This is a draft document and is subject to revision.



Waste Water Discharge Certificate⁴⁶of Authorisation Application Form

EPA Ref. №:	
(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: <u>www.epa.ie</u>Email: info@epa.ie



Tracking Amendments to Draft Application Form

Version No.	Date	Amendment since previous version	Reason
V. 1.	23/03/09	N/A	

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Environmental Protection Agency Application for a Waste Water Discharge Certificate of Authorisation 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 Certificate of Authorisation under the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) or for the review of an existing Waste Water Discharge Certificate of Authorisation.

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

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

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

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

PROCEDURES

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

An application for a Certificate of Authorisation must be submitted on the appropriate form (available from the Agency website – <u>http://www.epa.ie/whatwedo/licensing/wwda/</u>) with the correct fee, and should contain relevant supporting documentation as attachments. The application should be based on responses to the form and include supporting written text and the appropriate use of tables and drawings. Where point source emissions occur, a system of unique reference numbers should be used to denote each discharge point. These should be simple, logical, and traceable throughout the application.

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

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

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

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

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

The provision of information in an application for a waste water discharge Certificate of Authorisation which is false or misleading is an offence under Regulation 35 of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007). *Note:* <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 <u>direction of north</u>.
- 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.



NON-TECHNICAL SUMMARY SECTION A:

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

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

Saleen is located approximately 8 kilometres south of Midleton, on the R630, and approximately 8 kilometres northeast of Whitegate. The village is located at the southern end of Cork harbour in an area comprising considerable natural and scenic amenities. Poulnabibe Inlet, which is located to the west of the village is designated as part of an extensive nature conservation area. The village is currently served by a septic tank. The Saleen stream runs adjacent to the village and it meets the Cloyne river approximately 400m southwest of the village. The existing septic tank is located immediately northeast of the confluence. The Cloyne river becomes tidal downstream of the confluence where it becomes Saleen Creek.

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

- 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 the seeable 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 technolog 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 Saleen sewerage network which is operated by Cork County Council compromises of the following elements :

- Pipes networks Covering contributory areas within the village. •
- Inlet
- Storm Overflow Chamber •
- Septic Tank •
- Outlet •

When the tank was built the Population Equivalent PE contributing to it was far less than at present. The current PE contributing to the septic tank is

approximately 490. The passage of sewage through a septic tank helps in the removal of suspended solids but there is very little biological activity and the removal of BOD is not significant.

The septic tank currently does not have an existing sampling regime in place.

Saleen Sewerage Scheme is included in the Water Services Investment Programme 2007-2009.

Cork County Council is currently awaiting departmental approval for funding to proceed with the Scheme. It is proposed to procure the treatment plant under a design, build, operate contract. The operator will be obliged to meet the standards set out in the Urban Waste Water Treatment Regulations and it is likely that an appropriate sampling regime will be put in place.

The sources of emissions from the waste water works.

The population load for the Saleen Village agglomeration arises from the following sources:

- Domestic Population
- Commercial Premises
- School &
- Infiltration

In addition to the domestic load, there are also corrently1 Pub/Restaurant,1 School.

The sewage is collected via the existing sewer network and is discharged into the village septic tank built for this purpose of the septic tank does not receive any other sludge imported from other municipal waste water sources or septic tanks.

Other potential emissions from the existing waste water treatment process include;

 Odour generated from the treatment process – No recorded issues to date, but verbal complaints received from local residents.

The proposed plant will be initially designed to cater for a PE of 1200.

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

Technology

The new WWTP will include the following elements;

- Grit Removal and Screening
- Storm Holding Tank
- Inlet Flow Measurement Chamber
- Extended Aeration Tanks
- Clarifier
- Sludge Picket-Fence Thickener
- Final Effluent Flow Measurement Chamber
- UV Channel
- Control House
- Odour Control Units

Techniques

The new WWTP shall be operated and maintained in accordance with best practice and any performance requirements stipulated in the Employer's Requirements.

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 complete process will be upgraded with the construction of the new WWTP. The treatment capacity, the discharge quality and control systems will be improved to ensure that no significant pollution is caused.

It is likely that under the DBO contract for the new WWTP, a Performance Management system will be required. Such a system would provide a uniform approach to dealing with 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 financial penalties to the operating contractor. As a result, the risk of environmental pollution from the treatment plant should be reduced.

Measures planned to monitor emissions into the environment.

No sampling is currently carried out on the influent or effluent. It is likely that under the Employers Requirements for Operation and Maintenance 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 waste water treatment plant assets and operation, which would include undertaking sampling, monitoring and analysis of the wastewater and Sludge.

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Consent of conviction of the required for any other use.

SECTION B: GENERAL

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

B.1 Agglomeration Details

Applicant's Details

Name and Address for Correspondence

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

Provide a drawing detailing the agglomeration to which the Certificate of Authorisation application relates. It should have the boundary of the agglomeration to which the Certificate of Authorisation application relates <u>clearly</u> <u>marked in red ink</u>.

Name*:	Cork County Council South		
Address:	Floor 5		
	County Hall		
	Carrigrohane Road		
	County Cork		
Tel:	021-4276891		
Fax:	021-4276321 Martine		
e-mail:	Corporate.affairs@corkcoco.ie		

*This should be the name of the Water Services Authority in whose ownership or control the waste water works is vested.

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

Name*:	Ms. Patricia Power
Address:	floor 5 st
	County Hall
	Carrigohane 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:		

*This should be the name of a Water Services Authority, other than the lead authority, where multiple authorities are the subject of a waste water discharge Certificate of Authorisation application.

Design, Build & Operate Contractor Details

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

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

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

Attachment included	Yes	No
	othe X	
	out and	

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

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

Name*:	Michael Savage
Address:	Midleton Area Office, Cork County Council,
	Midleton,
	County Cork 🔊
	COR
Grid ref	E 188679
(6E, 6N)	N 067684
Level of	Primary
Treatment	
Primary	Tel. 021-4631554
Telephone:	
Fax:	Fax: 021-4632023
e-mail:	Michael.Savage@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 (\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 georeferenced digital drawing files (e.g., ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. These drawings should be provided to the Agency on a separate CD-Rom containing sections B.1, B.3, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
	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.

Discharge	Surfa	ice Water			
to					
Type of	Pipe	to Stream			
Discharge					
Unique	SW1	SLEN			
Point Code					
Location	Scart	lea Lower			
Grid ref	Е	188,585			
(6E, 6N)	Ν	067,641			

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 georeferenced 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	oction per real	Yes	No
	tinsper ow	x	
	Forstre		

B.4 Location of Secondary Discharge Point(s)

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

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

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.

Attachment included	Yes	No
		x

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	Storr	n water			
Discharge					
Unique	SW1	SLEN			
Point Code					
Location	Scart	lea Lower			
Grid ref	Е	188,585			
(6E, 6N)	Ν	067,641			

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

Attachment included	citon per requ	Yes	No
	inspectow		x
B.6 Planning Authority	tor copyris		

B.6 Planning Authority

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

Name:	Cork County Council
Address:	Planning Department
	County Hall
	Carrigrohane
	County Cork
Tel:	021-4276891
Fax:	021-4867007
e-mail:	Planninginfo@CorkCoCo.ie

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

has been obtained	is being processed	
is not yet applied for	is not required	x

Local Authority Planning File Reference N ^o :	Not Available

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
		X

B.7 Other Authorities

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

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

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

	<u></u>	
Within the SFADCo Area	Yes	No
	ally any or	x

B.7 (ii) Health Services Executive Region Region

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

Name:	Health Service Executive southern Regoin
Address:	North Lee Pocal Health Office
	Abbeycourt House
	Georges Quay , Cork
Tel:	021-4965571
Fax:	021-49427228
e-mail:	info@ hse . ie

B. 8(i) Population Equivalent of Agglomeration

TABLE B.8.1 POPULATION EQUIVALENT OF AGGLOMERATION

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

Population Equivalent	490
Data Compiled (Year)	2009
Method	HOUSE COUNT 2009

B.8 (ii) Pending Development

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

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

A planning search in January 2003 revealed that planning had been granted for an additional 54 houses. Since January2003 the following planning applications have been granted for areas in and adjacent to Saleen: 10 dwellings and 2 no. retail outlets ,Scartlea Upper 6 no. dwellings, Scartlea Lower: 5 no. individual dwellings ,one small estate of 6 houses and 1 estate of 39 houses. In addition to the above cognisance will have to be taken of the proposed Midleton Electoral Area Local area plan. The pe figure of 490 takes all of the above into account.

150.

B.8 (iii) FEES

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



*Please see copy of attached letter to F Clinton Programme Manager , Licencing Unit EPA on December 18th 2009

B.9 Capital Investment Programme

State whether a programme of works has been prioritised for the development of infrastructure to appropriately collect, convey, treat and discharge waste water from the relevant agglomeration. If a programme of works has been prioritised provide details on funding (local or national Water Services Investment Plans) 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.

A programme of work titled Saleen Sewerage Scheme, part of the water services investment programme (WSIP) 2007-2009 was prioritised for the development of infrastructure to collect ,convey, treat and discharge waste water from the agglomeration. As per the DEHLG's Circular L309, the scheme had to be curtailed.

The DEHLG has requested that all local authorities prepare a list of assessment of needs for water and sewerage schemes . Cork County Council's list is awaiting approval of elected members, the outcome of the department review will not be known before March 2010. Saleen is included on the list.

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

Attachment included	Yes	No
	Х	

B.10 Significant Correspondence

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

Not Applicable

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

Attachment included	Yes	No
		X
	Her USC.	

B.11 Foreshore Act Licences.

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

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

Not Applicable

Attachment included	Yes	No
		x

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.

There is no waste water treatment plant at present .The village is currently served by a septic tank. The Saleen stream runs adjacent to the village and it meets the Cloyne river approximately 400m southwest of the village. The existing septic tank is located immediately northeast of the confluence. The Cloyne river becomes tidal downstream of the confluence where it becomes Saleen Creek.

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.

The Saleen sewerage network which is operated by Cork County Council compromises of the following elements :

- Pipes networks Covering contributory areas within the village.
- Inlet
- Storm Overflow Chamber
- Septic Tank
- Outlet

When the tank was built the Population Equivalent PE contributing to it was far less than at present. The current PE contributing to the septic tank is approximately 490. The passage of sewage through a septic tank helps in the removal of suspended solids but there is very little biological activity and the removal of BOD is not significant.

The septic tank currently does not have an existing sampling regime in place.

Saleen Sewerage Scheme is included in the Water Services Investment Programme 2007-2009.

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Cork County Council is currently awaiting departmental approval for funding to proceed with the Scheme. It is proposed to procure the treatment plant under a design, build, operate contract. If funding became available, and construction was approved the operator will be obliged to meet the standards set out in the Urban Waste Water Treatment Regulations and it is likely that an appropriate sampling regime will be put in place.

Primary Treatment

Under normal operating conditions all of the influent enters the septic tank, which has a capacity of 11.4m3. Here the heavy solids settle to the bottom of the tank and are stored for collection. The effluent then flows directly to the primary discharge point. When this capacity is calculated in terms of PE, a PE of 50-60 is obtained. This is much less than the current PE of 403. The septic tank is badly overloaded and is not operating efficiently. It is highly unlikely that the effluent meets the required standard.

Storm Water Overflows

There is one Storm Water Overflow (SWO) associated with the Septic Tank. The inlet works at the septic tank include a SWO chamber. Storm water flows are discharged into Ballycotton Bay, with the primary discharge point.

There are no records available showing frequency of storm water overflows, or the quantities discharged.

There are no designated bathing waters or shell fish waters that are affected by the SWOs. Therefore the quality standards or objectives for the aquatic environment considered in the DoEHLG "Procedures and Criteria in Relation to Storm Water Overflows" (1995) are not applicable. (The nearest designated bathing area is The Beach at Garryvoe. This is located approximately 3km the discharge point. The nearest designated shellfish waters are located in Ballymacoda Bay which is approximately 15km from the discharge point.

The DoEHLG "Procedures and Criteria in Relation to Storm Water Overflow" (1995), provides assessment criteria for existing SWOs. These criteria are discussed below;

1. Determine if the SWO causes significant visual or aesthetic impact and public complaints.

There are no records of public complaints regarding the SWOs to date.

2. Determine if the SWO causes deterioration in water quality of the receiving water.

The SWO at the septic tank is connected to the primary discharge point. Therefore there is no specific data regarding the overflows from the septic tank.

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3. Determine if the SWO gives rise to failure in meeting the requirements of National Regulations on foot of EU Directives (Bathing Waters etc).

There is no information available regarding the quality of the SWOs, therefore and assessment cannot be made.

4. Determine if the SWO operates in dry weather.

There are no records to indicate if the SWOs operate in dry weather.

The proposed WWTP will include Storm Holding Tanks which will discharge to the proposed new outfall.

C.1.2 Pumping Stations

No pumping station

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.

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.

\sim		
Attachment included	Yes	No
	x	

SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

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

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

Details of all discharges of waste water from the agglomeration should be submitted via the following web based link: http://78.137.160.73/ epa_wwd_licensing/.The applicant should address in particular all discharge points where the substances outlined in Tables 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions' are emitted

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

D.1(i) Discharges to Surface Waters Purposed Details of all discharges of waste wate from the applomeration should be supplied via the following web based link: http://78.137.160.73/epa_wwd_licensing/. Tables 'Discharge Point Details', 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions', should be completed for the primary discharge point from the applomeration and for **each** secondary discharge point, where relevant. Table 'Discharge Point Details' should be completed for **each** storm water overflow. Individual Tables must be completed for each discharge point.

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

Supporting information should form Attachment D.1(i)

Attachment included	Yes	No
		X

D.1(ii) Discharges to Groundwater

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

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

Supporting	information	should form	Attachment D.1(ii)
Supporting	mormation	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	DESIGNATION	EASTING	NORTHING
SW1 SLE N	Primar y	CORK County Council)	River in the Cloyne river	pNHA	18858 5	067641

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

SECTION E: MONITORING

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

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

Provide an estimation of the quantity of waste water likely to be emitted in relation to all primary and secondary discharge points applied for. This information should be included in Table 'Discharge Point Details' via the following web based link: http://rts.137.160.73/epa_wwd_licensing/.

Provide an estimation of the quantity of waste water likely to be emitted in relation to all storm water overflows within the agglomeration applied for. This information should be included in Table 'Discharge Point Details' via the following web based link: <u>http://78.137.160.73/epa_wwd_licensing/</u>.

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

E.2. Monitoring and Sampling Points



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

In determining the sampling programme to be carried out, the variability of the discharge and its effect on the receiving environment should be considered. No on going monitoring is taking place, but sampling & testing took place to satisfy the requirement of this application.

General Laboratory Information

The Wastewater Laboratory of Cork County Council is accredited for a number of analytical tests under the Irish National Accreditation Board (INAB) under the ISO 17025 international standard. The details of the Accreditation can be found in Attachment E.2. The Wastewater Laboratory of Cork County Council is currently accredited for the following parameters under the ISO 17025 system:

- pH
- Biochemical Oxygen Demand
- Chemical Oxygen Demand
- Suspended Solids
- Ammonia
- Ortho Phosphates
- Total Phosphates
- Chloride
- Sulphate

The laboratory performs a number of analytical tests e.g. fats, oil , grease and metals using an ICP-OES system and while the Wastewater Laboratory of Cork County Council is not currently accredited for extra tests the same analytical procedures and protocol are adhered to by the laboratory as would be required if the tests were accredited. The laboratory also participates in proficiency testing schemes which measure the accuracy of the results and performance of the laboratory in both the EPA scheme and the WRC Aquacheck scheme from the UK. The performance of the laboratory in these schemes is excellent and the nonaccredited tests are within the performance criteria for the schemes as evaluated by the scheme coordinators.

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

Attachment included	Yes	No
	X	



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
aSW-1u	u/stream	Sampling	E188779	N067838	N
asw-1d	d/stream		E188674	N067672	N

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

E.4 Sampling Data

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

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

Attachment included	ection for to	Yes	No
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	, col		
	attol		
	3115 ⁶		
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Attachment E.4 should contain any supporting information.

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

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

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

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

F.1. Impact on Receiving Surface water or Groundwater

- Details of monitoring of the receiving surface water should be supplied via the following web based link: http://78.137.160.73/epa_wwd_licensing/. Tables 'Monitoring Details', 'Monitoring Fest Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details'. Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.
- Details of monitoring of the receiving ground water should be supplied via the following web based link: <u>http://78.137.160.73/epa_wwd_licensing/</u>. Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed for the primary discharge point. Ground water monitoring locations upgradient and down gradient of the discharge point shall be screened for those substances listed in Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details'. Monitoring of ground water shall be carried out at not less than two points, one upgradient from the discharge location and one downgradient.
- For discharges from secondary discharge points Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed.
- Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Submit a copy of the most recent water quality management plan or catchment management plan in place for the receiving water body. Give details of any designation under any Council Directive or Regulations that apply in relation to the receiving surface or groundwater.

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The Existing Environment and the Impact of Discharges :

- The Saleen stream which runs adjacent to the village and it meets the Cork Harbour water body (CHWB) approximately 400m southwest of the village falls (Water Body Code : SW-06-0000) within hydrometric area 19.
- The CHWB River has an overall status of "moderate" and has been classified as being "at Risk" or strongly expected to achieve good status by 2015 under the Water Framework Directive Article 5 Characterisation (2004).
- This area is included in a Special Protection Area (SPA) under EU Directive 79/409/EEC on the conservation of wild birds. A number of seed oyster trestles are located in Saleen Creek.
- The Saleen stream runs adjacent to the village and it meets the Cloyne river approximately 400m southwest of the village.
- The existing septic tank is located immediately northeast of the confluence. The Cloyne river becomes tidal downstream of the confluence where it becomes Saleen Creek
- The CHWB s classified as being 'INTERMEDIATE 'in terms of water quality.
- The 1998 Phosphorus Regulations set targets for phosphorus levels and biological quality (Q-values) for rivers and lakes. Where water quality is satisfactory it must be maintained and where water quality is unsatisfactory it must be improved. For levels of phosphorus the baseline Q-value determines the median molyb date-reactive phosphorus (MRP) to be achieved. No Q value is available .EPA monitored the Cork Harbour Water Body and has issued a intermediate .
- Fountainstown has been recently designated public bathing area which is about 15 km away from the Village of Saleen across the harbour.
- Schedule 5 of the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272 of 2009) sets out

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"Criterial for Calculating Surface Water Ecological Status and Ecological Potential." These are summarised for coastal water bodies in table below: as shown below :

Biological quality element	Classification system	Ecological quality ratio Good -moderate	Good -moderate boundary chlorophyll(ug/l)
Phytoplankton	Phytoplankton biomass(chlorophyll)	0.33	5.0(medium value)and 10.0(90percentile value) 10.0(medium value)and 20 (90 percentile value)
	Phytoplankton composition	0.43	Percentage of single taxa counts above thresholds 39
Macroalgae	Rocky shore reduced species list multimetric system	0.60 Heruse.	
	Opportunistic macroalgae multimetric system	Putposes of fot one required 0.60	
Therm	nal conditions		
Temperature	consent of copyrise	Not greater than 1.5°C rise in ambient temperature outside the mixing zone	
Oxygena	ation conditions	Coastal water body	
Biochemical Ox (mgO2/l)	ygen Demand (BOD)	NA	
Dissolved oxygen lower limit		(35 PSU)95%ile>80% Saturation	
Dissolved oxygen upper limit		(35PSU) 95%ile<120% Saturation	
Acidification Status		COASTAL Water Body	
Nutrie	ent conditions	Coastal water body	
Dissolved inorg	anic Nirogen (mgN/I)	34.5 PSU<.25MG N/I	

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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.

Cork County Council has monitored the main polluting substances, as part of this application, as defined in the Dangerous Substances Regulations, 2001 (S.I. No. 12/2001). The results are presented in Attachment E4.

- 0
- In circumstances where drinking water abstraction points exist downstream/down gradient of any discharge describe measures to be undertaken to ensure that discharges from the waste water works will not have a significant effect on faecal coliform, salmonella and protozoan pathogen numbers, e.g., Cryptosporidium and Giardia, in the receiving water environment.
 Not Applicable
- 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 $\frac{1}{2}$.
 - (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/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)

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

Assessment of Relevant Legislation Applicable to Saleen Discharge

The following assesses the relevant European Union Directives and Irish Statutory Legislation that is applicable to the discharge standards at <u>Saleen</u>.

- Dangerous Substances Directive 2006/11/EC,
- Water Framework Directive 2000/60/EC,
- Birds Directive 79/409/EEC,
- Groundwater Directives 80/68/EEC & 2006/118/EC (Not applicable),
- Drinking Water Directives 80/778/EEC (Not applicable),
- Urban Waste Water Treatment Directive 91/271/EEC,
- Habitats Directive 92/43/EEC,
- Bathing Water Directive 76/160/EEC, and
- Shellfish Waters Directive 79/923/EEC.

Dangerous Substances Directive 2006/11/EC

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

Water Framework Directive 2000/60/EC

The objectives of the Water Framework Directive (WFD) are to protect all high status waters, prevent further deterioration of all waters and to restore degraded surface and ground water status by 2015. Cork County Council carried out some limited monitoring on the outlet flows to measure compliance against the relevant standards. Ambient monitoring was also carried out on Ballycotton Bay. A copy of the Water Quality Management Plan for this area has been included in Attachment F.

Birds Directive 79/409/EEC

The directive aims to conserve and manage populations of wild birds throughout Europe partly through the designation of Special Protection Areas (SPA) for birds and their habitats. The primary discharge point is located within 50m of

Ballycotton Bay SPA (site code 004022). The site synopsis for this SPA is included in Attachment F.

Groundwater Directives 801/68/EEC & 2006/118/EC

Not Applicable as there are no discharges to groundwater.

Drinking Water Directives 80/778/EEC

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Not Applicable as there are no abstraction points down stream of the discharge point as it is a coastal discharge.

The Urban Waste Water Treatment Directive 91/271/EEC and Amendment Directive 98/15/EEC

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

Article 7 (a) states that "Member States shall ensure that, by 31 December 2005, urban waste water entering collecting systems shall before discharge be subject to appropriate treatment as defined in Article 2 (9) in the following cases:

- for discharges to fresh-water and estuaries from agglomerations of less than 2 000 p.e.,
- for discharges to coastal waters from agglomerations of less than 10,000 p.e'.

Appropriate treatment is described as that which will allow compliance with other relevant Directives.

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Habitats Directive 92/43/EEC

The aim of this Directive is to contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora. A site synopsis for the designation is included in Attachment F. This area is included in a Special Protection Area (SPA) under EU Directive 79/409/EEC on the conservation of wild birds. A number of seed oyster trestles are located in Saleen Creek.

Bathing Water Directive 79/160/EEC

Council Directive (76/160/EEC 1975), concerning bathing water quality and the associated Bathing Water Regulations (S.I. No 177 of 1998) lay down quality requirements for inland and coastal waters designated bathing areas. The quality standards rely predominantly on microbiological parameters. The purpose is to ensure that bathing water quality is maintained and if necessary improved so that it complies with specified standards designated to protect health and the environment. The nearest designated bathing area to Saleen Village is The Beach at Fountains town which is 15 km away from the primary discharge point.

EU Shellfish Waters Directive (79/923/EEC); and EU Directive on Health Conditions and the Placing on the Market of live Biovalve Molluscs (91/67/EEC) and associated amendments

There are two main EU directives relating to Shellfish Waters. These are the Shellfish Directives (79/923/EEC) as implemented by the Quality of Shellfish Waters Regulations 2006 (S.L. No 268 of 2006), and the Directive on Health Conditions and the placing on the market of Live Bivalve Molluscs (91/67/EEC) and its associated amendments.

The Shellfish Waters Directive is designed to put in place concrete measures to protect waters, including shellfish waters, against pollution and to safeguard certain shellfish populations from various harmful consequences, resulting from the discharge of pollutant substances into the sea. The Directive applies to the aquatic habitat of bivalve and gastropod molluscs only.

The Directive sets physical, chemical and microbiological water quality requirements that designated shellfish waters must either comply with ('mandatory' standards) or endeavour to meet ('guideline' standards). The parameters for testing are pH, temperature, coloration (after filtration), suspended solids, salinity, dissolved oxygen, petroleum hydrocarbons, organohalogenated substances, metals (dissolved), faecal coliforms and substances affecting the taste of the shellfish, faecal coliforms are regarded as one of the most significant parameters. Waters must meet certain mandatory values based on the monitoring regime. Designated waters must conform to the set limit values for the certain parameters within six years of designation.

The outfall from Saleen septic tank does not discharge to designated shellfish waters. The closest designation is at Rostellan South and Rostellan North which are both located approximately 2 km from the discharge point. A map showing the location of the shellfish designation has been included in **Attachment F.**

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In accordance with the Live Bivalve Molluscs (Production Areas) designation 2006 and Council Directive 91/492/EEC, Ballymacoda Bay has a category B status which means that shellfish from this area have to be treated in a purification centre or a relay bed before they can be placed on the market for human consumption. The water quality standards for shellfish in Category B waters is summarised in Table F.1.2. The status of the shellfish waters is monitored on a monthly basis by the National Marine Institute.

Category of Waters	Faecal Coliforms / 100g of Flesh	Compliance of Samples	Further Information
A- Immediate Human Consumption	< 300	100% < 300	Not Required
B- Human Consumption After Treatment	300 - 6,000	90% < 6,000	Purification After Relaying
C- Human Consumption After Treatment	6,000 - 60,000	100% < 60,000	Relaying for long period – Intensive Purification.

Table F.1.2 Requirements for Faecal Coliform Jevels for Live Bivalve Molluscs in Accordance with Directive 91/492/EEC

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

Attachment included	Yes	No
	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.

Not applicable , no water abstraction , discharge to transitional waters.

ABS_CD	AGG_SERVED	ABS_VOL	PT_CD	DIS_DS	EASTING	NORTHING	VERIFIED
Abstraction Code	Agglomeration served	Abstraction Volume in m ³ /day	Point Code Provide label ID's	Distance Downstream in meters from Emission Point to of the Abstraction Point we	6E-digit Ges 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.

Attachment F.2 should contain any supporting information.

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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, • other use.
- Bathing Water Directive 76/160/EEC, and
- Shellfish Waters Directive (2006/113/EC).

A programme of work titled Saleen Sewerage Scheme, part of the water services investment programme (WSIP) 2007-2009 was prioritised for the development of infrastructure to collect ,convey, treat and discharge waste water from the agglomeration. As per the DEHLG's Circular L309, the scheme had to be curtailed.

For 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
		X

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

NOT APPLICABLE

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.

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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	Νο	
		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.

A programme of work titled Saleen Sewerage Scheme, part of the water services investment programme (WSIP) 2007-2009 was prioritised for the development of infrastructure to collect ,convey, treat and discharge waste water from the agglomeration. As per the DEHLG's Circular L309, the scheme had to be curtailed.

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
	ally any or	x
	ost of the	
G.4 Storm Water Overflows	OIL DULL COUL	
	N° Nº	

G.4 **Storm Water Overflows**

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

NOT APPLICABLE

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

Attachment included	Yes	No
		x

SECTION H: DECLARATION

Declaration

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

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

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

This consent submission,	t relates to this applic whether provided by	ation its me as	elf and to Applicant,	any furth any pers	ner inform on acting	ation or on the
Applicant's	behalf,	or	any	🞺 othe	er	person.
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Signed by :	Patricia Power	<u>our</u>	ate :		-	
(on behalf of th	e organisation)	ion er t	-			
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Position in	organisation: <u>Direc</u>	ctor Of S	ervices			
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SECTION I: JOINT DECLARATION

Joint Declaration Note1

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

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

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

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

Lead Authority	15 ⁰ .	
Signed by :	other Date :	
(on behalf of the organisation)	any butter.	
Print signature name:		
citon Veres		
Position in organisation:		
<u>Co-Applicants</u>		
Signed by :	Date :	
Print signature name:		
Position in organisation:		
Signed by :	Date :	
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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ATTACHMENTS TABLE OF CONTENTS			
ATTACHMENTS	ITEM	TITLE	
A.1	Map 1	Location Plan of WWTP	
A.1	Map 2	Location of WWTP	
B.1	Map 3	Agglomeration Boundary	
B.2	Map 4	Location of WWTP	
		Location of Upstream and Downstream	
B.2	Map 5	Monitoring Points	
B.3	Map 6	Location of Primary Discharge Point	
		Location of Upstream and Downstream	
B.3	Map 7	Monitoring Points	
B.9	Text	Capital Investment Programme	
C.1	Text	Report on existing treatment system	
E.2	Text	Laboratory Accreditation	
		Location of Upstream and Downstream	
E.2	Map 8	Monitoring Points	
E.4	Table	Sampling data	
F.1	Text	Site Synopsis	
Online Data	Table	Online Data	

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Rev. Date By Description Rev. Date By Description SOUTHERN DIVISION SOUTHERN DIVISION South Rev. Date Prise Comp Faginar Comp Faginar Comp Faginar Director Overlise Director Overlise Prise Project: SALEEN WMTP WASTE WATER Discharge LICENCE APPLICATION DISCHARGE LICENCE APPLICATION Attachment A1_Map2 Location of WMTP Sales: Drawing Ns: Designed: MS Checket: MS Date: Drawing Ns: Prise Path: Vov '09 Sales: Drawing Ns: Rev: 0	 NOTES: 1. This drawing is the property of Cork County Council. It is a confidential document and must not be copied, used, or its content divulged without prior written consent. 2. Includes Ordnance Survey Ireland data reproduced under OSI Licence number: Cork County Council CCMA 2004/07. Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland, 2004. 3. All levels refer to Ordnance Survey Datum, Malin Head. 4. DO NOT SCALE , use figured dimensions only, if in doubt ask.



Rev. Date By Description CORK COUNTY COUNCIL SOUTHERN DIVISION SOUTHERN DIVISION Neal O Keeffe. B.E. C.Eng. Ear.Ing F.LE.IMICE Particia Power, Coumy Engineer County Hall, Cork. Particia Power, Director of Services, Ause Operations South Project: SALEEN WMTP WASTE WATER DISCHARGE LICENCE APPLICATION Director of Services, Ause Operations South Title: Application Form Attachment B1_Map3 Agglomeration Boundary Served By Waste Water Treatment Works Darwing No: Not vog Designed: MS Checked: MS Darwing Scales: Nov vog Darwing No: B1_Map3 Darwing Approved: MS Darwing No: Nov vog	 NOTES: 1. This drawing is the property of Cork County Council. It is a confidential document and must not be copied, used, or its content divulged without prior written consent. 2. Includes Ordnance Survey Ireland data reproduced under OSI Licence number: Cork County Council CCMA 2004/07. Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland copyright. © Ordnance Survey Ireland, 2004. 3. All levels refer to Ordnance Survey Datum, Malin Head. 4. DO NOT SCALE , use figured dimensions only, if in doubt ask.



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CORK COUNTY COUNCIL SOUTHERN DIVISION Nei O Keefk. B.E. C.Eng. Furlay F. I.E.I.MICE Paricia Power, Director of Savrices, County Hall, Cod. Project: SALEEN WWTP WASTE WATER DISCHARGE LICENCE APPLICATION Tride: Application Form Attachment B2_Map4 Location Plan of Waste Water Treatment Plant Drawing No: Stales; Drawing No: Designed: MS Stales; Drawing No; Drawing No; Dawn: MM Approved: MS Drawing No; File Puh; User Nov '09 Status; Drawing No;	Rev. Date By Description	Z	 Includes Ordnance Survey Ireland data reproduced under OSI Licence number: Cork County Council CCMA 2004/07. Unauthorised reproduction infringes Ordnance Survey Ireland ordnance Survey Ireland, 2004. All levels refer to Ordnance Survey Datum, Malin Head. DO NOT SCALE , use figured dimensions only, if in doubt ask. 	NOTES: 1. This drawing is the property of Cork County Council. It is a confidential document and must not be copied, used, or its content divulged without prior written consent.



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CORK COUNTY COUNCIL SOUTHERN DIVISION SOUTHERN DIVISION Derice Power, Couns Paincer Couns of Kerfe, B.E. Char, Euring F.I.E.IMCE Derice Power, Couns y Hall, Cork. Derice Power, Derice Power, Couns y Hall, Cork. Project: SALEEN WMTP WASTE Derive Power, Mattachment B2_Map5 Discharent B2_Map5 Location of Upstream & Downstream Monitoring Points Daving Nr. Daving Nr. Daving Nr. Daving Nr. Drawing Nr. Map Drawing Nr. Baue: Nov '09 Sume:	Rev. Date By Description	Z	4. DO NOT SCALE , use figured dimensions only, if in doubt ask	 NOTES: 1. This drawing is the property of Cork County Council. It is a confidential document and must not be copied, used, or its content divulged without prior written consent. 2. Includes Ordnance Survey Ireland data reproduced under OSI Licence number: Cork County Council CCMA 2004/07. Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland copyright. © Ordnance Survey Ireland, 2004. 3. All levels refer to Ordnance Survey Datum, Malin Head.



CORK COUNTY COUNCIL SOUTHERN DIVISION SOUTHERN DIVISION Net 0 Secrite B.E C Eng. Ear Ing F LEI MICE Parricia Power, Director of Secrices, County Hall, Cork Project: SALEEN WWTP WASTE WATER DISCHARGE LICENCE APPLICATION Tride: Application Form Attachment B3_Map6 Location of Primary Discharge Point Dawing No: Dawing No: States: Nov '09 Dawing No: B3_Map6 Dissigned: M Approved: MS Dawing No: Dawing No: States: Dawing No: Bauss:Rev; 0	Rev. Date By Description		 All levels refer to Ordnance Survey Datum, Malin Head. DO NOT SCALE , use figured dimensions only, if in doubt ask. 	 This drawing is the property of Cork County Council. It is a confidential document and must not be copied, used, or its content divulged without prior written consent. Includes Ordnance Survey Ireland data reproduced under OSi Licence number: Cork County Council CCMA 2004/07. Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland copyright. © Ordnance Survey Ireland, 2004. 	NOTES:



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CORK COUNTY COUNCIL SOUTHERN DIVISION SOUTHERN DIVISION Net O Kerft, B.E. C.Fag. Farlay F.I.E.IMCE Paricia Power, Directia Power, County Hall, Colc. Project: SALEEN WMTP WASTE WATER DISCHARGE LICENCE APPLICATION Title: Application Form Attachment B3_Map7 Location of Upstream & Downstream Monitoring Points Designed: MS Checked: MS Salas: 14.000 @ A3 Drawing N: B3_Map7 Designed: MM Approved: MS Date:: Nov '09 Drawing N: B3_Map7 File Path: Votes MS Date::	Rev. Date By Description	Z	4. DO NOT SCALE , use figured dimensions only, if in doubt ask	 Includes Ordnance Survey Ireland data reproduced under OSi Licence number: Cork County Council CCMA 2004/07. Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland copyright. © Ordnance Survey Ireland, 2004. All levels refer to Ordnance Survey Datum Malin Head 	NOTES: 1. This drawing is the property of Cork County Council. It is a confidential document and must not be copied, used, or its content divulged without prior written consent.

Cork County

Water Services Investment Programme 2007 - 2009

Schemes at Construction	W/S	Est. Cost	Schemes to start 2009 contd.	W/S	Est. Cost
Cork North			Cork South		
Mitchelstown Sewerage Scheme			Ballincollig Sewerage Scheme (Upgrade) (G)	S	22,248,000
(Nutrient Removal)	S	221,000	Cork Lower Harbour Sewerage Scheme (excl. Crossbaven	55)5	73 542 000
			Shannagarry/ Garnyoe/ Ballycotton Sewerage Scheme	S	3 780 000
Cork South	~	0.040.000	Vouchal Sewarage Scheme	S	14 420 000
Ballyvourney/ Ballymakeery Sewerage Scheme	S	3,049,000	Toughai Gewerage Gunerne	0	14,420,000
Cork Lower Harbour Sowerage Scheme	vv	10,135,000	Costs West		
(Crosshaven SS) (G)	S	4 850 000	Cork west	0	000.000
Cork Water Strategy Study (G)	w	941 000	Ballydenob Sewerage Scheme	5	683,000
Kinsale Sewerage Scheme	s	20.000.000	Bantry Water Supply Scheme	W	14,935,000
Midleton Sewerage Scheme (Infiltration Reduction) (G)	S	2.078.000	Clonakilty Sewerage Scheme (Plant Capacity Increase)	S	3,677,000
	Ť	41,274,000	Courtmacsherry/ Timoleague Sewerage Scheme	S	2,472,000
Schemes to start 2007		, ,	Dunmanway Regional Water Supply Scheme Stage 1	W	12,669,000
Cork North			Serviced Land Initiative		104,023,000
North Cork Grouped DBO Wastewater Treatment					
Plant (Buttevant, Doneraile & Kilbrin)	S	5,150,000	Cork North		
			Ballyclough Water Supply Scheme	W	139.000
Cork West			Ballyhooley Improvement Scheme	W/S	139,000
Skibbereen Sewerage Scheme	S	20,000,000	Broch Bahagagin Sewerage Scheme	S	406,000
		25,150,000	Program Water Supply Scheme	W	115,000
Schemes to start 2008		â	Gweeng Water Suppry Scheme (incl. Mater)	VV	F 40,000
		ion	Condition Severage Scheme (Incl. Water)	VV/S	543,000
Cork North		C C C C L MI	Clondulane Sewage Treatment Plant	S	417,000
Mallow/ Ballyviniter Regional Water Supply Scheme (H) VV	8,682,000	Freemount Sewerage Scheme	S	150,000
Mallow Sewerage Scheme (H)	5	F00,4009000	Pike Road Sewerage Scheme (incl. Water)	W/S	2,080,000
Cork South		ACOL	Rathcormac Sewerage Scheme (incl. Water)	W/S	555,000
Ballincollig Sewerage Scheme (Nutrient Removal) (G)	S &	948.000	Spa Glen Sewerage Scheme	S	736,000
Ballingeary Sewerage Scheme	CONS	1.296.000	Uplands Fermoy Sewerage Scheme (incl. Water)	W/S	1,174,000
Bandon Sewerage Scheme Stage 2	S	14,729,000	Watergrasshill Water Supply Scheme (incl. Sewerage) (G)	W/S	4,151,000
City Environs (CASP) Strategic Study (G)	s	153,000			
Cloghroe Sewerage Scheme (Upgrade)	S	683,000	Cork South		
Coachford Water Supply Scheme	W	1,318,000	Ballincollig Sewerage Scheme (Barry's Rd Foul and		
Garrettstown Sewerage Scheme	S	2,153,000	Storm Drainage) (G)	S	1.164.000
Inniscarra Water Treatment Plant Extension Phase 1	W	2,678,000	Belgooley Water Supply Scheme (incl. Sewerage)	W/S	2 913 000
Little Island Sewerage Scheme (G)	S	2,200,000	Blarney Water Supply Scheme (Ext. to Station Bd) (G)	W	416,000
			Carrietwohill Sewerage Scheme (Treatment and	•••	410,000
				0	7 000 000
Cork West	-		Storm Drain) (G)	5	7,632,000
Bantry Sewerage Scheme	S	7,148,000	Castlematyr Wastewater Treatment Plant Extension	S	1,200,000
Dunmanway Sewerage Scheme	5	2,153,000	Crookstown Sewerage Scheme (Incl. Water)	W/S	1,200,000
Schull Water Supply Scheme		0,300,000 5,252,000	Dripsey Water Supply Scheme (incl. Sewerage)	W/S	1,112,000
Schull Water Supply Scheme	vv	5,255,000 61 137 000	Glounthane Sewerage Scheme (G)	S	1,576,000
Schemes to start 2009		01,137,000	Innishannon Sewerage Scheme	S	277,000
			Innishannon Wastewater Treatment Plant	S	694,000
Cork North			Kerrypike Sewerage Scheme	S	832,000
Banteer/Dromahane Regional Water Supply Scheme	W	1,576,000	Kerrypike Water Supply Scheme	W	416,000
Conna Regional Water Supply Scheme Extension	W	2,627,000	Killeagh Wastewater Treatment Plant Extension	S	1,200,000
Cork NE Water Supply Scheme	W	4,326,000	Killeagh Water Supply Scheme (includes Sewerage)	W/S	485.000
Cork NW Regional Water Supply Scheme	W	6,046,000	Killeens Sewerage Scheme	S	420.000
Millstreet Wastewater Treatment Plant (Upgrade)	S	1,628,000	Kilnagleary Sewerage Scheme	S	694,000
			Midleton Wastewater Treatment Plant Extension	S	4 050 000
			molector reaction reaction in and Extension	0	1,000,000

Cork County contd.

Water Services Investment Programme 2007 - 2009

Serviced Land Initiative contd.	W/S	Est. Cost	Schemes to Advance through Planning cond.	W/S	Est. Cost
Cork South contd.			Cork South		
Mogeely, Castlemartyr & Ladysbridge Water Supply Scheme	W	2,566,000	Carrigtwohill Sewerage Scheme (G)	S	20,000,000
North Cobh Sewerage Scheme (G)	S	3,193,000	Cork Sludge Management (G)	S	14,420,000
Riverstick Water Supply Scheme (incl. Sewerage)	W/S	525,000	Cork Water Supply Scheme (Storage - Mount Emla,		
Rochestown Water Supply Scheme	W	2,700,000	Ballincollig & Chetwind) (G)	W	8,500,000
Saleen Sewerage Scheme	S	1,051,000	Inniscarra Water Treatment Plant (Sludge Treatment)(C	G)W	5,356,000
Youghal Water Supply Scheme	W	2,300,000	Macroom Sewerage Scheme	S	5,150,000
			Minane Bridge Water Supply Scheme	W	1,421,000
Cork West					
Castletownshend Sewerage Scheme	S	1,576,000	Cork West		
		50,797,000	Bantry Regional Water Supply Scheme (Distribution)	W	9,455,000
Rural Towns & Villages Initiative			Cape Clear Water Supply Scheme	W	1,679,000
			Castletownbere Regional Water Supply Scheme	W	8,405,000
Cork North			Glengarriff Sewerage Scheme	S	2,500,000
Buttevant Sewerage Scheme (Collection System)	S	2,446,000	Roscarberry/Owenahincha Sewerage Scheme	S	1,576,000
Doneraile Sewerage Scheme (Collection System)	S	1,738,000	Skibbereen Regional Water Supply Scheme Stage 4	W	7,880,000
			mer		95,646,000
Cork South			23. mg		
Innishannon (Ballinadee/ Ballinspittle/ Garrettstown)			Water Conservation Allocation		12,206,000
Water Supply Scheme	W	6,726,000	rossied.		
		Ŕ	Asset Management Study		300,000
Cork West		ection n	\$ *		
Ballylicky Sewerage Scheme	S	2,753,000	South Western River Basin District (WFD) Project ¹		9,400,000
Baltimore Sewerage Scheme	S	3,162,000			
Castletownbere Sewerage Scheme	S	\$,202,000			
Schull Sewerage Scheme	S	3,523,000	Programme Total	485	5,489,000
	COUSE	24,950,000			
Schemes to Advance through Planning					
Cork North					

Mitchelstown North Galtees Water Supply Scheme	W	3,152,000
Mitchelstown Sewerage Scheme	S	3,000,000
Newmarket Sewerage Scheme	S	3,152,000

¹ This project is being led by Cork County Council on behalf of other authorities in the River Basin District

(H) Refers to a Hub as designated in the National Spatial Strategy

(G) Refers to a Gateway as designated in the National Spatial Strategy

Client: Project Title:

Issue 2.doc

Document Title: Document Issue:

Cork County Council. Upgrading of Wastewater Treatment Facilities at Midleton, Castlemartyr, Cloyne, Saleen & Ballycotton **Design Report**

November 2008 Date: C006196 Project No.: 21 Page No.:

8 SALEEN

Existing Situation 28.1

The existing foul collection system drains to a septic tank, located approximately 200m to the south of the village, as shown in Figure 8 (Appendix 7). The tank was put in place originally to serve just 12 houses (40 PE) and is therefore totally inadequate for the present loading (c. 400 PE). Effluent from the tank discharges to the "Saleen Stream", just upstream of it's confluence with the "Cloyne River".

Saleen is not included as an identifiable entity in the national census but based on an estimated current population figure of 351 adopted in the 2006 Report, and the general growth trends and projections applied at the other centres, a design PE of 900 for the year 2028 has been recommended.

Assessment of Previous Reports 8.2

A Preliminary Report for the upgrading of the Sewerage Scheme in Saleen was drawn up by RPS in early 2006 (dated April 2006). The report proposed an extensive upgrading and extension of the existing foul and storm water collection systems to serve current and future developments. The report also proposed the replacement of the septic tank with a treatment plant to be sited on Coillte lands, c.200 metres further to the south east.

The proposal was for a conventional extended aeration plant, incorporating denitrification and phosphate removal - the plant to be constructed for a PE of 1,000 but allowing for future expansion to 1,500 PE. The effluent would be treated to the standards identified in Appendix 5, and discharged to an outfall on the nearby Cloyne Stream, just upstream of the HWM.

The proposal to discharge to the Cloyne was based on preliminary estimates of low flows and water quality in the river/stream, and on an assessment of the hydrodynamic and dispersion regimes in the Saleen Creek area, into which the river flows. Flow monitoring of the river was carried out subsequently (Dixon Brosnan, December 2006). This monitoring, subject to the proviso of limited available data, tended to confirm the relatively high dry weather and 95%ile unit area flows ascribed to the catchment but also indicated a strong tidal influence at the proposed discharge point, particularly during higher and spring tides. Sampling upstream of the existing tank outfall indicated consistently high Nitrate (average 7.6 mg/l N) and Orthophosphate levels (average 0.2 mg/I P) over the period July 2005 - November 2006.

The results of this flow and quality monitoring, carried out subsequent to the issue of the Preliminary Report, warrants a reappraisal of the proposed discharge location. The proposed shelifish designation of an area at the mouth of Saleen Creek and another immediately to the south also calls for a reappraisal.

A review of the dispersion studies carried out in 2005 (Irish Hydrodata Limited, September 2005), allied to the subsequent flow monitoring of the influent Cloyne River, indicates flow conditions in Saleen Creek and atong the northern shore at the mouth of the creek to be relatively stagnant, as indicated by both the drogue and dye surveys. The survey indicated a mean velocity in the creek of c. 470 m/hr.

This means that the travel time from the proposed outfall point to the mouth of the creek (1.5 km) is at least 3 hours and that there is very little flushing action in the creek. The surveys also show that on the falling tide, the out-flowing current from the creek tends to adhere to the northern shore and enter the Ballynacorra River, and then, possibly, with a change of the tide, return along the same route. An alternative discharge point, within BATNEEC parameters, is therefore seen as desirable.

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CORK COUNTY COUNCIL SOUTHERN DIVISION Not O Keeffe, B.E. C.Fag. Far.Ing F.I.E.I.MCE Paricia Power, Director of Services, County Hall, Cork. Project: SALEEN WWTP WASTE WATER DISCHARGE LICENCE APPLICATION Tritle: Application Form Attachment E2_Map8 Location of Upstream & Downstream Monitoring Points Designed: MS Checkel: MS Stalls: 114,000 @A3 Drawing Ne: E2_Map8 Designed: MS Checkel: MS Date:: Nov '09 Drawing Ne: E2_Map8 District MM Approved: MS Date:: Nov '09 Drawing Ne: E2_Map8	Rev. Date By Description		 NOTES: This drawing is the property of Cork County Council. It is a confidential document and must not be copied, used, or its content divulged without prior written consent. Includes Ordnance Survey Ireland data reproduced under OSi Licence number: Cork County Council CCMA 2004/07. Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland copyright. © Ordnance Survey Ireland, 2004. All levels refer to Ordnance Survey Datum, Malin Head. DO NOT SCALE , use figured dimensions only, if in doubt ask.

Irish W National Accreditation Board

Accreditation Certificate

Cork County Council

Wastewater Testing Laboratory, Inniscarra, Co. Cork

Testing Laboratory

Registration number: 016T

is accredited by the Irish National Accreditation Board (INAB) to undertake testing as detailed in the Schedule bearing the Registration Number detailed above, in compliance with the International Standard ISO/IEC 17025:2005 2nd Edition "General Requirements for the Competence of Testing and Calibration Laboratories" (This Certificate must be read in conjunction with the Annexed Schedule of Accreditation)

> Date of award of accreditation: 01:10:2002 Date of last renewal of accreditation: 20:09:2007 Expiry date of this certificate of accreditation: 01:10:2012

This Accreditation shall remain in force until further notice subject to continuing compliance with INAB accreditation criteria, ISO/IEC 17025 and any further requirements specified by the Irish National Accreditation Board.

Manager: Jom Den

- C Wall nar Chairperson:

Page 1 of 7

Mr Tom Dempsey

Dr Máire Walsh

ssued on 23 June 2008

Organisations are subject to annuat surveillance and are re-assessed every five years. The renewal date on this Certificate confirms the latest date of renewal of accreditation. To confirm the validity of this Certificate, please contact the Irish National Accreditation Board. The INAB is a signatory of the European co-operation for Accreditation (EA) Testing Multilateral Agreement (MLA) and the

International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement.

Wilton Park House, Wilton Place, Dublin 2, Ireland. Tel +353 1 607 3003 Fax +353 1 607 3109 E-mail inab@inab.ie Web www.inab.ie

Edition 21, 30/09/2008

Schedule of Accreditation

(Annex to Accreditation Certificate)

Permanent Laboratory: Category A

CORK COUNTY COUNCIL

Chemistry Testing Laboratory

25-April-1991 Initial Registration Date : Waste Water Laboratory Postal Address: Inniscarra (Address of other locations Co. Cork as they apply) +353 (21) 4532700 Telephone: +353 (21) 4532777 Fax: E-mail: Ms M Cherry Contact Name: Facilities:

Normally not available for Rublic testing

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Edition 21, 30/09/2008





Irish W National Accreditation Board

Wilton Place, Dublin 2, Ireland

Tet +353 1 607 3003 Fax +353 1 607 3109

inab@inab.ie



Schedule of Accreditation



Irish W National Accreditation Board

Wilton Place, Dublin 2, Ireland

Wilton Park House,

Tel +353 1 607 3003 Fax +353 1 607 3109 E-mail inab@inab.ie_Web www.inab.ie

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Permanent Laboratory: Category A

THE IRISH NATIONAL ACCREDITATION BOARD (INAB) is the Irish body for the accreditation of organisations including laboratories.

Laboratory accreditation is available to testing and calibration facilities operated by manufacturing organisations, government departments, educational institutions and commercial testing/calibration services. Indeed, any organisation involved in testing, measurement or calibration in any area of technology can seek accreditation for the work it is undertaking.

Each accredited laboratory has been assessed by skilled specialist assessors and found to meet criteria which are in compliance with ISO/IEC 17025 or ISO/IEC 15189 (medical laboratories). Frequent audits, together with periodic inter-laboratory test programmes, ensure that these standards of operation are maintained.

Testing and Calibration Categories:

resting and Calibr	ation categories.				
Category A:	Permanent laborat location for a perio	ory calibration an od expected to be	d testing where the greater than three	e laboratory is erecte years.	d on a fixed
Category B:	Site calibration an laboratory that is a	d testing that is p accredited by the	erformed by staff s Irish National Accre	ent out on site by a p editation Board.	ermanent
Category C:	Site calibration an out by such a labo laboratory accredi	d testing that is p ratory, the operat ted by the Irish Na	erformed in a site/ ion of which is the ational Accreditatio	mobile laboratory or responsibility of a pe on Board.	by staff sent rmanent
Category D:	Site calibration an do not have a perr	d testing that is p nanent calibration	erformed on site by /testing laboratory	/ individuals and orga	nisations that formed using
	(a) portable	test equipment	othe		
	(b) a site lab	oratory	only any		
	(c) a mobile	laboratory or	oses etto	en e	
	(d) equipme	nt from a mobile	site laboratory		
Standard Specific	ation or Test Pro	cedure Used		•	
The standard specific recent visit, unless o	cation or test proced therwise stated.	ure that is accred	ited is the issue th	at is current on the d	ate of the most
Glossary of Term Facilities:	S	entolcov			
Public calibration/t	esting service:	Commercial oper	ations which active	ely seek work from ot	hers.
Conditionally availa calibration/testing:	able for public	Established for a is available for o	nother primary pur utside work.	pose but, more com	nonly than not,
Normally not availa calibration/testing:	ble for public	Unavailable for p	oublic calibration/t	esting more often that	
Laboratory userstwish National Accreditatio Users should contact request, venity the st	ning fo obtain assura h Board criteria shou the laboratory direct atus and scope	nce that calibratio Id insist on Tecely IV to ensure that (n or test results are Ing an accredited c this scope of accred	reliable and carried alibration certificate litation is current. IN/	out to the Irish 3r test report: XB will, on
Edition 21, 30/09	/2008	0167			Page 3 of 7



Permanent Laboratory:

Category A

Cork County Council

Chemical Testing Laboratory

(P9)	Range of measurement	ed Standard specifications Equipment/techniques used
Matemais/products tes	Chemical analysis:	Documented in-house methods based on
/00 Waters	chemical analysis.	Standard Methods for the Examination of Wa
01 Waters for		& Wastewater 21 st Edition APHA (See Note
domestic pur	DOSES Biochemical Oxygen Demand	CP No. 1 Membrane electrode
Surface and a	round 2 - 145 000 mg/l	
waters		
waters		CP No. 5 Electrometry
	μπ 2 42	er no. s Electronicaly
	2 - 12	
	Surger and ad Salida	CP No. 2 Gravimatric
	Suspended Solids	CP No. 3 Gravimetric
	0.5 - 17,500 mg/l	
	Chemical Oxygen Demand	CPSND. 6 Reflux - colourmetric method
	21 - 135 mg/l	A. B. C.
	120 - 670,000 mg/l	of States and
	-upostinet	
	Total phosphorus	US-EPA Approved method/HACH
	0.2 - 5,300 mg/l	Method CP No.20
	Forthigh	
	Ammonia Store	Documented in-house method CP22 by Kone
	0.1 - 1,000 ஸ்ர்/l NH₃ - N	based on Method for the Examination of Wat
	Corr.	and
		Associated Material HMSO:1981
· · · · · · · · · · · · · · · · · · ·		



Permanent Laboratory:

Category A

Cork County Council

Chemical Testing Laboratory

Standard specifications **INAB Classification number** Type of test/properties measured Equipment/techniques used Range of measurement (P9) Materials/products tested 766 Waters CP No. 23 Ascorbic Acid Method .01 Waters for Orthophosphate as P (Konelab) domestic purposes Range: 0.005-1.00 mg O-PO4 P/L Surface and ground High Range: 1000 mg O-PO4 P/L waters Method Detection Limit: 0.02 mg O-PO4 P/L CP No. 24 Ferricyanide Method Chloride (Konelab) Range: 25-250 mg/L Cl-High Range Conc.: 86,000 mg/L Cl-Method Detection Limit: 25 mg/L Cl-CP No. 25 Documented in-house method by Sulphate (Konelab) Konelab based on method for the examination Range: 30-250 mg/L SO4/L of waters and waste waters and associated High Range Conc.: 35,000 mg/L SO4/L material HMSO: 1981 Method Detection Limit: 30 mg SO4/L 211 Consent of copy Page 5 of 7 Edition 21, 30/09/2008 016T



Permanent Laboratory:

Category A

Cork County Council

Chemical Testing Laboratory

INAB Cl (P9) Materia	assification number als/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766	Waters	Chemical analysis	Documented in-house methods based on Standard
			Methods for the Examination of Water&
.05	Trade Wastes		Wastewater 21 st Edition APHA (See Note 1)
	Industrial effluents	Biochemical Oxygen Demand	CP No. 1 Membrane electrode
	Urban Wastewater	2 - 145,000 mg/l	
	Municipal Wastewater		
<i>2</i>		рН	CP No. 5 Electrometry
		2 - 12	
		Suspended Solids	CP No. 3 Gravimetric
		0.5 - 17,500 mg/l	
		Chemical Oxygen Demand	CP Not Reflux - colourmetric method
1		120 - 670,000 mg/l	
		Total phosphorus	US-EPA Approved method/HACH
		0.2 - 5,300 mg/l set of the	Method CP No.20
		Ammonia	Documented in-house method CP22 by Konelab
		0.1 - 1,000 mg/l NH3-N	based on Method for the Examination of Waters
		Con	and Associated Material HMSO: 1981.

Edition 21, 30/09/2008

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Permanent Laboratory:

Category A

Cork County Council

Chemical Testing Laboratory

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766 Waters	Chemical analysis	Documented in-house methods based on Standard
		Methods for the Examination of Water&
.05 Trade Wastes		Wastewater 21 st Edition APHA (See Note 1)
Industrial effluents Urban Wastewater		CP No. 1 Membrane electrode
Municipal Wastewater	and the second	
,	Orthophosphate as P (Konelab)	CP No. 23 Ascorbic Acid Method
	Range: 0.005 - 1.00 mg 0-PO4 P/L High Range: 1000 mg 0-PO4 P/L	
	Method Detection Limit: 0.02 mg O-	
	P04 P/L	
	Chloride (Konelab)	CP Ne ² 24 Ferricyanide Method
	Range: 25-250 mg/L Cl-	other
	High Range Conc.: 86,600 mg /L GR	
	Method Detection Limit: 25mg / LCl-	
	Sulphate (Konglab)	CP No. 25 Documented in-house method by
	Range: 30-250 mg/L SO4 /L	Konelab based on method for the examination of
	High Range Conc.: 35,000 mg/L SO4 /L	waters and waste waters and associated material
	Method Detection Limit: 30 mg SO4 /L	HMSO: 1981

Edition 21, 30/09/2008

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Attachment E4 Saleen Table E4				
Sample Date	06/10/2009	06/	10/2009	
		Saleen 100	m downstream	
Sample	Saleen Septic Tank	in	stream	
Sample Code	GT1214	G	T1215	
Flow M ³ /Day	No result	No	o result	
рН	7.4		7.3	
Temperature °C	No result	No	o result	
Conductivity uS/cm 20°C	399		534	
Suspended Solids mg/L	28		11	
Ammonia-N mg/L	4.9		1.2	
BOD mg/L	13		5	
COD mg/L	25		<21	
TN-N mg/L	12.99		8.65	
Nitrite-N mg/L	0.145	().115	
Nitrate-N mg/L	8.185	6	615	
TP-P mg/L	0.61	().403	
O-PO4-P mg/L	0.46		0.34	
SO4 mg/L	<30		<30	
Phenols µg/L	<0.10	Nc	o result	
Atrazine µg/L	<0.01	Met No	o result	
Dichloromethane µg/L	<1	NC NC	o result	
Simazine µg/L	<0.01	softor No	o result	
Toluene μg/L	<0.28 💉	NC NC	o result	
Tributyltin μg/L	not required	not	required	
Xylenes μg/L	<0.73 ctil net	No	o result	
Arsenic µg/L	<0.96	No	o result	
Chromium ug/L	<20 118		<20	
Copper ug/L	<20		<20	
Cyanide µg/L	×1<5	No	o result	
Fluoride µg/L	0.094	No	o result	
Lead ug/L	<20		<20	
Nickel ug/L	<20		<20	
Zinc ug/L	<20		<20	
Boron ug/L	<20		<20	
Cadmium ug/L	<20		<20	
Mercury ug/L	<0.03	Nr	o result	
Selenium ug/L	12	No) result	
Barium ug/L	<20		<20	

SITE SYNOPSIS

SITE NAME: CORK HARBOUR SPA

SITE CODE: 004030

Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas and Owenacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas Estuary, inner Lough Mahon, Lough Beg, Whitegate Bay and the Rostellan inlet.

Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macro-invertebrates, notably *Macoma balthica*, *Scrobicularia plana*, *Hydrobia ulvae*, *Nepthys hombergi*, *Nereis diversicolor* and *Corophium volutator*. Green algae species occur on the flats, especially *Ulva lactua* and *Enteromorpha* spp. Cordgrass (*Spartina* spp.) has colonised the intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Salt marsh species present include Sea Purslane (*Halimione portulacoides*), Sea Aster (*Aster tripolium*), Thrift (*Armeria maritima*), Common Saltmarsh-grass (*Puccinellia maritima*), Sea Plantain (*Plantago maritima*), Laxflowered Sea-lavender (*Limonium humile*) and Sea Arrowgrass (*Triglochin maritima*). Some shallow bay water is included in the site. Cork Harbour is adjacent to a major urban centre and a major industrial centre. Rostellan lake is a small brackish lake that is used by swans throughout the winter. The site also includes some marginal wet grassland areas used by feeding and roosting birds.

Cork Harbour is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl, for which it is amongst the top five sites in the country. The five-year average annual core count for the entire harbour complex was 34,661 for the period 1996/97-2000/01. Of particular note is that the site supports an internationally important population of Redshank (1,614) - all figures given are average winter means for the 5 winters 1995/96-1999/00. A further 15 species have populations of national importance, as follows: Great Crested Grebe (218), Cormorant (620), Shelduck (1,426), Wigeon (1,750), Gadwall (15), Teal (807), Pintail (84), Shoveler (135), Red-breasted Merganser (90), Oystercatcher (791), Lapwing (3,614), Dunlin (4,936), Black-tailed Godwit (412), Curlew (1,345) and Greenshank (36). The Shelduck population is the largest in the country (9.6% of national total), while those of Shoveler (4.5% of total) and Pintail (4.2% of total) are also very substantial. The site has regionally or locally important populations of a range of other species, including Whooper Swan (10), Pochard (145), Golden Plover (805), Grey Plover (66) and Turnstone (99). Other species using the site include Bat-tailed Godwit (45), Mallard (456), Tufted Duck (97), Goldeneye (15), Coot (77), Mute Swan (39), Ringed Plover (51), Knot (31), Little Grebe (68) and Grey Heron (47). Cork Harbour is an important

site for gulls in winter and autumn, especially Common Gull (2,630) and Lesser Black-backed Gull (261); Black-headed Gull (948) also occurs.

A range of passage waders occur regularly in autumn, including Ruff (5-10), Spotted Redshank (1-5) and Green Sandpiper (1-5). Numbers vary between years and usually a few of each of these species over-winter.

The wintering birds in Cork Harbour have been monitored since the 1970s and are counted annually as part of the I-WeBS scheme.

Cork Harbour has a nationally important breeding colony of Common Tern (3-year mean of 69 pairs for the period 1998-2000, with a maximum of 102 pairs in 1995). The birds have nested in Cork Harbour since about 1970, and since 1983 on various artificial structures, notably derelict steel barges and the roof of a Martello Tower. The birds are monitored annually and the chicks are ringed.

Extensive areas of estuarine habitat have been reclaimed since about the 1950s for industrial, port-related and road projects, and further reclamation remains a threat. As Cork Harbour is adjacent to a major urban centre and a major industrial centre, water quality is variable, with the estuary of the River Lee and parts of the Inner Harbour being somewhat eutrophic. However, the polluted conditions may not be having significant impacts on the bird populations. Qil pollution from shipping in Cork Harbour is a general threat. Recreational activities are high in some areas of the harbour, including jet skiing which causes disturbance to roosting birds.

Cork Harbour has is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its population of Redshank. In addition, there are at least 15 wintering species that have populations of national importance, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Golden Plover, Bar-tailed Godwit, Ruff and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it.



Full Report for Waterbody Cork Harbour



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Date Reported to Europe: 22/12/2008 Date Report Created 02/06/2009

vater matters		about the second
Summary Information:		
WaterBody Category:	Coastal Waterbody	
WaterBody Name:	Cork Harbour	south
WaterBody Code:	IE_SW_060_0000	river basin district
Overall Status:	Moderate	
Overall Objective:		
Overall Risk:	1a At Risk	
Applicable Supplementary	Urban & Industrial;	
Measures:	Report data based upon Draf	t RBMP, 22/12/2008.

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Date Reported to Europe: 22/12/2008 Date Report Created 02/06/2009

vate	r matters		
Status	s Report		
Water	Body Category:	Coastal Waterbody	south
Waterl	Body Name:	Cork Harbour	western river basin district
Water	Body Code:	IE SW 060 0000	
Overal	i Status Result:	Moderate	
	Status Eleme	nt Description	Result
EX	Status from Mo	nitored or Extrapolated Waterbody	True
	General Cond	itions	(
DIN	Dissolved Inorg	anic Nitrogen	Moderate
MRP	Molybdate Read	tive Phosphorus	Good
DO	Dissolved Oxyg	en as percent saturation	Good
BOD	Biochemical Ox	ygen Demand	
Т	Temperature		Pass
	Biological Ele	ments	
PB	Phytoplankton ·	Phytoblooms	Good
PBC	Phytoplankton ·	PhytoBiomass (Chlorophyll)	Good
MA	Macroalgae		
RSL	Reduced Specie	es List	Good
SG	Angiosperms -	Seagrass and Saltmarsh	
BE	Benthic Inverte	brates	
FI	Fish		چ د
	HydroMorpho	logy	
HY	Hydrology	MIN. and	
MO	Morphology	NUTOSIC LIVE TO	Good (pHMWB)
	Specific Pollu	tants chontere	
SP	Specific Releva	nt Pollutants (Annex VII)	Pass
	Conservation	Status For Mite	
CN	Conservation S	atus (Expert Judgement)	Moderate
	Protected Are	a Statuš	
PA	Overall Protecte	ed Area Status	Less than good

Date Reported to Europe: 22/12/2008 Date Report Created 02/06/2009

wate	er matters	Contraction of the second
	Heavily Modified Waterbodies	
HY	HydroMorphology for Heavily Modified Waterbodies	Moderate
IS	Interim Status (physico-chemical, biological) for Heavily Modified Waterbodies	Moderate
EP	Overall Ecological Potential for Heavily Modified Waterbodies	Moderate
	Overall Status	
ES	Ecological Status	Moderate
CS	Chemical Status	Fail
0	Overall Ecological Status	Moderate

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Date Reported to Europe: 22/12/2008 Date Report Created 02/06/2009

wat	er matters		
Risk	Report		
Wat	erBody Category:	Coastal Waterbody	south
Wat	erBody Name:	Cork Harbour	western river basin district
Wat	erBody Code:	IE SW 060 0000	**
Ove	rall Risk Result:	1a At Risk	· .
	Risk Test Descript	ion	Risk
	Point Risk Sources		•
CP1	WWTPs (2008)		1a At Risk
CP2	CSOs		
CP3	IPPCs (2008)		2b Not At Risk
CP4	Section 4s (2008)		20 Not At Risk
CPO	Overall Risk from Po	nt Sources - Worst Case (2008)	
	Morphological Risk	Sources	· · · · · · · · · · · · · · · · · · ·
MOR	Overall Morphologica	I Risk - Worst Case	1a At Risk
	Marine Direct Impa	cts	<u>. </u>
MDI1	Dangerous Substanc	es	1a At Risk
MDI2	OSPAR		X
MDI3	UWWT Regs Designa	ations	x
MDI	Marine Direct Impac	ts Overall - Worst Case	1a At Risk
0	Overall Risk		
СР	Worst case of Point a (2008)	and Marine Direct Impacts Overall	1a At Risk
RA	Coastal Risk Overall	- Worst case (2008)	offer 1a At Risk
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		U	

Date Reported to Europe: 22/12/2008 Date Report Created 02/06/2009

wate	er matters		
Obje	ctives Report		
Wate	rBody Category:	Coastal Waterbody	south
Wate	rBody Name:	Cork Harbour	river basin district
Wate	rBody Code:	IE_SW_060_0000	
Overa	all Objective:		
	Objectives Des	cription	Result
	Objectives		
OB1	Objective 1 - Pro	tected Areas	
OB2	Objective 2 - Pro	tect High and Good Status	Not Applicable
OB3	Objective 3 - Res	store Less Than Good Status	Not Applicable
OB4	Objective 4 - Rec	duce Chemical Pollution	المحمد من الله عن المحمد ال المحمد المحمد المحمد المحمد المحمد
OBO	Overall Objective		
	Deadline		 Else stragetse south Black operations from the control from
YR	Default Year by v	which the objective must be met	2015
OBO	Overall Objective	and Deadline	

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Basic	Measures Repo	ť	
Water	Body Category:	Coastal Waterbody	couth 🕉
Water	Body Name:	Cork Harbour	western
Water	Body Code:	IE SW 060 0000	*
			n o montale Matter and Constant and the system of a sub-
	Basic Measure	s Description	Applicable
	Key Directives		
BA	Bathing Waters I	Directive	No
BI	Birds Directive		Yes
HA	Habitats Directiv	e	No
DW	Drinking Waters	Directive	No
SEV	Major Accidents	and Emergencies (Seveso) Directive	Yes
EIA	Environmental Ir	npact Assessment Directive	Yes
SE	Sewage Sludge I	Directive	Yes
UW	Urban Waste Wa	ter Treatment Directive	No
PL	Plant Protection	Products Directive	Yes
NI	Nitrates Directive	9	Yes
IP	Integrated Pollut	ion Prevention Control Directive	Yes
	Other Stipulate	ed Measures	
CR	Cost recovery fo	r water use	Yes
SU	Promotion of eff	cient and sustainable water use	No
DWS	Protection of dri	nking water sources	No
AB	Control of abstra	ction and impoundments	No
PT	Control of point	source discharges	Yes
DI	Control of diffuse	e source discharges	Yes
GWD	Authorisation of	discharges to groundwater స్పోర్	No
PS	Control of priorit	y substances	Yes
MOR	Control of physic	al modifications to surface waters	Yes
OA	Controls on othe	r activities impacting on water status	Yes
AP	Prevention or rec	duction of the mpact of accidental pollution incid	dents Yes

Date Reported to Europe: 22/12/2008
Date Report Created 02/06/2009

Urhan a	nd Industrial	Discharges Supplementary Measures Report	
WaterBo	ody Category:	Coastal Waterbody	<u> </u>
WaterBo	ody Name:	Cork Harbour	
WaterBo	ody Code:	IE_SW_060_0000	*
	Point discharg	es to waters from municipal and industrial sources	Resul
PINDDIS	Is there one or r local authority of water body?	nore industrial discharge (Section 4 licence issued by the r IPPC licence issued by the EPA) contained within the	Yes
PINDDISR	Are there industri authority or IPPC to be 'At Risk' wi	rial discharges (Section 4 licence issued by the local C licence issued by the EPA) that cause the receiving water thin the water body?	No
PB1	Basic Measure 1	- Measures for improved management.	Yes
PB2	Basic Measure 2 plant by the imp	- Optimise the performance of the waste water treatment lementation of a performance management system.	No
PB3	Basic Measure 3 - Revise existing Section 4 license conditions and reduce allowable pollution load.		
PB4	Basic Measure 4 - Review existing IPPC license conditions and reduce allowable pollution load.		No
PB5	Basic Measure 5 unlicensed disch	- Investigate contributions to the collection system from arges.	Yes
PB6	Basic Measure 6 - Investigate contributions to the collection system of specific substances known to impact ecological status.		Yes
PB7	Basic Measure 7	- Upgrade WWTP to increase capacity.	Yes
PB8	Basic Measure 8	- Upgrade WWTP to provide nutrient removal treatment.	No
PS1	Supplementary N treatment plant.	Neasure 1 - Measures intended to reduce loading to the	Yes
PS2	Supplementary N or is likely to be	leasure 2 - Impose development controls where there is, in the future, insufficient capacity at treatment plants.	Yes
PS3	Supplementary N treated wastewa under the urban	Supplementary Measure 3 - Initiate investigations into characteristics of reated wastewater for parameters not presently required to be monitored under the urban wastewater treatment directive.	
PS4	Supplementary N results and deter	leasure 4 - Initiate research to verify risk assessment mine the impact of the discharge.	No
PS5	Supplementary N discharge manag	Jeasure 5 - Use decision making tools in point source	No
PS6	Supplementary N this level of treat treatment directi	Neasure 6 - Install secondary treatment at plants where ment is not required under the urban wastewater ve.	No
PS7	Supplementary N emission controls	leasure 7 - Apply a higher standard of treatment (stricter s) where necessary.	No

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water matters			
PS8	Supplementary Measure 8 - Upgrade the plant to remove specific substances known to impact on water quality status.	No	
PS9	Supplementary Measure 9 - Install ultra-violet or similar type treatment.	No	
PS10	Supplementary Measure 10 - Relocate the point of discharge.	No	

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