

This is a draft document and is subject to revision.



# Waste Water Discharge Licence Application Form

**EPA Ref. N<sup>o</sup>:**  
(Office use only)

**Environmental Protection Agency**  
PO Box 3000, Johnstown Castle Estate, Co. Wexford  
Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699  
Web: [www.epa.ie](http://www.epa.ie) Email: [info@epa.ie](mailto: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.
V.7	17/02/2012	Amendments to Section B.6 and Section F.1 to take account of the requirements of European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) in terms of Appropriate Assessment under Article 6(3) of the Habitats Directive (92/43/EEC).	To accurately reflect the Habitats Regulations 2011 (S.I. No. 477 of 2011) requirements.

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

**CONTENTS**

	<b>Page</b>
<b>ABOUT THIS APPLICATION FORM</b>	<b>4</b>
<b>PROCEDURES</b>	<b>6</b>
<b>SECTION A NON-TECHNICAL SUMMARY</b>	<b>8</b>
<b>SECTION B GENERAL</b>	<b>9</b>
<b>SECTION C INFRASTRUCTURE &amp; OPERATION</b>	<b>18</b>
<b>SECTION D DISCHARGES TO THE AQUATIC ENVIRONMENT</b>	<b>23</b>
<b>SECTION E MONITORING</b>	<b>20</b>
<b>SECTION F EXISTING ENVIRONMENT &amp; IMPACT OF THE DISCHARGE(S)</b>	<b>28</b>
<b>SECTION G PROGRAMME OF IMPROVEMENTS</b>	<b>25</b>
<b>SECTION H DECLARATION</b>	<b>27</b>
<b>SECTION I JOINT DECLARATION</b>	<b>28</b>
<b>ANNEX 1: TABLES/ATTACHMENTS</b>	
<b>ANNEX 2: CHECKLIST</b>	

## 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 as amended, 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](http://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 as amended. 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 as amended. 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 as amended, 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 as amended.

**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 as amended.**

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

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

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

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

## SECTION A: NON-TECHNICAL SUMMARY

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

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

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

A description of:

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

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

**Belgooly, a town of approximately 500 people is located on the R600 national secondary route which connects the City of Cork to Kinsale. It is situated just over 6.0 kilometres to the northeast of Kinsale on the River Stick, which on flowing through the village becomes the Belgooly River which is tidal. Kinsale is one of the busiest 'hub towns' in South County Cork. Increased development in Kinsale has had a direct impact on the development of outlying villages. The location of Belgooly has attracted much of this development in the form of housing which has seen the village grow over five fold in five years between 2000-2005.**

**The wastewater generated in Belgooly currently discharges to the Belgooly River. The sewage generated by the new housing developments is receiving some secondary treatment from private 'package treatment units' . Older village areas (pre 2000) do not receive any treatment.**

**There are two separate collection networks in the town; one which serves the majority of the town and discharges at the confluence of two streams and the second collector serves four old**



**stone houses and a bicycle shop and is believed to discharge to the river upstream of the bridge at the junction of the R600 and the R611. This sewer however could not be located.**

**The problems of effluent discharge to this river, which is currently designated a 'Class B' shellfish production area, have been recognised by Cork County Council. The recent phenomenal housing growth in the village has put increased strains on the system and further development will only serve to exacerbate the problem.**

### **Population Loadings**

**In a study carried out for Cork County Council in 2005 the PE was estimated to be 478, but for the purpose of this application and after taken -in -charge the new developments ( Hollycourt Development Ltd.) the PE has increased to 1500. This is why this license application was originally submitted as certificate of Authorization .**

### **The upgrade work**

**The waste water treatment plant in the Riverbank Estate receives foul flow from four estates, Riverbank, The Meadows, Forestbrook and Chluidin an Dir which pumps sewerage to the Meadows Estate. Cork County Council have received an application from Hollycourt Developments Ltd. to increase the treatment unit capability from 500pe to 1000pe to accommodate the increased pollution load from the housing developments. The treatment plant had to go thorough an upgrade work, this was completed in June 2011. The plant is managed by an operator who designed and supervised the upgrading work.**

**SECTION B: GENERAL**

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

**B.1 Agglomeration Details**

**Name of Agglomeration:** **BELGOOLY**

**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.

<b>Name*:</b>	<b>Cork County Council / water services</b>
<b>Address:</b>	<b>Floor 10</b>
	<b>County Hall</b>
	<b>Carrigrohane Road</b>
	<b>County Cork</b>
<b>Tel:</b>	<b>021-4276891</b>
<b>Fax:</b>	<b>021-4276321</b>
<b>e-mail:</b>	<b>Corporate.affairs@corkcoco.ie</b>

\*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.

<b>Name*:</b>	<b>Helena O'Riordan</b>
<b>Address:</b>	<b>Floor 11</b>
	<b>County Hall</b>
	<b>Carrigrohane Road</b>
	<b>County Cork</b>
<b>Tel:</b>	<b>021-4276891</b>
<b>Fax:</b>	<b>021-4276321</b>

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

**Co-Applicant's Details**

<b>Name*:</b>	<b>Not applicable</b>
<b>Address:</b>	<b>Not applicable</b>

	<b>Not Applicable</b>
	<b>Not Applicable</b>
<b>Tel:</b>	<b>Not Applicable</b>
<b>Fax:</b>	<b>Not Applicable</b>
<b>e-mail:</b>	<b>Not Applicable</b>

\*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

<b>Name*:</b>	<b>Not Applicable</b>
<b>Address:</b>	<b>Not Applicable</b>
	<b>Not Applicable</b>
	<b>Not Applicable</b>
<b>Tel:</b>	<b>Not Applicable</b>
<b>Fax:</b>	<b>Not Applicable</b>
<b>e-mail:</b>	<b>Not Applicable</b>

\*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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	<b>x</b>	

### 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.

<b>Name*:</b>	<b>Holycourt Estate WWTP</b>
<b>Address:</b>	<b>Belgooly</b>
	<b>CORK COUNTY</b>
<b>Grid ref (6E, 6N)</b>	<b>E166328, N 053736</b>
<b>Level of Treatment</b>	<b>Secondary Treatment</b>
<b>Primary Telephone:</b>	<b>021-4276891</b>
<b>Fax:</b>	<b>021-4276321</b>
<b>e-mail:</b>	<b>HELENA.O'RIORDAN@CORKCOCO.IE</b>

\*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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	<b>X</b>	

### 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.

<b>Type of Discharge</b>	E.g. Diffuser, Lunar Valve, Non-return flap valve etc. <b>OPEN PIPE</b>
<b>Unique Point Code</b>	<b>SW1 BELG</b>
<b>Location</b>	<b>AT THE PLANT DISCHARGING TO RIVER</b>
<b>Grid ref (6E, 6N)</b>	<b>E166337,N 053719</b>

**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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	<b>X</b>	

### 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.

<b>Type of Discharge</b>	E.g. Diffuser, Lunar Valve, Non-return flap valve etc. <b>OPEN PIPE TO RIVER</b>
<b>Unique Point Code</b>	<b>SW2 BELG, SW3 BELG</b>
<b>Location</b>	<b>RIVER BANK</b>
<b>Grid ref (6E, 6N)</b>	<b>166655E 053615N</b> <b>166616E,053840N</b>

**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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	<b>X</b>	

### 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.

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

**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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		<b>X</b>

### B.6 Planning Authority and/or Public 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.

<b>Name:</b>	<b>Cork County Council</b>
<b>Address:</b>	<b>Planning Department</b>
	<b>County Hall</b>
	<b>Carrigrohane Road</b>
	<b>Cork</b>
<b>Tel:</b>	<b>021 4276891</b>
<b>Fax:</b>	<b>021 4867007</b>
<b>e-mail:</b>	<b>planninginfo@corkcoco.ie</b>

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

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

<b>Local Authority Planning File Reference N<sup>o</sup>:</b>	
---	--

**Attachment B.6** should contain **the most recent** planning permission, including a copy of **all** conditions, a copy of the planning inspector’s report 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.

Where applicable, provide a copy of any screening for Appropriate Assessment report and Natura Impact Statement (NIS) that was prepared for consideration by any planning/public authority as defined in Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) in relation to the waste water works which is the subject of this application. Where a determination that an Appropriate Assessment is required has been made by any planning/public authority in relation to the waste water works, a copy of that determination and any screening report and NIS, and any supplemental information furnished in relation to any such report or statement, which has been provided to the planning/public authority for the purposes of the Appropriate Assessment, shall be included in Attachment B.6.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		X

**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.

<b>Within the SFADCo Area</b>	<b>Yes</b>	<b>No</b>
		X

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.

<b>Name:</b>	<b>Health Service Executive Southern Region</b>
--------------	---

<b>Address:</b>	<b>North Lee Local Health Office</b>
	<b>Floor 2, Abbeycourt House,</b>
	<b>George's Quay, Cork</b>
<b>Tel:</b>	<b>021 4965511</b>
<b>Fax:</b>	
<b>e-mail:</b>	<b>info@hse.ie</b>

B.7 (iii) Other Relevant Water Services Authorities

Regulation 13 of the Waste Water Discharge (Authorisation) Regulations, 2007 as amended, 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.

<b>Name:</b>	<b>NOT APPLICABLE</b>
<b>Address:</b>	<b>NOT APPLICABLE</b>
	<b>NOT APPLICABLE</b>
	<b>NOT APPLICABLE</b>
<b>Tel:</b>	<b>NOT APPLICABLE</b>
<b>Fax:</b>	<b>NOT APPLICABLE</b>
<b>e-mail:</b>	<b>NOT APPLICABLE</b>

<b>Relevant Authority Notified</b>	<b>Yes</b>	<b>No</b>
		<b>X</b>

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

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		<b>X</b>

**B.8 Notices and Advertisements**

Regulations 10 and 11 of the Waste Water Discharge (Authorisation) Regulations, 2007 as amended, 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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	<b>X</b>	

**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.

<b>Population Equivalent</b>	<b>1500</b>
<b>Data Compiled (Year)</b>	<b>2011</b>
<b>Method</b>	<b>HOUSE COUNT</b>

**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.

**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, as amended.

<b>Class of waste water discharge</b>	<b>Fee (in €)</b>
	<b>15,000</b>

<b>Appropriate Fee Included</b>	<b>Yes</b>	<b>No</b>
	<b>X</b>	

**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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		<b>X</b>



**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 to 2011.

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

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		<b>X</b>

**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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		<b>X</b>

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

## **SECTION C: INFRASTRUCTURE & OPERATION**

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

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

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

#### **The Existing Collection Systems**

**The existing sewerage network in Belgooly comprises of three independent networks constructed years apart. The two older networks are combined systems that serve the older village properties along the R600 (Cork - Kinsale) route. The larger of these networks also serves the Cramers Close development on the R612 to Oysterhaven which has a 'temporary package treatment unit'. The most recent network has been constructed to serve the new development and is a separate system that runs through the Riverbank Estate, west of the R600. Although this new system receives biological secondary treatment, neither collector system is considered to receive 'appropriate treatment'. The older smaller network also does not receive appropriate treatment. All three systems are described in more detail below.**

Consent of Copy/Print for multiple purposes only. For more information, please contact: [info@water.gov.ie](mailto:info@water.gov.ie)

### **Network 1 (Older Collector System along the R600)**

**Network 1 consists of a 225 diam. pcc sewer that commences on the R600 opposite the Aldergrove housing estate (12 houses) and runs southwards for approximately 270m to the main village intersection. The sewer from the Aldergrove Estate crosses through private gardens and carries combined flows to the line. Road gullies are connected to the line from the eastern side of the road as it runs to the main village junction.**

**The sewer from the Oyster haven Road (R612) line carries untreated flow from individual houses and treated flow from Cramers Close (24 houses). Cramer's Close has a separate system and a temporary 'package plant' secondary treatment unit. However, as both storm and treated foul flows leave Cramers Close they are directed to the same manhole. Road gullies are also connected to this combined line. At the main village junction, both storm and foul flow arrive from Oysterhaven Road (R612) via 225 diam. uPVC pipe.**

**Flows from both the R600 and R612 are then directed from the main village junction, across the road to the green verge and discharged to the Belgooly River approximately 120m south of the junction. The outfall is exposed in the river, encased in concrete and does not contain a flap valve or non-return mechanism. As a result, the 120m run from the village junction is subject to tidal influence and during high tides the self-cleansing velocity for this sewer is not achieved. This has been confirmed by the Flow Load survey.**

### **Network 2 (Old Collection System / Drain to the West of R600)**

**On the western side of the R600 through Belgooly, four old cut stone houses are served by a common sewer / drain to the rear. This sewer is believed to be served by a septic tank, which then discharges to the stream adjacent to the main village junction. The exact location of the septic tank and discharge could not be ascertained due to dense riverbank growth and construction of the Coal Merchant / Bicycle Shop over the presumed line of the sewer. This line carries combined flows.**

### **Network 3 (New Network West of R600 Serving Housing Scheme)**

**The extensive new housing estate development, which extends from The Meadows adjacent to the R600 southwest to Riverbank off the R607 to Dunderrow and Kinsale, is served by a separate collection system. The foul flows are conveyed by 225mm diam.**

and 300mm dia. uPVC sewer to a temporary wastewater treatment unit, which discharges, treated effluent to the River Stick upstream of Belgooly Bridge. Foul flow from the new 56 housing estate development at 'Chluidin an Dir' is directed via. 225mm diam. uPVC sewer to a private pump sump, which pumps the sewage via. 100mm dia. ductile iron rising main to a header manhole on the R600 where they connect to the foul network in the Meadows Estate.

#### **The Treatment Unit at Cramers Close.**

The treatment unit at Cramers Close receives foul sewage from the 24 houses in the development. Foul flows from houses that front onto the R612 are pumped to the treatment unit from a pump sump at the estate entrance. The remaining foul flows are conveyed to the treatment unit by gravity sewer.

#### **The Septic Tank - Discharge to Belgooly Stream**

The outlet and septic tank that serve the four residences and commercial premises in the village centre was not located. The CCTV survey carried out did not reveal any septic tank.

#### **The Waste Treatment Plant located at the Riverbank Estate**

The waste water treatment plant in the Riverbank Estate receives foul flow from four estates, Riverbank, The Meadows, Forestbrook and Chluidin an Dir which pumps sewerage to the Meadows Estate. However, if the full housing potential is reached, the treatment unit will accommodate 184 houses. Cork County Council have received an application from Hollycourt Developments Ltd. to increase the treatment unit capability from 500pe to 1000pe to accommodate the increased pollution load from the ongoing housing developments. The upgrade work was completed in the summer of 2011, the plant is managed by an operator who designed and supervised the upgrading work.

C.1.1 Storm Water Overflows  
None existing

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.
1. The treatment unit at Cramers Close, receives foul sewage from the 24 houses in the development. Foul flows from houses that front onto the R612 are pumped to the treatment unit from a pump sump at the estate entrance.
  2. The Cluain An Dir housing estate discharges to a pump sump: two pumps available, one on stand by, when power failure sewerage back up into existing sewer line.

**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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		<b>x</b>

**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
		x



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

**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/](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:**

**All discharges to surface water**

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/](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**

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	<b>x</b>	

**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
SW1 BELG	PRIMARY		RIVER			166337	053719
SW2 BELG SW3 BELG	SECONDAR Y SECONDAR Y	CORK COUNTY COUNCIL	RIVER  RIVER	BELGOOLY RIVER	NONE	166655	053615
						166616	053840

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](http://www.epa.ie). This data should be submitted to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, C.1, E.3 and F.2.

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



## SECTION E: MONITORING

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

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

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

**No monitoring by Cork County Council or by EPA is carried out at this location.**

#### 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 performs 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.

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.

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

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

Attachment included	Yes	No
	<b>x</b>	

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

**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
aSW01D	DOWN STREAM SAMPLING	ALL ARE SAMPLING POINTS	166227	052139	not used
aSW01U	UPSTREAM SAMPLING POINT		166325	054284	
SW1	EFFLUENT		166328	053735	

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](http://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 as amended, 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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	<b>x</b>	

**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 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.

**F1.1 Existing Environment & Impact of Discharges**

The Oyster Haven (Water Body Code SW\_070\_0100) is contained within Hydrometric Area 20 and is located entirely in County Cork.

The Oyster Haven has “Moderate” status and has been classified as being “Not at Risk” of not achieving good status by 2015 under the Water Framework Directive Article 5 Characterisation (2004).

The Oyster Haven is not designated as salmonid water under the European Communities (Quality of Salmonid Waters Regulations, 1988 (S.I. No. 293/1988)).

Schedule 5 of the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272 of 2009) sets out “Criteria for Calculating Surface Water Ecological Status and Ecological Potential.” These are summarised for transitional waters in Table F1.2 below.

<i>Biological quality elements</i>	<i>Classification system</i>	<i>Ecological quality ratio</i>	
		<i>Good-moderate boundary</i>	
<b><i>Thermal conditions</i></b>		<b><i>Transitional water body</i></b>	
Temperature		Not greater than 1.5°C rise in ambient temperature outside the mixing zone	
<b><i>Oxygenation conditions</i></b>		<b><i>Transitional water body</i></b>	
Biochemical Oxygen Demand (BOD) (mgO <sub>2</sub> /l)		≤4.0mg/l (95%ile)	<b>3.3</b>

Dissolved Inorganic Nitrogen DIN mg/l as N		0.3171*
<b>Nutrient conditions</b>	<b>Transitional water body</b>	
Molybdate Reactive Phosphorus (MRP) (mg P/l)	(0-17psu) ≤0.060 (median)  (35psu) ≤0.040 (median)	<b>&lt;0.05</b>

Meets the criteria for transitional waters downstream for BOD and phosphate  
**A copy of the most recent water status is attached . The current status of SW- Stick 231-stick-1 lower is 2b- strongly expected to achieve GOOD STATUS .**

Attach maps /drawings and the WMU for stick

E4 downstream location results- comment on compliance against SI 272 of 2009 limits for priority, hazardous and specific pollutants

### AMBIENT COMPARISON TABLE (DOWNSTREAM)

Physico-chemical conditions	Ecological quality ratio/standard	2011 ambient sampling results at aSW-1a
	Good boundary	
	River Water Body	
<b>Nutrient conditions Table 9</b>	<b>River Water Body</b>	<b>Ambient sampling results</b>
<b>Specific pollutants Table 10</b>	<b>Other surface waters AA-EQS</b>	<b>Ambient sampling results</b>
Phenol	8	<.50µg/L
Toulene	10	<0.5µg/L
Xylene	10	<1.00µg/L
Arsenic	20	3.1µg/L
Total Chromium	0.6	19.3µg/L
Copper	5	225µg/L
Cyanide	10	<5.0µg/L
Flouride	1500	<0.1µg/L
Zinc	40	8.6µg/L
<b>Priority Substances Table 11</b>	<b>Other surface waters AA-EQS</b>	<b>Ambient sampling results</b>
Atrazine	0.6	<0.01µg/L
Dichloromethane	20	<0.5µg/L
Simazine	1	<0.01µg/L
Lead and its compounds	7.2	0.8µg/L
Nickel and its compounds	20	3.9µg/L
<b>Priority Hazardous Substances Table 12</b>	<b>Other surface waters AA-EQS</b>	<b>Ambient sampling results</b>
Cadmium and its compounds	0.2	<0.1µg/L
Mercury and its compounds	0.05	<0.02µg/L

**Note the following:**

The black results are within the EQR/S.

The red results break the EQR/S.

The blue results may break the EQR/S however there is saline interference in the analytical method used for test.

The results in pink are at the limit of detection.

\*The sum of the Nitrite and Nitrate sample result has been used for comparison purposes however there is no DIN limit for transitional waters.

**Table F1.2 Criteria for Calculating Surface Water Ecological Status and Ecological Potential**

o

**F.1.2 Details of all monitoring of the receiving water :**

This should be supplied via the following web based link: [http://78.137.160.73/epa\\_wwd\\_licensing/](http://78.137.160.73/epa_wwd_licensing/). Tables F.1(i)(a) & (b) should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables F.1(i)(a) & (b). Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.

**F.1.3 Provide an evaluation of the discharge in relation to the objective of the water quality management plan and catchment plan, as applicable.**

**(i) The number of dilutions available in the receiving water body.**

Information available:

DWF in River = 0.025m3/sec  
 95%ile Flow in River = is 0.08 m3/sec  
 Median Flow in River = 0.617m3/sec  
 DWF from the WWTP is 0.0007m3/sec  
 Max flow from WWTP = 0.0021m3/sec (Estimated at 3 x DWF)

**Worst Case Scenario**

$$\text{No. of Dilutions} = \frac{\text{DWF in River}}{\text{Max flow from WWTP}}$$

$$\text{No. of Dilutions} = \frac{0.025}{0.0021}$$

No. of Dilutions = 11.9

This is a nearly impossible scenario as a Max flow from the WWTP would be the result of a storm event so it would be highly unlikely that there would simultaneously be a DWF in the River. It has been included for comparison purposes.

**Normal Scenario**

$$\text{No. of Dilutions} = \frac{\text{Median Flow in River}}{\text{DWF from WWTP}}$$

$$\text{No. of Dilutions} = \frac{0.617}{0.0007}$$

No. of Dilutions = 881  
 Plenty of dilution available

**For a 1000PE plant**

1000 people multiplied by 180litres per day per person  
 DWF= 180m<sup>3</sup>/day  
**This is DWF = 0.0020m<sup>3</sup>/sec**

**Worst Case Scenario**

$$\text{No. of Dilutions} = \frac{\text{DWF in River}}{\text{Max flow from WWTP}}$$

$$\text{No. of Dilutions} = \frac{0.0025}{0.0020}$$

No. of Dilutions = 1.25

This is a nearly impossible scenario as a Max flow from the WWTP would be the result of a storm event so it would be highly unlikely that there would simultaneously be a DWF in the River. It has been included for comparison purposes.

**Normal Scenario**

$$\text{No. of Dilutions} = \frac{\text{Median Flow in River}}{3 \times \text{DWF from WWTP}}$$

$$\text{No. of Dilutions} = \frac{0.617}{0.0060}$$

No. of Dilutions = 30.9

**3 x DWF = 0.0060m<sup>3</sup>/sec**

Plenty of dilution available at this location

Consent of copyright owner required for any other use.

**F.1.4 Laboratory Monitoring and Analysis**

- (i) *With regard to the requirements of the UWWT Directive/Regulations, clarify the proposed frequency of monitoring of the final discharge.*

The 2011 UWW monitoring results are attached.  
 The Urban Wastewater Treatment Regulations 2001 does not stipulate a frequency of monitoring per year for this category of plant (below 2000PE). The EPA require that 6 samples per year are collected from all agglomerations above 500 PE however this is not directly stated in the directive. Cork County Council comply with this requirement.

Cork County Council has and continues to comply with this required frequency of testing.

- (ii) *Clarify if the composite sampling of the primary discharge is time or flow proportional.*

The composite sampler is time proportional.

The influent waste water to the plant in Belgooly for the Hollycourt/Forestbrook/Flemings development is sampled on a monthly basis by the plant operator. Refer to attached results

**F.1.5 Assessment of the Impact of Waste Water Discharges on Receiving Waters**

Table below summarises the assimilative capacity calculations using the current WWTP loading, 95%ile river flow and the water quality standards in the Environmental Objectives Regulations 2009.

The Notional values for the background concentrations		
1	BOD	0.26 mg/l
2	OPO4-P	0.005 mg/l
3	Ammonia-N	0.008mg/l

For the purposes of this assessment, the discharge is mass balanced into a hypothetically (notionally) clean stretch of river in order to gauge the theoretical impact of the discharge on a clean stretch of river. Details of the assimilative capacity calculations using actual background concentrations have not been included as there is a small number of results available that indicate issues with discharges upstream of the agglomeration . The 'notional clean river' approach (formulated by the Office of Environmental Assessment) has been taken, whereby other sources of upstream pollution will be dealt with separately, and the WWTP discharge shall not cause deterioration in the water quality status.

Information collected from the Scientific Officer of the Environmental Protection Agency Office of Environmental Assessment gives a value of 0.61m3/s for Belgooly River mean flow . (the 50%tile value for station 20009 Belgooly is The source of this information which is located on Stick river at E16623 N53990 )

**PREDICTED IMPACTS**



**MASS BALANCE EQUATIONS FOR BOD:****Worst Case Scenario:**

Maximum Discharge, 95% Flow in the River, Maximum **BOD** in Discharge.

Flow of River (95%ile) =  $0.08\text{m}^3/\text{sec}$   
 Notional Mean BOD in River (upstream) =  $0.26\text{mg/L}$   
 Max volume of discharge =  $0.0021\text{m}^3/\text{sec}$   
 Max value for BOD in discharge =  $25\text{mg/L}$

$$C_{\text{final}} = \frac{(\text{flow in river} \times \text{BOD in river}) + (\text{volume of discharge} \times \text{BOD in discharge})}{(\text{flow in river} + \text{average volume of discharge})}$$

$$C_{\text{final}} = \frac{(0.08 \times 0.26) + (0.0021 \times 25)}{(0.08 + 0.0021)}$$

$$C_{\text{final}} = 0.893\text{mg/l BOD}$$

This does not breach the  $2.6\text{mg/L}$  95%ile EQS for BOD however this is a nearly impossiblescenario as a Max flow from the WWTP would be the result of a storm event so it would behighly unlikely that there would simultaneously be a 95% in the River. It has been includedfor comparison purposes

**Normal Scenario:**

Normal Discharge,, 95% Flow in the River, Maximum **BOD** in Discharge.

Flow of River (95%ile) =  $0.08\text{m}^3/\text{sec}$   
 Notional Mean BOD in River (upstream) =  $0.26\text{mg/L}$   
 volume of discharge =  $0.0007\text{m}^3/\text{sec}$   
 Max value for BOD in discharge =  $25\text{mg/L}$

$$C_{\text{final}} = \frac{(0.08 \times 0.26) + (0.0007 \times 25)}{(0.08 + 0.0007)}$$

$$C_{\text{final}} = 0.48\text{mg/l BOD}$$

This meets the  $1.5\text{mg/L}$  and  $2.6\text{mg/l}$  mean and 95% EQS for BOD  
 This is the current situation and the EQS standard is not breached

**Normal Scenario: with 1000PE 180litres @1000PE**

Normal Discharge,, 95% Flow in the River, Maximum **BOD** in Discharge.

Flow of River (95%ile) =  $0.08\text{m}^3/\text{sec}$   
 Notional Mean BOD in River (upstream) =  $0.26\text{mg/L}$   
 Max volume of discharge =  $0.0020\text{m}^3/\text{sec}$   
 Max value for BOD in discharge =  $25\text{mg/L}$

$$C_{\text{final}} = \frac{(0.08 \times 0.26) + (0.0020 \times 25)}{(0.08 + 0.0020)}$$

$$C_{\text{final}} = 0.86\text{mg/l BOD}$$

This is the predicted situation for 1000PE and the EQS standard is not breached

**MASS BALANCE EQUATIONS FOR AMMONIA:**

$$C_{\text{final}} = \frac{(\text{Flow in river} \times \text{Ammonia in river}) + (\text{Volume of Discharge} \times \text{Ammonia in discharge})}{(\text{Flow in river} + \text{Average Volume of Discharge})}$$

**Worst Case Scenario:**

Maximum Discharge, Median Flow in the River, Maximum Ammonia in Discharge.

Median Flow in the River = 0.61

Maximum Ammonia in Discharge = 30mg N/L

$$C_{\text{final}} = \frac{(0.61 \times 0.05) + (0.057 \times 30.0)}{(0.61 + 0.057)}$$

This is **2.6094** which is in breach of the **0.14mg/L 95%ile EQS for Ammonia** as shown in table 9 under Good status

$$C_{\text{final}} = \frac{(0.61 \times 0.008) + (0.0020 \times 30)}{(0.08 + 0.0020)}$$

$$C_{\text{final}} = 0.739\text{mg/l Ammonia}$$

- **This is in breach of the 0.14mg/L 95%ile EQS for Ammonia, which is a short breach of the limit in river. Considering tidal water is over 3 km away from discharge point the impact on the receiving water is not as otherwise could be predicted.**

Consent of copyright owner required for any other use.

**MASS BALANCE EQUATIONS FOR ORTHOPHOSPHATE: Use median flow**

Maximum Discharge, Median Flow in the River, Maximum Orthophosphate in Discharge.

Median Flow of River (50%ile) = 0.617m<sup>3</sup>/sec  
 Mean Orthophosphate in River (upstream) = 0.058mg/l  
 (This is an average of 0.0200 and 0.0975)

Max volume of discharge = 0.0021m<sup>3</sup>/sec  
 Max value for Orthophosphate in discharge = 0.91mg/L

$$C_{\text{final}} = \frac{(\text{flow in river} \times \text{Ortho. in river}) + (\text{volume of discharge} \times \text{Ortho. in discharge})}{(\text{flow in river} + \text{max volume of discharge})}$$

$$C_{\text{final}} = \frac{(0.649 \times 0.058) + (0.0021 \times 0.91)}{(0.649 + 0.0021)}$$

$$C_{\text{final}} = 0.0607\text{mg/l Orthophosphate}$$

This meets the 0.075mg/L 95%ile EQS for Orthophosphate

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

**Recent Upgrade works completed June 2011 at Belgooly WWTP**

(m) Provide further details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such works. The response should include:

- (i) **Details of the programme of improvements to ensure that discharges other than the primary and secondary discharges comply with the DoEHLG guidance on Storm Water Overflows. Include the proposed timeframe for compliance with the DoEHLG guidance.**

Prior to recent upgrade works on Belgooly Wastewater Treatment Plant, the plant generated intermittent odours that caused nuisance to the adjacent residents. Performance monitoring results received from CCC Environmental Directorate indicated that the plant was not performing as required by the Wastewater Discharge Licence.

**Recently completed upgrade works to the plant include:**

- Mechanical screen installed upstream of the inlet works to the plant
- Flow balancing tank has been installed

- Variable speed pumps installed in the balancing tank to ensure that flows are delivered onwards to the treatment unit at a controlled rate
- Inlet works flow meter
- New splitter chamber to ensure that flows are evenly distributed to the 4 No. package treatment units
- Package treatment units were completely desludged & media was removed, cleaned and replaced
- Passive carbon units were installed at vent locations to ensure odour control
- Additional sludge return pumps (WAS) were installed within the treatment units
- An air scour process has been retrofitted on the 2 No. sand filter units
- Media within the sand filter units has been completely replaced
- New lamps have been installed in the UV sterilisation unit
- New main control panel / cabinet installed

Effluent discharge from the plant is now achieving the specified standard in the upgrade works contract.

**Cork County Council have monitored for the main polluting substances, as part of this application, as defined in the Screening assessment .The results are presented in Attachment E.**

- 
- 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.

**There is no drinking water abstraction point down stream of the Belgooly WWTP primary discharge point**

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

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

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

**There is no drinking water abstraction point downstream of the Belgooly 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 European Site, as defined in Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011).

Undertake a screening for Appropriate Assessment and state whether the discharge(s), whether individually or in combination with other plans or projects is likely to have a significant effect on a European Site(s), in view of best scientific knowledge and in view of the conservation objectives of the site(s). Where it cannot be excluded, on the basis of objective scientific information, following screening for Appropriate Assessment, that the discharge(s), either individually or in combination with other plans or projects, will have a significant effect on a European Site, the applicant shall provide a Natura Impact Statement, as defined in Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations (S.I. No. 477 of 2011). Where based on the screening it is considered that an Appropriate Assessment is not required, a reasoned response should be provided.

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

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

- 

### **Assessment of Relevant Legislation Applicable to Belgooly Discharge**

**The following assesses the relevant European Union Directives and Irish Statutory Legislation that is applicable to the discharge standards at Belgooly.**

**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 (Not applicable),  
Drinking Water Directives 80/778/EEC (Not applicable),  
Urban Waste Water Treatment Directive 91/271/EEC,  
Habitats Directive 92/43/EEC,  
Bathing Water Directive 76/160/EEC, and  
Shellfish Waters Directive 79/923/EEC.  
**Surface Water Regulations SI 272 OF 2009**  
Dangerous Substances Directive 2006/11/EC

Council Directive 2006/11/EC recognises the need for action to be taken by member states to protect the aquatic environment from pollution, in particular that caused by certain persistent, toxic and bioaccumulable substances. The discharge from Belgooly is primarily from domestic sources. Cork County Council has monitored for the main polluting substances, as part of this application, as defined in the Dangerous Substances Regulations, 2001 (S.I. No. 12/2001). The results are presented in Attachment E.

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. The final effluent and a downstream location was also monitored by Cork County Council as part of this application. A copy of the Water Quality Management Plan for this area has been included in Attachment F.

Birds Directive 79/409/EEC  
**Not Applicable**

Groundwater Directives 80/68/EEC and 2006/118/EC  
**Not applicable as there are no emissions to groundwater.**

Drinking Water Directives 80/778/EEC  
**Not Applicable as there are no abstraction points down stream of the discharge point as it is a coastal discharge.**

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 2001/2004/2010 Irish Regulations specifically relate 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 PE.  
for discharges to coastal waters from agglomerations of less than 10,000 PE.

Appropriate treatment is described as that which will allow compliance with other relevant Directives. This agglomeration falls below 2000 PE and the category of appropriate treatment is the criteria used for assessment. The measurement of compliance is assessed using impacts on adjacent watercourses.

**In 2011 the plant met the UWW Regulations limit for Suspended Solids and COD. The plant did not meet the UWW Regulations limit for BOD however , it is worth noting that 1 sample in March 2011 exceeded the limit at a time when the plant was undergoing the improvement works .Since May 2011 the discharge has been well**

below the UWW Regulations limit of 25mg/l following the upgrade the compliance for 2012 can not be assessed until end of 2012.

**Habitats Directive 92/43/EEC**

The aim of this Directive is to contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora. There are no Special Areas of Conservation (SACs) or Special Protection Areas (SPAs) 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. In addition to the above they are two additional directives : Shellfish Water Regulations SI 464/2009, and SI 55/2009

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 Sea Fisheries Protection Authority has confirmed that Oyster Haven is a classified area for the cultivation of shellfish such as oysters as detailed in Table F.1.3.

Production Area	Boundaries	Bed Name	Species	Class
Oyster Haven	Ballymacus Point to Kinure Point	All Beds	Oysters	B

Table F.1.3 Classified Bivalve Mollusc Production Areas in Ireland (14th July 2009)

In accordance with the Classified Bivalve Mollusc Production Areas in Ireland (14th July 2009) and Council Directive 91/492/EEC, **Oyster Haven** 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.1.4.

Category of Waters	Faecal Coliforms / 100g of Flesh	Compliance of Samples	Further Information
A- Immediate Human Consumption	< 300	100% < 300	Not Required

<b>B- Human Consumption After Treatment</b>	<b>300 – 6,000</b>	<b>90% &lt; 6,000</b>	<b>Purification After Relaying</b>
<b>C- Human Consumption After Treatment</b>	<b>6,000 – 60,000</b>	<b>100% &lt; 60,000</b>	<b>Relaying for long period – Intensive Purification.</b>

**Table F.1.4 Requirements for Faecal Coliform Levels for Live Bivalve Molluscs in Accordance with Directive 91/492/EEC**

**The Current status of the Oyster Beds is that they are open for production.**  
 Belgooly WWTP primary discharge point is located approximately 3.5km upstream of the designated shellfish water at Oyster Haven.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	<b>x</b>	

**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.

**There is no drinking water abstraction point downstream of the Belgooly WWTP Primary Discharge Point.**

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

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

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

### Most Recent Upgrade Works was completed in June 2011

#### 1. Inlet Works

- **Prior to the upgrade works, there was no screening system in the treatment plant. EPS installed a vertical automatic inlet screen and provided a bin to collect screenings. Wash water for the screen is provided from the final effluent sump through a wash water pump which was also installed during the upgrade works. A footpath connecting the screen area to the entrance gate was constructed for easy movement of the screening bin.**
- **A primary settlement (balance tank) was also installed as part of the upgrade works. Flow from the original inlet sump (which consisted of 2 no. pumps duty/standby) goes directly to the balance tank where 2 no. forward feed pumps (cycle) direct flow into the splitter chamber.**
- **A hardcore area surrounded by kerbing and fencing was constructed as part of the upgrade works. When the plant is being dewatered, the dewatering machine is located on this surface.**
- **A new control panel was also installed providing power for the new forward feed pumps, the new screen and the wash water pump. An inlet flow meter was also inserted to this panel.**

#### 2. Biological Tanks- Secondary Treatment

- A new splitter box was fabricated as part of the upgrade works with 4 no. v notch weirs at equal height, thus distributing an even flow to the 4 no. aeration streams in the plant.
- 2 no. sludge return pumps were replaced in aeration stream No.3 and No.4.
- 1 no. sludge return pumps were installed in the last section of each aeration stream to pump excess sludge back to the primary sections of each tank. These pumps were not in the original design.
- The mesh panels separating the media in each of the aeration streams was replaced.
- All media in each aeration stream was removed, cleaned and re inserted.
- All aeration streams were completely emptied and cleaned.

### 3. Tertiary Treatment

- All media in the existing sand filters were removed and replaced with new media.
- A new blower was installed providing air into the sand filters under the media. All pipe work for this work was installed prior to media being inserted to sand filter.
- New lamps were provided and installed for the UV treatment system as part of the upgrade works.

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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		<b>x</b>

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

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

#### Recently completed upgrade works to the plant included:

- Mechanical screen installed upstream of the inlet works to the plant

- **Flow balancing tank has been installed**
- **Variable speed pumps installed in the balancing tank to ensure that flows are delivered onwards to the treatment unit at a controlled rate**
- **Inlet works flow meter**
- **New splitter chamber to ensure that flows are evenly distributed to the 4 No. package treatment units**
- **Package treatment units were completely desludged & media was removed, cleaned and replaced**
- **Passive carbon units were installed at vent locations to ensure odour control**
- **Additional sludge return pumps (WAS) were installed within the treatment units**
- **An air scour process has been retrofitted on the 2 No. sand filter units**
- **Media within the sand filter units has been completely replaced**
- **New lamps have been installed in the UV sterilisation unit**
- **New main control panel / cabinet installed**

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

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		<b>x</b>

**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.

**The programme of improvement works has taken the following into consideration :**

- **Grit Screening**
- **Storm Holding Tank**
- **Inlet Flow Measurement Chamber**
- **Extended Aeration Tanks**
- **Clarifier**
- **Final Effluent Flow Measurement Chamber**
- **UV Channel**
- **Control House**
- **Odour Control Units**

**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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		<b>X</b>

**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 as amended.

**None were built in the programme of improvement works**

**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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	<b>x</b>	

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

**SECTION H: DECLARATION**

**Declaration**

I hereby make application for a waste water discharge licence/revised licence, pursuant to the provisions of the Waste Water Discharge (Authorisation) Regulations, 2007 as amended.

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

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

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

**Signed by :** \_\_\_\_\_  
(on behalf of the organisation)

**Date :** \_\_\_\_\_

**Print signature name: Noel O'Keeffe**  
\_\_\_\_\_

**Position in organisation:**  
**County Engineer & Director of Water Services,**  
**Cork County Council,**  
**County Hall, Cork.**  
\_\_\_\_\_

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



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

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