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/DRI/0609

15th June 2009

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

Dear Sir/Madam,

Please find enclosed the waste water discharge license application for the agglomeration of Dripsey ,

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

Waste Water Discharge Licence Application Form

EPA Ref. Nº: *(Office use only)*	

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

Tracking Amendments to Draft Application Form

Version No.	Date	Amendment since previous version	Reason
V. 1.	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.

Environmental Protection Agency

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

CONTENTS

ABOUT THIS APPLICATION FORM

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

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

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

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

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

PROCEDURES

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

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

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

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

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

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.

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 Nº A.1**

SECTION A: NON-TECHNICAL SUMMARY

The Waste Water Works and the Activities Carried Out Therein

Dripsey is a village approximately 19 km west of Cork City and 3km north-east of Coachford off the R618 Cork to Macroom Road. Dripsey consists of three nodes of development, namely Model Village, Upper Dripsey and Lower Dripsey. The settlement is located on the east bank of the Dripsey River, which ultimately flows into the River Lee. The WWTP serves the Model Village area only.

The WWTP is located below the public road in the townland of Agharinagh, west of the Model Village. The plant is adjacent to the Dripsey River. The site is located well below road level.

A gravity combined sewer discharges to the waste water treatment plant. There is a significant amount of infiltration into the system.

The WWTP was built in the early 1990's and has a design PE of 600. Currently the WWTP is receiving flows of approximately 88m^3/day, based on a daily demand of 225l/head/day and a PE of 390.

The wastewater enters the plant via a gravity sewer of diameter 225mm. The wastewater firstly enters a primary settlement tank. This was originally functioning as a septic tank before the plant was upgraded in the early 1990's. From here it flows through a Rotating Biological Contactor where aeration takes place. It then flows into a final setting tank and the treated effluent discharges from here to the river.

The Rotating Biological Contactor has collapsed and is no longer serving its purpose. The unit is currently serving as a settling tank only. It is intended, as an emergency measure, to replace the RBC with an RBC from a similar plant which is being decommissioned. The ability of the plant to deal with the current loadings in its present state is compromised at present, and until such time as emergency works are carried out to replace the RBC.

It is proposed that the replacement of the RBC will be an interim measure as an upgrade to the plant is being advanced under the Water Services Investment Programme.

The upgrade scheme was being progressed as a Serviced Land Initiative. The Preliminary Report was approved by the DoEHLG in September 2006. Cork County Council subsequently submitted a construction budget in July 2007 and has not received a reply to date. Approval for all SLI schemes was withdrawn by the DoEHLG as per Circular L3/09 issued in April 2009. Cork County Council understands that a new Assessment of Needs will be requested of all Water Authorities shortly and that a new Water Services Investment Programme will emanate from that.

It is proposed that the upgrade works will be carried out in two phases. Phase 1 will include modifications to the design and layout of the existing plant to facilitate future expansion and Phase 2 will provide for the expansion of the plant from 600PE to 1,200PE. As the project is likely to be a Design and Build Contract detailed design details are not available at this stage.

The WWTP is inspected twice weekly by a Curator.

The sources of emissions from the waste water works

The pollution load for the Dripsey agglomeration arises from the following areas:

- Domestic population
- Non-domestic users
- Infiltration and storm water

The non-domestic loading is minimal and consists of loadings from the public house, shop and post office only.

The sewage from all commercial activities is collected via the public sewer and treated in conjunction with the domestic waste at the septic tank.

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 capacity of the treatment plant is approximately 600PE. At design capacity the plant would discharge 135m^3/day (DWF) to the River Lee based on 225l/head/day. Analysis of the discharge has shown compliance with the Urban Wastewater Directive.

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

The proposed WWTP is likely to be a Design & Build scheme and hence it is not know at this stage what proposed technology and techniques for preventing/reducing emissions from the proposed waste water works will be implemented.

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

The waste water works is inspected twice weekly to ensure that no significant pollution is caused. Sampling of the effluent is carried out on occasions and monitoring of the Dripsey River upstream and downstream of the plant is carried out in accordance with the Water Framework Directive.

Measures planned to monitor emissions into the environment

The Cork County Council Environmental Laboratory carried out sampling of the influent and effluent in the waste water treatment plant for the purposes of this waste water discharge licence.

The Cork County Council Environmental Department located in Inniscarra takes samples from the River Dripsey upstream and downstream of the proposed discharge point from the wastewater treatment plant approximately 4 times per year.

List of Attachments include the following:

- General Site Layout 1 Attachment A1 Map 1
- General Site Layout 2 Attachment A1 Map 2

SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration:	Dripsey Agglomeration

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:	Southern Division
	County Hall
	Carrigrohane Road
	Co. Cork
Tel:	021 427 6891
Fax:	021 427 6321
e-mail:	patricia.power@corkcoco.ie

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

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

Name*:	Patricia Power
Address:	Area Operations South
	County Hall
	Carrigrohane Road
	Cork
Tel:	021 4285 285
Fax:	021 4276 321
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

Proposed WWTP

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

*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 (≤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*:	Noreen O'Mahony
Address:	Cork County Council
	Ballincollig/ Blarney Water Services Office
	Innishmore
	Ballincollig
	Co.Cork.
Grid ref (6E, 6N)	148619E, 074844N
Level of Treatment	Secondary
Primary Telephone:	021 487 5643
Fax:	021 428 9868
e-mail:	noreen.omahony@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 (≤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	100mm outlet pipe
Unique Point Code	SW01 – Dripsey
Location	Dripsey River, Agharinagh
Grid ref (6E, 6N)	148607E, 074817N

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

Attachment included	**Yes**	**No**
		√

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

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

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

Attachment B.5 should contain appropriately scaled drawings / maps (≤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:	021 427 6891
Fax:	021 486 7007
e-mail:	planninginfo@corkcoco.ie

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

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

Local Authority Planning File Reference Nº:	Not Applicable

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

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

Attachment included	**Yes**	**No**
		√

B.7 Other Authorities

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

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

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

Within the SFADCo Area	**Yes**	**No**
		√

B.7 (ii) Health Services Executive Region

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

Name:	Health Service Executive South
	Áras Sláinte
	Wilton Road, Cork
Tel:	021 4545011
Fax:	021 4927228
e-mail:	Not Available

B.7 (iii) Other Relevant Water Services Authorities

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

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

Relevant Authority Notified	**Yes**	**No**
		√

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

Attachment included	Yes	No
		√

B.8 Notices and Advertisements

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

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

Attachment included	Yes	No
	√	

B.9 (i) Population Equivalent of Agglomeration

TABLE B.9.1 POPULATION EQUIVALENT OF AGGLOMERATION

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

Population Equivalent	**390 (current) 602 (Proposed)**
Data Compiled (Year)	**2008**
Method	**House Count / Census Data**

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.

The current population equivalent being treated at Dripsey WWTP is approx 390. These figures were obtained from a Scoping Report carried out in 2008. The scoping report was carried out under the Water Services Investment Programme

to review the existing preliminary report and to develop and include the wastewater treatment plant in a design, build and operate contract for the Western Bundle Scheme. The figures are based on 2006 census data and a house count undertaken in 2008 and applying the housing occupancy figures from the 2006 census. An allowance was made for the non domestic element which consists of the public house, shop and post office. The non-domestic element is currently less than 2% of the total loading.

The agglomeration includes all lands zoned in Dripsey (Model Village) under the Local Area Plan (2005). The full development of these lands in line with the Development Plan has been assessed. Planning permission was granted by Cork County Council in the townland of Agharinagh for a residential development of 140 no. dwellings and a crèche; this application is currently under appeal to An Bord Pleanala. It is unlikely that this number of dwellings will be constructed in the short term in the current economic climate. The projected future population for Dripsey (Model Village) in 2010 is 602.

The non-domestic element is likely to remain at less than 2% of the total loading.

It is noted that all developments with granted planning permission and all developments under construction have been included in the proposed upgrade of the WWTP for the agglomeration.

The Local Area Plan (2005) identifies the lack of a public sewer network in Upper Dripsey being one of the main deterrents to development in this area. A preliminary check of Upper Dripsey reveals that there are 28 no. residential units and 9 no. commercial units in the area. Assuming an occupancy rate of 2.8 persons per household this gives a current domestic contribution of 80PE. The non-domestic element is calculated to be 52PE. This gives a total existing PE of 152 for Upper Dripsey. However it is not proposed to connect Upper Dripsey to the WWTP at present.

It is therefore likely that the proposed refurbishment of the existing 600PE plant would have adequate capacity to deal with the short term growth of the area.

It is proposed that the replacement of the RBC will be an interim measure as an upgrade to the plant is being advanced under the Water Services Investment Programme.

The upgrade scheme was being progressed as a Serviced Land Initiative. The Preliminary Report was approved by the DoEHLG in September 2006. Cork County Council subsequently submitted a construction budget in July 2007 and has not received a reply to date. Approval for all SLI schemes was withdrawn by the DoEHLG as per Circular L3/09 issued in April 2009. Cork County Council understands that a new Assessment of Needs will be requested of all Water Authorities shortly and that a new Water Services Investment Programme will emanate from that.

It is proposed that the upgrade works will be carried out in two phases. Phase 1 will include modifications to the design and layout of the existing plant to facilitate future expansion and Phase 2 will provide for the expansion of the plant from 600PE to 1,200PE. Upon completion the plant shall have be capable of accommodating additional 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, S.I. No. 684 of 2007.

Class of waste water discharge	Fee (in €)
Discharges from agglomeration with a population equivalent of 500 to 1,000	€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.

Upgrade Works

The upgrade scheme was being progressed as a Serviced Land Initiative. The Preliminary Report was approved by the DoEHLG in September 2006. Cork County Council subsequently submitted a construction budget in July 2007 and has not received a reply to date. Approval for all SLI schemes was withdrawn by the DoEHLG as per Circular L3/09 issued in April 2009. Cork County Council understands that a new Assessment of Needs will be requested of all Water Authorities shortly and that a new Water Services Investment Programme will emanate from that.

It is proposed that the proposed upgrade works will be carried out in two phases. Phase 1 would include modifications to the design and layout of the existing plant to facilitate future expansion and Phase 2 would provide for the expansion of the plant from 600PE to 1,200PE. Upon completion the plant should be capable of accommodating additional hydraulic and organic loading without posing an environmental risk to the receiving water habitat.

It is intended as this stage that the new WWTP will be advanced as a Design, Build and Operate Contract and therefore the detailed design is not available at this stage.

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.

Not Applicable

There was no Section 63 notice issued by the Environmental Protection Agency to Cork County Council in relation to the wastewater treatment works in Dripsey 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.

Not Applicable

Dripsey Wastewater Works does not require a Foreshore Act Licence under the Foreshore Act 1933.

Attachment B.12 should contain the most recent licence issued under the Forsehore 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.

There are no storm overflows.

C.1.2 Pumping Stations

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

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

There are no pump stations within the waste water works.

C.1 Operation Information

Existing Waste Water Treatment Plant

The WWTP is located below the public road in the townland of Agharinagh, west of the Model Village. The plant is adjacent to the Dripsey River. The site is located well below road level.

A gravity combined sewer discharges to the waste water treatment plant. There is a significant amount of infiltration into the system.

The WWTP was built in the early 1990's and has a design PE of 600. Currently the WWTP is receiving flows of approximately 88m^3/day, based on a daily demand of 225l/head/day and a PE of 390.

The wastewater enters the plant via a gravity sewer of diameter 225mm. The wastewater firstly enters a primary settlement tank. This was originally functioning as a septic tank before the plant was upgraded in the early 1990's. From here it flows through a Rotating Biological Contactor where aeration takes place. It then flows into a final setting tank and the treated effluent discharges from here to the river.

The Rotating Biological Contactor has collapsed and is no longer serving its purpose. The unit is currently serving as a settling tank only. It is intended, as an emergency measure, to replace the RBC with an RBC from a similar plant which is being decommissioned. The ability of the plant to deal with the current loadings in its present state is compromised at present, and until such time as emergency works are carried out to replace the RBC.

The replacement of the Rotating Biological Contactor is intended to be an interim measure as an upgrade to the plant is being advanced under the Water Services Investment Programme. The upgrade scheme was being progressed as a Serviced Land Initiative. The Preliminary Report was approved by the DoEHLG in September 2006. Cork County Council subsequently submitted a construction budget in July 2007 and has not received a reply to date. Approval for all SLI schemes was withdrawn by the DoEHLG as per Circular L3/09 issued in April 2009. Cork County Council understands that a new Assessment of Needs will be requested of all Water Authorities shortly and that a new Water Services Investment Programme will emanate from that.

It is proposed that the upgrade works be carried out in two phases. Phase 1 will include modifications to the design and layout of the existing plant to facilitate future expansion and Phase 2 will provide for the expansion of the plant from 600PE to 1,200PE.

C.1.1 Storm Water Overflow – Not Applicable

C.1.2 Pumping Stations – Not Applicable

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

Attachment included	Yes	No
	√	

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.

Primary Discharge Point, SW01-Dripsey

Type of Discharge	100mm outlet pipe
Unique Point Code	SW01 – Dripsey
Location	Dripsey River, Agharinagh
Grid Ref	148607E, 074817N

The proposed primary discharge point, SW01-Dripsey, is the main outlet from Dripsey Wastewater Treatment Plant. The point of discharge is a 100mm pipe, which discharges directly to the river.

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**
		√

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	**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
SW 01-Dripsey	Primary	Cork County Council	River	Dripsey River	Not Applicable	148607	074817

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

SECTION E: MONITORING

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

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

Provide an estimation of the quantity of waste water likely to be emitted in relation to all primary and secondary discharge points applied for. This information should be included in Table 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.

There is no composite sampling or composite flow monitoring on the primary discharge point.

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.

Monitoring in respect of Dripsey Waste Water Licence Application

Currently the Environmental Directorate of Cork County Council does not monitor the treatment plant as it is under 2000PE. Grab samples of the influent and the effluent were taken for the purposes of this waste water discharge licence application.

Monitoring on the Dripsey River
Water quality analysis data for the Dripsey River was undertaken by Cork County Council. The EPA also takes samples from a number of locations along the Dripsey River upstream and downstream of the waste water works. Three of these are located at Dripsey Bridge (lower), Luskin's Bridge and Dripsey Bridge.

Monitoring on the River Lee
The Dripsey River is a tributary of the River Lee. It flows into the River Lee at Magooly. The main channel of the River Lee from source to Cork City waterworks

at Lee Road is designated Salmonid Waters under the Salmonid Regulations. Monitoring on the River Lee is carried out monthly by the Environment Department in accordance with the Salmonid Regulations and the Water Framework Directive.

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**
	√	

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	Sampling	148607E	074817N	N
aSW01u	u/s	Sampling	147700E	075502N	N

aSW01d	d/s	Sampling	148773E	073895N	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://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.

- 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.

- 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.

- 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/EEC[1] in accordance with the procedures laid down in Article 21 of that Directive,

  (c) a special area of conservation within the meaning of the Natural Habitats Regulations, or

  (d) an area classified pursuant to Article 4(1) or 4(2) of Council Directive 79/409/EEC[2];

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

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

- 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.**

Attachment included	Yes	No
	√	

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.

The receiving water body of the existing Dripsey WWTP is the Dripsey River which ultimately discharges to the River Lee. There are no discharges to ground, or any other media.

Specific localised flow data is not available in the vicinity of the existing discharge points and thus estimates have been prepared based on available River Basin District data.

These flow estimates including 95%ile and median flows are shown in the table below.

Table F1-1: Flow Data

Parameter	RBD Data obtained from Cork County Council
95%ile (m^3/s)	0.240
Median (m^3/s)	1.46725

With an estimated 95-percentile flow (i.e. a flow that is exceeded 95% of the time) of 240 l/sec, or 20,736m^3/day, there are 235 dilutions available in the Dripsey River for the existing discharge (88m^3/d).

Receiving Environment

Water Quality analysis data for the Dripsey River was undertaken by Cork County Council and this is presented in Attachment F1. The EPA also takes samples from a number of locations along the Dripsey River upstream and downstream of the treatment plant. Three of these are located at Dripsey Bridge (lower), at Luskin's Bridge and at Dripsey Bridge.

Table F1-2: Biological Quality Rating for Dripsey River

Sampling Location	EPA Biological Quality Rating (Q-Values)

	1994	1997	1999	2002	2005
Dripsey Bridge (Lower)	4	4-5	4-5	4-5	4-5
Luskin's Bridge	4-5	3-4	4	4	4
Dripsey Bridge	4	3-4	4-5	4	4

Effluent Standards

The design treated effluent quality is shown in the table below.

Table F1-4: Design Effluent Standards

Parameter	Effluent Standards (mg/l)	Actual Concentrations (mg/l)
Biological Oxygen Demand (BOD)	50	23.22
Chemical Oxygen Demand (COD	200	49.4
Suspended Solids (SS)	50	19
Ortho Phosphate	6	0.9

*Actual Concentration is the average effluent concentrations recorded at the outlet of the WWTP by Cork County Council Wastewater Laboratory during the period November '08 to May '09.

From Table F1-4 above, it is evident that treated effluent from the Dripsey wastewater treatment plant is compliant with the quality of effluent standards set out above.

The Urban Wastewater Treatment Regulations S.I. 254 of 2001 require that wastewater arising from populations of less than 2000, shall, by the end of 2005, be subject to appropriate treatment prior to discharge. Appropriate treatment is defined as:

"…any process and / or disposal system which after discharge allows the receiving waters to meet the relevant quality objectives and the relevant provisions if the Directive and of other community Directives"

Water Quality Standards

The Water Framework Directive (WFD) aims to establish an integrated approach to water protection, improvement and sustainable use. In order to achieve the requirements of the WFD, Ireland has been divided into a number or River Basin Districts or management units. The South Western River Basin District (SWRBD) comprises substantially the counties of Cork and Kerry, all of Cork City, and also parts of counties Limerick, South Tipperary and Waterford.

The Dripsey River is included in the SWRBD. The overall objectives of the SWRBD project include the following:

- Strengthen compliance with EU Directives and national legislation
- Collect and analyse information to determine water quality and identify possible threats to water status
- Prevent further deterioration and protect/enhance water quality
- Develop a programme of measures to address all significant pressures and sources of impact on aquatic ecosystems and groundwater
- Encourage and facilitate public participation including the maintenance of a project website

- Promote sustainable water use

In order to achieve these objectives the following project tasks have been identified:

- Identify pressures on water bodies and assess risk of not achieving compliance with the Water Framework Directive
- Prepare a Characterisation Report
- Identify Heavily Modified (HMWB) and Artificial Water Bodies (AWB)
- Establish risk to waters from Hazardous Substances
- Establish data management system and GIS
- Prepare programme of measures
- Review of monitoring needs
- Design monitoring programme
- Prepare River Basin Management Strategy
- Assist public participation in the project
- Prepare printed reports
- Assist capacity building

The SWRBD have determined the Ecological Status as Good for the Dripsey waterbody which encompasses the existing and proposed discharge location. The Water framework Objective is Protect. Ref attachment F1.

Designations under relevant directives

Dripsey River:

The Dripsey River is not a designated Shellfish area under the Shellfish Waters Regulations, S.I.200 of 1994. The River Lee, into which the Dripsey River flows, is also not designated as a shellfish area.

The Dripsey River is not designated as Salmonid Water under Salmonid Water Regulations, S.I. 293 of 1988. The River Lee, into which the Dripsey River flows, is designated as Salmonid water under Salmonid Water Regulations, S.I. 293 of 1988 from its source to the Cork City Waterworks at Lee Road. Sampling is carried out monthly by the Environment Department in accordance with the Salmonid Regulations. Results for 2008 at Inniscarra Bridge, downstream of the Dripsey River, show compliance with all standards except for one non-compliance with Nitrites.

The Dripsey River is not designated a Bathing Water under the Bathing Water Regulations, S.I. 178 of 1998 as amended. The River Lee, into which the Dripsey River flows, is also not designated as a bathing water.

The Dripsey River is not a designated Sensitive Area under the Urban Wastewater Treatment Regulations 2001 (S.I. 254 of 2001). The River Lee is also not designated as a sensitive Area.

Areas of Conservation

The Department of the Environment, Heritage and Local Government is responsible for the designation of conservation sites in Ireland. It is required under European law and national laws to conserve habitats and species, through designation of conservation areas under Special Areas of Conservation, Natural Heritage Areas and Special Protected Areas.

Special Areas of Conservation:

Candidate Special Areas of Conservation (cSACs) are protected under the European Union (EU) Habitats Directive (92/43/EEC), as implemented in Ireland by the European Communities (Natural Habitats) Regulations, 1997.

The Dripsey River is not a designated Special Areas of Conservation.

Natural Heritage Areas:

Natural Heritage Areas are the basic designation for wildlife. An NHA is an area considered important for the habitats present or which holds species of plants and animals whose habitat needs protection.

Under the Wildlife Amendment Act 2000, NHAs are legally protected from damage from the date they are formally proposed for designation.

The Dripsey River does not flow through any Natural Heritage Areas (NHA).

Special Protected Areas:

Special Protection Areas (SPAs) are designated in order to safeguard certain habitats pursuant to EU Directive requirements. The EU Birds Directive (79/409/EEC) requires designation of SPAs for listed rare and vulnerable species, migratory species and wetlands.

No designated special protected areas are located along the Dripsey River.

<u>Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those to which the emissions are made.</u>

Assimilative Capacity of the Receiving Water:

a) **<u>Mass Balance Equation for Orthophosphate:</u>**

Median flow of River = 1.46725 m^3/sec
Median oPO_4-P in River (upstream) = <0.05mg/L

Average volume of discharge = 0.00156 m^3/sec
Median value for O-PO_4-P in discharge = 6.0 mg/L

$$C_{final} = \frac{(1.46725 \times 0.05) + (0.00156 \times 6.0)}{1.46725 + 0.00156}$$

C_{final} = <0.056 mg/L oPO_4-P

The increase in Orthophosphate due to the discharge of Dripsey WWTP is <0.006mg/L. An increase of 0.006mg/L will not cause any significant effect on the overall status of the river. The upstream figure of <0.05mg/L is also a conservative figure based on grab samples.

b) **Mass Balance Equation for BOD:**

Flow of River (95%) = 0.240 m^3/sec
Average BOD in River (upstream) = 2.0 mg/L

Average volume of discharge = 0.00156 m^3/sec
Average BOD in discharge = 50 mg/L

$$C_{final} = \frac{(0.240 \times 2.0) + (0.00156 \times 50)}{0.240 + 0.00156}$$

C_{final} = 2.309 mg/L BOD

The increase in BOD due to the discharge of Dripsey WWTP is 0.309 mg/L.

c) **Mass Balance Equation for Suspended Solids:**

Flow of River (95%) = 0.240 m^3/sec
Average Suspended Solids in River (upstream) = <2.5 mg/L

Average volume of discharge = 0.00156 m^3/sec
Average Suspended Solids in discharge = 50mg/L

$$C_{final} = \frac{(0.240 \times 2.5) + (0.00156 \times 50)}{0.240 + 0.00156}$$

C_{final} = 2.81 mg/L Suspended Solids

The increase in Suspended Solids due to the discharge of Dripsey WWTP is <0.81 mg/L.

Assimilative Capacity Calculations were not performed for the following parameters, as current levels are below those required by S.I. No. 12/2001

(a) Arsenic
(b) Chromium
(c) Copper
(d) Cyanide
(e) Fluoride
(f) Lead
(g) Nickel
(h) Zinc

Provide details of the extent and type of ground emissions at the works.

There are no emissions to ground at the works.

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.

A screening programme was undertaken for the parameters set out in the Dangerous Substances Regulations S. I. No 12 of 2001 as per the table below. This programme measured the levels in the discharge from the existing WWTP on three no. occasions and measured river levels (upstream and downstream of the existing primary discharge point) on the Dripsey River on two no. occasions.

It is evident that all parameters measured downstream were found to be below levels required by the Dangerous Substances Regulations.

Parameter	Discharge	Influent	Upstream	Downstream
	µg/l	µg/l	µg/l	µg/l
Atrazine	<0.01	<0.01	<0.01	<0.01
Dichloromethane	<1	<1	<1	<1
Simazine	<0.01	<0.01	<0.01	<0.01
Toluene	<0.28	<0.28	<0.28	<0.28
Tributyltin	Not required	Not required	Not required	Not required
Xylenes	<1	<1	<1	<1
Arsenic	<0.96	<0.96	<0.96	<0.96
Chromium	<20	<20	<20	<20
Copper	14.33	44	<20	<20
Cyanide	<5	<5	<5	<5
Fluoride	100	<100	<100	<100
Lead	<20	<20	<20	<20
Nickel	<20	<20	<20	<20
Zinc	<20	29	<20	<20
Boron	<20	<20	<20	<20
Cadmium	<20	<20	<20	<20
Mercury	<0.2	<0.2	<0.2	<0.2
Selenium	3.1	2.4	1.4	1.7
Barium	36.79	51	51.23	51.08

It can be concluded that emissions to water at the discharge point is not likely to impair the environment.

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

Inniscarra Waterworks is located approximately 6.82km downstream of the discharge. Water is abstracted from the reservoir into which the treatment plant discharges.

The raw water intake at Inniscarra is tested each day for the following:

pH
Temperature
Colour
Turbidity

The raw water intake and treated water is tested weekly for Cryptosporidium and Giardia. There have been no non-compliances in the past 12 months.

Sampling done by the Environment Department under the Water Framework Directive shows that the discharge has no significant effect on the receiving waters.

The Lee Road City Waterworks is much further downstream of the discharge point. The discharge should have no effect on the raw water intake at that location given the assimilative capacity of the river.

Indicate whether or not the emissions from the agglomeration or any plant, methods, processes, operating procedures or other factors which affect such emissions are likely to have an effect a Natural Heritage Area, site of community importance under the habitats directive, special area of conservation or a site classified under the conservation of wildbirds directive.

It is not considered that the emissions for the agglomeration or any plant, methods, processes, operating procedures or other factors which affect such emissions are likely to have an effect a Natural Heritage Area, site of community importance under the habitats directive, special area of conservation or a site classified under the conservation of wildbirds directive.

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

Given the nature and scale of the discharges to the receiving environment it is not considered necessary to provide any additional measures specific to minimising pollution over long distances or in the territory of other states.

Details of any modelling of discharges from the agglomeration.

No modelling has been undertaken of the discharges from the agglomeration.

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

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

ABS_CD	AGG_SERVED	ABS_VOL	PT_CD	DIS_DS	EASTING	NORTHING	VERIFIED
Abstraction Code	Agglomeration Served	Abstraction Volume in m^3/day	Point Code Provide label IDs	Distance Downstream in meters from emission point to abstraction point	6E- Digit GPS National Irish Grid Reference	6N- Digit GPS National Irish 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.

The effluent from the existing primary discharge point discharges to the Dripsey River which ultimately discharges to the River Lee within the reservoir for the ESB hydro-electric scheme. Water is abstracted from the River Lee for treatment at Inniscarra Waterworks. Inniscarra Waterworks is located approximately 6.82km downstream of the plant.

The raw water intake at Inniscarra is tested each day for the following:
pH
Temperature
Colour
Turbidity

Testing is carried out weekly since 2007 on the raw water intake and the treated water for Cryptosporidium and Giardia. Since weekly testing commenced there has been one detection of Cryptosporidium and one detection of Giardia in the raw water intake. No traces of Cryptosporidium or Giardia have been found in the treated water.

Sampling done by the Environment Department for the water abstraction and the Salmonid Regulations shows that the discharge has no significant effect on the receiving waters.

The Lee Road City Waterworks is much further downstream of the discharge point. The discharge should have no effect on the raw water intake at that location given the assimilative capacity of the river.

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.

Attachment included	**Yes**	**No**
	√	

SECTION G: PROGRAMMES OF IMPROVEMENTS

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

G.1 Compliance with Council Directives

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

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

Dangerous Substances Directive 2006/11/EC

A screening programme was undertaken for the parameters set out in the Dangerous Substances Regulations S. I. No 12 of 2001 as per the table below. This programme measured the levels in the discharge from the existing WWTP on three no. occasions and measured river levels (upstream and downstream of the existing primary discharge point) on the Dripsey River on two no. occasions.

It is evident that all parameters measured downstream were found to be below levels required by the Dangerous Substances Regulations. It can be concluded that emissions to water at the discharge point is not likely to impair the environment.

Water Framework Directive 2000/60/EC

The Dripsey River has been determined to have Good Status under the Water Framework Directive with an objective to Protect.

The assimilative capacity assessments set out in Section F1 demonstrate that the current discharge is compliant with the water framework directive.

Birds Directive 79/409/EEC

No designated Special Protection Areas are located along the Dripsey River.

Groundwater Directives 2006/118/EC

There are no discharges to ground from the existing and proposed WWTP's.

Drinking Water Directives 80/778/EEC

The effluent from the existing primary discharge point discharges to the Dripsey River which ultimately discharges to the River Lee within the reservoir for the ESB hydro-electric scheme. Water is abstracted from the River Lee for treatment at Inniscarra Waterworks. Inniscarra Waterworks is located approximately 6.82km downstream of the plant. The maximum abstraction volume is 228,000m^3/day.
The raw water intake at Inniscarra is tested each day for pH, temperature, colour and turbidity. Testing is carried out weekly since 2007 on the raw water intake and the treated water for Cryptosporidium and Giardia.

Urban Waste Water Treatment Directive 91/271/EEC

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

The Regulations require that wastewater arising from populations of less than 2000, shall, by the end of 2005, be subject to appropriate treatment prior to discharge. Appropriate treatment is defined as:

"…any process and / or disposal system which after discharge allows the receiving waters to meet the relevant quality objectives and the relevant provisions if the Directive and of other community Directives"

From Table F1-4 it is evident that treated effluent from the plant is compliant with the quality of effluent standards set out and appropriate treatment is provided.

Habitats Directive 92/43/EEC

The area which includes the Dripsey River is not a Candidate Special Area of Conservation.

Environmental Liabilities Directive 2004/35/EC

The Environmental Liability Directive has not been addressed as part of this application. However it is noted that in order to meet the potential requirements of this directive a decision was taken to upgrade the WWTP at Dripsey.

Bathing Water Directive 76/160/EEC

The Dripsey River is not a designated Bathing Water under the Bathing Water Regulations, S.I. 178 of 1998 as amended.

Shellfish Directive 79/923/EEC

The Dripsey River is not a designated Shellfish Area under the Shellfish Waters Regulations, S.I. 200 of 1994.

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.

The WWTP does not incorporate phosphorus removal facilities, however, the interim measure of a new Rotating Biological Contactor is to be installed. This new Rotating Biological Contractor should help in the reduction of phosphorus being emitted from the plant.

The plant discharges to the Dripsey River which has Good Status under the Water Framework Directive. The Draft European Communities Environmental Objectives (Surface Waters) Regulations 2008 set out in Table 9 the requirement to achieve a Molbydate Reactive Phosphorus (MRP) of ≤0.050 mg/l based on mean flows for River Water Bodies classified as having Good/Moderate Status. As shown in the assimilative capacity in section F1 the C_{final} figure exceeds this slightly. However as stated in section F1 the upstream figure of <0.05mg/L for Orthophosphate is only a grab sample, the river was only tested on three occasions over the last seven months which indicates that the actual figure for Orthophosphate would more than likely be less than the figure shown of 0.05mg/L. Therefore the WWTP should not have an major negative impact on the status of the river, with the inclusion of the new RBC in the plant the levels of phosphorus being emitted will remain low and at a suitable standard.

The EPA have three no. monitoring stations along the Dripsey River near the plant. Upstream of the WWTP are Dripsey Bridge (Lower) and Luskin's Bridge. Dripsey Bridge (Lower) has a Q value of 4-5 and Luskin's Bridge has a Q rating of 4. Downstream of the plant is Dripsey Bridge which has a Q rating of 4. The objective of the SWRBD report is to restore the water quality.

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.

An upgrade to the plant is being advanced under the Water Services Investment Programme. The upgrade scheme was being progressed as a Serviced Land Initiative. The Preliminary Report was approved by the DoEHLG in September 2006. Cork County Council subsequently submitted a construction budget in July 2007 and has not received a reply to date. Approval for all SLI schemes was withdrawn by the DoEHLG as per Circular L3/09 issued in April 2009. Cork County Council understands that a new Assessment of Needs will be requested of all Water Authorities shortly and that a new Water Services Investment Programme will emanate from that.

It is proposed that the upgrade works will be carried out in two phases. Phase 1 will include modifications to the design and layout of the existing plant to facilitate future expansion and Phase 2 will provide for the expansion of the plant from 600PE to 1,200PE. As the project is likely to be a Design and Build Contract detailed design details are not available at this stage.

As an interim measure a new Rotating Biological Contactor is shortly to be installed on site.

Based on the assimilative capacity assessments it is not envisaged that there will be deterioration in the chemical or ecological status in the Dripsey River or River Lee.

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 are no storm water overflows within the agglomeration. It is not known at this stage if storm water overflows are proposed for the upgrade. However the provision of a new plant is likely to include proposals for the reduction of storm water entering the system.

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**
		√

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

Print signature name: P. Power

Position in organisation: D.O.S.

Attachments Table of Contents:

Attachment	Description
A1 Map 1	General Site Layout 1
A1 Map 2	General Site Layout 2
B1 Map 3	Agglomeration Map
B2 Map 4	Site Location Map
B3 Map 5	Primary Discharge Location
B4	Not Applicable
B5	Not Applicable
B6	Not Applicable
B7	Not Applicable
B8 Map 6	Site Notice Location
B8	Notice and Advertisement
B10	WSIP Programme
B11	Not Applicable
B12	Not Applicable
C1 Map 7	General Site Layout 1
C1 Map 8	General Site Layout 2
C1 Drawing 1	Process Flow Diagram
Section D2	Discharge Points
E2	Details of Accreditation or Certification of Analysis
Section E3	Monitoring and Sampling Points
E4	Monitoring Data
F1	Laboratory Test Results SWRBD Status Report Upstream and Downstream Sampling Data Zone of Contribution – Inniscarra Waterworks Cryptosporidium Risk Assessment
Section F2	Drinking Water Abstraction Point
G1	WSIP Programme DoEHLG Approval of Preliminary Report DoEHLG Circular L3/09
G2	WSIP Programme Laboratory Test Results
G3	WSIP Programme
G4	Not Applicable
Online Data	Online data submitted to the EPA including Annex