



**CORK COUNTY COUNCIL  
WATER SERVICES WESTERN DIVISION  
Courthouse  
Skibbereen  
Co. Cork**

**Skibbereen Agglomeration  
Wastewater Discharge  
Licence Application**

**Application Form  
22nd September 2008**



**CORK COUNTY COUNCIL**  
**WESTERN DIVISION**  
**WATER SERVICES**

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

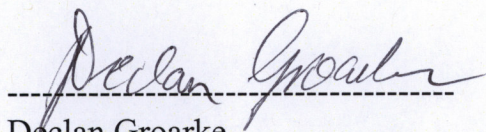
Dear Sir / Madam,

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

The following documentation is enclosed:

- 1 Nr. signed original in hardcopy
- 1 Nr. copy in hardcopy
- 2 Nr. CD-ROM with all documentation in electronic searchable PDF (OCR'd format)
- 2 Nr. CD-ROM with GIS Data, Tabular Data

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



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Declan Groarke  
Senior Executive Engineer

This is a draft document and is subject to revision.



# Waste Water Discharge Licence Application Form

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<b>EPA Ref. N<sup>o</sup>:</b> <i>(Office use only)</i>	<input type="text"/>
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**Environmental Protection Agency**  
PO Box 3000, Johnstown Castle Estate, Co. Wexford  
Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699  
Web: [www.epa.ie](http://www.epa.ie) Email: [info@epa.ie](mailto:info@epa.ie)

**Tracking Amendments to Draft Application Form**

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

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

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

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## ABOUT THIS APPLICATION FORM

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

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

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

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

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



## PROCEDURES

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

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

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

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

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

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

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

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

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

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

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

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

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## SECTION A: NON-TECHNICAL SUMMARY

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

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

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

A description of:

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

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

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## **Waste water works and the activities carried out therein**

Skibbereen Town is located in west County Cork (Refer to Drg. No. A1-01). The town is built along the banks of the River Ilen. There is currently no wastewater treatment plant in the town and until recently raw wastewater discharged directly to the River Ilen and its tributary, the Caol Stream, at numerous locations.

The construction of Skibbereen Sewerage Scheme - Collection System, which is currently ongoing, will ultimately eliminate untreated discharges to the River Ilen and Caol Stream, except in the case of emergency overflows. The numerous discharge points mentioned above will be connected to the new collection network. The discharge points that are the subject of this application are those which have been recently constructed under the collection system contract.

The collection system contract comprises upgrades to the existing sewerage network through the construction of new storm and foul sewer lines and submersible pumping stations in and around the town of Skibbereen. It also includes the construction of a major pumping station and storm water holding tanks at the Marsh (Refer to Drg. No. A1-02).

Following completion of the scheme, wastewater flows from the town will be collected and discharged to the Main Pumping Station at the Marsh. From here, the flows will ultimately be pumped to a header manhole at the proposed treatment plant, which is to be located adjacent to the graveyard at Coronea.

The proposed treatment plant is to be constructed under a separate Design-Build-Operate contract, the construction of which was intended to be ongoing at the same time as the collection system contract. At tender stage of the collection system contract, the Contractors programme reflected the requirement for sewage to be provided at the treatment plant approximately 11 months from the commencement of the contract.

However, the treatment plant contract has not yet received departmental approval to go to tender and will therefore not be ready to accept discharges from the Main Pumping Station by month 11 of the collection system contract. Interim measures are required to deal with the discharges from the system until such time as the treatment plant is constructed and in operation.

It is proposed to pump discharges arriving at the Main Pumping Station into the completed storm tank which will temporarily act as a septic tank. Discharges from the storm/septic tank will overflow to a screening chamber, where motorised screens will be in operation. From the screening chamber the discharges flow to a temporary percolation area in the marsh, pending commissioning of the wastewater treatment plant.

The Collection System contract is due for completion in early 2009. The Main Pumping Station interim arrangement has been in operation since August 2008, and may continue to operate as such for up to two years, pending completion of the treatment plant.

RPS-MCOS prepared an Environmental Impact Statement for the proposed wastewater treatment plant on behalf of Cork County Council. The statement, issued in September 2004, assesses potential environmental impacts in

accordance with the guidelines published by the Environmental Protection Agency (EPA).

Because the treatment plant contract is not yet at tender stage, the information in this application dealing with the proposed treatment plant is indicative only.

The indicative design for Skibbereen Wastewater Treatment Plant incorporates an aeration plant, which will be constructed as a staged development. A schematic of the indicative treatment plant processes is shown on Drg. No. A1-03 in Attachment A.1.

From the 2006 Census, the town has a population of 2,338 persons. It is proposed that the main elements of the treatment plant will be designed to cater for a population equivalent (p.e.) of 4,700 in Stage 1.

The inlet works, rising main and outfall at the treatment plant will be designed for a future population equivalent of 9,400 p.e. There is adequate space on the site to extend the capacity of the remaining elements of the treatment plant to 9,400 p.e. in Stage 2.

The EIS for Skibbereen Wastewater Treatment Plant suggests the following treatment elements at the plant: -

- Covered inlet works comprising
  - 6mm fine screen with screenings removal, washing and compaction
  - Grit trap with grit removal, washing and compaction
  - Measurement flume
  - Air extraction from the covered spaces and its treatment in biological filters to remove foul odours
- Primary Settlement comprising
  - 2 No. 8m diameter radial flow primary settlement tanks
  - Tanks to be covered and the air extracted and treated in biological filters for odour removal.
- Aeration Basin based on a conventional activated sludge process using a plug-flow system. Aeration achieved using fine bubble diffused air system.
- Secondary Settlement / Clarification
- Sludge Thickening, Dewatering & Removal. Sludge thickened in a covered tank and the air extracted and odour removed.
- Tidal Holding and Effluent Discharge

To comply with the EIS the contractor must also provide an odour control system at all the potential sources of odour. It is also intended to surround the treatment plant with trees and shrubs, which will cut down on aerosol transmission and so further protect the surrounding environment.

## The sources of emissions from the waste water works

The main sources of wastewater are domestic and commercial properties in the catchment area. There are some light industries based on the Baltimore and Marsh Roads, but there are no major water using industries in Skibbereen.

The wastewater from the town will be collected through the new piped system, which will discharge to the Main Pumping Station located in the Marsh. A second pumping station, Coronea Pumping Station, will be located on the southern bank of the river, to the east of Riverdale. This pumping station will pump flows to a header manhole on Bridge Street from where they will gravitate to the Main Pumping Station.

In addition, 3 Nr. smaller pumping stations have been constructed on the Mill Road, Marsh Road and Glencurragh Road to convey wastewater to the Main Pumping Station.

The following table illustrates the flows and biological loadings expected at the treatment plant:

	Stage 1	Stage 2
Population Equivalent	4,700	9,400
BOD Load	282 kgs	564 kgs
Dry Weather Flow	1,081 m3/day	2,162 m3/day
Maximum flow through plant	3,243 m3/day	6,486 m3/day

## 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 maximum flow through the plant, based on the Stage 2 p.e, is 75 l/s. The minimum treated effluent quality requirements, shown in the table below, are determined with respect to:

- the EC Urban Wastewater Directive, given effect in Irish Law by S.I. 254, 2001;
- the Phosphorus Regulations (S.I. No. 258 of 1998) (not in case of Skibbereen)
- The Quality of Bathing Waters Regulations (S.I. No. 155 of 1992)
- The approved Environmental Impact Statement for Skibbereen WWTP.

**Table A1.1: Minimum Effluent Standards based on SI 254 of 2001**

Parameter	Conc. (mg/l)	Minimum Percentage of Reduction
Biochemical Oxygen Demand (BOD)	25	70 – 90
Chemical Oxygen Demand (COD)	125	75
Suspended Solids	35	90

The indicative design for Skibbereen Wastewater Treatment Plant incorporates an aeration plant, which is ideally suited to achieving the levels of efficiency for BOD, COD and Suspended Solids removal outlined in the table above. The final design of the plant will be subject to the DBO design.

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

This EIS for Skibbereen Wastewater Treatment Plant is based on an indicative design that can meet the effluent discharge criteria as defined in the relevant EU Directives and national regulations. The EIS is included with this application.

The indicative design, shown in Figure 3.1 of the EIS, incorporates an aeration plant, which is ideally suited to achieving the levels of efficiency for BOD, COD and Suspended Solids removal outlined in the Table A1.1 above.

The arrangement of tanks and buildings shown in Figure 3.1 is typical of the works required. Indicative levels for the proposed structures and buildings are also shown to facilitate the visual impact assessment of the treatment plant. This figure shows the treatment plant following completion of Stages 1 and 2, i.e. 9,400PE capacity. Structures required for Stage 2, but not required for Stage 1, are indicated as dotted lines.

Note that the size and location of the proposed structures may vary. However, it is envisaged that the final design will be comparable with those indicated. All reasonable measures will be taken to minimise the visual impact of the required structures on the predominantly rural landscape. These measures may include the choice of appropriate cladding for structures and limiting the maximum heights to that reasonable practicable.

To comply with the EIS the contractor must also provide an odour control system at all the potential sources of odour. It is also intended to surround the treatment plant with trees and shrubs, which will cut down on aerosol transmission and so further protect the surrounding environment.

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

The dry weather flow in the River Ilen is approximately 21,600 m<sup>3</sup>/day (0.25 m<sup>3</sup>/sec). In order to control water quality parameters in the river, resultant from the proposed treated wastewater discharge, the tidal influence is to be taken into account in the design of the plant.

A tidal holding tank is to be incorporated in the plant design to ensure that effluent is released only on an ebbing tide, when the flow in the river channel is well above that which is required to assimilate the proposed discharges. In order to ensure adequate dispersion of the discharged effluent the proposed outfall will be located downstream of New Bridge.

As part of the EIS for plant, Irish Hydrodata Ltd. has studied in detail the effects of this discharge on the Ilen Estuary. The findings of their study, which are discussed in Section 5.9 of the EIS, limit the discharge of effluent to a 4 hour period on the ebb tide, i.e. High Water plus 0.5 hours to High Water plus 4.5 hours. The nett effect of this is that wherever the treatment plant is located, the point of discharge to the estuary must be either at or downstream of the location monitored by Irish Hydrodata Ltd.

Accordingly a tidal holding tank will be designed to hold 8 hours of 3 x DWF which for Stage 1 will require 1081m<sup>3</sup>. A second holding tank would be required as part of Stage 2. The outfall pipe is to be designed to empty the tidal holding tank (Stage 2 capacity) as well as the full capacity of the pumping plant discharging to the treatment works over the defined 4 hour discharge period.

The outfall pipe will run in a northerly direction across the Deelish Road to the River Ilen, a distance of approximately 170m. It is proposed to locate this pipeline along the existing fenceline to minimise the impact on the agricultural land. At the point of discharge at mid channel the pipe will always be below water level

Long term monitoring of the Ilen River and the final effluent from the treatment plant will be undertaken to determine compliance or otherwise with the quality objectives set for the scheme.

**Measures planned to monitor emissions into the environment**

It is likely that under the Employers Requirements for Operation & Maintenance of the Works for Skibbereen Wastewater Treatment Plant, the Contractor will be obliged to implement in full, the requirements of a 'Performance Management System'.

In providing this service, the Contractor would monitor the wastewater treatment plant assets and operations, which would include undertaking sampling, monitoring and analysis of the wastewater and sludge.

Long term monitoring of the Ilen River and the final effluent from the treatment plant will also be undertaken to determine compliance or otherwise with the quality objectives set for the scheme.

Attachment included	Yes	No
	✓	



## SECTION B: GENERAL

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

### B.1 Agglomeration Details

**Name of Agglomeration:** Skibbereen

#### Applicant's Details

##### Name and Address for Correspondence

Only application documentation submitted by the applicant and by the nominated person will be deemed to have come from the applicant. Provide a drawing detailing the agglomeration to which the licence application relates. It should have the boundary of the agglomeration to which the licence application relates clearly marked in red ink.

<b>Name*:</b>	Cork County Council
<b>Address:</b>	Water Services Western Division
	Courthouse
	Skibbereen
	Co.Cork
<b>Tel:</b>	(028) 21299
<b>Fax:</b>	(028) 21995
<b>e-mail:</b>	declan.groarke@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.

<b>Name*:</b>	Declan Groarke
<b>Address:</b>	Water Services Western Division
	Courthouse
	Skibbereen
	Co.Cork
<b>Tel:</b>	(028) 21299
<b>Fax:</b>	(028) 21995
<b>e-mail:</b>	declan.groarke@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

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

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

### Design, Build & Operate Contractor Details

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

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

\*\*The DBO contract for the construction of Skibbereen Wastewater Treatment Plant has not yet reached tender stage, therefore these details are as yet unknown.

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

Attachment included	Yes	No
	✓	

#### B.2.1 Location of Associated Proposed Waste Water Treatment Plant(s)

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

<b>Name*:</b>	Not Applicable**
<b>Address:</b>	Skibbereen Wastewater Treatment Plant
	Coronea
	Skibbereen
	Co.Cork
<b>Grid ref (6E, 6N)</b>	110594E, 033705N
<b>Level of Treatment</b>	Secondary
<b>Primary Telephone:</b>	Not Applicable**
<b>Fax:</b>	Not Applicable**
<b>e-mail:</b>	Not Applicable**

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

\*\*The DBO contract for the construction of Skibbereen Wastewater Treatment has not yet reached tender stage, therefore these details are as yet unknown.

#### B.2.2 Location of Existing Interim Waste Water Discharge Arrangement

<b>Name*:</b>	James Dwyer
<b>Address:</b>	The Rectory
	Cork Road
	Skibbereen
	Co.Cork

<b>Grid ref (6E, 6N)</b>	112218E, 033886N
<b>Level of Treatment</b>	Primary
<b>Primary Telephone:</b>	(028) 21299
<b>Fax:</b>	(028) 21995
<b>e-mail:</b>	james.dwyer@corkcoco.ie

\*This is the name of the person responsible for the supervision of the Main Pumping Station and percolation area at the Marsh, which is an interim wastewater discharge measure, pending completion of the wastewater treatment plant.

As described in Section A above, it is proposed to discharge the final effluent from the proposed treatment plant to a 400 mm diameter pipe which will outfall to the River Ilen at the primary discharge point.

The DoEHLG have not given the approval for the tender process for the proposed treatment plant contract to proceed; therefore an interim measure is required to deal with discharges from the sewerage scheme which is currently under construction.

It is proposed to pump discharges arriving at the Main Pumping Station into the completed storm tank, which will temporarily act as a septic tank. Discharges from the storm/septic tank will overflow to a screening chamber, where motorised screens will be in operation. From the screening chamber the discharges flow to a temporary percolation area in the marsh, pending commissioning of the wastewater treatment plant. The interim arrangement is shown on Drg. No. B2-07 in Attachment B.2.

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

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

### **B.3.1 Location of Proposed Primary Discharge Point**

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

<b>Type of Discharge</b>	400mm diameter outfall pipe from Wastewater Treatment Plant. Fitted with a tideflex non-return valve.
<b>Unique Point Code</b>	SW1
<b>Location</b>	2km west of the town centre
<b>Grid ref (6E, 6N)</b>	110589E, 033838N

### B.3.2 Location of Existing Interim Primary Discharge Point

<b>Type of Discharge</b>	Interim Primary Discharge point to temporary percolation area
<b>Unique Point Code</b>	SW2*
<b>Location</b>	Main Pumping Station, The Marsh
<b>Grid ref (6E, 6N)</b>	112218E, 033886N

\*This is the discharge point for the interim wastewater discharge arrangement, from the Main Pumping Station and percolation area at the Marsh, pending completion of the wastewater treatment plant.

As an interim arrangement, pending completion of the proposed Skibbereen Wastewater Treatment Plant, it is proposed to pump discharges arriving at the Main Pumping Station into the completed storm tank, which will temporarily act as a septic tank. Discharges from the storm/septic tank will overflow to a screening chamber, where motorised screens will be in operation. From the screening chamber the discharges flow to a temporary percolation area in the marsh, pending commissioning of the wastewater treatment plant. The location of the interim primary discharge point is shown on B3-09 in Attachment B.3.

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

Attachment included	Yes	No
	✓	

### B.4 Location of Secondary Discharge Point(s)

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

<b>Type of Discharge</b>	750 mm diameter pipe fitted with non-return flap valve
<b>Unique Point Code</b>	SW3
<b>Location</b>	Emergency Overflow from Inlet Manhole at Main Pumping Station
<b>Grid ref (6E, 6N)</b>	112228E, 033824N

<b>Type of Discharge</b>	375 mm diameter pipe
<b>Unique Point Code</b>	SW5
<b>Location</b>	Overflow from Coronea Pumping Station (Acts as Stormwater overflow and emergency overflow discharge point)
<b>Grid ref (6E, 6N)</b>	111569E, 034045N

<b>Type of Discharge</b>	225 mm diameter pipe fitted with non-return flap valve
<b>Unique Point Code</b>	SW6
<b>Location</b>	Glencurragh Road Emergency Overflow
<b>Grid ref (6E, 6N)</b>	111638E, 034323N

<b>Type of Discharge</b>	225 mm diameter pipe connected to existing culvert
<b>Unique Point Code</b>	SW7
<b>Location</b>	Marsh Road Emergency Overflow
<b>Grid ref (6E, 6N)</b>	111974E, 034385N

<b>Type of Discharge</b>	150 mm diameter pipe fitted with non-return flap valve
<b>Unique Point Code</b>	SW8
<b>Location</b>	Emergency Overflow from Mill Road Pumping Station
<b>Grid ref (6E, 6N)</b>	112436E, 034612N

<b>Type of Discharge</b>	150 mm diameter pipe fitted with non-return flap valve
<b>Unique Point Code</b>	SW9
<b>Location</b>	Emergency Overflow from Scour Holding Tank
<b>Grid ref (6E, 6N)</b>	111628E, 034024N

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

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

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

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

<b>Type of Discharge</b>	1000 mm diameter pipe fitted with non-return flap valve
<b>Unique Point Code</b>	SW4
<b>Location</b>	Overflow from Storm Tanks at Main Pumping Station
<b>Grid ref (6E, 6N)</b>	112239E, 033841N

<b>Type of Discharge</b>	375 mm diameter pipe
<b>Unique Point Code</b>	SW5
<b>Location</b>	Overflow from Coronea Pumping Station (Acts as Stormwater overflow and emergency overflow discharge point)
<b>Grid ref (6E, 6N)</b>	111569E, 034045N

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

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

## B.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.

<b>Name:</b>	Cork County Council
<b>Address:</b>	Courthouse
	Skibbereen
	Co. Cork
<b>Tel:</b>	(028) 21299
<b>Fax:</b>	(028) 21995
<b>e-mail:</b>	declan.groarke@corkcoco.ie

A copy of the planning permission granted in respect of Skibbereen Wastewater Treatment Plant and Outfall is included in Attachment B6.

The Department of Communications, Marine and Natural Resources issued a letter to Cork County Council in August 2005, approving the grant of a

Foreshore Licence for Skibbereen Sewerage Scheme. A copy of this letter is included in Attachment B.6.

The specific conditions of the licence have been agreed and Cork County Council is currently awaiting the issue of the Foreshore Licence proper. (Department of Communications, Marine and Natural Resources Reference: MS51/8/1231)

The EIS for Skibbereen Wastewater Treatment Works, which was completed in September 2004, is also included with this application.

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

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

<b>Local Authority Planning File Reference N<sup>o</sup>:</b>	PL04 .EF2013 (An Bord Pleanála Ref.)
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**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.

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

### B.7 Other Authorities

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

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

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

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

B.7 (ii) Health Services Executive Region

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

<b>Name:</b>	Health Services Executive South
<b>Address:</b>	Area Headquarters
	Hospital Grounds
	Skibbereen
<b>Tel:</b>	(028) 40400

<b>Fax:</b>	(028) 21006
<b>e-mail:</b>	info@hse.ie

**B.7 (iii) Other Relevant Water Services Authorities**

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

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

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

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

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

**B.8 Notices and Advertisements**

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

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

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

**B.9 (i) Population Equivalent of Agglomeration**

**TABLE B.9.1 POPULATION EQUIVALENT OF AGGLOMERATION**

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



<b>Population Equivalent</b>	<b>9,400</b>
<b>Data Compiled (Year)</b>	<b>2000</b>
<b>Method</b>	<b>Census</b>

In 2000, M.C.O'Sullivan Consulting Engineers re-examined earlier wastewater treatment plant pollution loadings to bring them up to date.

The population equivalent established under the 2,000 review was 2,925, which included the resident population within the Urban District Council (UDC), the schools, hospitals, hotels and guesthouses. An allowance of 1,000 p.e. was added for future light industry in the town, which was anticipated in light of the proposed sewerage scheme construction. A further 20% was added to account for overall scheme expansion, bringing the total Stage 1 population equivalent to 4,700.

Accordingly, the Stage 1 Wastewater Treatment Plant design is for 4,700 p.e. The design of the plant allows for duplication of the main elements of the plant to bring the capacity to 9,400 p.e. The rising main to the plant, the inlet works and outfall are designed to cater for the ultimate Stage 2 loading of 9,400 p.e.

#### **B.9 (ii) Pending Development**

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

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

A review of recent planning applications indicated that there are no major pending developments in the Skibbereen area. The planning applications reviewed were primarily for single dwelling houses, which lie within the agglomeration boundary. The population equivalent to be contributed to the wastewater treatment plant as a result of these planning permissions has already been included in the allowance of 20% for overall scheme expansion. Therefore, no further allowance is added to the plant design p.e. of 4,700 at this stage.

There are no major water using industries in Skibbereen. There are some light industries based on the Baltimore and Marsh Roads. However, the main sources of wastewater are domestic and commercial properties in the catchment area.

The Stage 1 treatment plant design is based on 4,700 p.e. Pending developments have been included in this p.e., therefore, they do not represent an extra hydraulic or organic load to the treatment plant. Should the design loading of the plant exceed 4,700 p.e. the design lends itself to the duplication of the main elements of the plant to bring the capacity to 9,400 p.e as required.

### B.9 (iii) FEES

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

Class of waste water discharge	Fee (in €)
	€25,000

Appropriate Fee Included	Yes	No
	✓	

### B.10 Capital Investment Programme

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

The most recent national Water Services Investment Programme lists the Skibbereen Sewerage Scheme for inclusion in the 2007 – 2009 WSIP. The Cork County page of the WSIP shows the estimated cost of the project as €20,000,000.

In November 2007, construction of the Skibbereen Sewerage Scheme, Collection System commenced. Prior to the commencement of the collection system construction, the existing sewerage network discharged directly to the River Ilen and Caol Stream at numerous locations. As part of the collection system contract, these discharges are to be collected in the new system, which will ultimately convey them to the proposed wastewater treatment plant.

The collection system contract consists of the following:-

- The construction of the following approximate lengths of new sewers and associated manholes:-

-	150 mm diameter pcc pipe	10 m
-	225 mm diameter pcc pipe	7,498 m
-	300 mm diameter pcc pipe	2,371 m
-	375 mm diameter pcc pipe	1,736 m
-	450 mm diameter pcc pipe	509 m
-	525 mm diameter pcc pipe	104 m
-	600 mm diameter pcc pipe	321 m
-	750 mm diameter pcc pipe	529 m
-	900 mm diameter pcc pipe	369 m
-	1,200 mm diameter pcc pipe	277 m
-	100 mm diameter DI pipe	306 m
-	200 mm diameter DI pipe	30 m
-	250 mm diameter DI pipe	66 m
-	300 mm diameter DI pipe	1,248 m
-	350 mm diameter DI pipe	284 m
-	1000 mm diameter DI pipe	58 m
-	Manholes	332 no.

- The construction of a major foul and storm pumping station and storm water holding tanks in the Marsh.
- The construction of submersible foul pumping station and storm water holding tank at Coronea.
- The construction of submersible foul pumping stations on Mill Road, Marsh Road and Glencurragh Road.
- The installation of service connections from properties to connect to the new sewage system.

From the Main Pumping Station, the sewage will be pumped forward to the proposed treatment plant.

The proposed treatment plant is to be constructed under a separate Design-Build-Operate contract. It was intended that the treatment plant would be ongoing at the same time as the collection system contract. At tender stage, the Contractors programme for the sewerage scheme contract reflected the requirement for sewage to be provided at the treatment plant approximately 11 months from the commencement of the contract.

However, the treatment plant contract has not yet received departmental approval to go to tender and will therefore not be ready to accept discharges from the Main Pumping Station by month 11 of the collection system contract. Interim measures are required to deal with the discharges from the system until such time as the treatment plant is constructed.

It is proposed to pump discharges arriving at the Main Pumping Station into the completed storm tank which will then act as a temporary septic tank. Discharges from the storm/septic tank will overflow to a screening chamber, where motorised screens will be in operation. From the screening chamber the discharges flow to a temporary percolation area in the marsh, pending commissioning of the wastewater treatment plant.

It is anticipated that the Main Pumping Station interim arrangement will be operational by August 2008, and may continue to operate as such for up to two years, pending completion of the treatment plant. The Collection System contract is currently on schedule and is due for completion in early 2009.

Attachment B10 contains the Cork County page of the WSIP, which shows the estimated cost of the project as €20,000,000.

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

Attachment included	Yes	No
	✓	

**B.11 Significant Correspondence**

Provide a summary of any correspondence resulting from a Section 63 notice issued by the Agency in relation to the waste water works under the

Environmental Protection Agency Acts, 1992 and 2003, as amended by Section 13 of Protection of the Environment Act, 2003.

The following is a summary of correspondence resulting from Section 63 notices issued by the Environmental Protection Agency to Cork County Council 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. The following summary is not repeated in Attachment B.11.

Item	Date	Ref.	Description
1	11/09/06	PAE2006/369	Letter from EPA to Cork County Council re: Serious Pollution in River in Skibbereen.
2	02/09/06	PAE2006/369	Letter from Cork County Council to EPA re: Serious Pollution in River in Skibbereen.
3	12/09/07	PAE2006/369	Letter from EPA to Cork County Council re: Wastewater Treatment in Skibbereen.
4	8/11/07	PAE2006/369	Letter from EPA to Cork County Council re: Wastewater Treatment in Skibbereen.

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

Attachment included	Yes	No
		✓

**B.12 Foreshore Act Licences.**

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

The Department of Communications, Marine and Natural Resources issued a letter to Cork County Council in August 2005, approving the grant of a Foreshore Licence for Skibbereen Sewerage Scheme.

The specific conditions of the licence have been agreed and Cork County Council is currently awaiting the issue of the Foreshore Licence proper.

Attachment B12 contains documentation relating to the Foreshore Licence, granted in respect of the discharges from the Skibbereen Sewerage Scheme.

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

Attachment included	Yes	No
	✓	

## SECTION C: INFRASTRUCTURE & OPERATION

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

### C.1 Operational Information Requirements

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

#### C.1.1 Storm Water Overflows

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

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

#### C.1.2 Pumping Stations

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

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

### C.1 Operational Information Requirements

Skibbereen Wastewater Treatment Plant is to be located on a North facing slope facing the River Ilen, in the townland of Coronea. The site is located approximately 700m from the N71 to the West of the town, to the east side of the Coronea cemetery. The location is relatively rural with the nearest residence being approximately 120m east of the site boundary. The area of the site is approximately 4 acres.

The Plant is to be constructed as a staged development. Stage 1 of the plant will have the hydraulic design capacity to treat wastewater discharges from up to 4,700 population equivalent (p.e.), and is to be designed and constructed with the construction of Stage 2 in mind. The design of the plant should be such that the capacity can be increased to 9400 p.e. by carrying out Stage 2 works.

It should be noted that the Design-Build-Operate Contract for the Wastewater Treatment Works has not yet reached Tender Stage. The information given below is based on the EIS for Skibbereen Wastewater Treatment Plant, which gives the indicative design/layout of the works.

The Stage 1 dry weather flow (DWF) for the plant is 1,081 m<sup>3</sup>/day based on 4,700 p.e. contributing 0.23 m<sup>3</sup>/head/day. This will be doubled to 2,162 m<sup>3</sup>/day for Stage 2.

In order to control water quality parameters in the River Ilen resultant from the proposed treated wastewater discharge, the tidal influence is to be taken into account. A tidal holding tank is to be incorporated in the treatment plant to ensure that effluent is released only on an ebb tide when the flow in the river channel is well above that, which is required to assimilate the proposed discharges.

In order to ensure adequate dispersion of the discharged effluent the proposed outfall will be located downstream of New Bridge. A tidal holding tank will be designed to hold 8 hours of 3 x DWF which for Stage 1 will require 1081m<sup>3</sup>. A second holding tank would be required as part of Stage 2. The outfall pipe is to be designed to empty the tidal holding tanks (Stage 2 capacity) as well as the full capacity of the pumping plant discharging to the treatment works over the defined 4 hour discharge period.

### Skibbereen Wastewater Treatment Plant Processes

The processes at the wastewater treatment plant are designed to produce an effluent to satisfy the requirements EC Directive 91/271/EEC concerning Urban Wastewater Treatment (SI 491 of 1994 as amended by SI 254 of 2001). The applicable effluent standards as defined in the Directive are shown in Table C1.2 below.

**Table C1.1: Minimum Effluent Standards based on SI 254 of 2001**

Parameter	Conc. (mg/l)	Minimum Percentage of Reduction
Biochemical Oxygen Demand (BOD)	25	70 – 90
Chemical Oxygen Demand (COD)	125	75
Suspended Solids	35	90

The indicative design for Skibbereen Wastewater Treatment Plant incorporates an aeration plant, which is ideally suited to achieve the levels of efficiency for BOD, COD and Suspended Solids removal outlined in the table above.

The EIS for Skibbereen Wastewater Treatment Plant suggests the following treatment elements at the plant: -

- Covered inlet works comprising
  - 6mm fine screen with screenings, removal, washing and compaction
  - Grit trap with grit removal, washing and compaction
  - Measurement flume
  - Air extraction from the covered spaces and its treatment in biological filters to remove foul odours

- Primary Settlement comprising
  - 2No. 8m diameter radial flow primary settlement tanks
  - Tanks to be covered and the air extracted and treated in biological filters for odour removal.
  -
- Aeration Basin based on a conventional activated sludge process using a plug-flow system. Aeration achieved using fine bubble diffused air system.
- Secondary Settlement / Clarification
- Sludge Thickening, Dewatering & Removal. Sludge thickened in a covered tank and the air extracted and odour removed.
- Tidal Holding and Effluent Discharge

To comply with the EIS the contractor shall provide an odour control system at all the potential sources of odour. It is also intended to surround the treatment plant with trees and shrubs, which will cut down on aerosol transmission and so further protect the surrounding environment.

When detailed design is available, an air dispersion modelling assessment of odour releases from the facility shall be undertaken to ensure that the facility, as designed, will meet the odour compliance criteria. In the event that the modelling exercise indicates that compliance will not be achieved under the proposed design, a cost-effective abatement strategy will be formulated for the facility to ensure the criterion is achieved. The standard laid down should be within the confines of the Best Available Technology (BAT) principle.

The sludge produced at the wastewater treatment plant will be thickened and dewatered in the sludge treatment process at the site. This sludge treatment involves thickening of the raw sludge to 3% - 4% dry solid content followed by dewatering in the dewatering house to a minimum solids content of 16% and a maximum solids content of 20%.

To ensure that the discharged effluent is properly dispersed in the receiving water body, the effluent will be discharged over a 4-hour period on the ebbing tide. Therefore 12 hours flow through the treatment plant will be discharged over a 4-hour period twice daily. To enable this, a tidal holding tank is to be constructed capable of storing 8 hours of maximum flow through the plant. Allowing for short term events where the flow will exceed DWF, such as storm water, natural variations in water usage etc., the maximum daily flow through the treatment plant is taken to be 3 x DWF.

The tidal holding tank will be emptied during the 4 hour discharge period by a 400mmØ outfall pipe which will run in a northerly direction across the Deelish Road to the River Ilen, a distance of approximately 170m. It is proposed to locate this pipeline along an existing fenceline to minimise the impact on the agricultural land. The point of discharge will be mid channel to ensure that it is under the water level at all times.

Long term monitoring of the Ilen River and the final effluent from the treatment plant will be undertaken to determine compliance or otherwise with the quality objectives set for the scheme.

In the indicative design, virtually all of the works in the plant will be at or below ground level and will, therefore, not significantly intrude on the skyline. The

control building and inlet works building in the plant will be single storey. They will be residential or agricultural in scale and character and visually unobtrusive. The sludge dewatering building is agricultural in scale and is the largest building on the site. The cladding and colouring of this building will be appropriate to the area so as to minimise visual impacts.

Various other mitigation measures are recommended in the EIS including:

- Additional shrub and small tree planting will be carried out inside the proposed plant where necessary to break up any straight or geometrical lines which might be eye catching. Surplus excavated material should be mounded around the perimeter of the site to form irregular banks that will give additional screening;
- The entrance to the proposed plant should be located between the two entrances to the cemetery as it is on the indicative design, to minimise the view into the plant from the two central pathways through the cemetery;
- The materials proposed for the control house and the dewatering house will not be obtrusive. The buildings should be clustered informally rather than linear to resemble a traditional agricultural complex;
- Care will be taken to avoid any reflective surfaces throughout the plant. Lighting should be low level down lighters with columns finished in matt black;
- The design considered is indicative only and the final design should comply with the Cork Rural Design guide.

### C.1.1 Stormwater Overflows

As part of the Skibbereen Sewerage Scheme, Collection System contract, pumping stations are under construction at the following locations: -

- Main Pumping Station at The Marsh
- Coronea Pumping Station, Coronea

Both pumping stations include storm water overflows, which comprise storm holding tanks, overflow screens, submersible storm pumps pumping to the storm holding tanks and overflow pipes discharging to the River Ilen.

The overflows, which are under construction as part of the Skibbereen Sewerage Scheme, Collection System contract, were designed in accordance with the following guidelines:

- Urban Wastewater Treatment Directive (91/271/EEC)  
Procedures and Criteria in Relation to Storm Water Overflows
- Foundation for Water Research: Urban Pollution Management  
Guide to the Design of Combined Sewer Overflow Structures (FR0488 -  
November 1994)

In accordance with the UWWT Directive, the storm water overflow from the Main Pumping Station is classified as an overflow of low significance.

A dilution factor of greater than 17 is obtainable, therefore in accordance with the UWWT Directive, no storage is required at the overflow. However, to achieve



good solids separation and to cater for the effects of the first foul flush in a storm event, storage of 10 DWF (Future) for 1 hour is provided.

The Main Pumping Station storm water overflow discharges to the River Ilen upstream of a stretch of river, which is used by Skibbereen Rowing Club. The river can therefore be classified as a moderate amenity in accordance with the UPM guidelines. For this reason, 6mm screening will be provided at the storm water overflow from the Main Pumping Station. Based on general rainfall data and similar studies, it is estimated that the number of spills per year will be in the region of 20 to 30. The stormwater overflow from the Main Pumping Station is referred to as SW4 throughout this application.

In accordance with the UWWT Directive, the storm water overflow from the Coronea Pumping Station is also classified as an overflow of low significance.

A dilution factor of greater than 125 is obtainable, therefore again in accordance with the UWWT Directive, no storage is required at this overflow. However, to achieve good solids separation and to cater for the effects of the first foul flush in a storm event, storage of 10 DWF (Future) for 1 hour is provided.

There is a popular walkway along riverbank where it is proposed to discharge the storm water overflow from Coronea Pumping Station. The river can therefore be classified as a moderate amenity in accordance with the UPM guidelines. For this reason, 6mm screening will be provided at the storm water overflow from Coronea Pumping Station. It is estimated that the number of spills will be in the region of 5 times per year.

The stormwater overflow from Coronea Pumping Station is referred to as SW4 throughout this application. The overflow also acts as an emergency overflow from the pumping station.

## **C.1.2 Pumping Stations**

### **C.1.2.1 Main Pumping Station**

The Main Pumping Station at the Marsh is currently under construction as part of the Skibbereen Sewerage Scheme, Collection System contract. The pumping station consists of two submersible foul pumps (with provision for a third one), two storm holding tanks, an overflow screen and three submersible storm pumps pumping to the storm holding tank. The foul pumps will pump discharges from the pumping station via a 300 mm diameter rising main to a header manhole at the treatment plant Details for the pumping station are shown on Drg. Nos. 401 to 410, which are taken from the contract for Skibbereen Sewerage Scheme, Collection System.

#### Foul Pumps

The foul pumping system is designed as a 3-pump system with a total pumping capacity of 75 l/s when 2 no. pumps are in parallel operation and the third on standby. The standby pump will be called in automatically when one of the pumps fails to start, trips during operation or is removed for maintenance.

Under the Collection System contract, only 2 no. foul pumps are to be installed. Provision has been made for a third pump of same size and model to be supplied and installed at a later stage under a separate contract. An additional

section is included on the control panel to accommodate the controls for the future pump. The control system is designed for duty/duty assist/standby operation but will be configured for duty/standby operation.

An ultrasonic level meter in the foul pump sump will control pump operation. The duty pump will start at the cut-in level and stop at the cut-out level.

Under severe storm conditions, it is possible that the water level in the inlet channel and foul pump sump can rise up to the emergency overflow level. This condition was taken into account for pump selection to ensure that the pumps can operate satisfactorily over the entire suction head range.

A low suction lock-out signal is to be provided, which will inhibit pumps from operation below a set-point in either "Manual" or "Auto" mode.

The duty and standby pumps will be remotely selected via the SCADA system. Provision will be made to select the appropriate status of each pump locally at the MCC panel with the local selection status transmitted back to the SCADA system.

Each pump motor control section will have "Auto", "Off", "Manual" select with the following functions:-

- Auto Control available to SCADA PLC.
- Off Pump out of service.
- Manual Control available via manual pushbutton.

### Storm Pumps

The storm pumps will be capable of pumping 1,900 l/s when 2 no. pumps are in operation and the third on standby. The standby pump will be called in automatically when one of the pumps fails to start, trips during operation or is removed for maintenance.

Pump operation will be controlled by an ultrasonic level meter in the storm pump sump. The duty and duty/assist pumps will start successively at the cut-in levels. Both pumps will continue to operate down to the cut-out level. The level control system supplied will be capable of adjustment to vary the control levels as required.

If the water level in the inlet channel drops below the overflow level but the storm water sump is only partially filled, then the duty storm pump will start automatically on time delay to drain the sump to the cut-out level.

Under severe storm conditions, it is possible that the incoming storm water can overflow over the emergency overflow weir. The pumps shall be allowed to operate under flooded conditions but when the emergency overflow level is exceeded the pumps shall be stopped. The pumps shall resume operation when the level in the inlet channel drops below the emergency overflow weir level. The emergency overflow conditions at the inlet channel were taken into account to ensure that the pump can operate satisfactorily over the entire suction head range.

The pumps will be linked to the ultrasonic level meter in the storm water storage tank and shut down automatically if the water in the tank exceeds TWL.

A low suction lock-out signal is to be provided, which will inhibit pumps from operation below a set-point in either "Manual" or "Auto" mode.

The duty, duty assist and standby pumps will be remotely selected via the SCADA system. Provision will be made to select the appropriate status of each pump locally at the MCC panel with the local selection status transmitted back to the SCADA system.

Each pump motor control section will have "Auto", "Off", "Manual" select with the following functions:-

- Auto Control available to SCADA PLC.
- Off Pump out of service.
- Manual Control available via manual pushbutton.

### Storm Drainage Pumps

The storm drainage pump will be used to empty the storm wet well when the storm pumps cease operation. The pump will be capable of pumping 17 l/s of storm water from the storm wet well to the storm water balancing tank, and will be called in automatically when the storm conditions subside and the level in the storm wet well drops to the cut-out level of storm pumps. The pump control levels will be adjustable via the ultrasonic level meter in the storm wet well.

The drainage pump will not be allowed to operate when the storm pumps are in operation or the storm water balancing tank is full. If the water level in the storm sump rises above the cut-out level of the storm pumps but remains below the cut in level of the storm pump, then the drainage pump will be activated automatically via timer.

A low suction lock-out signal will be provided, which will inhibit pumps from operation below a set-point in either "Manual" or "Auto" mode.

Provision will be made to select the appropriate status of the pump locally at the MCC panel with the local selection status transmitted back to the SCADA system.

The motor control section will have "Auto", "Off", "Manual" select with the following functions:-

- Auto Control available to SCADA PLC.
- Off Pump out of service.
- Manual Control available via manual pushbutton.

### Motorised Valves - Return from Storm Holding Tanks

Following overflow storm conditions, the contents of the storm water balancing tank will be returned to the foul pump sump via a 200 mm drainage system controlled by electrically actuated control valves.

Operation of the actuated valves will be linked to the ultrasonic level meters in the storm holding tanks, inlet channel and foul wet well. Under normal operating conditions the control valves of the storm water return system will be closed. These will be activated when the level in the storm holding tanks rises

above a preset level. If the water in the inlet channel exceeds the overflow level, the motorised valves will close automatically and re-open when the level drops below this level.

Each control valve will be controlled by an ultrasonic level meter in the corresponding tank. The electric actuators will be controlled automatically by the plant PLC. The status of the valves and the water level in each filter will be displayed in the SCADA system.

#### Emergency Overflow to River

The emergency overflow to the river will be provided with a baffle plate to allow liquid to overflow if all pumps, both foul and storm are beaten. No controls are required for the screen as this is a static system. A level/flow sensor will record and log each overflow event.

The emergency overflow from the inlet manhole at the Main Pumping Station is referred to as SW3 throughout this application.

#### Storm Tank Flushing System

The control of the flushing system is designed so that each tank will be automatically flushed once drained down and reset until the next drain down event occurs. This will be achieved via individual sets of probes located at the drain end of each tank.

When the level of the liquid in the balancing tank drops below the top of the drainage sump level in each compartment, a solenoid valve will open which will allow each bucket to fill and discharge its flushing water to the tank floor. The solenoid valve will shut off when the buckets are full and remain closed until the next cycle of inflow of storm water into the tanks.

The system will be set to provide one flushing cycle per tank after drain down. The filling time and number of flushing cycles will be adjustable from the SCADA system.

#### Storm Wet Well Flushing System

The flushing system will be controlled by the ultrasonic level meter in the storm wet well. The flushing system will be activated automatically when the level in the storm wet well drops to the cut-out level of the drainage pump. The pumps will be configured to operate as duty and standby with automatic changeover.

The distribution system will comprise four branches each fitted with a solenoid control valve. Each branch will run for 60 seconds followed by a pause for 60 seconds before switching to the next section. Only one branch will be in operation at any time. When the washing cycle is completed, the drainage pump will empty the wash water into the storm tanks.

A low suction lock-out signal will be provided, which will inhibit pumps from operation if the level in the feed tank drops below a set-point in either "Manual" or "Auto" mode.

Provision will be made to select the appropriate status of the pump locally at the MCC panel with the local selection status transmitted back to the SCADA system.

The motor control section will have "Auto", "Off", "Manual" select with the following functions:-

- Auto Control available to SCADA PLC.
- Off Pump out of service.
- Manual Control available via manual pushbutton.

#### Mechanical Overflow Screen

The screen will operate on level control provided by ultra sonic level sensor located in the foul pump area. When the level of liquid in the foul sump rises to 50 mm below overflow level, a signal from a probe will start the mechanical screen. This screen will remain in operation until the storm pumps cut out.

#### Standby Generator – Main Pumping Station

In the event of a power failure, a standby generator will be provided to come on line automatically and provide standby power for the running of the following plant at the pumping station:

- Foul Pumps (2 no. duty).
- Storm Pumps (2 no. duty).
- Rotating Bar Screen.
- Overflow Screen.
- Ventilation and Odour Control Equipment.
- General Services

The generator set will have a continuous rated output sufficient to supply the essential plant at 400 V, 3-phase, 50 Hz on a 4-wire system with a power factor of 0.8 minimum. The set will include diesel engine, alternator, control panel, starting equipment and all necessary ancillary equipment including main diesel oil storage tank, oil transfer system, acoustic hood, air inlet louvres and attenuator, air outlet louvres and attenuator, exhaust, silencer, etc.

The electric starting system will be complete with the high capacity, heavy duty, lead acid starting batteries and heavy duty interconnecting cables with terminations. The batteries will be triple charged from mains statics battery charger to maintain charging of the batteries while the plant is stationary.

The complete exhaust system will be manufactured throughout in stainless steel and it shall include a residential capacity exhaust silencer. The exhaust will be terminated externally to the generator room. The machines will be supplied with fully automatic voltage regulation.

The control panel will include all necessary switchgear, fuses, etc., and will include the following instrumentation – volt meter, frequency/speed meter, ammeter, hours run meter, kilowatt meter, power factor indicator, battery charge ammeter.

Indicator lamps will be provided to show when and whether the mains or standby is on load.

The generating set will be provided with on/off/auto test switches. An alarm light and audible alarm will be incorporated in the control panel to operate in the event of fault protection shutdown occurring. Automatic shutdown of the engine should be initiated following critical faults, including fail to start, low oil pressure, high engine/water temperature. A fault should result in a specific indicator lamp being illuminated.

The generating set will have an automatic mains failure control panel linked to the alternator. The engine starting sequence should cut in after a short period of mains failure. Upon restoration of the mains, the engine should continue to run and supply the load for a further adjustable time period. Mains failure signal will be indicated if the voltage coming into the plant on one or more phases steps below 80% of normal voltage.

The generating set will be supplied with a thermostatically controlled engine heater to aid cold starting, which will be automatically disconnected when the engine is running.

The Contractor will provide a recommended part kit for engine, alternator and panel pack to permit long-term storage on the site and suitable for 2,500 hours operating period.

#### **C.1.2.2 Coronea Pumping Station**

As part of the Skibbereen Sewerage Scheme Collection System contract, a submersible pumping station is under construction at Coronea. The pumping station consists of two submersible foul pumps, two storm holding cells, an overflow screen and two submersible storm pumps pumping to an overflow chamber.

Construction details for the pumping station are shown on Drawing Nos. 69 to 71, which are taken from the contract for Skibbereen Sewerage Scheme, Collection System.

2 Nr. foul pumps will be configured to operate as duty and standby. Each will be capable of pumping 10.6 l/s when one pump is in operation and the other on standby, and shall be suitable for pumping unscreened sewage containing long fibrous material and grit particles without clogging. The foul discharges from the pumping station will be pumped via a 100 mm diameter rising main to a header manhole on Bridge Street, before discharging to a gravity sewer to the Main Pumping Station.

Manual pump selection will be made available locally at the control panel with the local selection status transmitted back to the main pumping station control room and telemetry system. The pumps will be controlled by an ultrasonic level sensor in the foul wet well.

The control system will include an electrode type level sensor or float switch in the sump to provide a low level lock-out signal, which shall inhibit pumps from operation below a set-point in either "Manual" or "Auto" mode.

## Storm Pumps

The storm pumps will be configured to operate as duty and duty assist. 2 Nr. duty and duty/assist, wet-mounted submersible pumps will each be capable of pumping 105 lit/sec of storm water to the overflow chamber. Each pump shall be capable of pumping alone or in parallel.

The storm pumps will pump stormwater to the overflow chamber when the level in the pump sump/storm tank exceeds the overflow level.

Manual pump selection will be made available locally at the MCC panel with the local selection status transmitted back to the main pumping station control room. The pumps will be controlled by an ultrasonic level sensor in the foul wet well.

The control system will include an electrode type level sensor or float switch in the sump to provide a low level lock-out signal, which shall inhibit pumps from operation below a set-point in either "Manual" or "Auto" mode.

Construction details for the pumping station are shown on Drawing Nos. 69 to 71, which are taken from the contract for Skibbereen Sewerage Scheme, Collection System.

## Mechanical Overflow Screen

When the level in the foul sump rises to 50 mm below overflow level, a signal from an ultrasonic level meter in the foul sump will start the mechanical screen. The screen will remain in operation until the storm pumps cut out.

Storm flows will pass to the overflow chamber when the level in the storm water storage tank exceeds the overflow level. In addition to functioning as a storm water overflow, the overflow from the storm tank may also activate as an emergency overflow following mechanical failure of the pumping station.

The stormwater overflow from Coronea Pumping Station is referred to as SW5 throughout this application. It will also act as an emergency overflow from the pumping station should mechanical failure occur.

### **C.1.2.3 Marsh Road, Mill Road and Glencurragh Road Pumping Stations**

As part of the Skibbereen Sewerage Scheme, Collection System contract, submersible foul pumping stations have been constructed at the following locations:

- Marsh Road (capable of pumping 14 l/s)
- Mill Road (capable of pumping 10.5 l/s)
- Glencurragh Road (capable of pumping 17.9 l/s)

At the pumping stations, each pumpset will be configured to operate as duty and standby. At each location, 2 no. wet mounted submersible pumps will be capable of pumping 14 l/s, 10.5 l/s and 17.9 l/s respectively, when one pump is in operation and the other on standby. The pumps shall be suitable for pumping

unscreened sewage containing long fibrous material and grit particles without clogging.

Manual pump selection shall be made available locally at each MCC panel with the local selection status transmitted back to the main pumping station control room.

Each pumpset shall be controlled by an ultrasonic level sensor in the wet well. The cut-out level will depend on pump selection and will need to be confirmed with the pump manufacturer.

The control system at each pumping station shall include an electrode type level sensor or float switch in the sump to provide a low level lock-out signal, which shall inhibit pumps from operation below a set-point in either "Manual" or "Auto" mode.

Construction details for the pumping stations are shown on Drawing Nos. 65 to 68, which are taken from the contract for Skibbereen Sewerage Scheme, Collection System.

For the wet mounted submersible pumps at Glencurragh Road, Mill Road and Marsh Road pumping stations, the impellers are the free flow type, capable of passing unscreened sewage with a free passage of at least 80 mm diameter.

Emergency overflows have been constructed from each of the three pumping stations. The overflows may activate following mechanical failure of the pumping stations.

The following references are used throughout this application for the emergency overflows from the pumping stations: -

- Glencurragh Road Emergency Overflow SW6
- Marsh Road Emergency Overflow SW7
- Mill Road Emergency Overflow SW8

#### **C.1.2.4 Mobile Power Generating Set**

As part of the Collection System contract, the Contractor is required to provide 1 Nr. mobile power generating set to be used in the event of a power failure in any of the pumping stations at Coronea, Marsh Road, Mill Road or Glencurragh Road.

The generator set shall be sized to the highest load which will occur at Coronea pumping station during storm overflow conditions. The generator set shall have a continuous rated output sufficient to supply the following plant at Coronea pumping station at 400 V, 3-phase, 50 Hz on a 4-wire system with a power factor of 0.8 minimum:-

- Foul Pumps (1 no. duty).
- Storm Pumps (1 no. duty).
- Overflow Screen.
- Instrumentation.



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

Attachment included	Yes	No
	✓	

**C.2 Outfall Design and Construction**

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

**C.2.1 Primary Discharge Point, SW1**

The primary discharge point, SW1, from the proposed Skibbereen Wastewater Treatment Plant is to be constructed in accordance with the EIS. The proposed treatment plant and outfall are to be constructed under a separate Design-Build-Operate contract, which has not yet been tendered.

The outfall arrangement recommended in the EIS is for discharge to the Ilen Estuary on an ebb tide only, via a holding tank controlled by a lunar penstock.

As part of the EIS for the treatment plant, Irish Hydrodata Ltd. has studied in detail the effects of this discharge on the Ilen Estuary. The findings of their study, which are discussed in Section 5.9 of the EIS, limit the discharge of effluent to a 4 hour period on the ebb tide, i.e. High Water plus 0.5 hours to High Water plus 4.5 hours.

The nett effect is that wherever the treatment plant is located, the point of discharge to the estuary must be either at or downstream of the location monitored by Irish Hydrodata Ltd. Accordingly a tidal holding tank will be required to hold 8 hours of 3 x DWF, which for Stage 1 will require 1081m<sup>3</sup>. A second holding tank would be required as part of Stage 2. The outfall pipe is to be designed to empty the tidal holding tank (Stage 2 capacity) as well as the full capacity of the pumping plant discharging to the treatment works over the defined 4 hour discharge period.

The outfall pipe will run in a northerly direction across the Deelish Road to the river, a distance of approximately 170m. It is proposed to locate this pipeline along the existing fenceline to minimise the impact on the agricultural land. At the point of discharge at mid channel the pipe will always be below water level. The primary discharge point to the River Ilen is referred to as SW1, and it is to be located at the 110589E, 033838N.

### **C.2.2 Interim Discharge Point, SW2**

At tender stage, the Contractors programme for the Sewerage Scheme – Collection System contract reflected the requirement for sewage to be provided at the treatment plant approximately 11 months from the commencement of the contract.

However, the treatment plant contract has not yet reached tender stage and will therefore not be ready to accept discharges from the Main Pumping Station by month 11 of the collection system contract. Interim measures are required to deal with the discharges from the system until such time as the treatment plant is constructed.

It is proposed to pump discharges arriving at the Main Pumping Station into the completed storm tank which will then act as a temporary septic tank. Discharges from the storm/septic tank will overflow to a screening chamber, where motorised screens will be in operation. From the screening chamber the discharges flow to a temporary percolation area in the Marsh, pending commissioning of the wastewater treatment plant. The interim primary discharge point to the percolation area is referred to as SW2, and it is located at the 112218E, 033886N.

The percolation trench consists of 2 No. 300mm diameter perforated pipes laid in separate trenches. Both pipes are 300 lin.m in length and are laid level at an invert of +1.35m OD, surrounded with 20mm clean stone. The pipes are laid in a north easterly direction along the river bank from Mh. P1, which is shown on Drg. No. 401A in Attachment C.2. The trenches are approximately 2m apart.

A drawing showing the interim pumping arrangement at the pumping station is included in Attachment C.2. Drg. No. 401A is taken from the Skibbereen Sewerage Scheme, Collection System Contract.

### **C.2.3 Secondary Discharge Point, SW3**

There is an emergency overflow to the river from the inlet manhole to the Main Pumping Station, which is under construction as part of the Skibbereen Sewerage Scheme, Collection System contract. This overflow will be provided with a baffle plate to allow liquid to overflow if all pumps, both foul and storm are beaten. No controls are required for the screen as this is a static system. A level/flow sensor will record and log each overflow event.

The secondary discharge point to the River Ilen is referred to as SW3, and it is located at the 112227E, 033824N.

The construction details for the outfall structure are shown on Drg. No. C2-22.

### **C.2.4 Secondary Discharge Point, SW5**

As part of the Collection System contract, a pumping station is also under construction at Coronea. The submersible pumping station includes two storm holding cells, two submersible foul pumps, an overflow screen and two submersible storm pumps pumping to an overflow chamber.

When the level in the foul sump rises to 50 mm below overflow level, a signal from an ultrasonic level meter in the foul sump will start a mechanical screen, which will remain in operation until the storm pumps cut out.

Storm flows will pass to the overflow chamber when the level in the storm water storage tank/pump sump exceeds the overflow level. In addition to functioning as a storm water overflow, the overflow from the storm tank may also activate as an emergency overflow if all pumps, both foul and storm, are beaten.

The secondary discharge point to the River Ilen is referred to as SW5, and it is located at the 111569E, 034045N.

The construction details for the outfall structure are shown on Drg. No. C2-22.

#### **C.2.5 Secondary Discharge Point, SW6**

A submersible foul pumping station has been constructed at Glencurragh Road as part of the Skibbereen Sewerage Scheme, Collection System contract. The overflow may activate following mechanical failure at the pumping station.

The emergency overflow is located approximately 75m upstream of the pumping station. It is a high level overflow pipe from Mh. 6303 on Glencurragh Road. The 225 mm diameter overflow pipe, which is 7.5m in length, discharges to a stream locally.

The secondary discharge point to the stream is referred to as SW6, and it is located at the 111637E, 034323N.

The construction details for the outfall structure are shown on Drg. No. C2-22.

#### **C.2.6 Secondary Discharge Point, SW7**

A submersible foul pumping station has been constructed at Marsh Road as part of the Skibbereen Sewerage Scheme, Collection System contract. The overflow may activate following mechanical failure at the pumping station.

The emergency overflow is located approximately 132m upstream of the pumping station. It is a high level overflow pipe from Mh. 9401 on Marsh Road. The 225 mm diameter overflow pipe, which is 30m in length, discharges to a stream culvert locally.

The secondary discharge point to the stream culvert is referred to as SW7, and it is located at the 111974E, 034385N.

The construction details for the outfall structure are shown on Drg. No. C2-22.

#### **C.2.7 Secondary Discharge Point, SW8**

A submersible foul pumping station has been constructed at Mill Road as part of the Skibbereen Sewerage Scheme, Collection System contract. The overflow may activate following mechanical failure at the pumping station.

The emergency overflow is a high level overflow pipe from the pumping station. The 150 mm diameter overflow pipe, which is 3.5m in length, discharges to a stream locally.

The secondary discharge point to the stream is referred to as SW8, and it is located at the 112436E, 034612N.

The construction details for the outfall structure are shown on Drg. No. C2-22.

### **C.2.8 Secondary Discharge Point, SW9**

A scour valve and hatchbox chamber (Mh. 11346004) have been constructed on the 300mm diameter rising main from the Main Pumping Station to the treatment plant. The chamber is located on the southern bank of the river at a depth greater than 4 m, as shown on Drg. No. B4-11 in Attachment B4.

A scour holding chamber, Mh. 11346005, has also been constructed on the river bank, at the location shown on Drg. No. B4-11. There is a high level emergency from the scour holding tank to the River Ilen. Details of the scour valve chamber and emergency overflow line are shown on Drg. No. 75 in Attachment C.2. The construction drawing is a copy of the Skibbereen Sewerage Scheme, Collection System drawing.

The construction details for the outfall structure are shown on Drg. No. C2-22.

### **C.2.9 Stormwater Overflow Discharge Points, SW4 and SW5**

Both the Main Pumping Station at The Marsh and Coronea Pumping Station include storm water overflows, which comprise storm holding tanks, overflow screens, submersible storm pumps pumping to the storm holding tanks and overflow pipes discharging to the River Ilen.

The overflows were designed in accordance with the following guidelines:

- Urban Wastewater Treatment Directive (91/271/EEC) Procedures and Criteria in Relation to Storm Water Overflows
- Foundation for Water Research: Urban Pollution Management Guide to the Design of Combined Sewer Overflow Structures (FR0488 - November 1994)

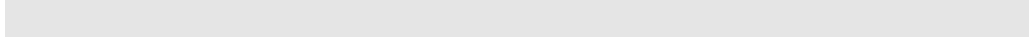
Based on general rainfall data and similar studies, it is estimated that the number of spills per year from the Main Pumping Station Stormwater Overflow will be in the region of 20 to 30.

Based on general rainfall data and similar studies, it is estimated that the number of spills from Coronea Pumping Station Stormwater Overflow will be in the region of 5 per year.

The construction details for the outfall structures are shown on Drg. No. C2-22.

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

Attachment included	Yes	No
	✓	



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**SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT**

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

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

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

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

**D.1 Discharges to Surface Waters**

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

Where monitoring information is available for the influent to the plant this data should also be provided in response to Section D.1.

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

Attachment included	Yes	No
	✓	

## D.2 Tabular Data on Discharge Points

Applicants should submit the following information for each discharge point:

**Table D.2:**

PT_CD	PT_TYPE	LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING
Point Code Provide label ID's	Point Type (e.g., Primary/Secondary/Storm Water Overflow)	Local Authority Name (e.g., Donegal County Council)	Receiving Water Body Type (e.g., River, Lake, Groundwater, Transitional, Coastal)	Receiving Water Body Name (e.g., River Suir)	Protected Area Type (e.g., SAC, candidate SAC, NHA, SPA etc.)	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference

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

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## SECTION E: MONITORING

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

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

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

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

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

### E.2. Monitoring and Sampling Points

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

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

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

It is likely that under the Employers Requirements for Operation & Maintenance of the Works for Skibbreen Wastewater Treatment Plant, the Contractor will be obliged to implement in full, the requirements of a 'Performance Management System'.

In providing this service, the Contractor would monitor the wastewater treatment plant assets and operations, which would include undertaking sampling, monitoring and analysis of the wastewater and sludge.

Long term monitoring of the Ilan River and the final effluent from the treatment plant will also be undertaken to determine compliance or otherwise with the quality objectives set for the scheme.

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

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

Attachment included	Yes	No
		✓



### E.3. Tabular data on Monitoring and Sampling Points

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

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

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

### E.4 Sampling Data

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

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

**Attachment E.4** should contain any supporting information.

Attachment included	Yes	No
		✓

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

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

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

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

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

- Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.
- Details of all monitoring of the receiving water should be supplied via the following web based link: [http://68.137.160.73/epa\\_wwd\\_licensing/](http://68.137.160.73/epa_wwd_licensing/). Tables F.1(i)(a) & (b) should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables F.1(i)(a) & (b). Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.
- For discharges from secondary discharge points Tables F.1(ii)(a) & (b) should be completed. Furthermore, provide summary details and an assessment of the impacts of any existing or proposed emissions on the surface water or ground (aquifers, soils, sub-soils and rock environment), including any impact on environmental media other than those into which the emissions are to be made.
- Provide details of the extent and type of ground emissions at the works. For larger discharges to groundwaters, e.g., from Integrated Constructed Wetlands, large scale percolation areas, etc., a comprehensive report must be completed which should include, inter alia, topography, meteorological data, water quality, geology, hydrology, and hydrogeology. The latter must in particular present the aquifer classification and vulnerability. The Geological Survey of Ireland Groundwater Protection Scheme Dept of the Environment and Local Government, Geological Survey of Ireland, EPA (1999) methodology should be used for any such classification. This report should also identify all surface water bodies and water wells that may be at risk as a result of the ground discharge.

- Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Submit a copy of the most recent water quality management plan or catchment management plan in place for the receiving water body. Give details of any designation under any Council Directive or Regulations that apply in relation to the receiving water.
- Provide a statement as to whether or not emissions of main polluting substances (as defined in the *Dangerous Substances Regulations S.I. No. 12 of 2001*) to water are likely to impair the environment.
- In circumstances where water abstraction points exist downstream of any discharge describe measures to be undertaken to ensure that discharges from the waste water works will not have a significant effect on faecal coliform, salmonella and protozoan pathogen numbers, e.g., *Cryptosporidium* and *Giardia*, in the receiving water environment.
- Indicate whether or not emissions from the agglomeration or any plant, methods, processes, operating procedures or other factors which affect such emissions are likely to have a significant effect on –
  - (a) a site (until the adoption, in respect of the site, of a decision by the European Commission under Article 21 of Council Directive 92/43/EEC for the purposes of the third paragraph of Article 4(2) of that Directive) –
    - (i) notified for the purposes of Regulation 4 of the Natural Habitats Regulations, subject to any amendments made to it by virtue of Regulation 5 of those Regulations,
    - (ii) details of which have been transmitted to the Commission in accordance with Regulation 5(4) of the Natural Habitats Regulations, or
    - (iii) added by virtue of Regulation 6 of the Natural Habitats Regulations to the list transmitted to the Commission in accordance with Regulation 5(4) of those Regulations,
  - (b) a site adopted by the European Commission as a site of Community importance for the purposes of Article 4(2) of Council Directive 92/43/EEC<sup>1</sup> 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<sup>2</sup>;

<sup>1</sup>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)

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

- Describe, where appropriate, measures for minimising pollution over long distances or in the territory of other states.
- This section should also contain full details of any modelling of discharges from the agglomeration. Full details of the assessment and any other relevant information on the receiving environment should be submitted as **Attachment F.1**.

The following table indicates the sections of the EIS which relate to the existing environment and the impact of the discharges.

<b>Impact Assessment</b>	<b>Relevant Section of EIS</b>
Assessment of Impacts on existing environment	Section 5
Description of existing environment	Section 5
Sites of European Importance - Flora & Fauna	Section 5.8
Sites of European Importance - Birds	Section 5.8
Natural Habitats	Section 5.8
Special Area of Conservation	Not Applicable
Measures for Minimising Pollution	Section 5
Modelling of Discharges	Section 5.9

The construction of the Wastewater Treatment plant has not yet taken place, therefore monitoring of the discharges from the primary discharge point is not being carried out yet. For this reason, the entries in Tables F.1(i)(a), F.1(i)(b) are shown as not applicable.

The secondary discharge points have only recently been constructed, and no monitoring of the discharges from these discharge points has been carried out to date. For this reason, the entries in F.1(ii)(a) and F.1(ii)(b) are shown as not applicable.

The River Ilen is not a designated Bathing Water under the Bathing Water Regulations, S.I. 155 of 1992. However, the location of Skibbereen Rowing Club, approximately 1.7 km downstream of the discharge point suggests that the river is used as a recreational facility.

The River Ilen is not a designated Shellfish area under the Shellfish Waters Regulations, S.I.200 of 1994. However, Roaringwater Bay, into which the River Ilen ultimately flows is designated under these regulations.

The River Ilen is not designated a Salmonid Water under Salmonid Waater Regulations, S.I. 293 of 1988. However, it is considered to be an important fishery.

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 of River Basin Districts or management units.

The River Ilen is included in the South Western River Basin District (SWRBD). The overall objectives of the SWRBD project include the following:

- Strengthen compliance with EU Directives and national legislation

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

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

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

The SWRBD have yet to set water quality standards for the River Ilen under a water quality or catchment management plan. The River Basin Management System currently being developed will include a programme of measures and a River Basin Management Strategy, designed to achieve at least good status for all waters by 2015, and to maintain high status where it exists. Therefore, under the Water Framework Directive, discharges from Skibbereen Wastewater Treatment Plant cannot cause deterioration in water quality. The water quality in the River Ilen is currently classified as being of 'Good Status'.

At present there is no treatment of wastewater in Skibbereen, and until recently, untreated wastewater discharged directly into the river through a number of outfalls.

Testing of the water, the results of which can be seen in Table 5.4 of the EIS, shows the water quality to be relatively good. However, the water quality deteriorates in the town compared to the quality upstream. This was thought to be because of the untreated wastewater being discharged and should improve considerably upon the completion of the proposed sewerage scheme and treatment plant.

Following completion of the collection system and plant, treated wastewater will be discharged to the River Ilen and the discharge regime from the plant, using a tidal holding tank, will maximise the dispersion and hence minimise any potential negative impacts on background water quality.

The water quality in the Ilen has decreased since the 1970's. If the project does not proceed, the quality of the water in the Ilen may decrease even further. The removal of existing untreated wastewater discharges and the discharge of treated wastewater at the target final effluent standards outlined in the EIS will have a net positive water quality.

Section 5.9 of the EIS deals specifically with the aquatic environment to which the discharges will be made. The assimilative and dispersive characteristics of the waters are assessed in this chapter.

In addition to the aquatic environment, impacts to the following were also taken into account during the course of the EIS process: -

- Human Beings
- Air and Odour
- Climate
- Noise and Vibration
- Visual and Landscape
- Flora and Fauna
- Geology, Hydrogeology and Soils
- Landtake
- Cultural Heritage
- Construction

Section 5 of the EIS deals with impacts to each of the above environments in detail.

It is inevitable that the construction of the wastewater treatment plant will have varying degrees of impact on the environment in the vicinity of the proposed works. However, Cork County Council intends to minimise these effects by;

- The setting and implementation of rigid standards relating to noise levels, working hours, discharges into watercourses and the control of dust and emissions during the execution of the works;
- The siting of equipment and plant vehicles having due regard to the proximity of residential properties and their visual intrusion on the landscape;
- The control of traffic movement within the relevant residential areas; and
- The proper maintenance of roads and parking facilities at the site during the period of construction.

Careful consideration will be given to reducing impacts and accommodating local concerns where possible during the construction phase.

The following points are made in the overall conclusion for the EIS:

- The overall scheme will help to improve the general economic conditions through the provision of wastewater infrastructure capable of supporting a significant increase in residential, commercial and recreational development in Skibbereen Town and its environs.
- Using Best Available Technology (BAT) in the wastewater treatment plant there will be no significant adverse impacts on the water quality of the River Ilen.
- The proposed development will have no significant visual and landscape impact on the area. Any effects that can be foreseen will be mitigated with effective screening and design.

- The odour emission levels at the wastewater treatment will be controlled to negligible levels and should not present a significant impact with proper management of the plant.
- The noise level from the wastewater treatment plant will be minimal and where necessary controlled to below generally acceptable levels.
- Careful consideration should be given to reducing and accommodating the impacts of local concerns, where possible, during the construction phase.

In general, by removing current untreated discharges to the water course and replacing these with a treated discharge downstream of the town, it is envisaged that the proposed wastewater treatment plant will have a net positive impact on the physical, biological and aesthetic environment of Skibbereen Town and its environs.

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

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

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

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

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

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

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

## SECTION G: PROGRAMMES OF IMPROVEMENTS

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

### G.1 Compliance with Council Directives

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

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

This EIS for the Skibbereen Wastewater Treatment Plant was prepared in accordance with the following regulations, directives and standards:

- The EU directives on Environmental Impact Assessment (85/337/EEC) & (97/11/EC) and associated National Regulations referred to as the European Communities (Environmental Impact Assessment) Regulations, 1989-2001 (S.I. 349 of 1989, S.I. 84 of 1994, S.I. 101 of 1996, S.I. 351 of 1998, S.I. 93 of 1999, S.I. 450 of 2000 & S.I. 538 of 2001)
- The Local Government (Planning and Development) Regulations, 2001 (S.I. 600 of 2001)
- Advice notes on current practice in the preparation of Environmental Impact Statements published by the Environmental Protection Agency (2000)

In addition to the above, further legislation was also considered with respect to the Ilen Estuary adjacent to the Skibbereen Wastewater treatment plant site including:

- EU Urban Wastewater Treatment Directive 91/271/EEC and the Urban Wastewater Treatment Regulations, 2001 (S.I. 254 of 2001)
- European Communities (Quality of Salmonid Waters) Regulations 1988 (S.I. 293 of 1988)
- The Local Government (Water Pollution) Act 1977 (Water Quality Standards for Phosphorous) Regulations, 1998 (S.I. 258 of 1998)
- EU Water Framework Directive (2000/60/EC)



It is acknowledged in the EIS for Skibbereen Wastewater Treatment Plant that prior to publication of the EIS, Cork County Council consulted with both statutory and non-statutory bodies in relation to the proposed development.

The consultation comprised a request for submissions from selected potential stakeholders. Discussions were held with and/or submissions were requested from the following statutory bodies, government agencies, non-governmental organisations and other potentially interested parties:

- An Bord Pleanála
- An Comhairle Ealaíon
- An Taisce
- (Bord Fáilte) Fáilte Ireland
- Bord Iascaigh Mhara
- Coillte Teoranta
- Cork County Council, Planning Department
- Department of Agriculture and Food
- Department of Arts, Sport and Tourism
- Department of Communications, Marine and Natural Resources
- Department of Community, Rural and Gaeltacht Affairs
- Department of the Environment, Heritage and Local Government
- Eircom
- Environmental Protection Agency
- ESB
- Irish Farming Association
- Irish Landscape Institute
- Irish Wildlife Federation
- Local Residents
- National Roads Authority
- Office of Public Works
- River Ilen Anglers Club
- Skibbereen Rowing Club
- South Western Regional Fisheries Board
- Teagasc
- The Geological Survey of Ireland
- The Heritage Council

Prior to completion of the EIS written submissions were received from a number of the above organisations, local groups and residents. These submissions were considered in preparation of the EIS.

The EIS deals in detail with issues associated with compliance with council directives. The following is a summary:

#### **Water Framework Directive 2000/60/EC**

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 of 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 South Western River Basin District comprises of the following hydrometric areas together with their associated groundwaters, transitional and coastal waters (up to one nautical mile beyond territorial waters):

- 18 Blackwater (Munster)
- 19 Lee – Cork Harbour – Youghal Bay
- 20 Bandon – Ilen
- 21 Dunmanus – Bantry – Kenmare
- 22 Laune – Maine – Dingle Bay

The overall objectives of the South Western River Basin District 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

Water quality analysis data for the lower River Ilen were obtained from Cork County Council. The EPA take samples from three locations on the Ilen River in the vicinity of Skibbereen. These are located at the Ballyhilty Bridge, 3km upstream of Skibbereen, at J.F.Kennedy Bridge, just downstream of Skibbereen and New Bridge 1.5 km downstream of the town and in the vicinity of the proposed outfall.

The existing water quality was found to be generally satisfactory with high Dissolved Oxygen (DO) levels and low median levels of Biochemical Oxygen Demand (BOD), ammonia and phosphates. Examination of the maximum and minimum values of the parameters shows that on occasions there have been relatively high and low DO levels and elevated BOD and nutrients. These extremes indicate intermittent reductions in water quality.

In general, there is a reduction in water quality at stations within and downstream of the town when compared with the station at Ballyhilty Bridge, 3km upstream of the town. This is probably as a result of the town's untreated wastewater, which until recently was discharged to the river at numerous locations. It is also noted that the Quality rating of the river has reduced from Q5 (high community diversity, satisfactory condition, good water quality) to Q4 (reduced community diversity, satisfactory condition, fair water

quality) since 1971. Studies carried out by the EPA at Ballyhilty Bridge between February 2002 and April 2003 confirmed that the river is currently classified as Q4. Nutrient sampling during this period at Ballyhilty Bridge suggests the following median levels in the River Ilen.

Ammonia	0.023 mg/l N
Phosphorus (MPR)	0.013 mg/l P
N03	1.471 mg/l N
N02	0.006 mg/l N

The River Ilen is considered to be an important fishery. Although it is not a designated Salmonid Water under the Salmonid Regulations (SI 293:1988) the water quality limit for BOD of 5 mg/l O<sub>2</sub> is considered a suitable benchmark for the assessment of environmental impacts on water quality within the river.

Based on the samples taken by the EPA and included in Table 5.4 the existing baseline water quality is within the above limits. However, the maximum BOD level within the town at JF Kennedy Bridge of 4.5 mg/l does approach the 5 mg/l limit. This relatively high BOD level is most likely to be as a direct result of the wastewater discharges to the river upstream of this location.

The interim arrangement at The Marsh, which will be in place until the completion of the treatment plant, will result in the elimination of the numerous untreated discharges to the river. Following completion of the proposed wastewater treatment plant contract, the interim arrangement will be replaced with a treated discharge downstream of the town. Both the interim and final arrangements are likely to considerably improve the baseline water quality of the river within and downstream of town.

#### **Birds Directive 79/409/EEC**

During the EIS process, Roger Goodwillie, CAAS Environmental Services Ltd., undertook a flora and fauna assessment with the assistance of John Lucey, Environmental Research Unit DOE.

The following is an extract from the EIS dealing with birds in the Marsh area: -

"The site provides feeding for a few wintering thrushes, especially blackbirds, and is occasionally visited by curlew and oystercatcher at high tide."

The following is an extract from the EIS dealing with birds at the Treatment Plant Site: -

*"The field in which the treatment plant is to be sited is a reseeded pasture sloping to the south. Ryegrass *Lolium perenne* is the main plant species with some white clover *Trifolium repens*, dandelion *Taraxacum officinale* and daisy *Bellis perennis*. The soil is quite heavy but fertile and has been limed and fertilised in the past. Earthwork numbers are notably high, perhaps from manure spreading. They attract substantial numbers of wading birds which feed particularly when the tide is high. Oystercatcher (60) and curlew (12) were present at the time of the visit and there are likely also to be visiting flocks of redwings and fieldfares in winter."*

and,

*"The river is fished by small numbers of cormorant, while the edges are used by a few redshank, mallard and grey wagtail. Flocks of oystercatcher and black-headed*

*gull congregate either where there are larger areas of silt or, in the case of the gulls, where side streams enter. West of the site, the islands were being used as a high tide roost by lapwing (45), oystercatcher (25), curlew (1), greenshank (1) and cormorant (1).*

*In summer, the river would attract good numbers of swallows, sand martins, willow warblers and bats to feed on its abundant fly life.*

*The marine part of the estuary beings some 2 km below the outflow and consists of extensive mudflats at Newcourt and around Inishbeg Island. There are small numbers of shorebirds here in autumn and winter, involving widgeon, knot, curlew and redshank. Significant populations are not recorded in Sheppard (1993)."*

The following evaluation is given in Section 5.8 of the EIS, which is included in Attachment B6: -

*"None of the habitats described above are rare or of special ecological interest. In particular, there are no Areas of Scientific Interest in the immediate vicinity and no rare or protected plants on the site.*

*The Ilen River is significant for its large fish populations. In particular, it is considered to be a significant fishery in the area and its high population of sea trout is particularly significant in view of the much diminished stocks of this species in the west of Ireland.*

*The numbers of oystercatchers which feed in the agricultural land around the Ilen Estuary may also be of note. Adding those recorded on the ground and others in flight suggest that they could amount to 200-300 in total. Similar numbers occur at Courtmacsherry and Clonakilty with a larger flock in Castlemaine Harbour in Kerry".*

The following potential impacts are given in Section 5.8 of the EIS, which is included in Attachment B6: -

*"The proposed layout of the wastewater treatment system does not impinge on any interesting terrestrial habitat and will only have a marginal impact on the actual river bank. However, the provision of a wastewater treatment plant is likely to have a significant positive impact on the water quality of the river. The removal of untreated discharges to the river from the town's wastewater is likely to cause oxygen levels to rise in the town stretch of the river. This will in turn encourage a more diverse fauna than at present.*

*The more visible impact on the river will occur at the new outflow where the nutrients will be released at a point rather than over a distance of some hundreds of metres. More significant is the fact that they will be in available ionic form following the treatment process, rather than as partly undegraded organic waste. Previously, the waste would have been mineralised over a considerable distance of the channel spreading out its effects.*

*The ecological effect may be one of local fertilisation and it is likely that a dense stand of the green algae *Enteromorpha* may occur downstream of the outflow, replacing much of the brown *Fucus* that grows there at present. It will be stimulated both by the freshwater and the nitrate addition. Tidal action will tend to disperse the effects down channel, much more so than would occur in a non-tidal river. It seems unlikely, therefore, that there will be enough algal biomass at any point to cause significant deoxygenation. The effects of hydrodynamic*

dispersion of treated wastewater discharges are discussed in more detail in Section 5.9 of this EIS.

The presence of well oxygenated river and tidal water nearby will mean that mobile animals will be able to move away from any localised patches of low oxygen conditions that might develop during low flows and neap tides. The migratory movements of sea trout or salmon take place at times of higher flows when significant deoxygenation is unlikely to occur. Thus, the biological effects of the outflow will not affect them. Additionally, the outflow stream itself may attract fish of all species."

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

The EIS states that the area around the proposed Treatment Plant has been found to be relatively poor in groundwater resources. There are no large public groundwater sources in the area. In addition there are no regionally important aquifers. However many rural dwellings are known to depend on boreholes drawing groundwater from locally important or poor aquifers.

With the proper mitigation measures neither the construction phase nor the operational phase of the proposed development should have any significant negative impacts on the existing groundwater.

#### **Drinking Water Directives 80/778/EEC**

As no drinking water abstraction takes place downstream of the works this is not applicable.

#### **Urban Waste Water Treatment Directive 91/271/EEC**

The EIS states that treatment processes at the wastewater treatment plant are to be designed to produce an effluent to satisfy the requirements EC Directive 91/271/EEC concerning Urban Wastewater Treatment (SI 491 of 1994 as amended by SI 254 of 2001). The applicable effluent standards as defined in the Directive are shown in the table below.

**Table G1.1: Minimum Effluent Standards based on SI 254 of 2001**

<b>Parameter</b>	<b>Conc. (mg/l)</b>	<b>Minimum Percentage of Reduction</b>
Biochemical Oxygen Demand (BOD)	25	70 – 90
Chemical Oxygen Demand (COD)	125	75
Suspended Solids	35	90

The aeration plant proposed in the indicative design for Skibbereen is ideally suited to achieve these levels of efficiency for BOD, COD and Suspended Solids removal. Efficiencies of BOD removal for similar plants typically are in excess of 90%. The effect of the above BOD discharges on the quality of the receiving waters is assessed in detail in Section 5.9 of this EIS.

### **Habitats Directive 92/43/EEC**

None of the habitats around the Wastewater Treatment Plant are rare or of special ecological interest. In particular, there are no Areas of Scientific Interest in the immediate vicinity and no rare or protected plants on the site.

Although not designated under the Quality of Salmonid Waters Regulations, the River Ilen is a good quality waterway and an important local fishery. The EPA have rated the water quality of the Ilen river as Q4 therefore the water is relatively unpolluted with a high level of biodiversity. The Salmonid Waters Regulations define a limit of 5 mg/l O<sub>2</sub> for BOD. The peak BOD concentration increase from the proposed discharge is 0.64 mg/l. BOD concentrations predicted by numerical modelling indicate generally lower BOD concentrations. The resulting maximum BOD levels outside the initial mixing zone will be below the limit of 5 mg/l O<sub>2</sub>. Outside the initial mixing zone the median BOD levels would be significantly lower, being in the order of 2 mg/l O<sub>2</sub>.

### **Environmental Liabilities Directive 2004/35/EC**

It is likely that under the DBO contract for Skibbereen Wastewater Treatment Plant, a Performance Management System will be required. Such a system would provide a uniform approach to dealing with performance management issues, including procedures for dealing with plant operation, and in particular for dealing with emergencies or failure to meet treated effluent standards.

Failure to meet the specified treated effluent standards may result in final penalties to the operating contractor. As a result, the risk of environmental pollution from the treatment plant may be reduced.

### **Bathing Water Directive 76/160/EEC**

The River Ilen is not designated as a 'Bathing Water' under the Bathing Water (SI No. 79 of 2008) Regulations.

### **Shellfish Waters Directive (79/923/EEC)**

The River Ilen is not a designated Shellfish Area under the Shellfish Waters Regulations, S.I. 200 of 1994. However, Roaringwater Bay is designated under these regulations. There are a number of licensed shellfish areas within the Ilen Estuary downstream of the proposed outfall discharge point. Based on discussions with Bord Iascaigh Mhara the most upstream of these is west of Ringarogy Island, 8km downstream of the proposed outfall point.

### **Additional Legislation**

In addition to the above, the following legislation was also considered with respect to the Skibbereen Wastewater treatment plant site:

### **The Waste Management Act 1996**

The likelihood of historical soil contamination at this site is low. There are no visible above ground signs of soil contamination. Any soil removed from the

site during construction will most likely therefore be classified as non-hazardous and therefore suitable for re-use. Should the amount of soil to be removed exceed the amount required for later use then it will be removed by a contracting firm licensed under the Waste Management Act of 1996 and Section 5 of the Waste Management (Permit) Regulations of 1998. It should be noted that the permitted contractor would then be allowed to use the topsoil and fill material in other landscaping projects as part of their license agreement.

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

Attachment included	Yes	No
	✓	

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

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

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

Attachment included	Yes	No
		✓

**G.3 Impact Mitigation**

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

On 5<sup>th</sup> November 2007, construction of the Skibbereen Sewerage Scheme, Collection System commenced. The contract consists of the following:-

- The construction of the approximately 16km of new sewers, varying in diameter from 100 – 1200 mm, and 322 Nr. associated manholes:-
- The construction of a major foul and storm pumping station and storm water holding tanks in the Marsh.
- The construction of submersible foul pumping station and storm water holding tank at Coronea.
- The construction of submersible foul pumping stations on Mill Road, Marsh Road and Glencurragh Road.

- The installation of service connections from properties to connect to the new sewage system.

The Time for Completion for the Collection System contract is 72 weeks from the commencement date, and the works are currently on schedule.

Prior to the commencement of the collection system construction, the sewerage system in the town consisted of masonry culverts carrying foul flows and storm water run off from the streets and roofs, and masonry culverts carrying subsurface ground water as well as soil flows and piped sewers.

Until recently, these flows discharged to either the Ilen River or Caol Stream in a multiplicity of outfalls. There was no treatment of these wastewater flows prior to discharge to the watercourse. Additionally, both of these watercourses are subject to the influence of the tide with the result that there is a continuous problem of contamination from the discharge of municipal wastewater.

Therefore, the ongoing construction of the collection system and the proposed construction of the wastewater treatment plant at Coronea represent the most significant means of mitigating the impacts of wastewater discharges on the receiving environment.

On completion of both contracts, the foul and combined outfalls discharging directly to the rivers will be eliminated and the construction of the proposed treatment plant will address the problems caused by the absence of an appropriate wastewater treatment system.

As part of the Skibbereen Wastewater Treatment Plant EIS, studies were carried to ascertain the assimilative and dispersive characteristics of the receiving waters. The study involved dispersion modelling, tidal modelling and wind effect analysis.

The conclusion reached in the report was that in order to maximise dispersion, discharge of effluent was to be limited to a four-hour period on the ebb tide (High water plus 0.5hrs to High water plus 4.5hrs).

The proposed discharge point is to be located approximately 330m downstream from New Bridge and 2km downstream of Skibbereen town. The outfall pipe is to be designed to empty the entire tidal holding tanks and the pumping plant over the 4 hour period and at the point of discharge the pipe will always be below the water level.

The EIS states that during average river-flow conditions total nitrogen and ortho-phosphate levels will remain below EPA criteria for nutrient enrichment. However, during low flow periods the results indicate that both total nitrogen and ortho-phosphate levels may exceed the eutrophication criteria up to a distance of approximately 2 to 3km downstream of the outfall for the 9,400PE Stage 2 design scenario.

At the reduced loadings associated with the 4,700PE design, the criteria may be exceeded for a distance of approx 1 to 1.2km downstream of the outfall. It should be noted that the predicted nutrient levels are strongly influenced by the background levels in the Ilen River. The median nutrient level based on data collected in 2002 and 2003 has been selected as the background level for all river flow conditions and this assumption may be conservative. However, model results do predict that there is a risk of exceeding current EPA guidelines



for enrichment in the vicinity of the outfall under certain combinations of river flow and tidal range.

### Phosphorus Measures Implementation

The following extracts from the EIS for Skibbereen Wastewater Treatment Plant outline the measures required to reduce phosphorus levels emanating from the plant:

*'The nutrient per capita production and concentrations in domestic wastewater for Skibbereen are set out in Table 3.2 below. These values have been determined from wastewater flows carried out by RPS-MCOS in various towns throughout Ireland. The results obtained from these surveys compare very favourably with textbook concentrations and per capita loadings for these nutrients.*

**Table 3.2: Expected Untreated Nutrient Loadings**

<b>Nutrient</b>	<b>Per Capita Loading (g/head/day)</b>	<b>Concentration (mg/l)</b>	<b>Stage 1 Works (kg)</b>	<b>Stage 2 Works (kg)</b>
<b>Phosphorous</b>	2	8.7	9.4	18.8
<b>Ammonia</b>	5.75	25	27.63	54.06
<b>Organic Nitrogen</b>	4.6	20	27.62	43.24

*Nitrogen is present in two forms in domestic wastewater, ammonia nitrogen at a concentration of approximately 25 mg/l and organic nitrogen at a concentration of approximately 20 mg/l. Total kjeldahl nitrogen (TKN) is the expression of both organic and ammonia nitrogen in a sample and for domestic effluent this is typically 45 mg/l which is equivalent to 10.4 grams/head/day TKN.*

*Nutrient removal is a term attributed to those processes which are applied both in conjunction with, or as part of, secondary treatment systems in order to remove excess nitrogen and phosphorous compounds from wastewater. The rule of thumb estimates for the uptake of nitrogen and phosphorous from biomass synthesis in conventional secondary treatment systems is provided by the relationships:*

**BOD:N:P = 100:5:1.**

*Note that treatment plants incorporating extended aeration processes have a higher efficiency for the removal of nutrients. As a natural consequence of secondary treatment, there will be an uptake of nitrogen and phosphorous for biomass synthesis at the wastewater treatment plant in Skibbereen. Based on an incoming BOD concentration in the order of 300 mg/l, the expected uptake of phosphorous based on the ratios outlined above will be 3 mg/l. As the expected concentration of phosphorous in the incoming effluent is 8.7 mg/l, the result of biomass uptake would reduce the expected effluent concentration of phosphorous to 5.7 mg/l.*

*Similarly, the biomass synthesis of secondary treatment requires the uptake of nitrogen, at a rate of 100:5. Based on the incoming BOD concentration of 300 mg/l the expected nitrogen biomass synthesis requirement is 15 mg/l. The total concentration of nitrogen expressed as TKN in the incoming effluent is 45 mg/l.*

The final effluent therefore, without further treatment should contain a concentration of 30 mg/l. Therefore the anticipated concentration of nutrients in the final effluent based on the indicative treatment plant design, i.e. a conventional plant without additional nutrient removal processes, are as follows: -

- Total Nitrogen - 30 mg/l
- Total Phosphorus - 5.7 mg/l

and

'in order to minimise this risk of enrichment from the treatment plant discharges, it is considered prudent to include additional nutrient reduction facilities within the detailed design of the treatment plant. The selected DBO contractor will determine the design of the required processes, however, processes may include extended aeration, the use of anoxic zones, recycling of flows etc.

The final wastewater treatment processes should reduce nutrients in the final effluent to the levels defined in Table 5.17 below.'

**Table 5.17: Recommended Nutrient Discharge Requirements based on S.I. 254 of 2001**

Parameter	Nutrient Concentration	Alternative Percentage Reduction
Total Phosphorous	2 mg/l	80%
Total Nitrogen	15 mg/l	70 - 80%

According to the EIS, the removal of the existing discharges and discharge of treated wastewater at the target final effluent levels outlined in the EIS will have a positive effect on the water quality. The aforementioned EIS is included with this application.

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

Attachment included	Yes	No
	✓	

#### G.4 Storm Water Overflow

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

As part of the ongoing Skibbereen Sewerage Scheme - Collection System contract, two storm water overflow chambers have been constructed. The overflows are located at the Main and Coronea Pumping Stations.

The overflows were designed in accordance with the following guidelines:

- Urban Wastewater Treatment Directive (91/271/EEC)  
Procedures and Criteria in Relation to Storm Water Overflows
- Foundation for Water Research: Urban Pollution Management  
Guide to the Design of Combined Sewer Overflow Structures (FR0488 -  
November 1994)

### **Main Pumping Station - Storm Water Overflow**

In accordance with the UWWT Directive, the storm water overflow from the Main Pumping Station is classified as an overflow of low significance.

A dilution factor of greater than 17 is obtainable, therefore again in accordance with the UWWT Directive, no storage is required at the overflow. However, to achieve good solids separation and to cater for the effects of the first foul flush in a storm event, storage of 10 DWF (based on 9,400 PE) for 1 hour is provided.

The storm water overflow discharges to the River Ilen upstream of a stretch of river which is used by Skibbereen Rowing Club. The river can therefore be classified as a moderate amenity in accordance with the UPM guidelines. For this reason, 6mm screening is to be provided at the storm water overflow from the Main Pumping Station.

The proposed Skibbereen Wastewater Treatment Plant will be designed to cater for a population equivalent of 4,700. The loading for the plant is 37.5 l/s (3 DWF). The facility to duplicate the plant in the future is allowed for and the rising main from the Main Pumping Station is designed to take future flows. It is proposed, therefore to pump foul flows of up to 37.5 l/s (75 l/s future), and to overflow excess of that amount to storm water holding tanks.

The normal operation of the pumping station is as follows: -

The screen in the wet sump channel will be permanently on. As effluent enters the wet sump, it will pass through the screen and onto the foul sump. From the pumping station, raw water is pumped via a 300 mm diameter rising main to the Wastewater Treatment Plant at Coronea.

If the foul sump pumps are beaten by the incoming flow and a full level is achieved in the foul sump, the incoming effluent will back up to a level where it is able to enter the storm sump.

In this event, the mechanically raked overflow screen at the entrance to the storm sump will start. The screen will stop only when the level in the storm sump has dropped back below the level of the stop probe. Effluent entering the wet sump channel passes through the screen and into the storm sump proper. The storm sump will be equipped with 3 no. duty pumps.

In normal operation, it is likely that the water in the storm tank will continue to rise for some time and may overflow into the storm tanks. Each of the tanks will be provided with an effluent draw-off and automatic outlet valve system plus probes

In order to ensure that each tank is kept free from deposits of sludge, 2 no. tipping buckets will be installed in each tank. Each pair of tipping buckets will be

fed with a clean water supply teed off a mains feed. Once each tank empties, it will be given one flush from the tipping buckets.

Following overflow storm conditions, the contents of the storm water tanks will be returned to the foul pump sump via a 200 mm drainage system controlled by electrically actuated control valves.

The emergency overflow to the river will be provided with a baffle plate to allow liquid to overflow if all pumps, both foul and storm are beaten. No controls are required for the screen as this is a static system. A level/flow sensor will record and log each overflow event.

Based on general rainfall data and similar studies, it is estimated that the number of spills per year will be in the region of 20 to 30.

### **Coronea Pumping Station - Storm Water Overflow**

In accordance with the UWWT Directive, the storm water overflow from the Coronea Pumping Station is classified as an overflow of low significance.

A dilution factor of greater than 125 is obtainable, therefore again in accordance with the UWWT Directive, no storage is required at the overflow. However, to achieve good solids separation and to cater for the effects of the first foul flush in a storm event, storage of 10 DWF (Future) for 1 hour is provided.

There is a popular walkway along riverbank where it is proposed to discharge the storm water overflow from Coronea Pumping Station. The river can therefore be classified as a moderate amenity in accordance with the UPM guidelines. For this reason, 6mm screening is to be provided at the storm water overflow from Coronea Pumping Station.

Storm flows from the pump sump will pass to the overflow chamber when the level in the storm water storage tank exceeds the overflow level. In addition to functioning as a storm water overflow, the overflow from the storm tank may also activate as an emergency overflow following mechanical failure of the pumping station.

Based on general rainfall data and similar studies, it is estimated that the number of spills will be in the region of 5 times per year.

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

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

**SECTION H: DECLARATION**

**Declaration**

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

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

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

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

Signed by : Declan Groarke Date : 18/9/08  
(on behalf of the organisation)

Print signature name: DECLAN GROARKE

Position in organisation: SENIOR EXECUTIVE ENGINEER

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**SECTION I: JOINT DECLARATION**

**Joint Declaration** <sup>Note1</sup>

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

**Lead Authority**

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

**Print signature name:** \_\_\_\_\_

**Position in organisation:** \_\_\_\_\_

**Co-Applicants**

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

**Print signature name:** \_\_\_\_\_

**Position in organisation:** \_\_\_\_\_

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

**Print signature name:** \_\_\_\_\_

**Position in organisation:** \_\_\_\_\_

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

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