Comhairle Contae Chorcaí
Cork County Council

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

Administration,
Environmental Licensing Programme,
Office of Climate,
Licensing & Resource Use,
Environmental Protection Agency,
P.O.Box 3000,
Johnstown Castle Estate,
County Wexford.

9th March 2011

Re: Notice in accordance with Regulation 25(c)(ii) of the Waste Water Discharge (Authorisation) Regulations 2007
Agglomeration of Minane Bridge, County Cork
Application Register Number A0356-01

Dear Sir/Madam,

I refer to the above and to a letter received from the Agency dated 14th December 2010 regarding Regulation 24 compliance requirements. I enclose a submission to the Agency in response to the matters raised in the said letter.

In addition to this further information request, a revised certificate application is been submitted for the Minane Bridge Agglomeration due to the taking in charge of a private waste water treatment plant by Cork County Council. The revised certificate application due 11th March, 2011 contains a revised Non Technical Summary for the Minane Bridge Agglomeration.
The following are the documents enclosed as per the revised certificate application and the request for further information received..

- 1 No. signed hard copy reply.
- 1 No. copy of the original.
- 4 CD-ROM with documentation in electronic searchable PDF.
- 1 No. signed hard copy reply.
- 2 No. copy of the original.
- 1 CD-ROM with documentation in electronic searchable PDF.

Yours faithfully,

Noel O'Keeffe,
County Engineer & Director of Water Services,
Cork County Council,
County Hall, Cork.

Comhairle Contae Chorcaí
Cork County Council

Environmental Directorate,
Inniscarra, Co. Cork.
Tel. No. (021) 4532700 • Fax No. (021) 4532727
Web: www.corkcoco.ie
An Stiúrthóireacht Comhshaoil,
Inis Cara, Co. Corcaigh.
Fón: (021) 4532700 • Faics: (021) 4532727
Suíomh Gréasáin: www.corkcoco.ie

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

16th December, 2009

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

Dear Mr. Clinton,

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

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

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

Yours faithfully,

Louis Duffy,
Director of Service,
Environment & Emergency Services Directorate

CORK COUNTY COUNCIL
(Southern Division)

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A WASTEWATER CERTIFICATE OF AUTHORISATION

under the Wastewater Discharge (Authorisation) Regulations 2007 (S.I. No. 684 of 2007)

REVISION

Location: The agglomeration of Minane Bridge, County Cork

Category of application: < 500 PE

Date Application Lodged: March 11th 2011

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

Waste Water Discharge Certificate of Authorisation Application Form

EPA Ref. Nº: (Office use only)	

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

Tracking Amendments to Draft Application Form

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

Environmental Protection Agency

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

CONTENTS

ABOUT THIS APPLICATION FORM

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

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

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

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

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

PROCEDURES

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

An application for a Certificate of Authorisation must be submitted on the appropriate form (available from the Agency website – http://www.epa.ie/whatwedo/licensing/wwda/) 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 (under notices provided for in the Regulations) if it considers that its provision is material to the assessment of the application. Advice should be sought from the Agency where there is doubt about the type of information required or the level of detail.

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

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

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

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

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

A description of:

- the waste water works and the activities carried out therein,
- the sources of emissions from the waste water works,
- the nature and quantities of foreseeable emissions from the waste water works into the receiving aqueous environment as well as identification of significant effects of the emissions on the environment,
- the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the 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 Village of Minane Bridge is situated approximately 20km south of Cork City and 7km south of Carrigaline, on the main route to the coastal locations of Robert's Cove and Rocky Bay. This settlement is a small centre for the rural hinterland.

The Waste Water Works and the Activities Carried Out Therein
This application supersedes the previous application made in December 2009 which sought licensing for the Council Housing Estate 'Spruce Grove'. On 22nd November 2010 River Valley Housing Estate was approved to be taken in charge by Cork County Council following applications for same received by the residents of the estate. River Valley has a Waste Water Treatment Plant (WWTP) located at the back of the estate serving all 30 houses within the estate. The plant provides secondary treatment as well as reed beds to treat domestic effluent prior to discharging to surface waters. This revised application seeks to add River Valley WWTP to the agglomeration now that it has been taken in charge by Cork County Council.

The original certificate application listed details for 'Spruce Grove', a Council Estate consisting of 8 houses. These houses are served by a septic tank providing primary settlement only, which according to the National Urban Waste Water Study (NUWSS) reduces the BOD load by approximately 30% and the Suspended Solids by approximately 50%. The septic tank is de-sludged approximately annually and the sludge is transported off site for treatment and disposal. Treated effluent is discharged from the septic tank to a percolation area. This percolation area is located approximately 75m from the Minane River.

Effluent treated at both sites is 100% domestic. The agglomeration is not within or is not nearby any Natura 2000 site. The closest Natura 2000 site is Cork Harbour SPA. Minane Bridge is approximately 5km from Ringabella Creek. Ringabella Creek is approximately a further 5km from Roche's Point, and is located on the coast outside Cork Harbour

The Sources of Emissions from the Waste Water Works
The source of emissions from the Minane Bridge agglomeration arises from domestic loading only, from the Council Housing Estate of Spruce Grove and the River Valley Housing Estate. Spruce Grove consists of 8 houses and discharges to a Septic Tank. The septic tank is served by a percolation area, which discharges to groundwater.

River Valley consists of 30 houses and discharges to the River Valley Waste Water Treatment Plant (WWTP). Treated effluent discharges to the Minane River. The maximum PE of the WWTP is 250PE. At present the loading on the WWTP is approximately 133PE. The WWTP is under capacity.

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 source of emissions for this agglomeration is from the Council Estate of Spruce Grove which consists of 8 houses and the housing estate of River Valley which consists of 30 houses. The source of emissions is domestic only. There is also a proposed development adjacent to River Valley which has been granted conditional

planning permission for 8 dwellings. This has been included as part of this application (see Section B8 (ii)).
Spruce Grove Housing Estate which is served by a septic tank has a population equivalent of approximately 28 PE. The septic tank was designed to hold and treat effluent from 8 houses in Spruce Grove. The septic tank is at capacity. Domestic effluent is discharged to the septic tank.
Primary settlement occurs in the septic tank which is de-sludged annually. The sludge is transported off site for treatment and disposal. The percolation area serving this septic tank is located approximately 75m from the Minane River. No significant effects have been identified in the environment surrounding Spruce Grove as a result of the septic tank serving the 8 houses there. There are no Natura 2000 sites downstream of the septic tank, or water abstraction points. There will be no additional development connecting to the Spruce Grove sewerage network and the emission loading which is of a domestic loading is not expected to increase or change in nature.

River Valley Housing Estate is served by a WWTP. This WWTP was commissioned and has been in operation since May 2008. Cork County Council took this facility in charge on the 22nd November 2010. The treatment plant offers secondary treatment as well as reed bed technology used as a polishing filter. The population equivalent of River Valley is approximately 105. There is a pending development located on the boundary of River Valley Housing Estate. Conditional planning was granted for 8 number dwellings under planning application number 06/6583 - all of which are domestic in nature. This site has been included in the agglomeration and this can be viewed in Attachment Map 02. This additional development would increase the population equivalent by approximately 28, bringing the total PE of the plant to 133. The plant capacity is designed for 250PE which would mean that with the additional development (should it proceed) the plant would continue to have sufficient capacity.

The Proposed Technology and Other Techniques for Preventing or, where this is not possible, Reducing Emissions from the Waste Water Works
There are no works proposed for the septic tank at Spruce Grove. The septic tank serves 8 houses only and there are no plans to reduce this loading.
The WWTP at River Valley was taken in charge on 22nd November 2010 and Cork County Council is currently identifying various improvement works to upgrade the plant. These plans form the proposed programme of improvement works, and form Attachment G3.

Further Measures Planned to Comply with the General Principle of the Basic Obligations of the Operator, i.e., that no Significant Pollution is caused
There are no works proposed for the septic tank at Spruce Grove. The WWTP at River Valley was taken in charge on 22nd November 2010 and Cork County Council are currently identifying and carrying out various improvement works which were identified in a snag list which was prepared as part of the taking in charge process for the housing estate.
Additionally the Council will operate and maintain the WWTP in accordance with its duties under the Water Services Act. This will include monitoring emissions six times per year and carrying out any remedial works necessary to maximise the operation of the treatment plant.

Measures Planned to Monitor Emissions into the Environment.
The Cork County Council Environmental Laboratory does not carry out sampling of the influent and effluent at 'Spruce Grove', Minane Bridge, nor is sampling carried out on the Minane River. However sampling results are available due to sampling carried out for the specific purpose of the Waste Water Discharge Certificate application 2009.

Cork County Council took the WWTP in charge on 22nd November 2010. Henceforth, the Council will operate and maintain the WWTP in accordance with its duties under the Water Services Act. This will include monitoring emissions six times per year.

List of Attachments include the following:

- Location Map Scale 1:50,000 — Attachment Map 01
- Minane Bridge Location Map — Attachment Map 02

SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration:	Minane Bridge

Applicant's Details

Name and Address for Correspondence

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

Provide a drawing detailing the agglomeration to which the Certificate of Authorisation application relates. It should have the boundary of the agglomeration to which the Certificate of Authorisation application relates 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 Certificate of Authorisation application.

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*:	Brian Quinn
Address:	Water Services Operations
	Cork County Council
	'Marchwood', Rochestown Road,
	Cork.
Grid ref (6E, 6N)	174103, 056572
Level of Treatment	Secondary Treatment with Reed Bed System

*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.

Discharge to	Surface Water
Type of Discharge	110mm diameter uPVC pipe discharging to Minane River
Unique Point Code	SW01MINV
Location	Waste Water Treatment Plant, River Valley Estate, Minane Bridge
Grid ref (6E, 6N)	174107, 056537

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.

Discharge to	Groundwater
Type of Discharge	Percolation area
Unique Point Code	SW02MINV
Location	Percolation Area, Spruce Grove, Laharran, Minane Bridge
Grid ref (6E, 6N)	174490, 056690

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

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

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

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

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

Type of 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 4276891
Fax:	021 4867007
e-mail:	planninginfo@corkcoco.ie

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

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

Local Authority Planning File Reference Nº:	00/3576

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 B.6 includes the conditions attached to Conditional Planning Permission 00/3576. There was no EIS submitted with the application.

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
Address:	Áras Sláinte
	Wilton Road
	Cork
Tel:	021 4545011
Fax:	021 4927228
e-mail:	Not Available

B. 8(i) Population Equivalent of Agglomeration

TABLE B.8.1 POPULATION EQUIVALENT OF AGGLOMERATION

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

Population Equivalent	**161**
Data Compiled (Year)	**2011**
Method	**Desk Study**

B.8 (ii) Pending Development

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

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

Under planning application number 06/6583 conditional planning permission has been granted for the construction of 8 dwellings on a site adjacent to River Valley Housing Estate. The site has been included in the Agglomeration due to the possible future connection to the sewerage system within River Valley Housing Estate.

The proposed development would be 100% domestic. The PE of the development is circa 28PE. The treatment plant serving River Valley is a Klargester Airflow AF12 P250 sewage treatment plant. It has a design capacity of 250PE. The nominal wastewater loading from River Valley is circa 105PE and the proposed additional loading is 28PE which totals 133PE. Sufficient capacity within the WWTP (250PE) is available.

B.8 (iii) FEES

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

Class of waste water discharge	Fee (in €)
	€3,000

Appropriate Fee Included	Yes	No
		√*

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

B.9 Capital Investment Programme

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

There is no capital investment programme for sewerage collection/treatment at Minane Bridge. However following the taking in charge of the WWTP at River Valley, and the snagging process that was involved, Cork County Council have proposed a programme of improvement works to maximise the effectiveness of the WWTP. This programme of works forms Attachment G3.

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

Attachment included	Yes	No
		√

B.10 Significant Correspondence

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

NOT APPLICABLE

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

Attachment included	Yes	No
		√

B.11 Foreshore Act Licences.

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

NOT APPLICABLE

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

Attachment included	Yes	No
		√

SECTION C: INFRASTRUCTURE & OPERATION

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

C.1 Operational Information Requirements

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

C.1.0 Waste Water Treatment Plant

The agglomeration of Minane Bridge consists of a waste water treatment plant at River Valley Housing Estate, and a Septic Tank serving Spruce Grove. Further information on the processes at these plants is contained below.

C.1.1 RIVER VALLEY WASTE WATER TREATMENT PLANT

The process used at the River Valley Waste Water Treatment Plant is a two stage extended biological filtration which is a highly aerobic treatment employing continuously recycled settled effluent lifted with air lift pumps and distributed over special high specific surface area suspended media. Three main areas of treatment are used in the process, the biological section can be considered as further subdivided into two stages.

Primary Settlement

Incoming domestic sewage enters the primary settlement chamber, which permits primary settlement and surplus sludge storage. On entering the primary settlement chamber the sewage is allowed to settle out under gravity with a minimum retention time of eleven hours which under normal conditions allows gross solids and rags to separate out. The retained extraneous material will gradually break down and subsequently migrate through into the next stage. There is a sludge return pump from the final settlement tank, which will also assist in providing dilution to the primary zone contents and reduces septicity and the risk of odour. It also minimises the risk of de-nitrification in the final settlement by returning secondary humus on an intermittent basis.

Primary Chamber Dimensions: 5.09m long x 2.82m wide x 3.17m deep
Maximum treatment capacity of WWTP = 50cu.m/day
Current loading of WWTP = 23cu.m/day

Biological Treatment

Biological treatment is arranged in two successive stages within the Biological chamber. The first section is dedicated to the reduction and substantial removal of carbonaceous BOD. This is achieved by picking up the screened liquor by airlift pumps and distributing it over the media, on which a biological culture develops naturally, neither seeding nor feeding normally being required. Inherent in the design is a multiple pass recycle which makes maximum use of both the available media and the dilution potential of the liquor zone to minimise the effect of shock load influent situations. The hydraulic basin of the first biological stage of treatment allows the level to fluctuate within a given range thereby providing capacity for surge

management, in addition to the dilution in the primary settlement chamber. This avoids shock loading on treatment and downstream upsets in the final settlement stage. The second half of the biological treatment is fed by a separate airlift pump from the first stage compartment at a controlled rate. Conditions in the second stage have been engineered to be optimal for nitrification and to a lesser extent polishing for Biochemical Oxygen Demand reduction. Air lift pumps lift in a similar way to the first stage. The airlift pumps throughout the plant are driven by a low-pressure air blower which is remotely located above ground.
Bio Module Dimensions 7.5m long x 2.8m wide x 3.45m deep

Final Settlement
The treated sewage is then gravity fed to the final settlement chamber, the baffle arrangement within this chamber allows clear water to rise to the surface of the tank and be decanted at the outlet. Periodically, excess humus sludge collected by the baffle arrangement is returned to the primary settlement tank using a submersible pump and timer set up.
Final Settlement Chamber Dimensions: 5.1m long x 2.8m wide x 4.4m deep

The design dry weather flow (DWF) for the plant is 23.6m^3/day which is based on a population equivalent of 105 contributing 225l/head/day. This equates to an average flow of 0.98m^3/hr. The design capacity of the WWTP is approximately 50m^3/day or 2.08m^3/hr. The plant can facilitate a BOD loading of up to 15kg/day.

C.1.2 SPRUCE GROVE TREATMENT PLANT

The Waste Water Treatment Plant in Minane Bridge serves the Council Estate of Spruce Grove. Spruce Grove is located to the east of Minane Bridge Village. Spruce Grove consists of 8 houses and has an approximate P.E. of 28. The treatment plant consists of a septic tank and percolation area located to the rear of the housing estate. The percolation area is located approximately 75m from the Minane River.

The influent flows by gravity to the Septic Tank. The septic tank provides primary settlement only, which according to the National Urban Waste Water Study (NUWSS) reduces the BOD load by approximately 30% and the Suspended Solids by approximately 50%. The septic tank is de-sludged approximately annually and the sludge is transported off site for treatment and disposal. There is no secondary treatment prior to discharge to the percolation area.

The design dry weather flow (DWF) for the plant is 6.3m^3/day which is based on a population equivalent of 28 contributing 225l/head/day. This equates to an average flow of 0.26m^3/hr.

C.1.1 Storm Water Overflows

No storm water overflows or emergency overflows exist on either sewerage system serving River Valley and Spruce Grove.

NOT APPLICABLE

C.1.2 Pumping Stations

This agglomeration contains two small individual sewerage systems which are gravity fed. There are pumping stations within the treatment process for forward feeding and returning sewage for further treatment. No overflows exist.

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
	√	

SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

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

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

Details of all discharges of waste water from the agglomeration should be submitted 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 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions' are emitted***

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

D.1(i) Discharges to Surface Waters

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 'Discharge Point Details', 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions', should be completed for the primary discharge point from the agglomeration and for **each** secondary discharge point, where relevant. Table 'Discharge Point Details' should be completed for **each** storm water overflow. Individual Tables must be completed for each discharge point.

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

Supporting information should form **Attachment D.1(i)**

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

D.1(ii) Discharges to Groundwater

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

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

Supporting information should form **Attachment D.1(ii)**

Information Not Available

Attachment included	Yes	No
		√

D.1 (iii) Private Waste Water Treatment Plants

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

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	VERIFIED
SW01MINV	Primary	Cork Co Co	Surface Water	Minane River	Moderate	174,081	056,519	Y
SW02MINV	Secondary	Cork Co Co	GroundWater	Minane River	Moderate	174,490	056,690	Y

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

SECTION E: MONITORING

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

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

Provide an estimation of the quantity of waste water likely to be emitted in relation to all primary and secondary discharge points applied for. This information should be included in Table 'Discharge Point Details' via the following web based link: 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 'Discharge Point Details' 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 monitoring.

There is no sampling or monitoring programme in place at Spruce Grove. Cork County Council took the WWTP at River Valley in charge on 22nd November 2010. Henceforth, the Council endeavour to operate and maintain the WWTP in accordance with its duties under the Water Services Act. This will include monitoring emissions six times per year. Cork County Council are currently identifying and carrying out various improvement works which were identified in a snag list which was prepared as part of the taking in charge process for the housing estate. The proposed improvement programme forms Attachment G3.

E.2. Monitoring and Sampling Points

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

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

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

EPA 'Interim Report on Biological Survey of River Quality' indicated that the EPA have monitoring points on the Minane River. Minane River (river code 20/M/01) has a quality status of 'Moderately Polluted'. This status applies to a point upstream of Minane Bridge in the neighbouring village of Ballyfeard, and at the monitoring point of Minane Bridge, which is downstream of the primary discharge point and upstream of the secondary discharge point.
There is no data available downstream of the secondary discharge to suggest any negative impacts of the Spruce Grove discharge. The receiving waters at Ringabella Bay are not deemed sensitive.

The Cork County Council Environmental Laboratory does not carry out sampling of the influent and effluent at 'Spruce Grove', Minane Bridge, nor is sampling carried out on the Minane River. However, for the purposes of the 2009 Waste Water Discharge Certificate sampling was carried and is the results are contained within this application.
Cork County Council took the WWTP in charge on 22nd November 2010. Henceforth, the Council will operate and maintain the WWTP in accordance with its duties under the Water Services Act. This will include monitoring emissions six times per year. Sampling can be carried out at the manhole chambers located near the discharge point. This can be safely accessed.

General Laboratory Information

The Waste Water 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 Waste Water 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 Waste Water 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
SW01MINV SW01MINVd	Primary	S S	174490 175075	056690 056872	Y Y

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

E.4 Sampling Data

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

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

No Information Available.

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.

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

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

F.1. Impact on Receiving Surface water or Groundwater

- Details of monitoring of the receiving surface water should be supplied via the following web based link: http://78.137.160.73/epa_wwd_licensing/. Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details'. Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.

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

- For discharges from secondary discharge points Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed.

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

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

- 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 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 primary discharge point located at the River Valley Waste Water Treatment Plant discharges treated effluent to the Minane River. Spruce Grove's Septic Tank discharges to a percolation area located approximately 75m from the Minane River. The Minane River runs in an easterly direction for approximately 5km before reaching coastal waters at Ringabella Creek. The receiving waters at Ringabella Creek are not deemed sensitive. Specific localised EPA flow data is not available in the vicinity of the existing discharge point.

A water quality management plan or catchment management plan is not in place for the receiving water body. The Minane River is not a designated Shellfish area under the Shellfish Waters Regulations, S.I.268 of 2006. Ringabella Creek into which the Minane River flows, is also not designated under these regulations. The Minane River is not designated a Salmonid Water under Salmonid Water Regulations, S.I. 293 of 1988.

The Minane River is not designated a Bathing Water under the Bathing Water Regulations, S.I. 79 of 2008 as amended. Ringabella Creek is approximately 2.5km from Fountainstown Beach which is designated bathing waters. Fountainstown Beach is presently monitored in accordance with the Directive EU 76/160/EEC and the Quality of Bathing Water Regulations 1992 (SI 155/1992) and amendments. From the 2011 bathing season onwards (mid May to 31st August annually) the monitoring and reporting of bathing waters will commence under new legislation 'The Bathing Water Quality Regulations 2008 (SI No. 79 of 2008 Directive 2006/7/EC)'.

The Minane River is not a designated Sensitive Area under the Urban Waste Water Treatment Regulations 2001 (S.I. 254 of 2001). There is no Natura 2000 site in the vicinity of the agglomeration.

In accordance with Appendix of Circular Letter L8/08 and need for carrying out appropriate assessments of environmental impacts, a flow diagram assessment has been carried out and forms part of Attachment G. Due to the location of the plant outside of a nature conservation site, outside the surface water catchment of a nature conservation site, and due to no rare or protected species being located nearby, no further assessment is required at this stage.

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 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 Minane River is deemed 'Moderately Polluted'. This designated applies upstream of Minane Village and upstream of the primary and secondary discharge points. Downstream of Minane Village the Minane River is also deemed Moderately Polluted. There has been no deterioration in water quality along the Minane River.

Designations under relevant directives

The Minane River is not a designated Shellfish area under the Shellfish Waters Regulations, S.I.268 of 2006. Ringabella Creek into which the Minane River flows, is also not designated under these regulations.

The Minane River is not designated a Salmonid Water under Salmonid Water Regulations, S.I. 293 of 1988. The Minane River is not designated a Bathing Water under the Bathing Water Regulations, S.I. 79 of 2008 as amended. The Minane River is not a designated Sensitive Area under the Urban Waste Water Treatment Regulations 2001 (S.I. 254 of 2001). The receiving coastal waters at Ringabella Creek are not deemed sensitive. There are no Natura 2000 sites designated in the Minane Bridge Agglomeration. There is a proposed Natural Heritage Area (pNHA) – Minane Bridge Marsh – site code – 001966. The location of this is detailed in Attachment F- Map 10. The area is listed for its unusual vegetation type which throughout much of the country has been drained. A habitat study has not been carried out on the Minane Bridge Marsh proposed Natural Heritage Area. No information is available at present detailing the species, flora or fauna specific to this area. It is not deemed a bird area of international or national importance.

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 area surrounding the Minane River downstream of the discharge is not a designated special area of conservation.

Natural Heritage Areas

Natural Heritage Areas are the basic designation for wildlife. A 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 Minane River flows through a proposed Natural Heritage Area (pNHA), called Minane Bridge Marsh – site code 001966. The area is listed for its unusual vegetation type which throughout much of the country has been drained. A habitat study has not been carried out on the Minane Bridge Marsh proposed Natural Heritage Area. No information is available at present detailing the species, flora or fauna specific to this area. It is not deemed a bird area of international or national importance.

The WWTP at River Valley Housing Estate is located adjacent to this pNHA. Please see Attachment Map 10 for details. Attachment G3 deals with proposed measures to reduce effects of discharges on surrounding effluent.

Special Protected Areas

Special Protected 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 Minane River or downstream of the discharge.

Receiving Water Quality Requirement

Water Quality analysis data for the Minane River has been undertaken by the EPA in the past. The Minane River system is covered in Hydrometric area no.19. The Minane River is deemed moderately polluted at points upstream of Minane Bridge. This status does not deteriorate downstream of Minane Bridge, downstream of the primary and secondary discharge points.

The standard water quality requirements for dangerous substances are based on the Water Quality (Dangerous Substances) Regulations 2001.

Hence, the principal receiving water quality requirements are given in Table 1 below:

Table F1-1: Receiving Water Quality Limiting Values

Parameter	Water Quality Standard (ug/l)
Atrazine	1.0
Dichloromethane	10.0
Simazine	1.0
Toluene	10.0
Tributyltin	0.001
Xylenes	10.0
Arsenic	25
Chromium	30
Copper	30
Cyanide	10
Fluoride	500
Lead	10
Nickel	50
Zinc	100

Provide details of the extent and type of ground emissions at the works.
The WWTP at River Valley serves 28 houses with a PE circa 105. Emissions are 100% domestic only. Effluent is treated via a primary settlement chamber, biological treatment which substantially reduces carbonaceous BOD, nitrification, a final settlement chamber, and discharge to a reed bed system prior to final discharge. Full details on the process and drawings highlighting the setup can be found in Section C. The percolation area serving the secondary discharge point serves 8 houses in Spruce Grove, Minane Bridge with an estimated P.E. of 28. The discharge to the percolation area is approximately 75m from the Minane River.

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 has not been undertaken as of yet for the parameters set out in the Dangerous Substances Regulations S. I. No 12 of 2001.

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., Giardia, in the receiving water environment.
Downstream of the primary discharge point there is no water abstraction point however there is an infiltration gallery. Attachment G – Map 11 details the zones of contribution and inner protection zone for the infiltration gallery. The infiltration gallery is the source of water for Minane Bridge. In 2002 the Geological Survey Ireland (GSI) produced a report titled 'Minane Bridge Water Supply'. Within this report GSI report that '.....water (is) drawn in from the stream, which lies just over 100metres south of the gallery. Given the small hydraulic head which the gallery develops, this is probably a negligible source of water to the gallery. This seems to be confirmed by the hydrochemistry of the water'. Furthermore the report adds: 'Subsurface flow from the hillside of the north of the gallery, plus shallow subsurface flow ('interflow') and surface runoff infiltrates into the ground at the foot of the slope.

Since the gallery is orientated at right angles to the direction of this flow, it is optimally placed to intercept it. Hence it is expected that this source contributes most of the flow into the gallery'.
The report later states that 'infiltration from the stream (Minane River) to the gallery is probably negligible'. The WWTP chosen for River Valley was a Klargester Airflow AF12 P250 sewage treatment plant. Following the various treatment steps as detailed in Section C, effluent is 'polished' in the reed bed system prior to final discharge to the Minane River. Overall this provides tertiary treatment of effluent. Monitoring results verify the plant is working well.

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 wild birds directive.
Emissions from the WWTP occur at the downstream end of Natural Heritage Area – Minane Bridge Marsh – site code 001966. Please see Attachment F1- Map 10 for further details. As highlighted previously the level of treatment provided at the WWTP is of a high standard in order to minimise affects on the surrounding environs and there have been no negative affects established as a result of the waste water treatment plant.
There are no sites in the area listed under the habitats directive, special protection areas, special areas of conservation or classified under the conservation of wild birds directive.

Details of any modelling of discharges from the agglomeration.
No modelling has been undertaken of the discharges from the agglomeration.
Discharges from the agglomeration do not take place upstream of a Natura 2000 site.

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

Attachment included	Yes	No
	√	

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

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

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

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

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

Downstream of the primary discharge point there is no water abstraction point however there is an infiltration gallery. Please see Attachment Map 11 for further details. The infiltration gallery is the source of water for Minane Bridge. In 2002 the Geological Survey Ireland (GSI) produced a report titled 'Minane Bridge Water Supply'. Within this report GSI report that:
'.....water (is) drawn in from the stream, which lies just over 100metres south of the gallery. Given the small hydraulic head which the gallery develops, this is probably a negligible source of water to the gallery. This seems to be confirmed by the hydrochemistry of the water'.
Furthermore the report adds: 'Subsurface flow from the hillside of the north of the gallery, plus shallow subsurface flow ('interflow') and surface runoff infiltrates into the ground at the foot of the slope. Since the gallery is orientated at right angles to the direction of this flow, it is optimally placed to intercept it. Hence it is expected that this source contributes most of the flow into the gallery'.
The report later states that 'infiltration from the stream (Minane River) to the gallery is probably negligible'. Please see Attachment Map 12 for further details on the zones of contribution and the inner protection zone. The WWTP chosen for River Valley was a Klargester Airflow AF12 P250 sewage treatment plant. Following the various treatment steps as detailed in Section C, effluent is 'polished' in the reed bed system prior to final discharge to the Minane River. Overall this provides tertiary treatment of effluent. Monitoring results verify the plant is working well.
Attachments highlight the location of the infiltration gallery as well as the zone of contribution and inner protection zone as described by the GSI.

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 (2006/113/EC).

Dangerous Substances Directive 2006/11/EC

A screening programme was undertaken for the purpose of the 2009 application for all of the substances listed in S.I. No 12/2001 – Water Quality (Dangerous Substances) Regulations, 2001 with the exception of Tributyltin for effluent at the Septic Tank at Spruce Grove. The results of these tests form attachment E4.

This screening programme has not been carried out to date at River Valley WWTP.

Water Framework Directive 2000/60/EC

According to compiled EPA data the quality status of the Minane River is moderately polluted (upstream of Minane Bridge incl.). At present there is no programme of improvements planned for the Minane River.

Birds Directive 79/409/EEC

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.

There is a proposed Natural Heritage Area (pNHA) along the Minane River for an area called Minane Bridge Marsh (site code 001966) – further information is contained within Attachment Map 10. The WWTP at River Valley is located at the downstream end of the pNHA and on the northern bank of the Minane River.

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

The Groundwater Directive 2006/118/EC has been developed in response to the requirements of Article 17 of the Water Framework Directive: Strategies to prevent and control pollution to groundwater. Groundwater Quality standards are to be established by the end of 2008.

There is one public groundwater source in the Minane Bridge area. This is located approximately 450m downstream of the primary discharge point and 180m north of the secondary discharge point, north of the river. Please see Attachment Map 11 and Attachment Map 12 for further details. The water source comprises an engineered infiltration gallery, about 40metres long, which underlies a fairly extensive tract of river gravels and alluvium on the northern side of the Minane River. The groundwater source is a public supply which has an estimated abstraction volume of 15m^3/day. The water is treated by chlorination. In the past, recorded nitrate levels have exceeded acceptable levels.

Minane Bridge is designated as a village in the 2005 Carrigaline Local Area Plan. Future development in the village is constrained by supply, storage and treatment difficulties in the water supply scheme. A proposal to connect the Minane Bridge area to the Harbour and City Water Supply Scheme is listed in the Councils "Cork County Council Water Services Assessment of Needs July 2006". The Minane Bridge Water Supply Scheme has been approved by the Department of the Environment Heritage and Local Government to enter planning. The estimated cost of the Minane Bridge Water Supply Scheme on the WSIP Programme 2007 – 2009 is €1,421,000. See Attachment G1 for details.

In 2002 the Geological Survey Ireland (GSI) produced a report titled 'Minane Bridge Water Supply'. Within this report GSI report that:

'.....water (is) drawn in from the stream, which lies just over 100metres south of the gallery. Given the small hydraulic head which the gallery develops, this is probably a negligible source of water to the gallery. This seems to be confirmed by the hydrochemistry of the water'.

Furthermore the report adds: 'Subsurface flow from the hillside of the north of the gallery, plus shallow subsurface flow ('interflow') and surface runoff infiltrates into the ground at the foot of the slope. Since the gallery is orientated at right angles to the direction of this flow, it is optimally placed to intercept it. Hence it is expected that this source contributes most of the flow into the gallery'. The report later states that 'infiltration from the stream (Minane River) to the gallery is probably negligible' Attachment Map 12 highlights the zones of contribution and inner protection zone surround the infiltration gallery as outlined by GSI.

The WWTP chosen for River Valley was a Klargester Airflow AF12 P250 sewage treatment plant. Following the various treatment steps as detailed in Section C, effluent is 'polished' in the reed bed system prior to final discharge to the Minane River. Monitoring results verify the plant is working well.

Drinking Water Directives 80/778/EEC

There is one public groundwater source in the Minane Bridge area. This is located approximately 450m downstream of the primary discharge point and 180m north of the secondary discharge point, north of the river. The water source comprises an engineered infiltration gallery, about 40metres long, which underlies a fairly extensive tract of river gravels and alluvium on the northern side of the Minane River. The groundwater source is a public supply which has an estimated average abstraction volume of 25m^3/day. The water is treated by chlorination. In the past, recorded nitrate levels have exceeded acceptable levels.

Minane Bridge is designated as a village in the 2005 Carrigaline Local Area Plan. Future development in the village is constrained by supply, storage and treatment difficulties in the water supply scheme. A proposal to connect the Minane Bridge area to the Harbour and City Water Supply Scheme is listed in the Councils "Cork County Council Water Services Assessment of Needs July 2006". The Minane

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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 Waste Water Treatment Directive (91/271/EEC). The 2001 Irish Regulations cover the various requirements in relation to the collection and treatment of urban waste water.
The Regulations require that waste water 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"

EPA 'Interim Report on Biological Survey of River Quality' indicated that the EPA have monitoring points on the Minane River. Minane River (river code 20/M/01) has a quality status of 'Moderately Polluted'. This status applies to a point upstream of Minane Bridge in the neighbouring village of Ballyfeard, and at the monitoring point of Minane Bridge, which is upstream of the abstraction point and the waste water discharge point. There is no data available downstream of the discharge to suggest any negative impacts of the Spruce Grove discharge. The receiving waters at Ringabella Bay are not deemed sensitive.
The Third Schedule of the 2001 Regulations gives a list of Sensitive areas.
Article 4(2)(a) states that all discharges into Sensitive Areas require more stringent treatment than secondary treatment. The Minane River is not a designated Sensitive Area.

Habitats Directive 92/43/EEC
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 cSAC is designated on the basis of the presence of a large number of EU Habitats Directive Annex 1 habitats and Annex 2 species. None of the rivers in this area are cSACs, this

includes the Minane River. A recent response to a request for information in relation to the 2009 certificate application and Regulation 24 requirements is contained within Attachment G1.

The Habitats Directive 92/43/EEC is transposed into Irish Law under the European Union (Natural Habitats) Regulations SI 94/1997 (The Regulations). The Regulations require the assessment of all projects or plans that have the potential to impact on nature conservation sites, including SPAs. This assessment is referred to as a Habitats Directive Assessment. The purpose of a Habitats Directive Assessment is to identify potential impacts on nature conservation sites arising from a project or plan and to predict the effect of such impacts on the integrity of the sites.

The European Union has provided guidance on Habitats Directive Assessment which identifies four stages in the assessment process as follows:

1. Stage One - Screening
Screening identifies the likely impacts on a Natura 2000 site of a project or plan, whether alone or in combination with other projects or plans, and considers whether or not these impacts are likely to be significant.

2. Stage Two – Appropriate Assessment
This assessment considers the impact on the integrity of the Natura 2000 site of a project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, the Appropriate Assessment considers the potential mitigation of those impacts.

3. Stage Three - Assessment of Alternative Solutions
This assessment examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site.

4. Stage Four - Assessment Where No Alternative Solutions Exist and Where Adverse Impacts Remain
This assessment considers compensatory measures, where in the light of an assessment of imperative reasons of overriding public interest, it is deemed that the project or plan should proceed.

This Submission brings together all of the information necessary to make determination as to whether or not there are likely to be significant impacts arising from the discharges from the Minane Bridge Agglomeration on the Minane Bridge Marsh proposed Natural Heritage Area (pNHA) and Cork Harbour SPA. A flow diagram in accordance with Appendix 1 of Circular Letter L8/08 is included at Appendix 1 of this Submission.

1.2 Stage One - Screening

Screening identifies the likely impacts on a Natura 2000 site of a project or plan, whether alone or in combination with other projects or plans, and considers whether or not these impacts are likely to be significant. Screening comprises of 5 steps as follows:

1. Step One – Description of Project or Plan
Provide a description of the project or plan and other projects or plans that, alone or in combination, have the potential to have significant effects on Natura 2000 sites within the potential impact zone.

2. Step Two – Identification of Impacted Natura 2000 Sites
Identify Natura 2000 sites which may be impacted by the project or plan, and compile information on their qualifying interests and conservation objectives.

3. Step Three – Assessment Criteria
Determine whether the project or plan needs to be screened for potential impacts on Natura 2000 sites.

4. Step Four – Assessment of Likely Effects
Carry out an assessment of likely effects – direct, indirect and cumulative – undertaken on the basis of available information as a desk study or field survey or primary research as necessary.

5. Step Five – Significance of Effects
Assess the significance of any such effects on the Natura 2000 sites within the impact zone.

Steps 1 to 5 are presented as an Appropriate Assessment Screening Matrix below. This assessment has been prepared in accordance with the following guidance:

- European Commission (2000) Managing Natura 2000 sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC;
- European Commission (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC;
- Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Environment, Heritage and Local Government, 2009.

Location	Minane Bridge, Co Cork.
Description of the key components of the project	Minane Bridge Agglomeration is served by a Waste Water Treatment Plant at River Valley Housing Estate and Septic Tank at Spruce Grove Housing Estate. River Valley WWTP provides tertiary treatment by means of primary settlement, a two stage biological treatment process, final settlement and reed bed filtration, and discharges to surface water. The estimated daily discharge from the WWTP is 23m3/day. Spruce Grove Septic Tank provides primary treatment. Treated effluent discharges to groundwater through a percolation area located 75m from the Minane River. The septic tank provides primary treatment only which according to the National Urban Waste Water Study (NUWWS) reduces the BOD load by approximately 30% and the Suspended Solids load by approximately 50%. On average approx. 6cu.m./day of effluent is discharged to the percolation area.
Distance from designated sites in potential impact zone	The Minane River runs in an easterly direction downstream of Minane Bridge Village for approximately 5km before reaching coastal waters at Ringabella Creek. The receiving waters at Ringabella Creek are not deemed sensitive. Ringabella Creek is approximately 2.5km from Fountainstown Beach which is designated bathing waters. Fountainstown Beach is presently monitored in accordance with the Directive EU 76/160/EEC and the Quality of Bathing Water Regulations 1992 (SI 155/1992) and amendments. From the 2011 bathing season onwards (mid May to 31st August annually) the monitoring and reporting of bathing waters will commence under new legislation 'The Bathing Water Quality Regulations 2008 (SI No.79 of 2008 Directive 2006/7/EC)'. Ringabella Creek is located approximately 5km outside the mouth of Cork Harbour (Roche's Point). The discharge point at Minane Bridge is approx. 10 Km distance from the mouth to Cork Harbour which contains a Special Protected Area (SPA). The primary discharge point is located at the downstream end of a proposed Natural Heritage Area (pNHA) called Minane Bridge Marsh – site code 001966. The location of the pNHA and primary discharge point is highlighted in Attachment Map 10 of the revised application form.

Name	Minane Bridge Marsh Proposed Natural Heritage Area
Site Code	001966
Site Description	The Minane Bridge Marsh pNHA This is not a Natura 2000 Site, however is a proposed Natural Heritage Area, and has been noted as such. Discharge from the River Valley WWTP occurs at the downstream end of the pNHA. Spruce Grove Septic Tank discharges via a percolation area to groundwater, downstream of the pNHA and does not affect it. No bird count data was available for Minane Marsh. Data available in relation to Ringabella Creek forms Appendix II of this document and Attachment Section F1 of the revised Application Form (March 2011)
Qualifying Interests of Minane Bridge Marsh pNHA	None
Other Notable Features of Minane Bridge pNHA.	None
Conservation Objectives	To avoid deterioration of the habitats of and qualifying species and species of special conservation interest, or significant disturbance to these species, thus ensuring that the integrity of the site is maintained. To ensure for the qualifying species and species of special conservation interest that the following are maintained in the long-term: • The population of the species as a viable component of the site; • The distribution and extent of habitats supporting the species; • The structure, function and supporting processes of habitats supporting the species. *Source – National Parks and Wildlife Service.*

[1] Natura 2000 sites within the potential impact zone of the proposed development have been identified in accordance with guidance provided in the NPWS circular L8/08.

Name	Cork Harbour Special Protection Area
Site Code	4130
Site Description	The Cork Harbour SPA is an estuarine complex which is primarily comprised of intertidal habitats, mainly mudflats as well as some other coastal and marine habitats. These habitats support very high numbers of wintering waterfowl that feed on the macro invertebrates inhabiting the mudflats. The Harbour regularly supports in excess of 20,000 wintering birds, making it an internationally important site and the fifth most important wintering waterfowl site in the country. Discharges from the Minane Bridge Agglomeration occur approx 10km outside of Cork Harbour SPA. Any impacts on this SPA site from discharges at Minane Bridge are considered negligible.
Qualifying Interests of Cork Harbour SPA.	Internationally important numbers of Black-tailed Godwit and Redshank; Nationally important numbers of Cormorant, Shelduck, Oystercatcher, Golden Plover, Lapwing, Dunlin and Curlew; 20,000 wintering water birds. *Source – National Parks and Wildlife Service*
Other Notable Features of Cork Harbour SPA	Little Grebe, Great-crested Grebe, Grey Heron, Wigeon, Teal, Pintail, Shoveler, Red-breasted Merganser, Grey Plover, Black-headed Gull, Common Gull, Lesser Black-backed Gull, wetland and water birds. Source – *National Parks and Wildlife Service.* See Appendix III
Conservation Objectives	To avoid deterioration of the habitats of the qualifying species and species of special conservation interest, or significant disturbance to these species, thus ensuring that the integrity of the site is maintained. To ensure for the qualifying species and species of special conservation interest that the following are maintained in the long-term: ○ the population of the species as a viable component of the site; ○ the distribution and extent of habitats supporting the species; ○ the structure, function and supporting processes of habitats supporting the species; *Source – National Parks and Wildlife Service*

Describe the elements of the project likely to give rise to impacts on the Natura 2000 site.	1. River Valley WWTP; 2. Spruce Grove Septic Tank.
Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site taking into account the following: • Size and scale • Land-take • Distance from the Natura 2000 site or key features of the site: • Resource requirements (water abstraction etc.) • Emissions (disposal to land, water or air) • Excavation Requirements • Transportation Requirements • Duration of construction, operation, decommissioning • Other.	The agglomeration has a total population equivalent of 161. The average daily output of the WWTP is estimated at 23cu. m/day. The maximum capacity of the WWTP is 50cu. m/day so at present the WWTP has not reached 50% capacity. The Septic Tank at Spruce Grove receives approx 6cu.m/day. Minane Bridge is located approx 10km outside the mouth of Cork Harbour which contains an SPA. Any impacts from the discharges at Minane Bridge on Cork Harbour SPA are deemed negligible. Discharges could give rise to elevated nutrients entering the Minane River on the eastern end of the Minane Bridge Marsh proposed Natural Heritage Area (pNHA). The primary discharge point for the agglomeration discharges on the northern side of the Minane River. The Minane River forms a northern boundary to the Minane Bridge Marsh (please see Attachment Map 10 in the revised certificate application for location details). Increased nutrient levels may impact on the ecology of an area by changing the composition of floral communities and reducing the ability of less robust plants to survive. Increased nutrient levels may also result in increasing the invertebrate populations in the estuary, thereby increasing bird population levels. The combined impact of the above-listed WWTP (primary discharge) on the proposed Natural Heritage Area may require an ecological assessment of the pNHA. This assessment has not been undertaken in the preparation of this Submission. However, consideration is currently being given by Cork County Council to such an assessment. The primary discharge point is located upstream of the Minane Bridge Infiltration Gallery. The infiltration gallery can take up to approx. 98cu. m/day from groundwaters. The average output of the infiltration gallery is approximately 25cu.m/day. A study of the infiltration gallery carried out by Geological Survey of Ireland note that 'water (is) drawn in from the stream, which lies just over 100metres south of the gallery. Given the small hydraulic head which the gallery develops, this is probably a negligible source of water to the gallery. This seems to be confirmed by the hydrochemistry of the water'. Furthermore the report adds: 'Subsurface flow from the hillside of the north of the gallery, plus shallow subsurface flow ('interflow') and surface runoff infiltrates into the ground at the foot of the slope. Since the gallery is orientated at right angles to the direction of this flow, it is optimally placed to intercept it. Hence it is expected that this source contributes most of the flow into the gallery'. The report later states that 'infiltration from the stream (Minane River) to the gallery is probably negligible'. The revised certificate application detailed the zones of contribution and inner protection zone for the infiltration gallery. Cork County Council took the River Valley WWTP in charge on 22nd November 2010. A proposed programme of improvement works for the WWTP based on items identified and listed by Cork County Council forms Attachment G3 of the revised application.

Describe any likely changes to the site arising as a result of: • Reduction in habitat area • Disturbance to key species • Habitat or species fragmentation • Reduction in species density • Changes in key indicators of conservation value (water quality etc) • Climate Change	**Reduction in habitat area** Not significant. **Disturbance to key species** The operation of the Septic Tank does not cause any disturbance to any Natura Sites. The WWTP is located at the downstream end of Minane Bridge Marsh (pNHA) however the treatment process employed at the WWTP provides tertiary treatment. There are no key species listed at the pNHA. **Habitat or species fragmentation** No habitat fragmentation has been caused as a result of the operation of this facility. **Reduction in species density** No significant impacts are evident or predicted on species for which the SPA is designated. **Changes in key indicators of conservation value – e.g. water quality** The status of the section of the Minane River is "moderate". There has been no deterioration downstream of the discharges in this respect. **Climate Change** Not significant.
Describe any likely impacts on the Natura 2000 site as a whole in terms of: • Interference with the key relationships that define the structure of the site • Interference with key relationships that define the function of the site	**Interference with the key relationships that define the structure of the site** The structure of the SPA is not impacted by the operation of this facility. **Interference with key relationships that define the function of the site** The function of the SPA is not impacted by the operation of this facility.
Describe from the above those elements of the project of plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.	Cork County Council took the WWTP in charge in November 2010. A programme of sampling is due to commence on the primary discharge point in 2011 with 6 samples to be taken and tested. These results will give a more accurate representation of the likely impacts of the WWTP. A screening programme has not been carried out to date on the plant under the Dangerous Substances Directive. This maybe necessary in order to assess the full impact of the WWTP. In addition a proposed programme of improvement works has been identified by Cork County Council (and forms Attachment G3 of the revised application form) and work should begin in remedying any defects noted, and upgrading the plant in 2011.

Name of project or plan	Minane Bridge Agglomeration
Name and location of Natura 2000 site	Cork Harbour SPA (over 10km from the discharge point) Primary Discharge Point within proposed Natural Heritage Area pNHA of Minane Bridge Marsh.
Description of the project or plan	Minane Bridge Agglomeration is served by a waste water treatment plant which provides tertiary treatment and discharges to Minane River, and a septic tank which provides primary treatment only which discharges to groundwater approx 75m from the Minane River.
Is the project or plan directly connected with or necessary to the management of the site (provide details)?	No
Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 Site.	Discharges from the River Valley WWTP could give rise to elevated nutrients within the pNHA (not a Natura 200 site). Increased nutrient levels may impact on the ecology of an area by changing the composition of floral communities and reducing the ability of less robust plants to survive. Increased nutrient levels may also result in increasing the invertebrate populations in the estuary, thereby increasing bird population levels. A programme of sampling is due to commence on the primary discharge point in 2011 with 6 samples to be taken and tested. These results will give a more accurate picture of likely affects.

Explain why these effects are not considered significant.	• Small quantities of effluent (max PE 161 current PE 133); • 20% Effluent discharges to groundwater; 80% effluent undergoes tertiary treatment process. • Dilution and assimilative capacities of Minane River and Cork Harbour; • Minane River has ongoing "moderate" status; • No significant impacts are evident or predicted on species for which the pNHA is designated. Negligible impacts of Cork SPA which is over 10km away. No Natura 2000 site in area.
List of agencies consulted: provide contact name and telephone or email address	• National Parks and Wildlife Service; • Birdwatch Ireland.
Response to consultation	• Draft Conservation Objectives and a copy of Intention to Designate Cork Harbour as SPA was received previously from the NPWS; • Bird count data was received previously from Birdwatch Ireland.

Environmental Liabilities Directive 2004/35/EC

The Environmental Liability Directive is about preventing and remedying environmental damage. It aims to hold operators whose activities have caused environmental damage financially liable for remedying this damage, and it aims to hold those whose activities have caused an imminent threat of environmental damage liable for taking preventive actions.

EPA 'Interim Report on Biological Survey of River Quality' indicated that the EPA have monitoring points on the Minane River. Minane River (river code 20/M/01) has a quality status of 'Moderately Polluted'. This status applies to a point upstream of Minane Bridge in the neighbouring village of Ballyfeard, and at the monitoring point of Minane Bridge, which is upstream of the abstraction point and the waste water discharge point. There is no data available downstream of the discharge to suggest any negative impacts of the Spruce Grove discharge. The receiving waters at Ringabella Bay are not deemed sensitive.

Cork County Council took the WWTP in charge on 22nd November 2010. Henceforth, the Council will operate and maintain the WWTP in accordance with its duties under the Water Services Act. This will include monitoring emissions six times per year. In addition a snag list is being formed identifying ways in improving the performance of the treatment plant and reducing any impacts on the surrounding environment. This list of improvement works forms Attachment G2.

Bathing Water Directive 76/160/EEC

The Minane River is not designated a Bathing Water under the Bathing Water Regulations, S.I. 178 of 1998 as amended. Ringabella Creek which the Minane River flows into is not designated a bathing water, however Fountainstown Beach is 2.5km away from Ringabella Creek, and 6km downstream of the WTTP and it is a designated bathing water. Fountainstown Beach is presently monitored in accordance with the Directive EU 76/160/EEC and the Quality of Bathing Water Regulations 1992 (SI 155/1992) and amendments.

From the 2011 bathing season onwards (mid May to 31st August annually) the monitoring and reporting of bathing waters will commence under new legislation 'The Bathing Water Quality Regulations 2008 (SI No.79 of 2008 Directive 2006/7/EC)'.

Shellfish Waters Directive (2006/113/EC)

The Minane River is not a designated Shellfish Area under the Shellfish Waters Regulations, S.I. 268 of 2006. Ringabella Bay, into which the Minane River flows, is also not designated under these regulations.

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 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).

Neither the Septic Tank at Spruce Grove or the WWTP at River Valley have been previously identified as the principal sources of pollution under the Phosphorous Regulations.
There have been no specific measures adopted for these schemes in relation to any Phosphorus Measures Implementation Reports.
There is no programme of improvements proposed for the Septic Tank at Spruce Grove. Cork County Council took the Waste Water Treatment Plant at River Valley in charge on the 22nd November 2011. Cork County Council are currently identifying and carrying out various improvement works which were identified in a snag list which was prepared as part of the taking in charge process for the housing estate.

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.

There is no programme of improvements proposed for the Septic Tank at Spruce Grove. Cork County Council took the Waste Water Treatment Plant at River Valley in charge on the 22nd November 2011. Cork County Council are currently identifying and carrying out various improvement works which were identified in a snag list which was prepared as part of the taking in charge process for the housing estate.

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

Attachment included	Yes	No
	√	

G.4 Storm Water Overflows

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

NOT APPLICABLE

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

SECTION H: DECLARATION

Declaration

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

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

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

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

Signed by : _____ **Date :** 8/3/11
(on behalf of the organisation) NOEL O KEEFFE

Print signature name: NOEL O KEEFFE

Position in organisation: Noel O Keeffe
Company Secretary of Manufacturing

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Attachment	Description
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A1 Map 02	Minane Bridge Location Map
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B2 Map 04	Location of WWTP
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F1 Map 10	Location of proposed Natural Heritage Area
F1	Bandon Stick Water Management Plan
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G1 Map 11	Infiltration Gallery
G1 Map 12	Zones of Contribution
G1	Proposed Improvement Works
G1	WSIP Programme
G1	Regulation 24 Response - Minane Bridge March 2011
G2	Proposed Improvement Works
G3	Proposed Improvement Works
G4	Not Applicable
Online Data	Online Data submitted to the EPA including Annex

REVISION 01

[redacted]

Section	Ref No.	Drawing Title	Revised Drawing No.s
A - Non Technical Summary	Map 01	1:25,000 Location Map	-
A - Non Technical Summary	Map 02	Location of WWTP	-
B1 - Agglomeration Served by Application	Map 03	Agglomeration Boundary	-
B2 - Location of Associated WWTP	Map 04	Location of WWTP	-
B3 - Location of Primary Discharge Point	Map 05	Location of Primary Discharge Point	-
C1 - Operational Information Requirements	Map 06	Location of WWTP	-

[redacted]

Section	Ref No.	Drawing Title	Revised Drawing No.s
A - Non Technical Summary	-	1:50,000 Agglomeration Location Map	Map 01
A - Non Technical Summary	-	Minane Bridge Location Map	Map 02
B1 - Agglomeration Served by Application	-	Outline of Agglomeration	Map 03
B2 - Location of Associated WWTP	-	Location of WWTP	Map 04
B3 - Location of Primary Discharge Point	-	Location of Primary Discharge Point	Map 05
B4 - Location of Secondary Discharge Point	-	Location of Secondary Discharge Point	Map 06
C1 - Operational Information Requirements	-	Location of WWTP	Map 07
C1 - Operational Information Requirements	-	WWTP	Map 08
C1 - Operational Information Requirements	-	Location of Septic Tank	Map 09
F1 - Impact on Receiving Surface Water	-	Bandon Stick Water Management Plan	Map 10
G1 - Compliance with Council Directives	-	Infiltration Gallery	Map 11
G1 - Compliance with Council Directives	-	Zones of Contribution	Map 12