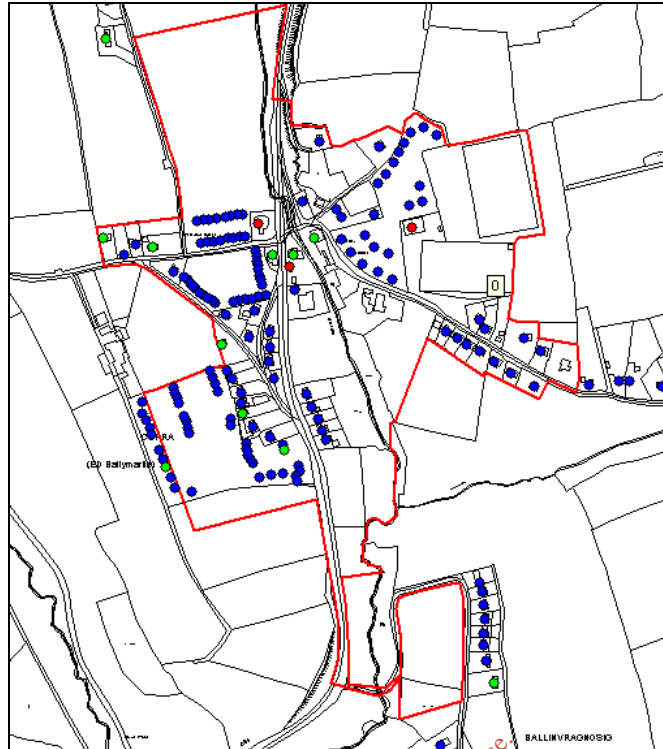


Figure 16.1 Riverstick LAP 2005 and Gedirectory

The Local Area Plan has zoned land within the development boundary up to the year 2011. The majority of the land is considered low density residential and currently 12.4 ha is zoned low residential and 0.4ha is zoned medium residential. This area could contribute approximately 440 p.e. based on the contribution from the zoned lands.

Table 16.2 Potential Population Growth

	Units	PE
Existing Residential Development	140	393
Existing Non-domestic Contribution	5	30
Allowance for future residential growth	157	441
Projected Future p.e. (10 to 20 year growth)		864
Existing Design p.e. of WWTW		450

The ultimate population for Riverstick has been estimated at 864 p.e. based on full development within the local area plan. It is clear that the existing plant at Riverstick will not cater for the medium to long term growth of the village. It is recommended therefore that a new 1,000 p.e. design capacity treatment plant is provided which will cater for the immediate and long term growth of the village.

1.4 Water Quality Assessment

The main considerations that determine the effluent standards to set are derived from the following:

- The statutory requirement to meet the effluent standards as set out in S.I. 254 of 2001.
- The statutory requirement to meet the water quality standards as set out in S.I. 293 of 1998.
- The requirement as set out in the Phosphorus Regulations to improve the Biological Quality Rating of the receiving waters.
- The assimilative capacity of the river in relation to effluent parameters.

For the purposes of this report, the Salmonid Regulations have been applied to the River Stick, so there are limits imposed on the amount of Ammonia and BOD which can be discharged. Additionally, there are limits on Phosphorus under the Phosphorus Regulations. Cork County Council have also confirmed that the estuary at Oyster Haven into which the River Stick discharges is set to become a designated shellfish area so it may be appropriate to limit the level of faecal coliforms discharging to the river. The 95% flow has been calculated from the catchment parameters for the River Stick and is approximately 0.023 m³/s at the discharge location. The nearest upstream monitoring location is at the bridge east of Coolkirky House and this has recorded a biological rating of Q3-4 in 2003. Calculations for the WAC can be found in Appendix A of this report.

BOD

From analysis of the latest water quality data available from the EPA, there is no background concentration data available upstream at the bridge near Coolkirky House. Therefore we have assumed an allowable increase of only 1mg/l for the BOD concentration which is very conservative. An allowable downstream concentration of 4mg/l is used (i.e. compliant with Salmonid Regulations, with a safety factor of 1 mg/l).

Table 16.3 Allowable BOD Concentrations to River

WWTP DWF	BOD Concentration (mg/l)
Current (423 p.e)	24.97

Phase 1 (1,000 p.e.)	12.87
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Nitrogen

Total Nitrogen

Total Nitrogen comprises Ammonia, Organic Nitrogen and Oxidised Nitrogen. The UWWTR specify a target effluent total nitrogen concentration of 15 mg/l should the local conditions require it. However, the limiting nutrient is usually Phosphorus in freshwaters rather than Nitrogen, and therefore a Total Nitrogen effluent standard should not be required.

Ammonia

To comply with the Salmonid Regulations, a target downstream Ammonia concentration of 1 mg/l would be the upper allowable limit. This indicates an allowable effluent NH₄ concentration as follows:

Table 16.4 Allowable NH₄ Concentrations to River

WWTP DWF	Allowable Concentration (mg/l)
Current	16.31
Phase 1	7.48

It is felt that an ammonia standard should be adopted as it is easily achievable in a conventional activated sludge plant.

Phosphorus

The median upstream value for Ortho Phosphate is 0.05 mg/l taken from analysis completed by Cork County Council in 2005. This is a deterioration on the 1997 Q3-4 value which is 0.03 mg/l. Given the small catchment size at this monitoring location, it would appear that the upstream water quality should greatly improve provided proper agricultural management were in place and other controls were implemented with regard to unsewered domestic effluent discharges. It is proposed therefore to adopt an effluent treatment standard of 1 mg/l MRP. It is proposed that additional flow and MRP monitoring be incorporated into the scheme in order to achieve the most efficient method of treatment. This methodology must be seen as the implementation of the BAT (Best Available Technology) principle.

Faecal Coliforms

As noted earlier, the DOEHLG have submitted a draft shellfish designation for Osyter Haven. The designation begins approximately 1.5km downstream of the proposed treatment plant discharge location at Belgooly and 6km downstream of the plant at Riverstick. The Quality of Shellfish Waters Regulations 2006 state a guide requirement of 300 coliform units per 100ml. As stated in the Preliminary Report, the guide requirements of the Shellfish Regulations are more onerous than the mandatory recreational requirements. Therefore if the shellfish water quality requirements are met, mandatory recreational requirements will also be satisfied. It is therefore proposed to implement a faecal coliform limit of 300 cfu per 100ml at the Riverstick treatment plant.

Discharge Specification

The appropriate standards for Riverstick are therefore unchanged from those currently existing with the addition of a proposed standard for ammonia and phosphorous and a faecal coliform standard.

Table 16.5 Effluent Quality Standards

Parameter	Existing Concentration (mg/l)	Phase 1 Concentration (mg/l)
BOD	10	10
Suspended Solids	15	15
Ortho P	n/a	1
Ammonia	n/a	5
Faecal Coliforms	n/a	300cfu/100mls

1.5 Design Parameters

The design of the proposed wastewater treatment plant for Riverstick is based on the following:

Table 16.6 Design Parameters

Parameter	Loadings
-----------	----------

Existing Population Equivalent		423
Design Population Equivalent		1,000
Wastewater flow l/h/d		225
DWF	m ³ /d	225 m ³ /d
	l/s	2.6 l/s
Flow to Full Treatment (3DWF)		
	m ³ /d	675 m ³ /d
	l/s	7.8 l/s
Average BOD Load		70 kg/d
Average Total Nitrogen Load		11 kg/d
Average Phosphorus Load		1.8kg/d
Average SS Load		70 kg/d
Storm Tank Volume Required (3DWF for 2 hours)		57 m ³

1.6 Cost Estimates

As stated earlier, it is recommended that the existing plant is demolished and a new 1,000 p.e. treatment plant is built at the same location. The estimated cost for a new 1,000 p.e. treatment plant are as follows:

Table 16.7 – WWTW Mechanical & Electrical Estimate

Item	Nicholas O'Dwyer
Pretreatment - Inlet Pumping Station and Storm Overflow Screen	
Stormwater Treatment	
Preliminary Treatment	
Biological Treatment - Aeration Tank	
Biological Treatment - Final Settlement	
Phosphorus Removal - Chemical	
Final Effluent	
Sludge Return and Waste	
Sludge Thickening - PFT	
Instrumentation	
Electrical Installation	
Control Panel	
SCADA/Control System	
Odour Control	
Misc.	
Total M&E Works	

Table 16.8 – WWTW Civil Works Estimate

Item	Nicholas O'Dwyer
Inlet Pumpstation	
Stormwater Treatment	
Preliminary Treatment	
Biological Treatment - Aeration Tank	
Biological Treatment - Final Settlement	
Phosphorus Removal - Chemical	
Sludge Return and Waste	
Sludge Thickening - PFT	
Interconnecting Pipework and Ductwork	
Outfall Pipeline	
Raising ground level & site access	
Site Fencing, Gates and Walls	
Landscaping	
Administration and Control Building	
Sundry	
Total M&E Works	

Table 16.9 WWTP Cost Summary

Item	Nicholas O'Dwyer
Total M&E and Civil Works	
Preliminaries @20%	
Sub-Total	
VAT @ 13.5%	
Total Estimate (Incl. VAT)	

Table 16.11 outlines the estimated operational costs for Riverstick treatment plant based on our database of market costs for similar sized plants and based on a plant design capacity of 1,000 p.e. Costs have been estimated for the existing population (Year 1) and the design population (Year 20).

Table 16.11 Riverstick Operational Cost Estimate

Item	Year 1	Year 20
Labour		
Energy/Electricity Costs		
Consumables		
Disposal Costs		
Chemical Analysis		
Maintenance Contracts		
Insurance/Overheads		
Scheduled Maintenance		
Capital Replacement		
Annual Running Costs		

Table 16.12 Cost Summary for Riverstick

Design Build Capital Cost	Upgrade Works to Existing Plant to provide for 20 years	O&M Estimate for Year 1
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1.7 Conclusions and Recommendations

The existing plant at Riverstick is in very poor condition and will not cater for the future development of the area. Cork County Council stated in their brief that they wish to upgrade the plant to and expand it to a capacity of 1,000 p.e. to cater for the zoned land in the development plan. Therefore an immediate upgrade as part of the Western Bundle scheme is recommended to provide a new treatment plant at Riverstick as the residual asset value of the existing plant is very poor. This will involve the temporary operation of the existing plant during construction and decommissioning, demolition and removal of the existing plant to include suitable disposal of the reed bed and associated materials once the new plant is commissioned. The new plant design should incorporate storm facilities, tertiary treatment and UV disinfection.

The plant is suitable for inclusion in the proposed bundled wastewater upgrade and operate scheme. The exact procurement methodology will be addressed in a separate Public Private Partnership (PPP) Applicability Report. Further investigation is recommended for input to Contract Documents in order to properly collate data for inclusion in any scheme and a flow and load survey at the works will provide details on the incoming load and effluent quality at the existing works.

Cork County

Water Services Investment Programme 2007 - 2009

Schemes at Construction	W/S	Est. Cost	Schemes to start 2009 contd.	W/S	Est. Cost
Cork North			Cork South		
Mitchelstown Sewerage Scheme (Nutrient Removal)	S	221,000	Ballincollig Sewerage Scheme (Upgrade) (G)	S	22,248,000
Cork South			Cork Lower Harbour Sewerage Scheme (excl. Crosshaven SS)	S	73,542,000
Ballyvourney/ Ballymakeery Sewerage Scheme	S	3,049,000	Shannagarry/ Garryvoe/ Ballycotton Sewerage Scheme	S	3,780,000
Cobh/ Midleton/ Carrigtwohill Water Supply Scheme	W	10,135,000	Youghal Sewerage Scheme	S	14,420,000
Cork Lower Harbour Sewerage Scheme (Crosshaven SS) (G)	S	4,850,000	Cork West		
Cork Water Strategy Study (G)	W	941,000	Ballydehob Sewerage Scheme	S	683,000
Kinsale Sewerage Scheme	S	20,000,000	Bantry Water Supply Scheme	W	14,935,000
Midleton Sewerage Scheme (Infiltration Reduction) (G)	S	2,078,000	Clonakilty Sewerage Scheme (Plant Capacity Increase)	S	3,677,000
		41,274,000	Courtmacsherry/ Timoleague Sewerage Scheme	S	2,472,000
Schemes to start 2007			Dunmanway Regional Water Supply Scheme Stage 1	W	12,669,000
					164,629,000
Cork North			Serviced Land Initiative		
North Cork Grouped DBO Wastewater Treatment Plant (Buttevant, Doneraile & Kilbrin)	S	5,150,000	Cork North		
Cork West			Ballycough Water Supply Scheme	W	139,000
Skibbereen Sewerage Scheme	S	20,000,000	Ballyhooley Improvement Scheme	W/S	139,000
		25,150,000	Broghill-Rathgoggin Sewerage Scheme	S	406,000
Schemes to start 2008			Bweeng Water Supply Scheme	W	115,000
Cork North			Churchtown Sewerage Scheme (incl. Water)	W/S	543,000
Mallow/ Ballyvinter Regional Water Supply Scheme (H) W		8,662,000	Clondulane Sewage Treatment Plant	S	417,000
Mallow Sewerage Scheme (H)	S	3,408,000	Freemount Sewerage Scheme	S	150,000
Cork South			Pike Road Sewerage Scheme (incl. Water)	W/S	2,080,000
Ballincollig Sewerage Scheme (Nutrient Removal) (G)	S	948,000	Rathcormac Sewerage Scheme (incl. Water)	W/S	555,000
Ballingeary Sewerage Scheme	S	1,296,000	Spa Glen Sewerage Scheme	S	736,000
Bandon Sewerage Scheme Stage 2	S	14,729,000	Uplands Fermoy Sewerage Scheme (incl. Water)	W/S	1,174,000
City Environs (CASP) Strategic Study (G)	S	153,000	Watergrasshill Water Supply Scheme (incl. Sewerage) (G)	W/S	4,151,000
Cloghroe Sewerage Scheme (Upgrade)	S	683,000	Cork South		
Coachford Water Supply Scheme	W	1,318,000	Ballincollig Sewerage Scheme (Barry's Rd Foul and Storm Drainage) (G)	S	1,164,000
Garretstown Sewerage Scheme	S	2,153,000	Belgooley, Water Supply Scheme (incl. Sewerage)	W/S	2,913,000
Inniscarra Water Treatment Plant Extension Phase 1	W	2,678,000	Blamey Water Supply Scheme (Ext. to Station Rd) (G)	W	416,000
Little Island Sewerage Scheme (G)	S	2,200,000	Carrigtwohill Sewerage Scheme (Treatment and Storm Drain) (G)	S	7,632,000
Cork West			Castlematyr Wastewater Treatment Plant Extension	S	1,200,000
Bantry Sewerage Scheme	S	7,148,000	Crookstown Sewerage Scheme (incl. Water)	W/S	1,200,000
Dunmanway Sewerage Scheme	S	2,153,000	Dripsey Water Supply Scheme (incl. Sewerage)	W/S	1,112,000
Leap/ Baltimore Water Supply Scheme	W	6,365,000	Glounthane Sewerage Scheme (G)	S	1,576,000
Schull Water Supply Scheme	W	5,253,000	Innishannon Sewerage Scheme	S	277,000
		61,137,000	Innishannon Wastewater Treatment Plant	S	694,000
Schemes to start 2009			Kerrypike Sewerage Scheme	S	832,000
Cork North			Kerrypike Water Supply Scheme	W	416,000
Banteer/Dromahane Regional Water Supply Scheme	W	1,576,000	Killeagh Wastewater Treatment Plant Extension	S	1,200,000
Conna Regional Water Supply Scheme Extension	W	2,627,000	Killeagh Water Supply Scheme (includes Sewerage)	W/S	485,000
Cork NE Water Supply Scheme	W	4,326,000	Killeens Sewerage Scheme	S	420,000
Cork NW Regional Water Supply Scheme	W	6,046,000	Kinagleary Sewerage Scheme	S	694,000
Millstreet Wastewater Treatment Plant (Upgrade)	S	1,628,000	Midleton Wastewater Treatment Plant Extension	S	4,050,000

Cork County contd.

Water Services Investment Programme 2007 - 2009

Serviced Land Initiative contd.	W/S	Est. Cost	Schemes to Advance through Planning cond.	W/S	Est. Cost
Cork South contd.			Cork South		
Mogeely, Castlemartyr & Ladysbridge Water Supply Scheme	W	2,566,000	Carrigtwohill Sewerage Scheme (G)	S	20,000,000
North Cobh Sewerage Scheme (G)	S	3,193,000	Cork Sludge Management (G)	S	14,420,000
Riverstick Water Supply Scheme (incl. Sewerage)	W/S	525,000	Cork Water Supply Scheme (Storage - Mount Emla, Ballincollig & Chetwind) (G)	W	8,500,000
Rochestown Water Supply Scheme	W	2,700,000	Inniscarra Water Treatment Plant (Sludge Treatment)(G)W		5,356,000
Saleen Sewerage Scheme	S	1,051,000	Macroom Sewerage Scheme	S	5,150,000
Youghal Water Supply Scheme	W	2,300,000	Minane Bridge Water Supply Scheme	W	1,421,000
Cork West			Cork West		
Castletownshend Sewerage Scheme	S	1,576,000	Bantry Regional Water Supply Scheme (Distribution)	W	9,455,000
		50,797,000	Cape Clear Water Supply Scheme	W	1,679,000
Rural Towns & Villages Initiative			Rural Towns & Villages Initiative		
Cork North			Cork North		
Buttevant Sewerage Scheme (Collection System)	S	2,446,000	Castletownbere Regional Water Supply Scheme	W	8,405,000
Doneraile Sewerage Scheme (Collection System)	S	1,738,000	Glengarriff Sewerage Scheme	S	2,500,000
			Roscarberry/Owenahincha Sewerage Scheme	S	1,576,000
			Skibbereen Regional Water Supply Scheme Stage 4	W	7,880,000
					95,646,000
Cork South			Water Conservation Allocation		
Innishannon (Ballinadee/ Ballinspittle/ Garrettstown) Water Supply Scheme	W	6,726,000	Asset Management Study		300,000
Cork West			South Western River Basin District (WFD) Project¹		
Ballylicky Sewerage Scheme	S	2,158,000			9,400,000
Baltimore Sewerage Scheme	S	3,362,000			
Castletownbere Sewerage Scheme	S	3,202,000			
Schull Sewerage Scheme	S	3,523,000			
		24,950,000	Programme Total		485,489,000
Schemes to Advance through Planning					
Cork North					
Mitchelstown North Galtees Water Supply Scheme	W	3,152,000			
Mitchelstown Sewerage Scheme	S	3,000,000			
Newmarket Sewerage Scheme	S	3,152,000			

¹ This project is being led by Cork County Council on behalf of other authorities in the River Basin District

(H) Refers to a Hub as designated in the National Spatial Strategy

(G) Refers to a Gateway as designated in the National Spatial Strategy

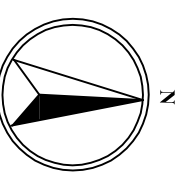
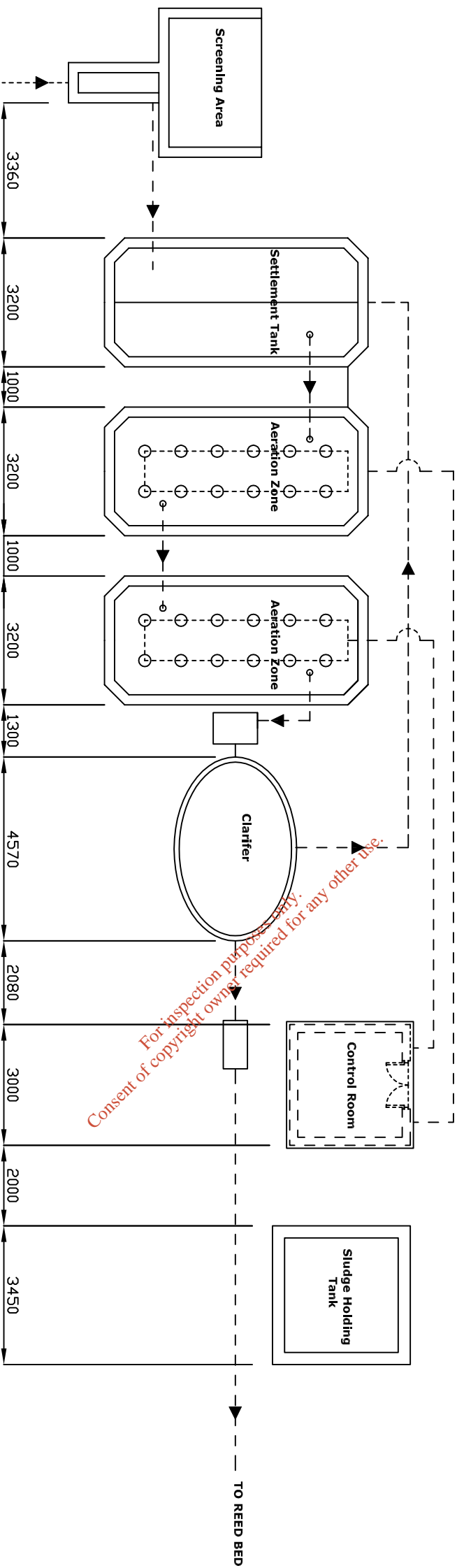
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Rev.	Date	By	Description

CORK COUNTY COUNCIL
SOUTHERN DIVISION

Nigel O'Keefe, B.E. C.Eng. F.I.E.M.I.C.E.
County Engineer
County Hall, Cork.

Patricia Power,
Director of Services,
Area Operations South

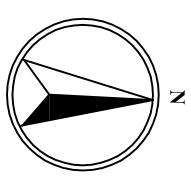
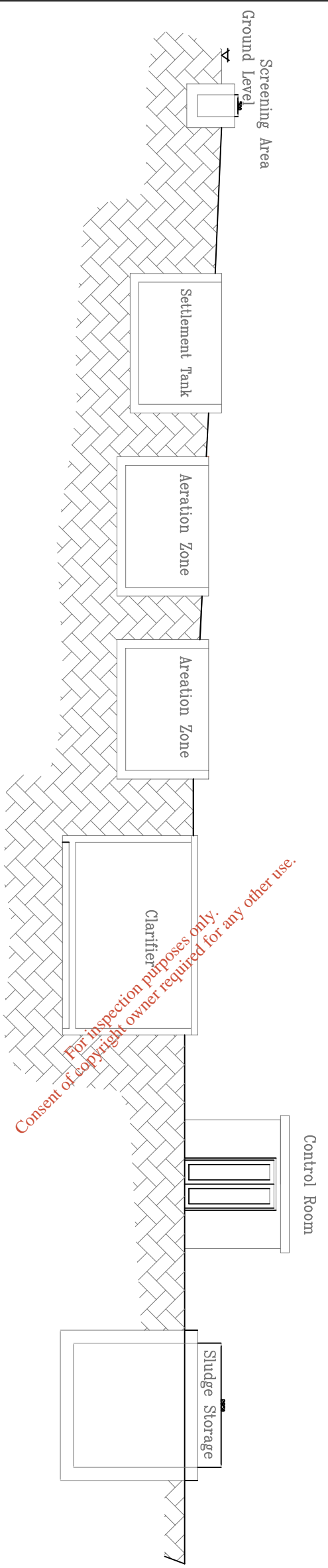
Project: RIVERSTICK
WWTP WASTE WATER
DISCHARGE LICENCE APPLICATION

Title: APPLICATION FORM
ATTACHMENT C1_Dwg 01
OPERATION INFORMATION - SECTION


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ER	MH	NOT TO SCALE	C1_Dwg 01
Drawn:	Approved:	Date:	Scale:
MM	MH	May 09	—
File Path:			Rev: 0

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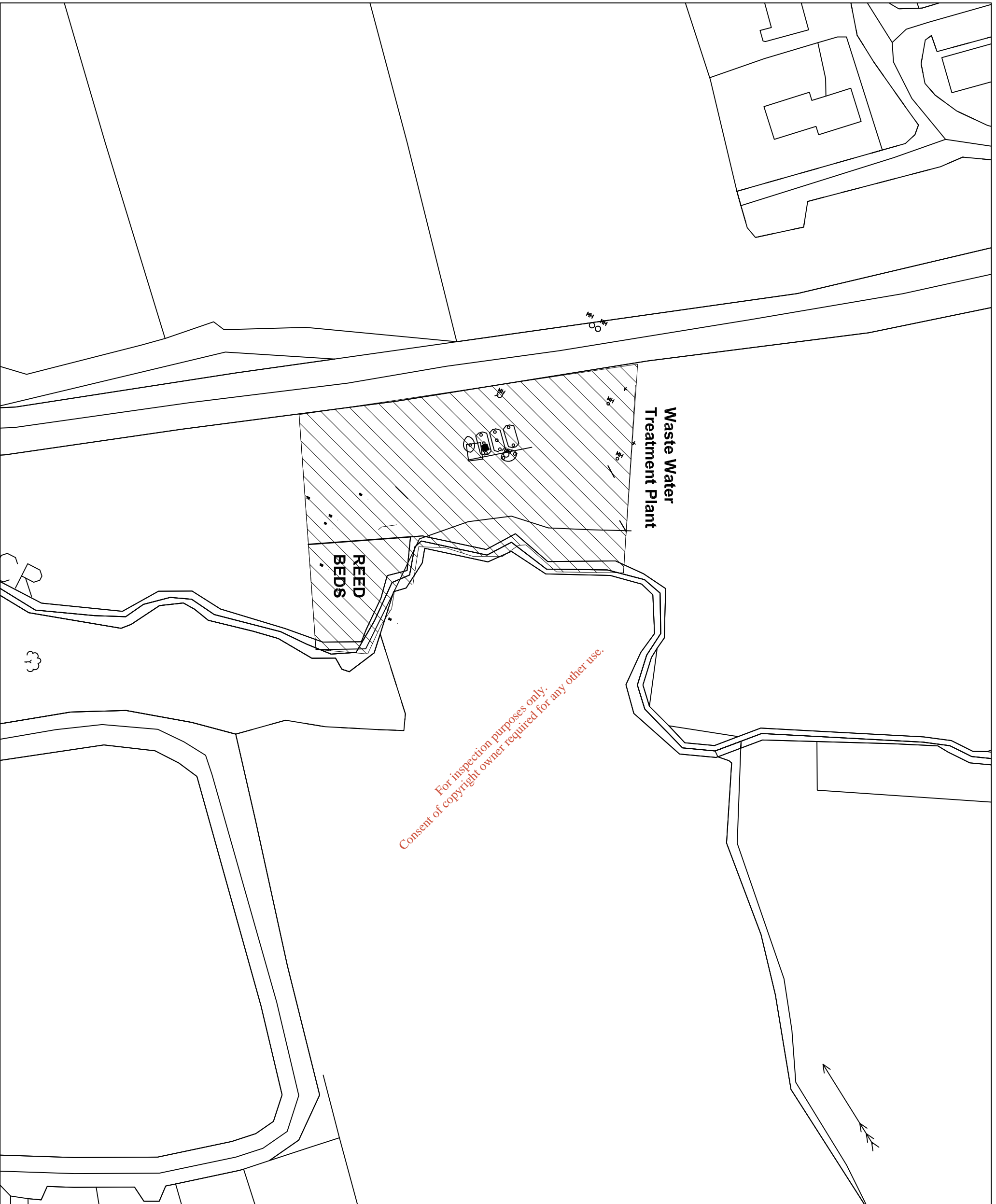
Rev.	Date	By	Description


CORK COUNTY COUNCIL
SOUTHERN DIVISION
Nigel O'Keefe, B.E. C.Eng. F.I.E.M.I.C.E.
 County Engineer
 County Hall, Cork.
Patricia Power,
 Director of Services,
 Area Operations South

Project: **RIVERSTICK
 WWTP WASTE WATER
 DISCHARGE LICENCE APPLICATION**

Title: **APPLICATION FORM
 ATTACHMENT C1_Dwg 02
 OPERATION INFORMATION - SECTION**

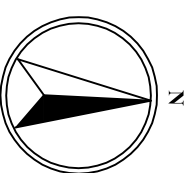
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Rev	Date	By	Description



CORK COUNTY COUNCIL
SOUTHERN DIVISION

Noel O'Keefe, B.E. CEng. Eurling FLINICE
County Engineer
County Hill, Cork.

Patricia Power,
Director of Services,
Area Operations South

Project: RIVERSTICK
WWTP WASTE WATER
DISCHARGE LICENCE APPLICATION

Title: Application Form
Attachment C1_Map11
Operation Information Requirements

Designed:	ER	Checked:	MH	Scale:	1:1,000 @ A3	Drawing No:	C1_Map11	
Drawn:	MM	Approved:	MH	Date:	April '09	Status:	—	
File Path:							Rev:	0

Accreditation Certificate

Cork County Council

Wastewater Testing Laboratory, Inniscarra, Co. Cork

Testing Laboratory

Registration number: 016T

is accredited by the Irish National Accreditation Board (INAB) to undertake testing as detailed in the Schedule bearing the Registration Number detailed above, in compliance with the International Standard ISO/IEC 17025:2005 2nd Edition "General Requirements for the Competence of Testing and Calibration Laboratories" (This Certificate must be read in conjunction with the Annexed Schedule of Accreditation)

Date of award of accreditation: 01:10:2002

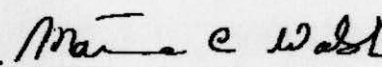
Date of last renewal of accreditation: 20:09:2007

Expiry date of this certificate of accreditation: 01:10:2012

This Accreditation shall remain in force until further notice subject to continuing compliance with INAB accreditation criteria, ISO/IEC 17025 and any further requirements specified by the Irish National Accreditation Board.

Manager: 

Mr Tom Dempsey

Chairperson: 

Dr Máire Walsh

Issued on 23 June 2008

Organisations are subject to annual surveillance and are re-assessed every five years. The renewal date on this Certificate confirms the latest date of renewal of accreditation. To confirm the validity of this Certificate, please contact the Irish National Accreditation Board.

The INAB is a signatory of the European co-operation for Accreditation (EA) Testing Multilateral Agreement (MLA) and the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement.

Schedule of Accreditation



(Annex to Accreditation Certificate)

Permanent Laboratory:
Category A

CORK COUNTY COUNCIL

Chemistry Testing Laboratory

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Initial Registration Date : 25-April-1991
Postal Address: Waste Water Laboratory
(Address of other locations as they apply) Inniscarra
Co. Cork
Telephone: +353 (21) 4532700
Fax: +353 (21) 4532777
E-mail:
Contact Name: Ms M Cherry
Facilities: Normally not available for Public testing

Schedule of Accreditation



Permanent Laboratory:
Category A

THE IRISH NATIONAL ACCREDITATION BOARD (INAB) is the Irish body for the accreditation of organisations including laboratories.

Laboratory accreditation is available to testing and calibration facilities operated by manufacturing organisations, government departments, educational institutions and commercial testing/calibration services. Indeed, any organisation involved in testing, measurement or calibration in any area of technology can seek accreditation for the work it is undertaking.

Each accredited laboratory has been assessed by skilled specialist assessors and found to meet criteria which are in compliance with ISO/IEC 17025 or ISO/IEC 15189 (medical laboratories). Frequent audits, together with periodic inter-laboratory test programmes, ensure that these standards of operation are maintained.

Testing and Calibration Categories:

- Category A:** Permanent laboratory calibration and testing where the laboratory is erected on a fixed location for a period expected to be greater than three years.
- Category B:** Site calibration and testing that is performed by staff sent out on site by a permanent laboratory that is accredited by the Irish National Accreditation Board.
- Category C:** Site calibration and testing that is performed in a site/mobile laboratory or by staff sent out by such a laboratory, the operation of which is the responsibility of a permanent laboratory accredited by the Irish National Accreditation Board.
- Category D:** Site calibration and testing that is performed on site by individuals and organisations that do not have a permanent calibration/testing laboratory. Testing may be performed using
- (a) portable test equipment
 - (b) a site laboratory
 - (c) a mobile laboratory or
 - (d) equipment from a mobile or site laboratory

Standard Specification or Test Procedure Used:

The standard specification or test procedure that is accredited is the issue that is current on the date of the most recent visit, unless otherwise stated.

Glossary of Terms

Facilities:

- Public calibration/testing service:** Commercial operations which actively seek work from others.
- Conditionally available for public calibration/testing:** Established for another primary purpose but, more commonly than not, is available for outside work.
- Normally not available for public calibration/testing:** Unavailable for public calibration/testing more often than not.

Laboratory users wishing to obtain assurance that calibration or test results are reliable and carried out to the Irish National Accreditation Board criteria should insist on receiving an accredited calibration certificate or test report. Users should contact the laboratory directly to ensure that this scope of accreditation is current. INAB will, on request, verify the status and scope.

Scope of Accreditation



**Cork County Council
Chemical Testing Laboratory**

Permanent Laboratory:
Category A

INAB Classification number (P9)	Type of test/properties measured	Standard specifications
Materials/products tested	Range of measurement	Equipment/techniques used
766 Waters	Chemical analysis:	Documented in-house methods based on Standard Methods for the Examination of Water & Wastewater 21 st Edition APHA (See Note 1)
.01 Waters for domestic purposes	Biochemical Oxygen Demand	CP No. 1 Membrane electrode
Surface and ground waters	2 - 145,000 mg/l	
	pH	CP No. 5 Electrometry
	2 - 12	
	Suspended Solids	CP No. 3 Gravimetric
	0.5 - 17,500 mg/l	
	Chemical Oxygen Demand	CP No. 6 Reflux - colourmetric method
	21 - 135 mg/l	
	120 - 670,000 mg/l	
	Total phosphorus	US-EPA Approved method/HACH
	0.2 - 5,300 mg/l	Method CP No.20
	Ammonia	Documented in-house method CP22 by Konelab based on Method for the Examination of Waters and Associated Material HMSO:1981
	0.1 - 1,000 mg/l NH ₃ - N	

Scope of Accreditation



**Cork County Council
Chemical Testing Laboratory**

**Permanent Laboratory:
Category A**

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766 Waters .01 Waters for domestic purposes <i>Surface and ground waters</i>	<p>Orthophosphate as P (Konelab) Range: 0.005-1.00 mg O-PO4 P/L High Range: 1000 mg O-PO4 P/L Method Detection Limit: 0.02 mg O-PO4 P/L</p> <p>Chloride (Konelab) Range: 25-250 mg/L Cl- High Range Conc.: 86,000 mg/L Cl- Method Detection Limit: 25 mg/L Cl-</p> <p>Sulphate (Konelab) Range: 30-250 mg/L SO4/L High Range Conc.: 35,000 mg/L SO4/L Method Detection Limit: 30 mg SO4/L</p>	<p>CP No. 23 Ascorbic Acid Method</p> <p>CP No. 24 Ferricyanide Method</p> <p>CP No. 25 Documented in-house method by Konelab based on method for the examination of waters and waste waters and associated material HMSO: 1981</p>

Scope of Accreditation



Cork County Council
Chemical Testing Laboratory

Permanent Laboratory:
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766 Waters	Chemical analysis	Documented in-house methods based on Standard Methods for the Examination of Water & Wastewater 21 st Edition APHA (See Note 1)
.05 Trade Wastes <i>Industrial effluents</i> <i>Urban Wastewater</i> <i>Municipal Wastewater</i>	Biochemical Oxygen Demand 2 - 145,000 mg/l	CP No. 1 Membrane electrode
	pH 2 - 12	CP No. 5 Electrometry
	Suspended Solids 0.5 - 17,500 mg/l	CP No. 3 Gravimetric
	Chemical Oxygen Demand 21 - 135 mg/l 120 - 670,000 mg/l	CP No. 6 Reflux - colourmetric method
	Total phosphorus 0.2 - 5,300 mg/l	US-EPA Approved method/HACH Method CP No.20
	Ammonia 0.1 - 1,000 mg/l NH3-N	Documented in-house method CP22 by Konelab based on Method for the Examination of Waters and Associated Material HMSO: 1981.

Notes
 1. APHA American Public Health Association, USA, 21st Edition

Scope of Accreditation

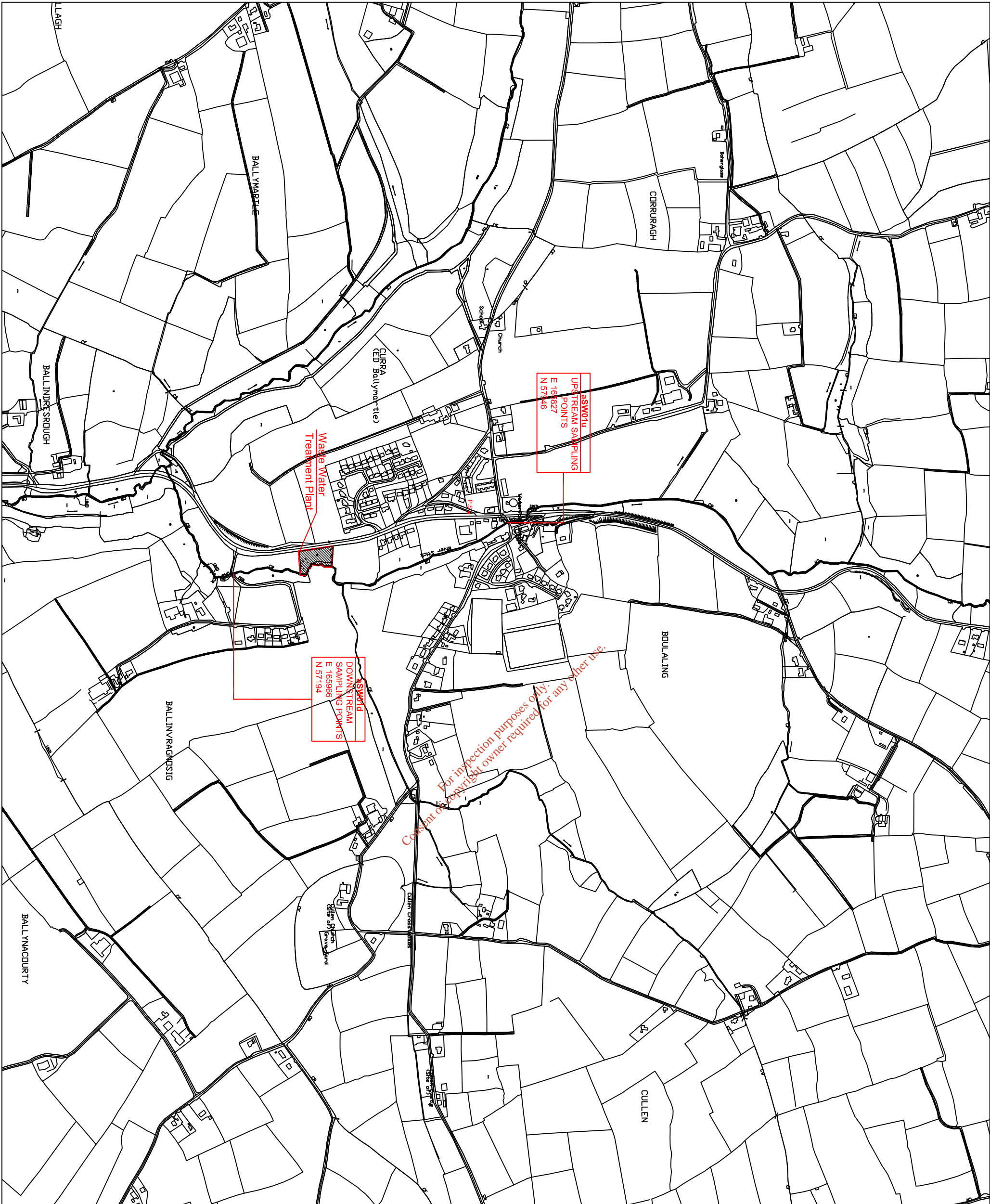


Cork County Council
Chemical Testing Laboratory

Permanent Laboratory:
Category A

INAB Classification number (P9)	Type of test/properties measured	Standard specifications
Materials/products tested	Range of measurement	Equipment/techniques used
766 Waters	Chemical analysis	Documented in-house methods based on Standard Methods for the Examination of Water & Wastewater 21 st Edition APHA (See Note 1)
.05 Trade Wastes Industrial effluents Urban Wastewater Municipal Wastewater	Orthophosphate as P (Konelab) Range: 0.005 - 1.00 mg O-PO4 P/L High Range: 1000 mg O-PO4 P/L Method Detection Limit: 0.02 mg O-PO4 P/L	CP No. 1 Membrane electrode CP No. 23 Ascorbic Acid Method
	Chloride (Konelab) Range: 25-250 mg/L Cl- High Range Conc.: 86,600 mg /L Cl- Method Detection Limit: 25mg / L Cl-	CP No. 24 Ferricyanide Method
	Sulphate (Konelab) Range: 30-250 mg/L SO4 /L High Range Conc.: 35,000 mg/L SO4 /L Method Detection Limit: 30 mg SO4 /L	CP No. 25 Documented in-house method by Konelab based on method for the examination of waters and waste waters and associated material HMSO: 1981

Notes
1. APHA American Public Health Association, USA, 21st Edition

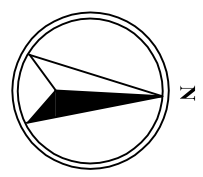


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LEGEND

 Pumping Station




CORK COUNTY COUNCIL
SOUTHERN DIVISION

Noel O'Keefe, B.E. Chief Executive
County Hall, Cork

Patricia Power,
Director of Services
Area Operations South

Project: RIVERSTICK
WWTP WASTE WATER
DISCHARGE LICENCE APPLICATION

Title: Application Form
Attachment E2, Map12
Location of Upstream & Downstream Monitoring Points.

Designed: ER	Checked: MH	Scale: 1:10,000 @ A3	Drawing No: E2_Map12
Drawn: MM	Approved: MH	Date: April '09	Rev: 0

Attachment E4 Riverstick Inlet Table E4		
Sample Date	07/05/2009	
Sample	Influent	Average
Sample Code	GT638	
Flow M³/Day	*	*
pH	7.4	7.4
Temperature °C	*	*
Cond 20°C	529	529
SS mg/L	286	286
NH₃ mg/L	8.1	8.1
BOD mg/L	738	738
COD mg/L	1270	1270
TN mg/L	23	23
Nitrite mg/L	0.207	0.207
Nitrate mg/L	1.873	1.873
TP mg/L	1.94	1.94
O-PO₄-P mg/L	1.1	1.1
SO₄ mg/L	91.1	91.1
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	not required	not required
Xylenes µg/L	<1	<1
Arsenic µg/L	<0.96	<0.96
Chromium ug/L	<20	<20
Copper ug/L	67	67
Cyanide µg/L	<5	<5
Fluoride µg/L	580	580
Lead ug/L	<20	<20
Nickel ug/L	<20	<20
Zinc ug/L	104	104
Boron ug/L	54	54
Cadmium ug/L	<20	<20
Mercury µg/L	<0.2	<0.2
Selenium µg/L	1.7	1.7
Barium ug/L	<20	<20

Attachment E4 Riverstick Discharge Outlet Table E4

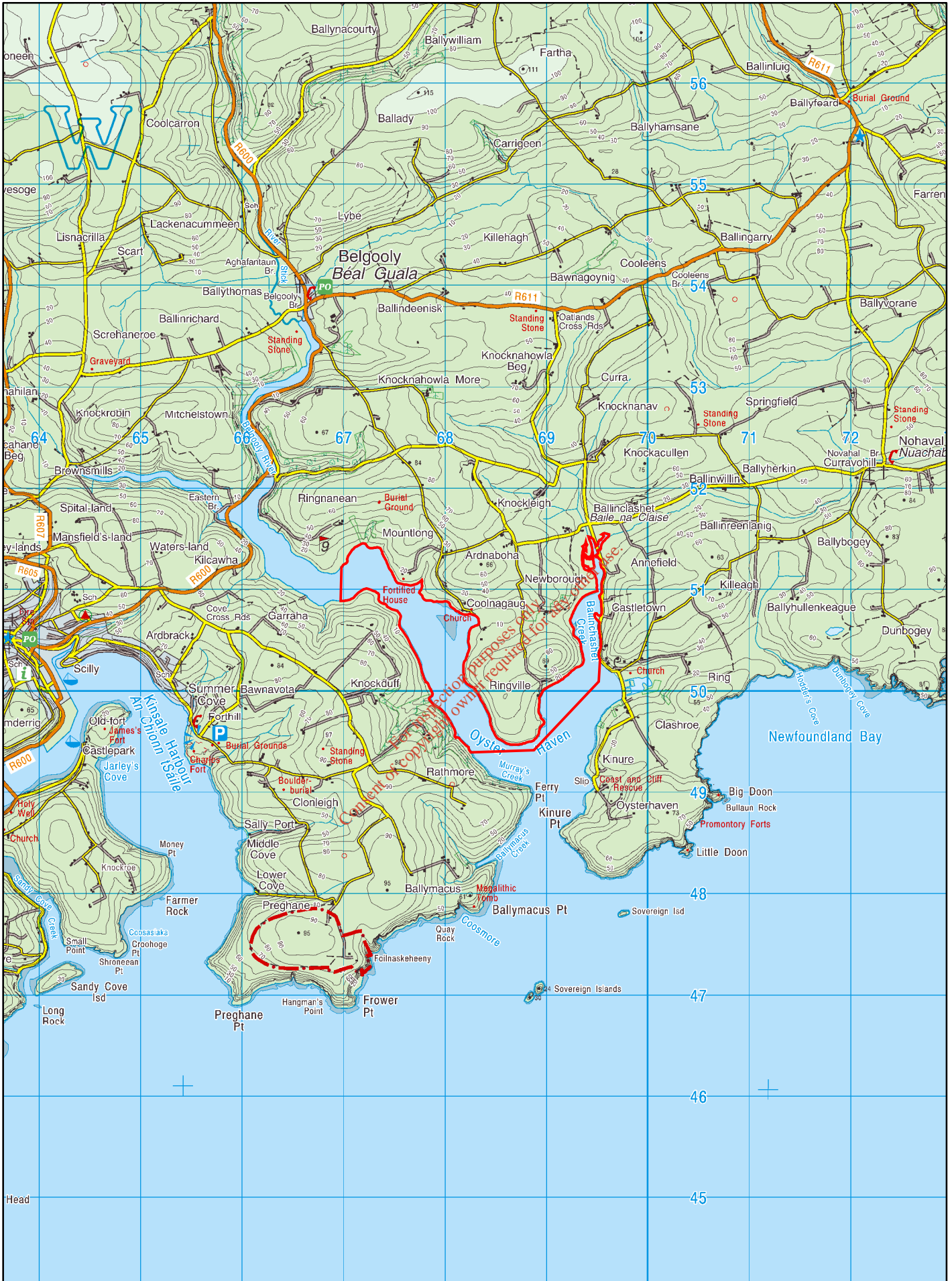
Sample Date	16/10/2008	07/05/2009	
Sample	Effluent	Effluent	Average
Sample Code		GT639	
Flow M ³ /Day	*	*	
pH	7.3	7.2	7.25
Temperature °C	*	*	
Cond 20°C	*	772	772
SS mg/L	13	29	21
NH ₃ mg/L	*	42.8	42.8
BOD mg/L	*	83	83
COD mg/L	103	194	148.5
TN mg/L	26	49.1	37.55
Nitrite mg/L	*	<0.10	
Nitrate mg/L	*	<0.50	
TP mg/L	2.9	7.23	5.065
O-PO4-P mg/L	*	5.62	5.62
SO4 mg/L	*	32	32
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	*	48.53	48.53
Tributyltin µg/L	*	not required	not required
Xylenes µg/L	*	<1	<1
Arsenic µg/L	*	<0.96	<0.96
Chromium ug/L		<20	<20
Copper ug/L		<20	<20
Cyanide µg/L	*	<5	<5
Fluoride µg/L	*	390	390
Lead ug/L	*	<20	<20
Nickel ug/L	*	<20	<20
Zinc ug/L	*	23	23
Boron ug/L	*	32	32
Cadmium ug/L	*	<20	<20
Mercury µg/L	*	<0.2	<0.2
Selenium µg/L	*	0.8	0.8
Barium ug/L	*	<20	<20

Attachment E4 Riverstick Upstream Table E4

Sample Date	16/10/2008	07/05/2009
Sample	River	River
Sample Code		GT641
Flow M ³ /Day	*	*
pH	*	7.3
Temperature °C	*	*
Cond 20°C	*	211
SS mg/L	*	<2.5
NH ₃ mg/L	*	<0.1
BOD mg/L	*	1
COD mg/L	*	<21
TN mg/L	*	5.01
Nitrite mg/L	*	<0.10
Nitrate mg/L	*	4.88
TP mg/L	*	<0.05
O-PO4-P mg/L	<0.05	<0.05
SO4 mg/L	*	<30
Phenols µg/L	*	<0.10
Atrazine µg/L	*	<0.01
Dichloromethane	*	<1
Simazine µg/L	*	<0.01
Toluene µg/L	*	<0.28
Tributyltin µg/L	*	not required
Xylenes µg/L	*	<1
Arsenic µg/L	*	<0.96
Chromium ug/L	*	<20
Copper ug/L	*	<20
Cyanide µg/L	*	<5
Fluoride µg/L	*	<100
Lead ug/L	*	<20
Nickel ug/L	*	<20
Zinc ug/L	*	<20
Boron ug/L	*	<20
Cadmium ug/L	*	<20
Mercury µg/L	*	<0.2
Selenium µg/L	*	1.5
Barium ug/L	*	25.85

Attachment E4 Riverstick Downstream Table E4

Sample Date	16/10/2008	07/05/2009	
Sample	River	River	Average
Sample Code		GT640	
Flow M ³ /Day	*	*	*
pH	*	7.4	7.4
Temperature °C	*	*	*
Cond 20°C	*	216	216
SS mg/L	*	<2.5	<2.5
NH ₃ mg/L	*	0.2	0.2
BOD mg/L	*	2	2
COD mg/L	*	<21	<21
TN mg/L	*	5.2	5.2
Nitrite mg/L	*	<0.10	<0.10
Nitrate mg/L	*	3.7	3.7
TP mg/L	*	0.05	0.05
O-PO4-P mg/L	<0.05	<0.05	<0.05
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
Copper ug/L	*	<20	<20
Cyanide µg/L	*	<5	<5
Fluoride µg/L	*	<100	<100
Lead ug/L	*	<20	<20
Nickel ug/L	*	<20	<20
Zinc ug/L	*	<20	<20
Boron ug/L	*	<20	<20
Cadmium ug/L	*	<20	<20
Mercury µg/L	*	<0.2	<0.2
Selenium µg/L	*	1.3	1.3
Barium ug/L	*	34.225	34.225

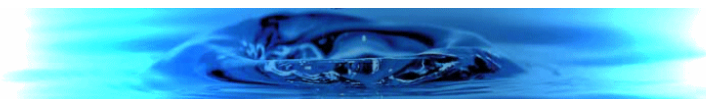


Map 40: Oyster Haven

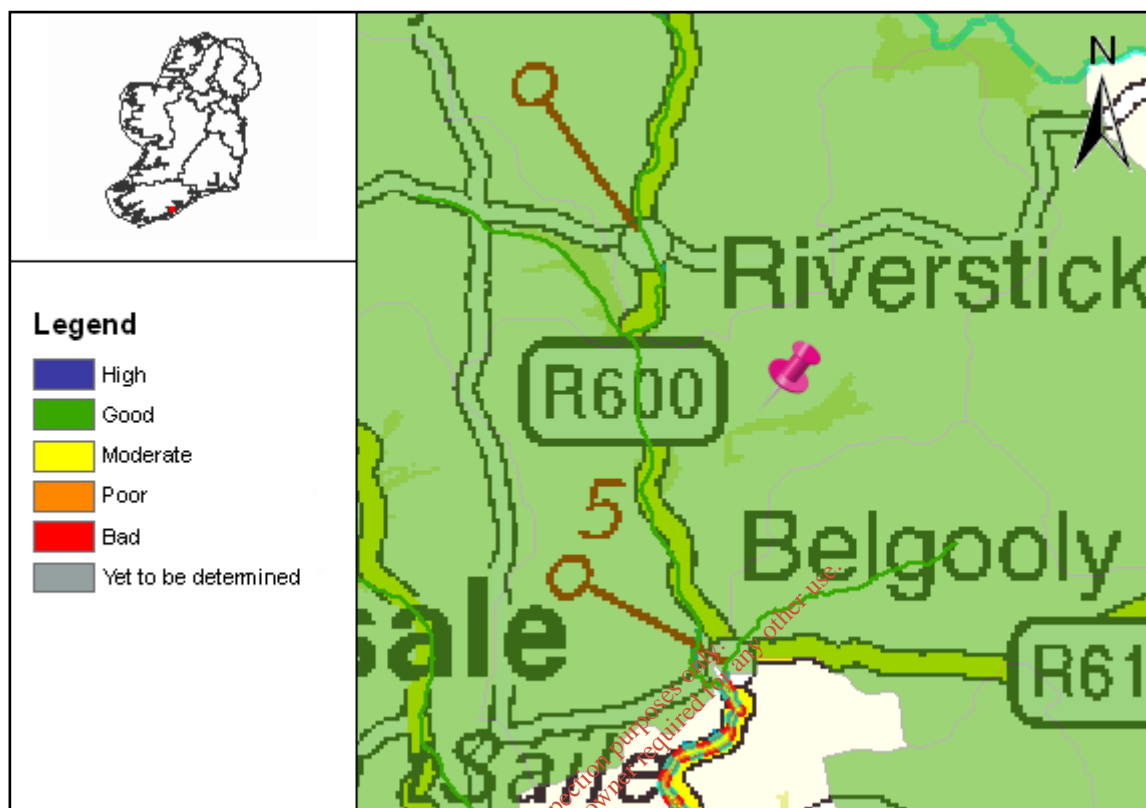
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 Date: December 2008

1:50,000

 Designated Shellfish Water

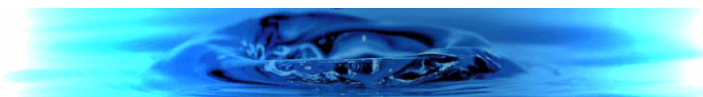


Full Report for Waterbody Stick



Date Reported to Europe: 22/12/2008

Date Report Created 02/06/2009



Summary Information:

WaterBody Category: Subbasin Waterbody

WaterBody Name: Stick

WaterBody Code: IE_SW_20_2214

Overall Status: Good

Overall Objective: Protect

Overall Risk: 2b Not At Risk

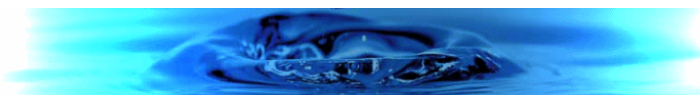
Applicable Supplementary Measures: Unsewered; Urban & Industrial; Morphology; Forestry;
Report data based upon Draft RBMP, 22/12/2008.



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Date Reported to Europe: 22/12/2008

Date Report Created 02/06/2009



Status Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Stick

WaterBody Code: IE_SW_20_2214

Overall Status Result: **Good**

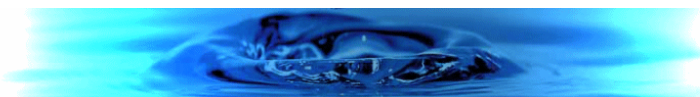


	Status Element Description	Result
EX	Status from Monitored or Extrapolated Waterbody	
	Biological Elements	
Q	Macroinvertebrates (Q-Value)	Good
F	Fish	n/a
DI	Phytobenthos (Diatoms)	n/a
FPM	Status value as determined by Margartifera	n/a
	Supporting Elements	
MOR	Hydromorphology	n/a
SP	Specific Pollutants	n/a
PC	General Physico-Chemical	n/a
	Chemical Status	
PAS	Chemical Status	n/a
	Overall Ecological Status	
O	Overall Ecological Status	Good

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Risk Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Stick

WaterBody Code: IE_SW_20_2214

Overall Risk Result: **2b** Not At Risk

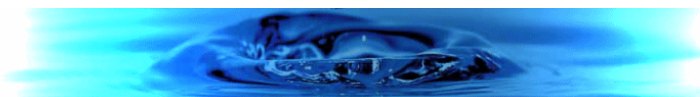


Risk Test Description	Risk
Point Risk Sources	
RP1 WWTPs (2008)	2b Not At Risk
RP2 CSOs	2b Not At Risk
RP3 IPPCs (2008)	2b Not At Risk
RP4 Section 4s (2008)	2b Not At Risk
RPO Overall Risk from Point Sources - Worst Case (2008)	2b Not At Risk
Diffuse Risk Sources	
RD1 EPA diffuse model (2008)	1a At Risk
RD2a Road Wash - Soluble Copper	2b Not At Risk
RD2b Road Wash - Total Zinc	2b Not At Risk
RD2c Road Wash - Total Hydrocarbons	2b Not At Risk
RD3 Railways	2b Not At Risk
RD4a Forestry - Acidification (2008)	2b Not At Risk
RD4b Forestry - Suspended Solids (2008)	2b Not At Risk
RD4c Forestry - Eutrophication (2008)	2a Probably Not At Risk
RD5a Unsewered Areas - Pathogens (2008)	2a Probably Not At Risk
RD5b Unsewered Phosphorus (2008)	2b Not At Risk
RD5 Overall Unsewered (2008)	2b Not At Risk
RD6a Arable	2a Probably Not At Risk
RD6b Sheep Dip	2b Not At Risk
RD6c Forestry - Dangerous Substances	2b Not At Risk
RDO Diffuse Overall -Worst Case (2008)	1a At Risk

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Morphological Risk Sources		
RM1	Channelisation (2008)	2b Not At Risk
RM2	Embankments (2008)	2b Not At Risk
RM3	Impoundments	2b Not At Risk
RM4	Water Regulation	2b Not At Risk
RM0	Morphology Overall - Worst Case (2008)	2b Not At Risk
Q/RDI or Point/Diffuse		
OPD	Q class/EPA Diffuse Model or worst case of Point and Diffuse (2008)	2b Not At Risk
Hydrology		
RHY1	Water balance - Abstraction	2b Not At Risk
Overall Risk		
RA	Rivers Overall - Worst Case (2008)	2b Not At Risk

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Objectives Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Stick

WaterBody Code: IE_SW_20_2214

Overall Objective: **Protect**

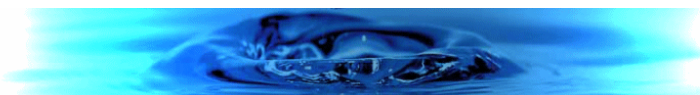


	Objectives Description	Result
	Objectives	
OB1	Objective 1 - Protected Areas	Not Applicable
OB2	Objective 2 - Protect High and Good Status	Protect
OB3	Objective 3 - Restore Less Than Good Status	Not Applicable
OB4	Objective 4 - Reduce Chemical Pollution	Not Applicable
OBO	Overall Objective	Protect
	Deadline	
YR	Default Year by which the objective must be met	2015
EX	Revised Objective Deadline	2007
OBO	Overall Objective and Deadline	Protect

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Basic Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Stick

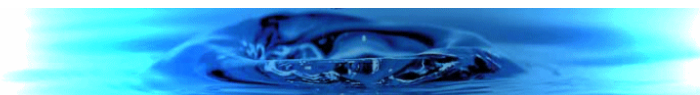
WaterBody Code: IE_SW_20_2214



	Basic Measures Description	Applicable
	Key Directives	
BA	Bathing Waters Directive	No
BI	Birds Directive	No
HA	Habitats Directive	No
DW	Drinking Waters Directive	Yes
SEV	Major Accidents and Emergencies (Seveso) Directive	Yes
EIA	Environmental Impact Assessment Directive	Yes
SE	Sewage Sludge Directive	Yes
UW	Urban Waste Water Treatment Directive	No
PL	Plant Protection Products Directive	Yes
NI	Nitrates Directive	Yes
IP	Integrated Pollution Prevention Control Directive	Yes
	Other Stipulated Measures	
CR	Cost recovery for water use	Yes
SU	Promotion of efficient and sustainable water use	Yes
DWS	Protection of drinking water sources	Yes
AB	Control of abstraction and impoundments	Yes
PT	Control of point source discharges	Yes
DI	Control of diffuse source discharges	Yes
GWD	Authorisation of discharges to groundwater	No
PS	Control of priority substances	Yes
MOR	Control of physical modifications to surface waters	Yes
OA	Controls on other activities impacting on water status	Yes
AP	Prevention or reduction of the impact of accidental pollution incidents	Yes

Date Reported to Europe: 22/12/2008

Date Report Created 02/06/2009



Urban and Industrial Discharges Supplementary Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Stick

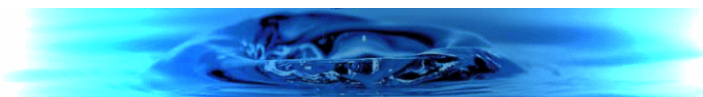
WaterBody Code: IE_SW_20_2214



	Point discharges to waters from municipal and industrial sources	Result
PINDDIS	Is there one or more industrial discharge (Section 4 licence issued by the local authority or IPPC licence issued by the EPA) contained within the water body?	Yes
PINDDISR	Are there industrial discharges (Section 4 licence issued by the local authority or IPPC licence issued by the EPA) that cause the receiving water to be 'At Risk' within the water body?	No
PB1	Basic Measure 1 - Measures for improved management.	No
PB2	Basic Measure 2 - Optimise the performance of the waste water treatment plant by the implementation of a performance management system.	No
PB3	Basic Measure 3 - Revise existing Section 4 license conditions and reduce allowable pollution load.	No
PB4	Basic Measure 4 - Review existing IPPC license conditions and reduce allowable pollution load.	No
PB5	Basic Measure 5 - Investigate contributions to the collection system from unlicensed discharges.	No
PB6	Basic Measure 6 - Investigate contributions to the collection system of specific substances known to impact ecological status.	No
PB7	Basic Measure 7 - Upgrade WWTP to increase capacity.	No
PB8	Basic Measure 8 - Upgrade WWTP to provide nutrient removal treatment.	No
PS1	Supplementary Measure 1 - Measures intended to reduce loading to the treatment plant.	No
PS2	Supplementary Measure 2 - Impose development controls where there is, or is likely to be in the future, insufficient capacity at treatment plants.	No
PS3	Supplementary Measure 3 - Initiate investigations into characteristics of treated wastewater for parameters not presently required to be monitored under the urban wastewater treatment directive.	No
PS4	Supplementary Measure 4 - Initiate research to verify risk assessment results and determine the impact of the discharge.	No
PS5	Supplementary Measure 5 - Use decision making tools in point source discharge management.	No
PS6	Supplementary Measure 6 - Install secondary treatment at plants where this level of treatment is not required under the urban wastewater treatment directive.	No
PS7	Supplementary Measure 7 - Apply a higher standard of treatment (stricter emission controls) where necessary.	No

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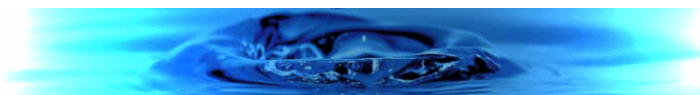


PS8	Supplementary Measure 8 - Upgrade the plant to remove specific substances known to impact on water quality status.	No
PS9	Supplementary Measure 9 - Install ultra-violet or similar type treatment.	No
PS10	Supplementary Measure 10 - Relocate the point of discharge.	No

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Physical Modifications Supplementary Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Stick

WaterBody Code: IE_SW_20_2214

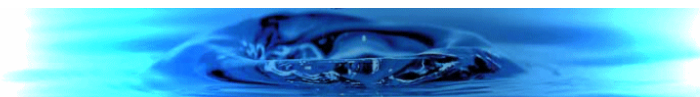


	Physical Modifications Supplementary Measures	Applicable
	Reduce	
SM1	Codes of Practice	Yes
SM2	Support for voluntary initiatives	Yes
	Remediate	
SM3	Channelisation impact remediation schemes	No
SM4	Channelisation investigation	No
SM5	Overgrazing remediation	No
SM6	Impassable barriers, impact confirmed, investigation into feasibility of remediation required	No
SM7	Impassable barriers investigation	Yes

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Date Report Created 02/06/2009



Unsewered Properties Supplementary Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Stick

WaterBody Code: IE_SW_20_2214

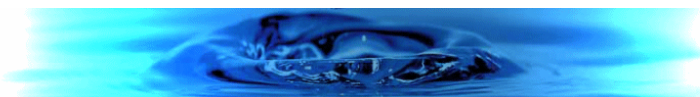


Supplementary Measures for Unsewered Properties		Applicable
SP1	Amend building regulations	Yes
SP2	Establish certified expert panels for site investigation and certification of installed systems	Yes
SP3	Assess applications for new unsewered systems by applying risk mapping/decision support systems and codes of practice	Yes
SP4	Carry out an inspection programme in prioritised locations for existing systems and record results in an action tracking system	No
SP5	Enforce requirements for percolation	No
SP6	Enforce requirements for de-sludging	Yes
SP7	Consider connection to municipal systems	No

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Date Report Created 02/06/2009



Forestry Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Stick

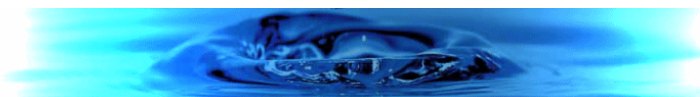
WaterBody Code: IE_SW_20_2214



	Forestry Measures for Forestry	Applicable
SF1	Management Instruments - Ensure regulations and guidance are cross referenced and revised to incorporate proposed measures	No
SF2	Acidification - Avoid or limit afforestation on 1st and 2nd order stream catchments in acid sensitive areas	No
SF3	Acidification - Revise the Acidification Protocol to ensure actual minimum alkalinities are detected and revise boundary conditions for afforestation in acid sensitive areas	No
SF10	Pesticide Use - Pre-dip trees in nurseries prior to planting out	No
SF11	Pesticide Use - Maintain registers of pesticide use	No
SF12	Acidification - Restructure existing forests to include open space and structural diversity through age classes and species mix, including broadleaves	No
SF13	Acidification - Mitigate acid impacts symptomatically using basic material	No
SF14	Acidification - Manage catchment drainage to increase residence times and soil wetting	No
SF15	Acidification - Implement measures to increase stream production.	No
SF16	Eutrophication - Establish riparian zone management prior to clearfelling	No
SF17	Eutrophication and Sedimentation - Enhance sediment control	No
SF18	Eutrophication - Manage catchment drainage to increase residence times and soil wetting, including no drainage in some locations	No
SF19	Sedimentation - Establish riparian zone management prior to clearfelling	No
SF20	Sedimentation - Enhance sediment control	No
SF21	Sedimentation - Manage catchment drainage to increase residence times and soil wetting, including no drainage in some locations	No
SF22	Hydromorphology - Enhance drainage network management, minimise drainage in peat soils	No
SF23	Pesticide Use - Develop biological control methods	No

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SF4	Eutrophication and Sedimentation - Avoid or limit forest cover on peat sites	No
SF5	Eutrophication and Sedimentation - Change the tree species mix on replanting	No
SF6	Eutrophication and Sedimentation - Limiting felling coup size	No
SF7	Eutrophication and Sedimentation - Establish new forest structures on older plantation sites	No
SF8	Hydromorphology - Audit existing drainage networks in forest catchments	No
SF9	Pesticide Use - Reduce pesticide usage	No

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Date Reported to Europe: 22/12/2008

Date Report Created 02/06/2009

Agglomeration details

Leading Local Authority	Cork County Council
Co-Applicants	
Agglomeration	Riverstick
Population Equivalent	550
Level of Treatment	Secondary
Treatment plant address	Curra, Riverstick, Co. Cork
Grid Ref (12 digits, 6E, 6N)	165912 / 057429
EPA Reference No:	

Contact details

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

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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:	SW01RVRST	
Source of Emission:	Primary Discharge	
Location:	Curra, Riverstick	
Grid Ref (12 digits, 6E, 6N)	165975 / 057389	
Name of Receiving waters:	River Stick	
Water Body:	River Water Body	
River Basin District	South Western RBD	
Designation of Receiving Waters:	None	
Flow Rate in Receiving Waters:	0.025	m ³ .sec ⁻¹ Dry Weather Flow
	0.08	m ³ .sec ⁻¹ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	The volumes entered are for the proposed upgrade to the treatment plant as the system does not allow for the entry of the quantities from the current treatment plant. The quantity of waste water discharged per annum is based on the dry weather flow.	

Emission Details:

(i) Volume emitted			
Normal/day	225 m ³	Maximum/day	675 m ³
Maximum rate/hour	28.13 m ³	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	0.003 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 Daily Avg.	kg/day
pH	pH	Grab	= 9	
Temperature	°C	Grab	= 25	
Electrical Conductivity (@ 25°C)	µS/cm	Grab	= 1000	
Suspended Solids	mg/l	Grab	= 35	23.63
Ammonia (as N)	mg/l	Grab	= 0	0
Biochemical Oxygen Demand	mg/l	Grab	= 25	16.88
Chemical Oxygen Demand	mg/l	Grab	= 125	84.38
Total Nitrogen (as N)	mg/l	Grab	= 50	33.75
Nitrite (as N)	mg/l	Grab	= 0	0
Nitrate (as N)	mg/l	Grab	= 0	0
Total Phosphorous (as P)	mg/l	Grab	= 2	1.35
OrthoPhosphate (as P)	mg/l	Grab	= 0	0
Sulphate (SO ₄)	mg/l	Grab	= 0	0
Phenols (Sum)	µg/l	Grab	= 0	0

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

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

Discharge Point Code: SW-1

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

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

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

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

Discharge Point Code: SW-2

Local Authority Ref No:	SW02RVRST	
Source of Emission:	Storm Water Overflow	
Location:	Curra, Riverstick	
Grid Ref (12 digits, 6E, 6N)	165389 / 057389	
Name of Receiving waters:	River Stick	
Water Body:	River Water Body	
River Basin District	South Western RBD	
Designation of Receiving Waters:	None	
Flow Rate in Receiving Waters:	0.025	m ³ .sec ⁻¹ Dry Weather Flow
	0.08	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	m ³	Maximum/day	m ³
Maximum rate/hour	m ³	Period of emission (avg)	min/hr hr/day day/yr
Dry Weather Flow	m ³ /sec		

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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	82125

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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
SW-2			No

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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)	165966 / 057194

Parameter	Results (mg/l)			Sampling method	Limit of Quantitation	Analysis method / technique
	16/10/08	01/01/09	07/05/09			
pH			= 7.4	Grab	2	Electrochemical
Temperature		= 0		Grab	0.5	electrochemical
Electrical Conductivity (@ 25°C)			= 216	Grab	0.5	Electrochemical
Suspended Solids			< 2.5	Grab	0.5	Gravimetric
Ammonia (as N)			= 0.2	Grab	0.02	Colorimetric
Biochemical Oxygen Demand			= 2	Grab	0.06	Electrochemical
Chemical Oxygen Demand			< 21	Grab	8	Digestion & Colorimetric
Dissolved Oxygen		= 0		Grab	0	ISE
Hardness (as CaCO ₃)		= 0		Grab	0	titrimetric
Total Nitrogen (as N)			= 5.2	Grab	0.5	Digestion & Colorimetric
Nitrite (as N)			< 10	Grab	0.013	colorimetric
Nitrate (as N)			= 3.7	Grab	0.04	Colorimetric
Total Phosphorous (as P)			= 0.05	Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05		= 0.05	Grab	0.02	Colorimetric
Sulphate (SO ₄)			< 30	Grab	30	Turbidimetric
Phenols (Sum)			< 0.1	Grab	0.1	GC-MS2

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

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

Additional Comments:	default of 01/01/09 and 0 where results are not available default setting 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)	165966 / 057194

Parameter	Results (µg/l)			Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	07/05/09				
Atrazine		< 0.01		Grab	0.96	HPLC
Dichloromethane		< 1		Grab	1	GS-MS1
Simazine		< 0.01		Grab	0.01	HPLC
Toluene		< 0.28		Grab	0.02	GS-MS1
Tributyltin	= 0			Grab	0.02	GS-MS1
Xylenes		< 1		Grab	1	GS-MS1
Arsenic		< 0.96		Grab	0.96	ICP-MS
Chromium		< 20		Grab	20	ICP-OES
Copper		< 20		Grab	20	ICP-OES
Cyanide		< 5		Grab	5	Colorimetric
Flouride		< 100		Grab	100	ISE
Lead		< 20		Grab	20	ICP-OES
Nickel		< 20		Grab	20	ICP-OES
Zinc		< 20		Grab	20	ICP-OES
Boron		< 20		Grab	20	ICP-OES
Cadmium		< 20		Grab	20	ICP-OES
Mercury		< 0.2		Grab	0.2	ICP-MS
Selenium		= 1.3		Grab	0.74	ICP-MS
Barium		= 34.225		Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn analysis of TBT 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)	165827 / 057946

Parameter	Results (mg/l)			Sampling method	Limit of Quantitation	Analysis method / technique
	16/10/08	01/01/09	07/05/09			
pH			= 7.3	Grab	2	Electrochemical
Temperature		= 0		Grab	0.5	electrochemical
Electrical Conductivity (@ 25°C)			= 211	Grab	0.5	Electrochemical
Suspended Solids			< 2.5	Grab	0.5	Gravimetric
Ammonia (as N)			< 0.1	Grab	0.02	Colormetric
Biochemical Oxygen Demand			= 1	Grab	0.06	Electrochemical
Chemical Oxygen Demand			< 21	Grab	8	Digestion & Colormetric
Dissolved Oxygen		= 0		Grab	0	ISE
Hardness (as CaCO ₃)		= 0		Grab	0	titrimetric
Total Nitrogen (as N)			= 5.01	Grab	0.5	Digestion & Colormetric
Nitrite (as N)			< 0.1	Grab	0.013	colorimetric
Nitrate (as N)			= 4.88	Grab	0.04	Colormetric
Total Phosphorous (as P)			< 0.05	Grab	0.2	Digestion & Colormetric
OrthoPhosphate (as P)	< 0.05		< 0.05	Grab	0.02	Colormetric
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 setting 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)	165827 / 057946

Parameter	Results (µg/l)			Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	07/05/09				
Atrazine		< 0.01		Grab	0.96	HPLC
Dichloromethane		< 1		Grab	1	GS-MS1
Simazine		< 0.01		Grab	0.01	HPLC
Toluene		< 0.28		Grab	0.02	GS-MS1
Tributyltin	= 0			Grab	0.02	GS-MS1
Xylenes		< 1		Grab	1	GS-MS1
Arsenic		< 0.96		Grab	0.96	ICP-MS
Chromium		< 20		Grab	20	ICP-OES
Copper		< 20		Grab	20	ICP-OES
Cyanide		< 5		Grab	5	Colorimetric
Flouride		< 100		Grab	100	ISE
Lead		< 20		Grab	20	ICP-OES
Nickel		< 20		Grab	20	ICP-OES
Zinc		< 20		Grab	20	ICP-OES
Boron		< 20		Grab	20	ICP-OES
Cadmium		< 20		Grab	20	ICP-OES
Mercury		< 0.2		Grab	0.2	ICP-MS
Selenium		= 1.5		Grab	0.74	ICP-MS
Barium		= 25.85		Grab	20	ICP-OES

Additional Comments:	TBT value is 0.2ug/l as Sn analysis of TBT 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,	B1	Yes
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,	Not applicable	Yes
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the waste water treatment plant and/or the waste water discharge point or points to which the application relates,	B2	Yes
(d)	state the population equivalent of the agglomeration to which the application relates,	B9	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.	D2, F	Yes
(g)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and, if Regulation 17 does not apply, provide details of the likely environmental consequences of any such discharges,	E3	Yes
(h)	in the case of an existing waste water treatment plant, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,	E4	Yes
(i)	describe the existing or proposed measures, including emergency procedures, to prevent unintended waste water discharges and to minimise the impact on the environment of any such discharges,	G3	Yes
(j)	give particulars of the nearest downstream drinking water abstraction point or points to the discharge point or points,	Not applicable	Yes
(k)	give details, and an assessment of the effects, of any existing or proposed emissions on the environment, including any environmental medium other than those into which the emissions are, or are to be made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit any pollution caused in such discharges,	F1	Yes
(l)	give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations,	G	Yes
(m)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work.	G3	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,	B8	Yes
(b)	where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13,	Not applicable	Yes
(c)	Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate -	B, C, E	Yes
(c) (i)	the point or points, including storm water overflows, from which a discharge or discharges take place or are to take place, and	B3, B5	Yes
(c) (ii)	the point or points at which monitoring and sampling are undertaken or are to be undertaken,	B3, B5, E3	Yes
(d)	such fee as is appropriate having regard to the provisions of Regulations 38 and 39.	B9(ii)	Yes

Regulation 16(4) An original application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under Regulation 16(3) in hardcopy or in an electronic or other format as specified by the Agency.		Attachment Number	Checked by Applicant
1	An Original Application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under regulation 16(3) in hardcopy or in electronic or other format as specified by the agency.		
Regulation 16(5) For the purpose of paragraph (4), all or part of the 2 copies of the said application and associated documents and particulars may, with the agreement of the Agency, be submitted in an electronic or other format specified by the Agency.		Attachment Number	Checked by Applicant
1	Signed original.		
2	2 hardcopies of application provided or 2 CD versions of application (PDF files) provided.		
3	1 CD of geo-referenced digital files provided.		
Regulation 17 Where a treatment plant associated with the relevant waste water works is or has been subject to the European Communities (Environmental Impact Assessment) Regulations 1989 to 2001, in addition to compliance with the requirements of Regulation 16, an application in respect of the relevant discharge shall be accompanied by a copy of an environmental impact statement and approval in accordance with the Act of 2000 in respect of the said development and may be submitted in an electronic or other format specified by the Agency		Attachment Number	Checked by Applicant
1	EIA provided if applicable		
2	2 hardcopies of EIS provided if applicable.		
3	2 CD versions of EIS, as PDF files, provided.		
Regulation 24 In the case of an application for a waste water discharge certificate of authorisation, the application shall –		Attachment Number	Checked by Applicant
(a)	give the name, address, telefax number (if any) and telephone number of the applicant and the address to which correspondence relating to the application should be sent and, if the operator of the waste water works is a body corporate, the address of its registered office or principal office		
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,		
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the discharge point or points to which the application relates,		
(d)	state the population equivalent of the agglomeration to which the application relates,		
(e)	in the case of an application for the review of a certificate, specify the reference number given to the relevant certificate in the register,		
(f)	specify the content and extent of the waste water discharge, the level of treatment provided and the flow and type of discharge,		
(g)	give details of the receiving water body, its protected area status, if any, and details of any sensitive areas or protected areas, or both, in the vicinity of the discharge point or points or likely to be affected by the discharge concerned,		
(h)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and of the likely environmental consequences of any such discharges,		
(i)	in the case of an existing discharge, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,		
(j)	describe the existing or proposed measures, including emergency procedures, to prevent unauthorised or unexpected waste water discharges and to minimise the impact on the environment of any such discharges,		
(k)	give particulars of the location of the nearest downstream drinking water abstraction point or points to the discharge point or points associated with the waste water works,		
(l)	give details of any designation under any Council Directive or Regulations that apply in relation to the receiving waters,		
(m)	give details of compliance with any applicable monitoring requirements and treatment standards,		
(n)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work,		
(o)	give any other information as may be stipulated by the Agency, and		
(p)	be accompanied by such fee as is appropriate having regard to the provisions of Regulations 38 and 39.		