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Environmental Protection Agency, PO Box 3000, Johnstown Castle Estate, Co. Wexford.

22nd September 2008,

Re: Waste Water Discharge Licence Application for the Agglomeration of Kinsale, Co. Cork

Dear Sir / Madam,

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

The following documentation is enclosed of

- 1 Nr. signed original in hardcopy
- 1 Nr. copy in hardcopy
- 2 Nr. CD-ROM with all documentation in electronic searchable PDF,
- 2 Nr. CD-ROM with STS Data, Table D.2, Table E.3 and Table F.2

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

Also enclosed is a paying order for the application fee of £25,000.

Patricia Power

Director of Services.

This is a draft document and is subject to revision.



Waste Water Discharge Licence Application Form

EPA Ref. Nº:
(Office use only)

Environmental Protection Agency

PO Box 3000, Johnstown Castle Estate, Co. Wexford Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699

Web: www.epa.ie Email: info@epa.ie



Tracking Amendments to Draft Application Form

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



Waste Water Discharge Authorisation Application Form

		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.	clarify the reporting requirements for ambient monitoring.
		Removal of Annexes to application form.	To reflect the new web based reporting requirements.



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

A valid application for a Waste Water Discharge Licence must contain the information prescribed in the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007). Regulation 16 of the Regulations sets out the statutory requirements for information to accompany officence 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 of 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: <u>Drawings</u>. The following guidelines are included to assist applicants:

- All drawings submitted should be titled and dated.
- All drawings should have a <u>unique reference number</u> 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 Nº A.1

The waste water works and the activities carried out therein

The existing collection system was constructed in the mid to late 1970's, when the system of sewers and culverts which existed at that time was supplemented by additional sewers together with the installation of a pumping station at Denis' Quay. The existing collection system is totally combined which means that, if flooding occurs in the town, foul sewage may emanate from manholes and gullies.

In general all sewers gravitate towards the central flat part of the town in the vicinity of Church Square, Market Square and Pearse Street. Two culverts discharge to the Scilly Dam area. The Pearse Street Culvert carries flows from the New Road area through the Glen and along Pearse Street while the Market Quay Culvert takes the foul sewage and stormwater from the Market Street Area.

Foul sewage from the lower part of the town and the Lower O'Connell Street area is conveyed to the pumping station at Denis' Quay. The flows are comminuted before discharge to the harbour at World's End.

There are currently five storm overflows in operation together with a number of discreet foul discharges.

There are no wastewater treatment facilities in Kinsale at present.

The sources of emissions from the wastewater works

Kinsale is one of the most important and popular tourist destinations in the Southern Region, and is located some 16 kilometres west of Cork City.

The resident population of the town and its environs (as enumerated in the April 2006 Census) was 4099, and this is supplemented by considerable numbers of

visitors, particularly during the summer season (June, July and August). Lesser, but still significant numbers of visitors visit at other times of the year. Peak visitor numbers are usually associated with fine weekends, particularly when associated with one of the many events staged in the town throughout the year.

There are a small number of industries in the town at present, the most significant of which are located in the town's industrial estate.

Nature and quantities of foreseeable emissions from the waste water works into the receiving aqueous environment

It is estimated that the total discharge from the agglomeration is 7415 PE and the discharge from the Kinsale Agglomeration will reach 9800 PE during the period of the Licence.

Significant effects of the emissions on the environment

The discharge of untreated effluent into Kinsale Harbour from the agglomeration adversely impacts the water quality in the inner Harbour and results in considerable malodours in the town centre particularly at low tide, during the summer months.

Proposed technology and other techniques for preventing emissions from the waste water works

Upgrading of the Collection System

Work is already underway for the upgrading of the Collection System and when complete all the foul sewage will be collected and conveyed to the proposed new pumping station at Denis' Quay.

The foul sewage from Kinsale Town, Scilly and Summercove will be collected in a system of existing and new sewers and conveyed to a new main pumping station to be constructed on the site of the existing pumping station at Denis' Quay.

While the wastewater from the Scilly and Summercove areas will be pumped, the balance will flow by gravity to the main pumping station, and be pumped from there to Commoge and by gravity to the wastewater treatment plant site at Cappagh.

Stormwater in the higher parts of the town will be collected in a series of new storm sewers and discharge under pressure into the Scilly Dam while the lower area will be served by a new system incorporating some storage to provide against flooding during periods of high water. Run-off from roofs and roads will continue to discharge directly to the harbour.

Where necessary existing sewers, which will form part of the new system will be rehabilitated, repaired or replaced to ensure that infiltration is minimised.

Proposed new Pumping Station at Denis' Quay

A new Pumping Station is currently under construction at Denis' Quay and all the foul sewage from the Summercove and Town Centre will be conveyed to this station.

It is proposed that a maximum of 525.6 m³/hr, equivalent to 146 l/sec (6 DWF), be pumped to Commoge via 400mm OD HPPE PE100 pipe, 2,131 lin.m long. From Commoge, the flow will discharge by gravity into the proposed WWTP at Cappagh. 3 no. variable speed foul pumps (2 Duty + 1 Standby) are to be provided.

The pumps will operate in a 'Duty + Duty Assist + Standby' mode."

Proposed New Wastewater Treatment Works

The proposed new Wastewater Treatment Works to be located at Cappagh, Kinsale will be provided for the ultimate flows and loads shown in the Table below:

Parameter		Design
Average Flow Rate (DWF)	m³/d m³/h	3 000 125
Peak Flow to Inlet Works	l/s m³/h	253 909
Peak Flow to Treatment (3 DWF)	l/s m ³ /h	104 375
Biological Oxygen Demand BOD ₅	kg/d	750
Chemical Oxygen Demand	kg/d	1500
Fats, Oil and Grease	kg/d	150
Suspended Solids	kg/d	1500

The proposed new Kinsale Wastewater Treatment Plant and Outfall is currently at an advanced stage of procurement as a Design Build Operate package. The Contractor has not as yet been appointed.

The new Kinsale Wastewater Treatment Plant will be constructed to the highest standards and will generally comprise:

<u>Inlet Pumping Station</u>: The capacity of the pumps shall be sized so that they have a capacity of 253 l/s at full speed in operation

<u>Inlet Works</u>: The inlet works shall be designed to cater for the full flow of 253 l/s and shall include, but not be limited to:

- Screening
- Grit Removal
- Fats, Oil and Grease Removal
- Septicity Treatment
- Stormwater Management: The treatment plant shall include for the storage of stormwater in holding tanks with a minimum total capacity to provide 2 hours storage for flows in excess of the 3 DWF flow of 375m³/h up to the maximum of 6 DWF (750m³/h).

<u>Secondary Biological Treatment</u>: designed to cater for the 3 DWF flow of $375\text{m}^3/\text{h}$ and for loads described above.

Disinfection

<u>Sludge Treatment</u>: Sludge arising from the WWTP will be dewatered to a dry solids content of not less than 20%.

Treated Wastewater Quality

Wastewater will be treated to a standard shown below:

Parameter	Value
BOD₅	≤ 20 mg/l*
COD	≤ 125 mg/l
Total Suspended Solids	≤ 30 mg/l*
Total Phosphorus	≤ 2 mg/l**
рН	6.0 - 8.5
Temperature	< 30°C

^{*} These standards are in accordance with those specified in the Certified EIS

Additionally, in accordance with the Approved Environmental Impact Assessment, the total Nitrogen concentration in the final effluent shall be reduced to 15 mg/l.

The treated effluent shall also comply with the Foreshore Licence issued by the Department of Communications Marine and Natural Resources and in particular with the following:

- The geometric mean of faecal coliform per 100ml shall be 250 faecal coliform or less on the basis of a 50 sample rolling programme and
- √ 95% of all samples shall be less than 1000 faecal coliform /100ml of effluent

Following completion of the Kinsale Wastewater Treatment Plant, the current primary discharge at World's Endwill be decommissioned and the wastewater will be conveyed to the WWTP for full treatment.

To ensure that nuisance is not caused to members of the public living in close proximity to the WWTP Site and to visitors to the area, and to fully comply with European Communities (Wastewater Treatment) (Prevention of Odour and Noise Regulations (S.I. 787 of 2005), strict boundary conditions will be adhered to as follows:

- ✓ Odour will be controlled by biological or chemical treatment to such an extent that 95 and 98 percentile of odour concentrations are less than 1 and 2 OU/m³ respectively above background levels at the boundary of the site and that the hydrogen sulphide concentration at the exhaust stacks of the odour control units will not exceed 2 ppb and at any one of the four measuring points at the boundary of the treatment plant site does not exceed 0.5 ppb H₂S as H₂S.
- ✓ Noise levels are not exceeded during the operation of the plant, when measured at the boundary of the treatment plant site:

Day:	08.00 hrs to 20.00 hrs	50 dB (A) 30 minute Leq
Night:	20.00 hrs to 08.00 hrs	40 dB (A) 30 minute Leq

^{**} This standard is to comply with the UWWR designation of sensitive waters

Monitoring of Emissions to the Environment

To ensure that the WWTP is operated in accordance with the requirements of Cork County Council and complies with the Wastewater Disposal Licence, Flow Measurement and Sampling will be carried out, at the points shown in the table below:

Location	Flow/Weight Measurement	Sampling Point	Reference
Incoming Wastewater	✓	✓	Α
Flow to the storm holding tanks	✓	√ ^A	В
Overflow from the storm tanks	✓	√ ^A	С
low to the secondary treatment plant	✓	√ ^A	D
Final effluent	✓	√ ^A	Е
Return activated sludge (RAS)	✓		F
Surplus activated sludge (SAS)	✓	✓	G
Final sludge product	✓	✓	J
Odour control plant outlet stacks		✓	At each stack
Odour at the site boundary receptor sites		✓	At 4 points along the boundary to be agreed
Potable water	✓	N/A	L

Note: A Indicates that automatic sampling will be provided.

Programme for the Completion of the Works

It is anticipated that the necessary works to upgrade the Collection System will be substantially complete in 2009, while the new Wastewater Treatment Plant is expected to be fully operational in 2011.

SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration: Kinsale Agglomeration

Applicant's Details

Name and Address for Correspondence

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

Provide a drawing detailing the agglomeration to which the licence application relates. It should have the boundary of the agglomeration to which the licence application relates clearly marked in red ink.

Name*:	Cork County Council - Water Services - Southern Division
Address:	County Hall
	Carrigrohane Road
	Cork
	97, 904
Tel:	021-2427891
Fax:	021-4342098
e-mail:	St. L. Carlotte

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

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

Name*:	Patricia Power – Director of Operations	
Address:	Cork County & uncil - Area Operations - South	
	County Hall	
	Carrigrohane Road	
	Cork	
Tel:	021-4285304	
Fax:	021-4342098	
e-mail:	patricia.power@corkcoco.ie	

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

Co-Applicant's Details

Name*:	NOT APPLICABLE
Address:	
Tel:	
Fax: e-mail:	
e-mail:	

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

Design, Build & Operate Contractor Details

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

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

Attachment B.1 contains Drawing Number 765685 – We- 001 which shows the extent of the Kinsale Agglomeration.

Attachment included	ses dioi a	Yes	No
	Put Cquirec	Yes	

B.2 Location of Associated Waste Water Treatment Plant(s)

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

The proposed new Kinsale Wastewater Treatment Plant and Outfall is currently at an advanced stage of procurement as a Design Build Operate package. The Contractor has not as yet been appointed.

Name*:	Mr. Frank Morrisson - Area	Address of Proposed
	Engineer	Wastewater Treatment Plant
Address:	Kinsale Area Office	Cappagh,
	New Road	Kinsale,
	Kinsale	County Cork
Grid ref (6E, 6N)	E162957, N050111	
Level of Treatment	Full Treatment, comprising primary and secondary treatment, disinfection, nutrient removal	
Primary	021 4772137	
Telephone:		
Fax:		
e-mail:	frank.morrison@corkcoco.ie	

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

Attachment B.2 should contain appropriately scaled drawings / maps (≤A3) of the site boundary and overall site plan, including labelled discharge, monitoring and sampling points. These drawings / maps should also be provided as geo-

^{*}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.

referenced digital drawing files (e.g., ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. These drawings should be provided to the Agency on a separate CD-Rom containing sections B.1, B.3, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment B.2 contains Drawing Number 765685 – W – 0002 which shows the location of the Proposed Wastewater Treatment Plant.

As the Contractors final proposals are not as yet available, it is not possible to include a site plan or details of monitoring and sampling points at this time.

Attachment included	Yes	No
	X	

B.3 Location of Primary Discharge Point

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

Type of	Point Discharge
Discharge	
Unique	SW1kinsale
Point Code	ather
Location	World's End Kinsale/Kinsale Harbour
Grid ref	E164238, N049703
(6E, 6N)	in the state of th
	n this colo

Type of	Sea Outfall, 560mm Diameter, 6 No. port diffusers (Proposed)
Discharge	instruction of the second of t
Unique	SW1kinsale(proposed)
Point Code	* cold.
Location	Commoge/Kinsale Harbour
Grid ref	E162615, NQ49527
(6E, 6N)	

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

Attachment B.3 contains Drawing 765685 – W - 0003 which shows SW1kinsale the current principal discharge of foul wastewater from Kinsale Agglomeration.

Drawing 765685 – W - 0003 also shows SW1kinsale the proposed principal discharge of treated wastewater from Kinsale Agglomeration following treatment at the proposed new Kinsale Wastewater Treatment Plant.

Attachment included	Yes	No
	X	

B.4 Location of Secondary Discharge Point(s)

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

Type of Discharge	Point Discharge
Unique Point Code	SW2kinsale
Location	Summercove, Kinsale/Kinsale Harbour
Grid ref (6E, 6N)	E165485, N049801

Type of	Point Discharge
Discharge	
Unique	SW3kinsale
Point Code	
Location	Scilly, Kinsale/Kinsale Harbour
Grid ref	E164236, N050240
(6E, 6N)	

Type of	Point Discharge
Discharge	diffe
Unique	SW4kinsale
Point Code	age of for
Location	Scilly, Kinsale/Kinsale Harbour
Grid ref	E164468, N050350
(6E, 6N)	<u>aectit winer</u>

Type of	Point Discharge
Discharge	S. Carr
Unique	SW5kinsale 💉
Point Code	Cons
Location	Pier Road, Kinsale/Kinsale Harbour
Grid ref	E163979, N050357
(6E, 6N)	

Type of	Point Discharge
Discharge	
Unique	SW6kinsale
Point Code	
Location	Pier Road, Kinsale/Kinsale Harbour
Grid ref	E163985, N050374
(6E, 6N)	

Type of	Point Discharge, Emergency overflow from Main Pumping Station
Discharge	
Unique	SW7kinsale
Point Code	
Location	Pier Road, Kinsale/Kinsale Harbour
Grid ref	E164168, N050069
(6E, 6N)	

Type of	Point Discharge
Discharge	
Unique	SW8kinsale
Point Code	
Location	Compass Hill, Kinsale/Kinsale Harbour
Grid ref	E163042, N049567
(6E, 6N)	

Type of	Point Discharge Emergency overflow from Pumping Station 3 (proposed)
Discharge	
Unique	SW9kinsale
Point Code	
Location	Scilly Walk, Kinsale/Kinsale Harbour
Grid ref	E165136, N050099
(6E, 6N)	

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

Attachment B.4 contains Drawing Number 765685 - W - 0004 which shows secondary discharge points SW2kinsale, SW3kinsale, SW4kinsale, SW5kinsale, SW6kinsale, SW7kinsale SW8kinsale and SW9kinsale(proposed).

Attachment included	or its th	Yes	No
	to day.	Х	

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

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

Type of	Point Discharge (Proposed)
Discharge	
Unique	SW8kinsale
Point Code	
Location	Compass Hill, Kinsale/Kinsale Harbour
Grid ref	E163042, N049567
(6E, 6N)	

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

Attachment B.5 contains Drawing Number 765685 - W - 0005 which shows the proposed emergency stormwater overflow discharge point SW8kinsale. (It should be noted that this discharge point is currently in use as a Secondary Discharge Point and is also shown in Attachment B.4 as SW8kinsale on Drawing 765685 - W - 0004.)

Attachment included	Yes	No
	Х	

B.6 Planning Authority

Give the name of the planning authority, or authorities, in whose functional area the discharge or discharges take place or are proposed to take place.

Name:	Cork County Council
Address:	County Hall
	Carrigrohane Road
	Cork
Tel:	021 4276891
Fax:	021 4342098 _© .
e-mail:	

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

has been obtained	:01 2 10°	is being processed	
is not yet applied for	Decli Wile	is not required	X

Permission was granted under the Local Government (Planning and Development) Act, 1993, for the construction of a new Wastewater Treatment Plant and Outfall at Cappagh in accordance with the Ministerial Certification of September 1999 (which is included in Attachment B.6).

Local Authority Planning File Reference №:	

Attachment B.6 should contain **the most recent** planning permission, including a copy of **all** conditions, and where an EIS was required, copies of any such EIS and any certification associated with the EIS, should also be enclosed. Where planning permission is not required for the development, provide reasons, relevant correspondence, etc.

Attachment included	Yes	No
	Yes	

The proposed new Kinsale Wastewater Treatment Plant and Outfall is currently under procurement as a Design Build Operate package. The Contractor has not as yet been appointed.

Attachment B.6 includes the Certified EIS and the Ministerial Certification of the EIS

B.7 Other Authorities

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

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

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

Within the SFADCo Area	Yes	No
		Х

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.

	N N
Name:	Health Services Executive South
Address:	Áras Sláinte etid _{ne} t
	Wilton Road Wilton Road
	Cork volume
Tel:	021 4545011
Fax:	021 4927228
e-mail:	Not Available of the second se

B.7 (iii) Other Relevant Water Services Authorities

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

Name:	NOT APPLICABLE
Address:	
Tel: Fax:	
Fax:	
e-mail:	

Relevant Authority Notified	Yes	No
		X

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

Attachment included	Yes	No

B.8 Notices and Advertisements

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

Attachment B.8 should contain a copy of the site notice and an appropriately scaled drawing (\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.

Attachment B.8 contains a copy of the Site Notice and Drawing Number 765685 – W – 0006 which shows the location of the Site Notice.

Attachment included		Althor Yes	No
	only.	yes Yes	

B.9 (i) Population Equivalent of Agglomeration

TABLE B.9.1 POPULATION EQUIVALENT OF AGGLOMERATION

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

Population Equivalent	7415(current) 9800(future)
Data Compiled (Year)	2007
Method	Desk Study

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.

It is anticipated that proposed new Wastewater Treatment Plant and Outfall will cater for a design PE of 9800 during the currency of the Licence, made up as in the Table below:

Category	Population Equivalent
Current Domestic	4 409
Future Domestic	1 605
Total Domestic	6 014
Current Non-Domestic	3 316
Future Non-Domestic	470
Total Non-Domestic	3 786
TOTAL P.E.	9 800

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 C)
	€25000

Appropriate Fee Included	ection et la	Yes	No
	cot itight o	Х	

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.

Programme for the Completion of the Works

It is anticipated that the necessary works to upgrade the Collection System will be substantially complete in 2009, while the new Wastewater Treatment Plant is expected to be fully operational in 2011.

Attachment B.10 contains an excerpt from the Water Services Investment Programme 2007 – 2009.

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
	X	

B.11 Significant Correspondence

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

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

Attachment included	Yes	No
		X

B.12 Foreshore Act Licences.

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

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

Attachment B.12 contains a copy of the Foreshore Licence including all conditions attached to the Licence.

Attachment included	inspectionner.	Yes	No
	For Wille	Х	

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.

Proposed New Wastewater Treatment Works

The proposed new Wastewater Treatment Works will be provided for the ultimate flows and loads shown in the Table below:

Parameter		Design
Average Flow Rate (DWF)	m ³ /d m ³ /h	3 000 125
Peak Flow to Inlet Works	l/s m³/h	253 909
Peak Flow to Treatment (3 DWF)	l/s m³/h	104 375
Biological Oxygen Demand BOD ₅	kg/d	750
Chemical Oxygen Demand	kg/d	1500
Fats, Oil and Grease	kg/d	150
Suspended Solids	kg/d	1500

The proposed new Kinsale Wastewater Treatment Plant and Outfall is currently at an advanced stage of procurement as a Design Build Operate package. The Contractor has not as yet been appointed.

The new Kinsale Wastewater Treatment Plant will comprise:

Inlet Pumping Station: The capacity of the duty/standby variable speed pumps shall be sized so that they have a capacity of 253 l/s at full speed in operation

Inlet Works: The inlet works shall be designed to cater for the full flow of 253 I/s and shall include, but not be limited to:

- Screening
- Grit Removal
- Fats, Oil and Grease Removal
- Septicity Treatment
- Stormwater Management: The treatment plant shall include for the storage of stormwater in holding tanks with a minimum total capacity to provide 2 hours storage for flows in excess of the 3 DWF flow of 375m³/h up to the maximum of 6 DWF $(750m^3/h)$.

Secondary Biological Treatment: designed to cater for the 3 DWF flow of 375m³/h and for loads described above.

<u>Disinfection</u>: The treated wastewater will be disinfected prior to discharge.

Sludge Treatment: Sludge arising from the WWTP will be dewatered to a dry solids content of not less than 20%.

Treated Wastewater Quality

Wastewater will be treated to a standard shown below: solids content of not less than 20%.

Parameter & Constitution	Value
BOD ₅	≤ 20 mg/l*
COD CORECT	≤ 125 mg/l
Total Suspended Solids	≤ 30 mg/l*
Total Phosphorus	≤ 2 mg/l**
рН	6.0 - 8.5
Temperature	< 30°C

^{*} These standards are in accordance with those specified in the Certified EIS

Additionally, in accordance with the Approved Environmental Impact Assessment, the total Nitrogen concentration in the final effluent shall be reduced to 15 mg/l.

The treated effluent shall also comply with the Foreshore Licence issued by the Department of Communications Marine and Natural Resources and in particular with the following:

The geometric mean of faecal coliform per 100ml shall be 250 faecal coliform or less on the basis of a 50 sample rolling programme and

^{**} This standard is to comply with the UWWR designation of sensitive waters

√ 95% of all samples shall be less than 1000 faecal coliform /100ml of effluent

Following completion of the Kinsale Wastewater Treatment Plant, the current primary discharge at World's End will become an emergency overflow from a new intermediate pumping station and the wastewater will be conveyed from the new main pumping station at Denis' Quay, to the WWTP for full treatment.

To ensure that nuisance is not caused to members of the public living in close proximity to the WWTP Site and to visitors to the area, and to fully comply with European Communities (Wastewater Treatment) (Prevention of Odour and Noise Regulations (S.I. 787 of 2005), strict boundary conditions will be adhered to as follows:

- ✓ Odour will be controlled by biological or chemical treatment to such an extent that 95 and 98 percentile of odour concentrations are less than 1 and 2 OU/m³ respectively above background levels at the boundary of the site and that the hydrogen sulphide concentration at the exhaust stacks of the odour control units will not exceed 2 ppb and at any one of the four measuring points at the boundary of the treatment plant site does not exceed 0.5 ppb H₂S as H₂S.
- ✓ Noise levels are not exceeded during the operation of the plant, when measured at the boundary of the treatment plant site:

Day:	08.00 hrs to 20.00 hrs 💉	50 dB (A) 30 minute
	othe	Leq
Night:	20.00 hrs to 08.00 hrs	40 dB (A) 30 minute
	oo ited to	Leq
	ill Till	

Proposed Flow Measurement and Sampling Points

Flow Measurement and sampling will be provided at the points shown in the table below:

<u> </u>	<u> </u>		
Location	Flow/Weight Measurement	Sampling Point	Reference
Incoming Wastewater	✓	✓	Α
Flow to the storm holding tanks	✓	√ ^A	В
Overflow from the storm tanks	✓	√ ^A	С
low to the secondary treatment plant	✓	√ ^A	D
Final effluent	✓	√ ^A	Е
Return activated sludge (RAS)	✓		F
Surplus activated sludge (SAS)	✓	✓	G
Final sludge product	✓	✓	J
Odour control plant outlet stacks		✓	At each stack
Odour at the site boundary receptor sites		✓	At 4 points along the boundary to be agreed
Potable water	✓	N/A	L

Note: A Indicates that automatic sampling will be provided.

Stormwater Management

Stormwater Management will be provided to ensure full compliance with the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995.

Flows in excess of 375m³/h (Full Flow to Treatment) will overflow after Preliminary Treatment (Screening, Grit & Grease Removal) to Stormwater

Holding Tanks with a minimum total capacity to provide 2 hours storage for flows in excess of the 3 DWF flow of $375 \text{ m}^3\text{/h}$ up to the maximum of 6 DWF $(750\text{m}^3\text{/h})$. Stormwater will be returned for treatment, under automatic control at a rate of $125 \text{ m}^3\text{/h}$.

An Emergency Stormwater Overflow will be provided.

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.

The proposed new Kinsale Wastewater Treatment Plant and Outfall is currently under procurement as a Design Build Operate package. The Contractor has not as yet been appointed.

As the Contractor has not been appointed, further details cannot be provided on his proposals, however a copy of the Kinsale Main Drainage Scheme – Wastewater Treatment Plant – Volume 4 (Employer's Requirements – Design Build Works) as been included as support documentation in Attachment C.1.

Attachment included	otherYes	No
	as of the say X	

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.

The proposed new Kinsale Wastewater Treatment Plant and Outfall is currently under procurement as a Design Build Operate package. The Contractor has not as yet been appointed.

As the Contractor has not been appointed, further details cannot be provided with respect to the detail of the outfall design and construction, however a copy of the Kinsale Main Drainage Scheme – Wastewater Treatment Plant – Volume 4 (Employer's Requirements – Design Build Works) as been included as support documentation in Attachment C.1.

The treated wastewater will be discharged via a 560mm diameter HDPE pressure pipe to a point in the centre of the Estuary between the old and new Western Bridges. The wastewater will discharge through 6 No. port diffusers.

The Treated Effluent Outfall shall comply in all respects with the Foreshore Licence issued by the Department of the Marine Communications and Natural Resources.

The outfall and diffuser will be designed by the Contractor to discharge all the effluent from the works against a tidal level with a 1: 50 year return period.

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

Attachment included	Yes	No
		X

Consent of copyright owner required for any other use.

SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

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

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

Details of all discharges of waste water from the agglomeration should be submitted via the following web based link: http://78.137.160.73/epa_wwd_licensing/. 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.

Details of all discharges of waste water from the agglomeration should be supplied via the water from the agglomeration should be supplied via the water from the agglomeration should be 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
	X	

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
SW1kinsale	Primary	Cork Co. Co.	Coastal	Kinsale Harbour		164238	049703
SW1kinsale (proposed)	Primary	Cork Co. Co.	Tidal Estuary	Kinsale Harbour		162615	049527
SW2kinsale	Secondary	Cork Co. Co.	Coastal	Kinsale Harbour		165485	049801
SW3kinsale	Secondary	Cork Co. Co.	Coastal	Kinsale Harbour		164236	050240
SW4kinsale	Secondary	Cork Co. Co.	Coastal	Kinsale Harbour		164468	050350
SW5kinsale	Secondary	Cork Co. Co.	Coastal	Kinsale Harbour		163979	050357
SW6kinsale	Secondary	Cork Co. Co.	Coastal	Kinsale Harbour		163985	050374
SW7kinsale	Emergency Overflow	Cork Co. Co.	Coastal	Kinsale Harbour	Juge.	164168	050069
SW8kinsale	Secondary	Cork Co. Co.	Coastal	Kinsale Harbour	othert	163042	049567
SW9kinsale (proposed)	Emergency Overflow	Cork Co. Co.	Coastal	Kinsale Harbour	10.5	165136	050099

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

SECTION E: MONITORING

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

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

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

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

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

There is currently no composite sampling or continuous flow monitoring on either the primary or secondary discharge points.

Extensive continuous flow measurement and sampling points will be provided as part of the proposed Kinsale Wastewater Treatment Plant at the points shown in the table below:

Location	Flow/Weight Measurement	Sampling Point	Reference
Incoming Wastewater	DALL A	✓	Α
Flow to the storm holding tanks	√	√ ^A	В
Overflow from the storm tanks	✓	√ ^A	С
low to the secondary treatment plant	✓	√ ^A	D
Final effluent	✓	√ ^A	Е
Return activated sludge (RAS)	✓		F
Surplus activated sludge (SAS)	✓	✓	G
Final sludge product	✓	✓	J
Odour control plant outlet stacks		✓	At each stack
Odour at the site boundary receptor sites		√	At 4 points along the boundary to be agreed
Potable water	✓	N/A	L

Note: A Indicates that automatic sampling will be provided.

Programme for the Completion of the Works

It is anticipated that the necessary works to upgrade the Collection System will be substantially complete in 2009, while the new Wastewater Treatment Plant is expected to be fully operational in 2011.

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.

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

Attachment E.2 contains an extract from Kinsale Main Drainage Scheme – Wastewater Treatment Plant Volume 5 (Employer's Requirements – Operation and Maintenance Works) which details the Monitoring/Sampling and Analysis which the Contractor will be obliged to fulfil during the Operation and Maintenance Period.

Attachment included	Yes	No
	ally: ally of X	
	Specific Purposes editor	
	on purequit	
	spectic onter	
For it	yi dit	
of cox		
ntsett.		

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	(e.g., Primary, Secondary,	Monitoring Type M = Monitoring S = Sampling		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. 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)(I) of the regulations requires applicants to give details of compliance with any applicable monitoring requirements and treatment standards.

There are no Wastewater Treatment Facilities in Kinsale at this time.

The proposed new Kinsale Wastewater Treatment Plant and Outfall is currently under procurement as a Design Build Operate package. The Contractor has not as yet been appointed.

Attachment E.4 should contain any supporting information.

Attachment included	Yes	No
	Х	

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

o 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.

The results of dispersion modelling of the impact of proposed emissions to environment are shown in respect of the proposed primary discharge are included as Appendix A of the ELS which is included as Attachment B.6.

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

An evaluation carried out on the receiving waters for the preparation of the EIS, and the results are presented in Section 5.3 of the EIS, a copy of which is included as Attachment B.6.

- For discharges from secondary discharge points Tables F.1(ii)(a) & (b) should be completed. Furthermore, provide summary details and an assessment of the impacts of any existing or proposed emissions on the surface water or ground (aquifers, soils, sub-soils and rock environment), including any impact on environmental media other than those into which the emissions are to be made.
- Provide details of the extent and type of ground emissions at the works.
 For larger discharges to groundwaters, e.g., from Integrated Constructed Wetlands, large scale percolation areas, etc., a comprehensive report must be completed which should include, inter alia, topography,

meteorological data, water quality, geology, hydrology, and hydrogeology. The latter must in particular present the aquifer classification and vulnerability. The Geological Survey of Ireland Groundwater Protection Scheme Dept of the Environment and Local Government, Geological Survey of Ireland, EPA (1999) methodology should be used for any such classification. This report should also identify all surface water bodies and water wells that may be at risk as a result of the ground discharge.

There will be no discharges to ground or groundwater from the proposed WWTP.

- 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.

There will be no emissions to the environment which are likely to impair the environment.

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

There are no water abstraction points downstream of any of the discharge points.

- 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 site (until the adoption, in respect of the site, of a decision by the European Commission under Article 21 of Council Directive 92/43/EEC for the purposes of the third paragraph of Article 4(2) of that Directive) —
 - (i) notified for the purposes of Regulation 4 of the Natural Habitats Regulations, subject to any amendments made to it by virtue of Regulation 5 of those Regulations,
 - (ii) details of which have been transmitted to the Commission in accordance with Regulation 5(4) of the Natural Habitats Regulations, or
 - (iii) added by virtue of Regulation 6 of the Natural Habitats Regulations to the list transmitted to the Commission in accordance with Regulation 5(4) of those Regulations,

- (b) a site adopted by the European Commission as a site of Community importance for the purposes of Article 4(2) of Council Directive 92/43/EEC¹ in accordance with the procedures laid down in Article 21 of that Directive,
- (c) a special area of conservation within the meaning of the Natural Habitats Regulations, or
- (d) an area classified pursuant to Article 4(1) or 4(2) of Council Directive 79/409/EEC²;

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

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

No 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 any recipient which has or might in the future be classified as described above.

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

To ensure that impact of the discharge of treated wastewater on its recipient are minimised, wastewater will be discharged at a point off-shore between the old and new Western Bridges

The results of dispersion modeling of the impact of proposed emissions to environment are shown in respect of the proposed primary discharge are included as Appendix A of the EIS which is included as Attachment B.6.

The dispersion model clearly shows that impacts of the discharge are confined to a short distance from the discharge point.

 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.**

A copy of the Certified EIS is provided with the Application together with a copy of the Ministerial Approval (September 1999) is provided elsewhere in this Application as Attachment B.6

Attachment included	Yes	No
		X

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 m³/day	Point Code Provide label ID's	Distance Downstream in meters from Emission Point to Abstraction Point	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used

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

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

There are no water abstraction points.

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).

Upgrading of the Collection System

Contracts are currently underway to upgrade the Wastewater Collection System serving the agglomeration.

The foul sewage from Kinsale Town Scilly and Summercove will be collected in a system of existing and new sewers and conveyed to a new main pumping station to be constructed on the site of the existing pumping station at Denis' Quay.

While the wastewater from the Scilly and Summercove areas will be pumped, the balance will flow by gravity to the main pumping station, and be pumped from there to Commoge and by gravity to the wastewater treatment plant site at Cappagh.

Stormwater in the higher parts of the town will be collected in a series of new storm sewers and discharge under pressure into the Scilly Dam while the lower area will be served by a new system incorporating some storage to provide against flooding during periods of high water. Run-off from roofs and roads will continue to discharge directly to the harbour.

Where necessary existing sewers, which will form part of the new system will be rehabilitated, repaired or replaced to ensure that infiltration is minimised.

Proposed new Pumping Station at Denis' Quay

It is proposed that a maximum of 525.6 m³/hr, equivalent to 146 l/sec (6 DWF), be pumped to Commoge via 400mm OD HPPE PE100 pipe, 2,131 lin.m long. From Commoge, the flow will discharge by gravity into the proposed WWTP at Cappagh. 3 no. variable speed foul pumps (2 Duty + 1 Standby) are to be provided.

The pumps will operate in a 'Duty + Duty Assist + Standby' mode."

Proposed New Wastewater Treatment Works

The proposed new Kinsale Wastewater Treatment Plant and Outfall is currently at an advanced stage of procurement as a Design Build Operate package. The Contractor has not as yet been appointed.

The new Kinsale Wastewater Treatment Plant will comprise:

Inlet Pumping Station: The capacity of the duty/standby variable speed pumps shall be sized so that they have a capacity of 253 l/s at full speed in operation

Inlet Works: The inlet works shall be designed to cater for the full flow of 253 I/s and shall include, but not be limited to:

- Screening
- Grit Removal
- Fats, Oil and Grease Removal
- Septicity Treatment
- Stormwater Management: The treatment plant shall include for the storage of stormwater in holding tanks with a minimum total capacity to provide 2 hours storage for flows in excess of the 3 DWF flow of 375m³/h up to the maximum of 6 DWF $(750m^3/h)$.

Secondary Biological Treatment: designed to cater for the 3 DWF flow of 375m³/h and for loads described above.

Disinfection: The treated wastewater will be disinfected prior to discharge.

Sludge Treatment: Sludge arising from the WWTP will be dewatered to a dry solids content of not less than 20%.

Treated Wastewater Quality

Wastewater will be treated to a standard shown below: solids content of not less than 20%.

Parameter ed girls	Value
BOD ₅	20 mg/l*
COD	≤ 125 mg/l
Total Suspended Solids	≤ 30 mg/l*
Total Phosphorus	< 2 mg/l**
pH	6.0 - 8.5
Temperature	< 30°C

^{*} These standards are in accordance with those specified in the Certified EIS

Additionally, in accordance with the Approved Environmental Impact Assessment, the total Nitrogen concentration in the final effluent shall be reduced to 15 mg/l.

The treated effluent shall also comply with the Foreshore Licence issued by the Department of Communications Marine and Natural Resources and in particular with the following:

- The geometric mean of faecal coliform per 100ml shall be 250 faecal coliform or less on the basis of a 50 sample rolling programme and
- 95% of all samples shall be less than 1000 faecal coliform /100ml of effluent

^{**} This standard is to comply with the UWWR designation of sensitive waters

Following completion of the Kinsale Wastewater Treatment Plant, the current primary discharge at World's End will be decommissioned and the wastewater will be conveyed to the WWTP for full treatment.

To ensure that nuisance is not caused to members of the public living in close proximity to the WWTP Site and to visitors to the area, and to fully comply with European Communities (Wastewater Treatment) (Prevention of Odour and Noise Regulations (S.I. 787 of 2005), strict boundary conditions will be adhered to as follows:

- ✓ Odour will be controlled by biological or chemical treatment to such an extent that 95 and 98 percentile of odour concentrations are less than 1 and 2 OU/m³ respectively above background levels at the boundary of the site and that the hydrogen sulphide concentration at the exhaust stacks of the odour control units will not exceed 2 ppb and at any one of the four measuring points at the boundary of the treatment plant site does not exceed 0.5 ppb H₂S as H₂S.
- ✓ Noise levels are not exceeded during the operation of the plant, when measured at the boundary of the treatment plant site:

Day:	08.00 hrs to 20.00 hrs	50 dB (A) 30 minute Leq
Night:		40 dB (A) 30 minute Leq

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.

Programme for the Completion of the Works

It is anticipated that the necessary works to upgrade the Collection System will be substantially complete in 2009, while the new Wastewater Treatment Plant is expected to be fully operational in 2011.

Attachment G.1 contains an excerpt from the Water Services Investment Programme 2007 – 2009.

Attachment included	Yes	No
	X	

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
		X

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.

Phosphorus Removal

Facilities will be provided within the proposed new Kinsale Wastewater Treatment Plant for the removal of Phosphorus from the wastewater to a discharge standard of 2 mg/l Total Phosphorus to comply with the designation of the receiving waters as sensitive.

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	_{alli} ei Y es	No
	Offile Sty	X

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's of the Waste Water Discharge (Authorisation) Regulations, 2007.

Stormwater Management

Stormwater Management will be provided to ensure full compliance with the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995.

Flows in excess of $375 \, \text{m}^3/\text{h}$ (Full Flow to Treatment) will overflow after Preliminary Treatment (Screening, Grit & Grease Removal) to Stormwater Holding Tanks with a minimum total capacity to provide 2 hours storage for flows in excess of the 3 DWF flow of $375 \, \text{m}^3/\text{h}$ up to the maximum of 6 DWF ($750 \, \text{m}^3/\text{h}$). Stormwater will be returned for treatment, under automatic control at a rate of $125 \, \text{m}^3/\text{h}$.

An Emergency Stormwater Overflow will be provided.

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

Attachment included	Yes	No
		Х

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 : (on behalf of the organisation)

Date

Print signature name:

Patricia Power

Position in organisation:

Director of Services

SECTION I: JOINT DECLARATION

Joint Declaration Note1

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).

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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.

<u>Lead Authority</u>	Nec.
Signed by :	Date :
(on behalf of the organisation)	्रविष्ठि विष्ठ
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Position in organisation:	
Co-Applicants	
Signed by:	Date :
(on behalf of the organisation)	
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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.