CORK COUNTY COUNCIL

WESTERN DIVISION

WATER SERVICES

Courthouse, Skibbereen, Co. Cork

APPLICATION FOR WASTE WATER DISCHARGE LICENCE BALTIMORE

Application Form
28th February 2009

WASTE Application Form

CORK COUNTY COUNCIL

WESTERN DIVISION

WATER SERVICES

Courthouse, Skibbereen, Co. Cork

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

Dear Sir / Madam,

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

The following documentation is enclosed:

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

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

Declan Groarke
Senior Executive Engineer

This is a draft document and is subject to revision.

Waste Water Discharge Licence Application Form

EPA Ref. Nº: *(Office use only)*	

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

Tracking Amendments to Draft Application Form

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

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

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

CONTENTS

ABOUT THIS APPLICATION FORM

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

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

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

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

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

PROCEDURES

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

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

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

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

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

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

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

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

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

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

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

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

SECTION A: NON-TECHNICAL SUMMARY

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

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

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

A description of:

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

Supporting information should form **Attachment Nº A.1**

Description of the Wastewater Works and the Activities Carried out therein.

Baltimore is a small seaside town situated approximately 12km south-west of Skibbereen. It is a popular centre for water sports, fishing and is a popular tourist town especially for holiday home based tourism.

The Existing Scheme

The Collection System

The existing sewerage system in Baltimore is a partially combined system and consists of both gravity and pumped systems. The first pump station at the pier (P1) serves the public toilets and the Baltimore Sailing Centre. This pump station discharges to the main gravity sewer in the vicinity of the town centre. The foul flow from the western side of Baltimore drains by gravity to a pump station located at the Cove (P2). From there the sewage is pumped to the main gravity collection system. The main gravity sewer discharges to a septic tank.

Both pumping stations have overflow channels to discharge points. The location of the discharge points and pumping stations are shown on Attachment B5.

Storm Sewer

In general the sewers in Baltimore are combined and the volume of storm water runoff in high. There are five areas in the northern part of the town where storm sewers have been provided. Four of the five storm water sewers are separate to the foul sewer line and have outfalls which are independent to the foul sewer. One however collects surface water from a portion of the relief road and connects back into the foul system at the junction with the Skibbereen road.

Wastewater Treatment Plant

The treatment plant is located by the quay wall just east of the pier. It is in a narrow piece of ground between the road and the pier in an open area with car parking alongside. The treatment process is a primary sedimentation system consisting of a septic tank. The location of the existing outfall from the septic tank is shown in attachment B3.

The design load on the septic tank is:

- Capacity = 1,150 peoples
- Volume = 46,000gallon (209 m^3)
- Current load = 377 p.e. Winter, 1,684p.e. Summer

It is proposed that a new treatment plant will be built to upgrade the capacity and the quality of the treatment. The program of proposed work is detailed in the section B.10.

The Proposed Scheme

The proposed scheme involves the construction of a new plant on a site to the north of the village adjacent to the lifeboat house (see Attachment B2). This plant is to be constructed under a Design Build Operate Contract which has just received Departmental approval to go to tender. It is proposed to construct an activated sludge process, constructed in modular layout with disinfection of the effluent to be included as part of the treatment process.

The existing outfall is to be replaced and used as a storm overflow. A new pumping station is to be constructed adjacent to the existing septic tank, which is to be used as a storm water retention tank, and is to pump 3 times dry weather flow (DWF) at the design loading to the treatment plant. Flows in excess of 3DWF are to be allowed to overflow. One hour storage capacity for flows up to 6DWF will be provided in the pump sump. All overflows are to be screened through 6mm screens prior to discharge. The design PE for the Proposed Wastewater Treatment Plant is 3600 p.e.

A new treated effluent outfall from the wastewater treatment plant is to be constructed. The location of the proposed outfall is shown in Attachment B3.

A number of sections of the existing collection network are to be relined to reduce the infiltration of storm water into the system.

It is also proposed to lay additional storm sewers throughout the town to curtail the amount of storm water entering the new wastewater treatment plant.

The Sources of Emissions from the Wastewater Works

The collection system discharges wastewater into a septic tank at the shoreline between the North Pier and Bull Point. The septic tank provides primary treatment for the sewage. The treated effluent discharges via a 300mm outfall below the LWM near the septic tank. During periods of high flow the septic tank is bypassed by the excess flows. At present the sewage outfall discharges to a shallow bay and where movement of water is low. Limited dispersal of effluent would be expected during low tides.

Both pump stations have emergency overflows and hence represent sources of emissions. Since the discharge may occur due to pump failure and in the case of an extreme rainfall event, these discharges are considered to be stormwater overflows. The overflows are discharging into coastal water.

The nature and quantities of foreseeable emissions from the wastewater works into the receiving aqueous environment as well as identification of significant effects of the emission to the environment.

The current population of Baltimore is 377 (Ref. 2006 Census Table 5). The future summertime populations in Baltimore are expected to rise to in excess of 2,000. Sewage is currently treated via a septic tank and thus it is assumed that primary treatment occurs prior to discharge. The EPA Document "Treatment Systems for Small Communities, Business, Leisure Centres and Hotels" (EPA 1999) details wastewater inflow characteristics for domestic and commercial sources. As Baltimore is considered mainly residential and the amount of industrial / commercial premises in the town are minimal, the only wastewater flow would be considered as small flows of domestic sewage from toilet facilities, therefore, the following are the inflow characteristics assumed; Suspended Solids 163mg/l, BOD 168mg/l.

A Preliminary Report carried out in 2000 stated a winter PE of 324 and a summer PE of 1631 for Baltimore. The 2006 Census figures show a population of 377, which is an increase of 53 people. Taking this into account the current population equivalent for winter is 377PE and summer is 1684PE.

Based on a population equivalent of 377- winter population and a discharge volume of 180l/person/day the total BOD reaching the treatment plant is estimated at 11.4kg/day BOD. The suspended solids reaching the plant is estimated at 11.06kg/day SS.

Based on a population equivalent of 1684- summer population and a discharge volume of 180l/person/day the total BOD reaching the treatment plant is estimated at 50.92kg/day BOD. The suspended solids reaching the plant is estimated at 49.4kg/day SS.

The main function of a septic tank is to act as primary settlement tank removing some of the BOD and the majority of the suspended solids. The EPA publication 'Primary, secondary and tertiary treatment' (EPA 1997) estimates that typically 50-70% of suspended solids are removed in primary settlement tanks; BOD is reduced by 20-50% and the bacterial count by 25-75%. According to the National Urban Waste Water Study (NUWWS) the reduction to the BOD load would be approximately 30% and approximately 50% to the Suspended Solids load.

This would result in a BOD discharge to the bay of 7.98kg/day, a SS discharge of 5.53kg/day in the winter and would result in a BOD discharge to the bay of 35.64kg/day, a SS discharge of 24.7kg/day in the summer.

"For the purposes of this application the relevant pe chosen for the licence period is 1,950 being the pe estimated at end of that period."

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

The proposed WWTP at Baltimore along with three other wastewater treatment plants have been grouped together to form a Design Build Operate Contract. This has just received departmental approval. The tenders are due to be returned by March 2009. The funding for this project is from the Water Services Investment Programme.

Likely Timeframes for the Works:

1. **Receipt of Tenders – March 2009**
2. **Start Construction – January 2010**
3. **Completion of Works – June 2011**

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

Measures planned to monitor emissions into the environment

The emissions from the existing septic tank can be monitored through the sampling point SW01 Balt (see Map Balt B2–02 for location).

In the upgrade WWTP, monitoring and sampling of the emissions will be provided in inlet and outlet works (see Map Balt B2-03). The sampling will consist of a composite sample and all emissions will be measured and can be sampled before discharge.

SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration:	Baltimore

Applicant's Details

Name and Address for Correspondence

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

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

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

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

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

Name*:	Declan Groarke
Address:	Cork County Council
	Courthouse
	Skibbereen
	Co. Cork
Tel:	028-21299
Fax:	028-21995
e-mail:	declan.groarke@corkcoco.ie

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

Co-Applicant's Details

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 (authorisation) licence 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**
	√	

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.

Existing Wastewater Treatment Plant

Name*:	James Dwyer
Address:	Rectory,
	Cork Road,
	Skibbereen
	Co. Cork
Grid ref (6E, 6N)	E:104709, N:026634
Level of Treatment	Primary
Primary Telephone:	028-21299
Fax:	028-23836
e-mail:	james.dwyer@corkcoco.ie

Proposed Wastewater Treatment Plant

Name*:	James Dwyer
Address:	Rectory
	Cork Road,
	Skibbereen
	Co. Cork
Grid ref (6E, 6N)	E:104740, N:026866
Level of Treatment	Tertiary
Primary Telephone:	028-21299
Fax:	028-23836
e-mail:	james.dwyer@corkcoco.ie

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

Attachment B.2 should contain appropriately scaled drawings / maps (≤A3) of the site boundary and overall site plan, including labelled discharge, monitoring

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

Attachment included	Yes	No
	√	

B.3 Location of Primary Discharge Point

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

Existing Discharge Point

Type of Discharge	Outfall Pipe
Unique Point Code	SW01 BALT
Location	Baltimore Harbour
Grid ref (6E, 6N)	E:104654 N:026639

Proposed Discharge Point

Type of Discharge	Outfall Pipe
Unique Point Code	SW01P BALT
Location	Baltimore Harbour
Grid ref (6E, 6N)	E:104623 N:026951

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

Attachment included	Yes	No
	√	

B.4 Location of Secondary Discharge Point(s)

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

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

Attachment B.4 should contain appropriately scaled drawings / maps (≤A3) of the discharge point(s), including labelled monitoring and sampling points

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

Attachment included	Yes	No
		√

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

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

Existing Storm Water Overflows

Type of Discharge	Overflow Pipe
Unique Point Code	SW02 BALT
Location	Baltimore
Grid ref (6E, 6N)	E:104654 N:026639

(Outfall to be made redundant)

Type of Discharge	Overflow Pipe/Flap valve
Unique Point Code	SW03 BALT
Location	Baltimore
Grid ref (6E, 6N)	E:104602 N:026401

Type of Discharge	Overflow Pipe/Flap valve
Unique Point Code	SW04 BALT
Location	Baltimore
Grid ref (6E, 6N)	E:104326 N:026013

Proposed Storm Water Overflows

Type of Discharge	Overflow Pipe
Unique Point Code	SW05 BALT
Location	Baltimore
Grid ref (6E, 6N)	E:104606 N:026602

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

Attachment included	Yes	No
	√	

B.6 Planning Authority

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

Name:	Cork County Council
Address:	Planning Department
	Norton House
	Skibbereen
	Co. Cork
Tel:	028-40340
Fax:	028-21660
e-mail:	

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

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

Local Authority Planning File Reference Nº:	Baltimore Sewerage Scheme Part 8 Planning Application

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

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

B.7 Other Authorities

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

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

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

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

B.7 (ii) Health Services Executive Region

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

Name:	Health Service Executive
Address:	Area Headquarters
	Hospital Grounds
	Skibbereen
Tel:	028-40400
Fax:	028-21006
e-mail:	-

B.7 (iii) Other Relevant Water Services Authorities

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

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

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

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

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

B.8 Notices and Advertisements

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

Attachment B.8 should contain a copy of the site notice and an appropriately scaled drawing (≤A3) showing its location. **The original application must include the original page of the newspaper in which the advertisement was placed**. The relevant page of the newspaper containing the advertisement should be included with the original and one (1) copy of the application.

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

B.9 (i) Population Equivalent of Agglomeration

TABLE B.9.1 POPULATION EQUIVALENT OF AGGLOMERATION

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

Existing Populations
Winter Population

Population Equivalent	**377**
Data Compiled (Year)	**2006**
Method	**Census**

Summer Population

Population Equivalent	**1,681**
Data Compiled (Year)	**2000 & 2008**
Method	**Preliminary Report & addition of increase in population from Census**

Proposed Populations
Winter Population

Population Equivalent	**649 (Proposed Year 2020)**
Data Compiled (Year)	**2000**
Method	**Preliminary Report**

Summer Population

Population Equivalent	**2669 (Proposed Year 2020)**
Data Compiled (Year)	**2000**
Method	**Preliminary Report**

The 2006 Census recorded the winter population of Baltimore to be 377.

Baltimore does not have a school within the town boundary. The town of Baltimore would not be considered as an industrialised town. Any contribution into the collection system from industrial/commercial activities would be considered domestic sewage from toilet facilities.

Baltimore is a popular tourist centre. Water consumption figures for Baltimore indicate that there is a very significant increase in the population of the town over the holiday season.

"For the purposes of this application the relevant pe chosen for the licence period is 1,950 being the pe estimated at end of that period."

B.9 (ii) Pending Development

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

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

Method of Calculating Pending Developments

Planning Permission has been granted for the following developments in Baltimore.

- 4 No dwellings

The 2006 Census was used to determine the occupancy rate per house for the permanent residential addresses. The Cork County rural average occupancy in the 2006 Census was 2.96 persons per house.

It is considered that all additional PE from pending developments are from domestic activities.

At present the septic tank is not able to cater for any additional summer loading. A new wastewater treatment plant is proposed for the town of Baltimore and this new plant will be able to cater for the additional loading.

B.9 (iii) FEES

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

Class of waste water discharge	Fee (in €)
Discharges from agglomerations with a population equivalent of 1,001 to 2,000	15,000

Appropriate Fee Included	Yes	No
	√	

B.10 Capital Investment Programme

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

The proposed WWTP at Baltimore along with three other wastewater treatment plants have been grouped together to form a Design Build Operate Contract. This has just received departmental approval. The tenders are due to be returned by March 2009. The funding for this project is from the Water Services Investment Programme.

Likely Timeframes for the works:

1. **Receipt of Tenders – March 2009**
2. **Start Construction – January 2010**
3. **Completion of Works – June 2011**

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

Attachment included	Yes	No
	√	

B.11 Significant Correspondence

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

Not applicable

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

Attachment included	Yes	No
		√

B.12 Foreshore Act Licences.

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

Foreshore Licence
The following are the two Foreshore Licences relating to Baltimore Sewerage Scheme. The conditions attached to the proposed wastewater treatment plant can be found in attachment B12.

Existing Septic Tank and Collection System:
Foreshore Licences File Reference MS51/8/544 Dated 17/09/1975
Laying 2 outfall pipes in connection with Baltimore Sewerage Scheme.

Proposed Wastewater Treatment Plant:
Foreshore Licences File Reference MS51/8/1236 Dated 2006
Application for Baltimore Sewerage Scheme.

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

Attachment included	Yes	No
	√	

SECTION C: INFRASTRUCTURE & OPERATION

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

C.1 Operational Information Requirements

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

C.1.1 Storm Water Overflows

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

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

C.1.2 Pumping Stations

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

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

Description of the existing plant process and design capacity:

Baltimore is served by a collection network which was constructed in the 1970's.

The sewerage system is a partially combined system and consists of both gravity and pumped systems. The first pump station at the pier (P1) serves the public toilets and the Baltimore Sailing Centre. This pump station discharges to the main gravity sewer in the vicinity of the town centre. The foul flow from the western side of Baltimore drains by gravity to a pump station located at the Cove (P2). From there the sewage is pumped to the main gravity collection system. The main gravity sewer discharges to a septic tank.

The capacity of the tank is approximately 209m^3

In order to assess the design capacity (design Population) of the septic tank the following calculation was used:

$$C = 180P + 2000$$

where C is the capacity of the tank (in litres) and P is the design population. Using this formula the septic tank can sufficiently cater for a population of 1150 persons.

It should be noted that this formula was obtained from BS6297 1983, this standard has been superseded in 2007 (BS6294 2007) however the new standard does not give any formulae for assessing the capacity of septic tanks. So for the basis of this application BS6297 1983 is used.

The septic tank provides primary settlement only, which according to the National Urban Waste Water Study (NUWWS) reduces the BOD load by approximately 30% and the Suspended Solids load by approximately 50%.

List of all abatement, treatment or recovery systems:
There is not currently any abatement, treatment or recovery systems used within the wastewater works other than the primary treatment. The septic tank is de-sludged every year and the sludge is transported off site for treatment.

Control system description:
There is currently no control system in place. Samples may be taken manually from the outfall SW01 Balt (Map Balt B2-02)

Stormwater Overflows
The sewerage network has three storm water overflow discharge points. Details of the stormwater overflow (SWO's) discharge points are given in Table C.1.1.

Table C.1.1 Description of Stormwater Discharge Points

Type of Discharge	Unique Point Code	Receiving Water Body Type	Receiving Water Body Name	Grid Reference
Outfall Pipe	SW02 Balt	Coastal	Baltimore Harbour	E:104654 N:026639
Outfall Pipe	SW03 Balt	Coastal	Baltimore Harbour	E:104602 N:026401
Outfall Pipe	SW04 Balt	Coastal	Baltimore Harbour	E:104326 N:026013

SW01 Balt serves as the primary discharge and SW02 serves as the storm overflow from the septic tank. SW03 and SW04 are overflows for the 2 No. pumping stations. In the event of heavy rainfall the septic tank is bypassed and the effluent flows into Baltimore Harbour via an outfall pipe close to the septic tank. The overflow arrangement for the pumping stations is described in the next section.

Pumping Stations
As shown in Map Balt B4-01 there are 2 pumping stations in Baltimore.

Both PS have emergency overflows. P1 serves the public toilet and sailing club and P2 serves a number of houses at the Cove therefore only a small proportion of the overall collection network is dependent on the pumping stations.

Table C.1.2: Details of Pumping Stations

Pumping Station	Approx. Location	Pumping Arrangement	Storage Capacity	Receiving Water	
				Body Name	Grid Ref.
P1	The Pier	Duty/Standby	Sewer surcharge	Baltimore Harbour	104609E, 026396N
P2	The Cove	Duty	$1m^3$	Baltimore Harbour	104330E, 025978N

The pump station P1 at The Pier was installed in 1993. This has sufficient capacity to cater for the current flow. No significant increase in flow is expected within the catchment of this pump station.

There is an emergency overflow from this pump station. It is connected to the gravity sewer that runs from the public toilet to the pump station. The arrangement with this overflow is as follows: in the event of pump failure, the level of sewage in the pump station rises until the gravity sewer from the public toilets is surcharged. The surcharged sewer discharges to the emergency overflow, which discharges into the pier. The discharge point of the emergency overflow is set in the pier wall, flush with the face of the wall. There is a flap valve on the outfall.

The emergency overflow from P2 runs from the pumping station, under the foreshore, and outfalls into the Cove below the low tide level.

There is very little land available for future development within the catchment area of the Cove pump station. The land between the development boundary and the coastline is substantially developed with low-density housing. As there are no additional loads proposed to this pump station in the future, the station has adequate capacity and will not need to be upsized.

Frequency & duration of activation of emergency overflow to receiving waters
Only occurs if there is failure of the pump or a power cut.

Location of discharge enter the receiving waters
The discharges from the pump stations are shown on Drawing no Balt B5_01, and enter coastal waters.

Description of the proposed plant process and design capacity:

The plant will be designed to serve a population equivalent of 3,600 persons. This will cater for population growth and development demand for the next twenty years. There is no industrial contribution at present and no allowance for future industrial. However, the layout of the plant will allow for the future expansion if this becomes

necessary. The treatment plant has been set out such that if and when additional capacity is required, the plant may be readily extended to cater for additional loads for industrial or other development.

The design loadings to the treatment plant as set out in the 2000 Preliminary Report is shown in Table C.1.3 below.

Table C.1.3. Baltimore Wastewater Treatment Plant Design Loadings

Parameter	Winter 2000	Summer 2000	Winter 2020	Summer 2020
Population Equivalent	324	1631	649	2669
Dry Weather Flow (m^3/day)	182.1	378.2	230.8	533.8
Peak Flow to WWTP (l/s) 3DWF	6.3	13.1	8.0	18.5
BOD (kg/day)	19.4	97.9	38.9	160.1
Total Nitrogen (kg/day)	3.7	18.6	7.4	30.4
Ammonia Nitrogen (kg/day)	2.3	11.7	4.7	19.2
Total Phosphorous (kg/day)	0.9	4.7	1.9	7.7
Suspended Solids (kg/day)	23	114	45	187

The Preliminary Report was carried out in 2000, and the projected 20 year population was 2669. The design P.E for the proposed Wastewater Treatment Plant has been revised to cater for 3600 P.E.

The Urban Wastewater Treatment Regulations (SI 419 1994), states that urban wastewater entering collection systems shall before discharge be subject to appropriate treatment for discharge to fresh water and estuaries from agglomerations below a threshold number of 2,000 PE. Appropriate treatment is defined as that level of treatment which is required so as not to adversely affect the water quality of the receiving waters. Due to the sensitive nature of the receiving water in Baltimore, the level of treatment provided by the existing septic tank would not constitute appropriate treatment.

Requirements are also set within the Urban Wastewater Directive for Nutrients levels in discharges to sensitive areas, i.e. areas which are subject to eutrophication. However, these standards are only applicable for treatment plants with capacities over 10,000PE. As the population equivalent of Baltimore at present is less than 2000 nutrient removal will not be carried out.

While the legislation does not define what level of treatment is to be considered as “appropriate treatment” it is considered that a minimum of secondary treatment should be provided at Baltimore. It is likely that it will consist of preliminary treatment, secondary treatment and disinfection or their equivalent to achieve a final effluent of 25mg/l BOD; 35mg/l SS; 125mg/l COD; 10,000/100 mls Total Coliforms; 2,000/100 mls Faecal Coliforms. Mitigating measures will be installed to maintain noise and odour emissions within recognised and acceptable limits at the site boundary.

Standby power generation will be available in case of power failure. Thickened sludge will be transported by tanker or skip off site for further treatment or disposal in accordance with the County Sludge Strategy Plan. Screening arising from the

Preliminary Treatment stage will be disposed of to the Cork County Council landfill site.

Control system description:
The proposed wastewater treatment plant will allow for monitoring and sampling of the inflow and outflow of wastewater in the plant.

Stormwater Overflows & Pumping Stations

Table C.1.4 Description of Stormwater Discharge Points

Type of Discharge	Unique Poin Code	Receiving Wate Body Type	Receiving Water Body Name	Grid Reference
Existing Outfalls to be maintained				
Outfall Pipe	SW03 Balt	Coastal	Baltimore Harbour	E:104602 N:026401
Outfall Pipe	SW04 Balt	Coastal	Baltimore Harbour	E:104326 N:026013
Proposed Outfalls				
Outfall Pipe	SW05 Balt	Coastal	Baltimore Harbour	E:104606 N:026602

Pumping Stations
Remedial works are required at pumping station P2 at the Cove. The existing pump is more than 20 years old and is approaching the end of its life. This will need to be replaced in the near future. Also a second standby pump is required to provide cover in the event of a fault with the duty pump. The non-return valve on the emergency overflow pipe needs to be replaced.

Additional Pump Station Required
A pump station and rising main will be required to convey the sewage from the existing septic tank to the site of the proposed WWTP.

It is proposed to locate the pump station at the site of the septic tank. A rising main would follow the road from the septic tank to the proposed WWTP site. The rising main would be 420m long.

This arrangement will be able to utilise the existing outfall as an emergency overflow, and the existing septic tank will be used as a stormwater retention tank.

Details of Proposed Pump Station
The pump station is designed to cater for a range of flows. The collection system in Baltimore is combined with a significant contribution of storm run-off. The option of overflowing peak storm flows at the pump station was considered. It is proposed to use the existing outfall as a storm overflow pipe. It is proposed to provide for a peak flow of 3 times DWF to be pumped forward to the wastewater treatment plant. The sump will be sized to retain the equivalent volume of 6DWF for 1 hour. Flows in excess of this volume will be overflowed to the existing outfall. The overflow will be screened to 6mm due to the sensitive nature of the receiving waters. These

new pumping stations will be required to take into account all the relevant guidelines and legislation pertinent at the time of detail design and construction.

The design flows into the pump station are (from PR 2000 by EG Pettit)

	3 DWF Winter	3 DWF Summer
Current (Year of PR 2000)	6.3 l/s	13.11 l/s
Future (Year 2020)	8.0 l/s	18.52 l/s

It is proposed to adopt a pumping arrangement with two variable speed pumps, operating on a duty/standby arrangement. The range of the duty pump will be 10 l/s to 18.5 l/s.

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

Attachment included	Yes	No
	✓	

C.2 Outfall Design and Construction

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

Table C.2.1: Details of Existing Discharging Outfalls

Discharge	Reference	Location	Design Criteria	Construction Details
Primary	SW01 Balt	E:104654, N:026639	300mm diameter outlet pipe	Concrete pipe in concrete surround, discharges below LWL
Stormwater	SW02 Balt	E:104654, N:026639	Emergency overflow	Concrete pipe in concrete surround, discharges below LWL
Stormwater	SW03 Balt	E:104602, N:026401	Emergency overflow	Discharges below low tide level
Stormwater	SW04 Balt	E:104326, N:026013	Emergency overflow	Set in pier wall, flush with wall face

Table C.2.2: Details of Proposed Discharging Outfalls

Discharge	Reference	Location	Design Criteria	Construction Details
Primary	SW01P Balt	E:104623, N:026951	400mm diameter outlet pipe	Ductile iron pipe, laid 100m beyond the high water mark, min 2m below LWM
Stormwater	SW05 Balt	E:104606, N:026602	Stormwater overflow	Discharges below low tide level

SW01 & SW01 will be decommissioned and SW01P will take over as the primary discharge point once the new wastewater treatment plant is constructed and commissioned. SW05 will become the new stormwater overflow point from the existing septic tank which is proposed as a stormwater retention tank for the upgraded scheme.

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

Attachment included	Yes	No
		√

SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

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

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

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

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

D.1 Discharges to Surface Waters

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

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

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

Attachment included	Yes	No
		√

D.2 Tabular Data on Discharge Points

Applicants should submit the following information for each discharge point:

Table D.2:

PT_CD	PT_TYPE	LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING
Point Code Provide label ID's	Point Type (e.g., Primary/ Secondary/ Storm Water Overflow)	Local Authority Name (e.g., Donegal County Council)	Receiving Water Body Type (e.g., River, Lake, Groundwater, Transitional, Coastal)	Receiving Water Body Name (e.g., River Suir)	Protected Area Type (e.g., SAC, candidate SAC, NHA, SPA etc.)	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference
SW01	Primary – Existing	Cork County Council	Coastal	Baltimore Harbour	SAC, pNHA	104654	26639
SW01P	Primary – Proposed	Cork County Council	Coastal	Baltimore Harbour	SAC, pNHA	104623	26951
SW02	Stormwater overflow	Cork County Council	Coastal	Baltimore Harbour	SAC, pNHA	104654	26639
SW03	Stormwater overflow	Cork County Council	Coastal	Baltimore Harbour	SAC, pNHA	104602	26401
SW04	Stormwater overflow	Cork County Council	Coastal	Baltimore Harbour	SAC, pNHA	104326	26013
SW05	Stormwater overflow - Proposed	Cork County Council	Coastal	Baltimore Harbour	SAC, pNHA	104606	26602

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

SECTION E: MONITORING

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

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

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

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

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

No composite sampling or continuous flow monitoring is in place at present on any of the discharge points. Sampling facilities and continuous flow meters will be provided when new Waste Water Treatment Plant is in place.

E.2. Monitoring and Sampling Points

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

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

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

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

Attachment included	Yes	No
	√	

E.3. Tabular data on Monitoring and Sampling Points

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

PT_CD	PT_TYPE	MON_TYPE	EASTING	NORTHING	VERIFIED
Point Code Provide label ID's assigned in section E of application	Point Type (e.g., Primary, Secondary, Storm Water Overflow)	Monitoring Type M = Monitoring S = Sampling	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used
SW01	Primary – Existing	S	104673	26606	Y
SW01P	Primary – Proposed	M & S	104760	26888	N
SW01d	Receiving waters at fishery point	S	104235	26201	Y

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

E.4 Sampling Data

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

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

Attachment E.4 should contain any supporting information.

Attachment included	Yes	No
	√	

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

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

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

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

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

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

Existing Primary Discharge Point

The existing outfall discharges effluent from a septic tank located adjacent to the quay wall at Bull Point. The outfall pipe is a 300mm dia. concrete pipe with a mass concrete surround. The outfall extends approximately 30m from the quay wall into the bay.

At present only primary settlement is provided to the effluent prior to discharge. There is little dilution available at low tide.

The location of the existing outfall is in an area of the bay which is not suitable for bathing. It is also an area which is not generally used by leisure crafts or for other water sports.

The existing outfall is not considered adequate for the proposed scheme because

1. The point of discharge is clearly visible at high and low tides.
2. There is little dilution afforded to the treated effluent.

Proposed Primary discharge Point

The availability of locations for a suitable outfall is restricted by the proximity of the proposed Natural Heritage Area, Special Areas of conservation, Shellfish beds and areas of the bay used for water contact sports and swimming. A number of potential outfall points were identified and evaluated to determine their suitability.

As noted above the receiving waters are used extensively for water contact sports and marine-culture. Any outfall locations within reasonable distance of the proposed

wastewater treatment plant will be in the vicinity of the area of one or other of these water uses. In order to determine the likely impacts from outfalls on these areas it would be necessary to carry out extensive surveys and modelling at a number of locations. The cost of such surveys are not justified on the basis that the installation of a disinfection system, to meet quality standards, involves less cost than the surveys. In addition, it is possible that the surveys may indicate that disinfection is required in any case. For this reason it has been concluded that disinfection will be incorporated as part of the treatment process.

Consultations were held with the Department of Marine to determine their requirements with a view to obtaining a foreshore license for the proposed scheme. The department of Marine recommended that a minimum depth of 2m below low tide be achieved for the treated effluent for the proposed scheme. The department of Marine also indicated that they were not satisfied with the existing outfall location.

The location chosen to be the most advantageous was chosen for the following reasons

- Reasonably straight forward construction
- Most economical option
- Readily accessible from preferred wastewater treatment plant site
- Repairs and maintenance to outfall pipeline are more feasible
- Plant breakdown will be more readily identified
- Outfall located away from NHA and main recreational areas of the bay

Water Quality

A preliminary report was carried out in 2000 and according to this the quality of the Bathing Water Regulations are satisfied as the level of treatment proposed using disinfection is to achieve an effluent such that the effluent itself complies with the standard specified by these regulations. However the shellfish standards are more stringent. The Shellfish Standards stipulate FC levels of not greater than 14 FC per 100ml for an approved classification of shellfish waters. An evaluation of the impact on the shellfish areas of discharging bathing water quality effluent into the bay from the proposed outfall point was carried out. The nearest shellfish bed is approximately 300m across the bay from the outfall point. When the effluent reaches the nearest shellfish bed it has undergone over 2,500 dilutions. After treatment and dilution it can be shown using simplified dispersion models that the effluent has a negligible impact on the shellfish waters. The concentration of faecal coliforms reaching the shellfish beds is less than 1 FC/100ml which is well within the criteria for an “Approved” classification of the shellfish water under Shellsan Standards. The results of the dispersion model are presented in Attachment F.

Plant Breakdown

When choosing the location of the proposed primary outfall, the impact of a treatment plant breakdown was also considered. The proposed outfall point is located in a narrow channel section of the bay with significant tidal flushing. The dilutions available are sufficient to prevent any significant adverse effects on the receiving water in the event of plant breakdown. In addition it is proposed to include a dial out alarm system within the control system for the new treatment plant. Therefore the duration of any untreated effluent discharges will be minimised.

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

- For discharges from secondary discharge points Tables F.1(ii)(a) & (b) should be completed. Furthermore, provide summary details and an assessment of the impacts of any existing or proposed emissions on the surface water or ground (aquifers, soils, sub-soils and rock environment), including any impact on environmental media other than those into which the emissions are to be made.

Not Applicable

- Provide details of the extent and type of ground emissions at the works. For larger discharges to groundwaters, e.g., from Integrated Constructed Wetlands, large scale percolation areas, etc., a comprehensive report must be completed which should include, inter alia, topography, meteorological data, water quality, geology, hydrology, and hydrogeology. The latter must in particular present the aquifer classification and vulnerability. The Geological Survey of Ireland Groundwater Protection Scheme Dept of the Environment and Local Government, Geological Survey of Ireland, EPA (1999) methodology should be used for any such classification. This report should also identify all surface water bodies and water wells that may be at risk as a result of the ground discharge.

There are no groundwater emissions from the existing or proposed discharges to which this licence application pertains.

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

Baltimore Harbour and its environs are within a designated Special Area of Conservation and proposes National Heritage Area. The site synopsis for "Roaringwater Bay and Islands" (000101) is attached in Attachment F1.

- 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.

The Dangerous Substances Regulations define the main polluting pesticides, solvents and metals which have significant effects on the environment. As the load to the WWTP is mainly domestic and tourism with no industrial contribution it can be assumed that the presence of these substances is

negligible. The main parameters which impact the receiving environmental are limited to BOD, suspended solid and bacteria (total and faecal Streptococci).

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

No water abstraction points exists downstream of any of the discharge locations.

- Indicate whether or not emissions from the agglomeration or any plant, methods, processes, operating procedures or other factors which affect such emissions are likely to have a significant effect on –

  (a) a site (until the adoption, in respect of the site, of a decision by the European Commission under Article 21 of Council Directive 92/43/EEC for the purposes of the third paragraph of Article 4(2) of that Directive) —

    (i) notified for the purposes of Regulation 4 of the Natural Habitats Regulations, subject to any amendments made to it by virtue of Regulation 5 of those Regulations,

    (ii) details of which have been transmitted to the Commission in accordance with Regulation 5(4) of the Natural Habitats Regulations, or

    (iii) added by virtue of Regulation 6 of the Natural Habitats Regulations to the list transmitted to the Commission in accordance with Regulation 5(4) of those Regulations,

  (b) a site adopted by the European Commission as a site of Community importance for the purposes of Article 4(2) of Council Directive 92/43/EEC[1] in accordance with the procedures laid down in Article 21 of that Directive,

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

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

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

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

The following is an extract from the Preliminary Report carried out by EG Pettit & Company, Consulting Engineers for the proposed Baltimore Sewerage Schemes. This relates to the Site Designation, Birds and Impacts of the plant on the environs.

SITE DESIGNATION

Designations

Roaring water bay into which the treatment plant will discharge is a candidate Special Area of Conservation (cSAC). As detailed in the site synopsis included in Appendix 1, three marine habitats listed under the EU Habitats Directive, i.e. large shallow inlets and bays, marine caves and reefs are found within the bay.

The shallow intertidal reefs are diverse in places with kelp forest and diverse communities of sponges and ascidians. Species of particular ecological interest include the sponge *Tethyspira spinosa*, the red alga *Phyllophora sicula* and the scarce hydroid *Tamarisca tamarisca.*

The sedimentary communities in Roaringwater Bay are of particular interest and species of note include the calcareous free-living red alga *Lithophyllum dentatum* and the rare filamentous red alga *Spyridia filimentosa.*

Three terrestrial habitats listed under the EU Habitats Directive, i.e. dry heath, sea cliffs and lowland hay meadows are found within Roaringwater Bay. In addition to typical heath species a number of more uncommon species occur within this habitat including Hairy Birdsfoot Trefoil (*Lotus subbiflarus*), the Common Birdsfoot (*Ornithopus perpusillus*), Spotted Rockrose (*Tuberaria guttata*), Pale Heath Violet (*Viola lactea*) and Lanceolate Spleenwort (*Asplenium billotii*) and Deptford Pink (*Dianthus armeria*).

Seashore vegetation includes typical species such as Sea Pink (*Armeria maritima*) and Plantains (*Plantago maritima, P. coronopus*). Of particular note are two Red Data Book plants, Little Robin (*Geranium purpureum*) and Sea Pea (*Lathyrus japonicus*) occur rarely on shingle beaches.

Otter and Grey seal, two mammal species listed on Annex II of the EU Habitats Directive, occur within the site and there are Arctic/Common Terns which are listed on Annex I of the EU Bird's Directive on Carrigviglash Rock. Choughs another species listed on Annex I of the Bird's Directive also occur within the site.

BIRDS

The site in which the treatment plant is to be located consists of mixed scrub dominated by bracken and bramble. Although some typical species were noted i.e. wren, stonechat, hooded crow and meadow pipit this habitat is not of particular value and its removal will have a marginal and localised effect on terrestrial bird species.

As noted earlier in this report the area to be affected consists of a mixture of rocky shore and shingle habitats. These types of habitats do not attract the high numbers of migrant waders more commonly associated with mudflats where there are high macroinvertebrate numbers. Typical species noted include gull species (lesser black-backed gull and herring gull), oystercatcher and cormorant. All of the species noted are common inhabitants of these types of habitats.

To the east of the site the presence of finer sediments attracts more waders; however this area will be unaffected by construction activity. The reduction in nutrients reaching the bay may, over time, lead to a reduction in macroinvertebrate density which in turn could impact on feeding birds. However this effect is unlikely to be of major significance.

Three bird species (common tern, artic tern and chough) included in Annex I of the Bird Directive are found within Roaringwater Bay. The artic/common tern colony is located on Carrigviglash Rock which is situated approximately 5.75km north west of the proposed site and no direct impact is therefore likely. The removal of a small area of bracken scrub will not have significant impacts on choughs.

Noise Impacts
Noise impacts are likely to significant during the construction phase which will involve the dredging of a trench approximately 100m into the bay. As noted earlier in this report the area in which the plant is located has significant amounts of sea traffic and other human disturbance. The noise levels should therefore be considered in the context of relatively high background noise levels. Although the treatment plant may take up to a year to complete the dredging operation will take approximately 4-8 weeks to complete.

Impacts on Mammals
Although there is no evidence to suggest that cetaceans, seals or otters breed in proximity to the proposed site these species may feed in the area. Some adaptation to increased noise levels is likely for any species, which habitually occur in this area, and in this context the increase in noise levels is unlikely to have a significant impact. Seals and otters are highly mobile and can move quickly away from external disturbance.

Impacts on Birds
There is evidence to suggest that noise does have an impact on certain bird species by affecting the ability of birds to effectively communicate and by direct disturbance. There is very little information available on the effects of noise on waterfowl, and it is particularly sparse with regard to port and harbour operations. A British Trust for Ornithology (BTO) review reports that evidence of noise disturbance during construction operations has been found for certain wildfowl and wader species (BTO 1990). However evidence suggest that in general, wildlife, including birds, adjust to noise levels, even sudden noises, as indicated by the existence of SPAs near to 24 hour container terminals in the UK which have been there for years. However, the ability of waterfowl species to habituate to certain forms of disturbance and their ability to compensate for lost feeding time due to disturbance is poorly understood (BTO 1990).

The most valuable habitats for feeding birds are located to the east of the proposed site (photos 7 & 8) and are less likely to suffer significant levels of disturbance. Some level of disturbance from work with oyster trestles, building activity and the mooring of boats already occurs in these areas.

SUMMARY OF IMPACTS

Table 7 : Summary of impacts

(Photos attached in full Dixon Brosnan Report in Attachment F)

Habitat/Species	*Habitat Value*	*Potential impacts without mitigation*	*Comments*
Intertidal Littoral sediment Photo 1	Low conservation value	High	The shingle beach will be affected by works for the pipeline. Biodiversity in this type of habitat generally low.
Intertidal Littoral rock Photos 1 & 3	Moderate to High conservation value	Moderate	Rocky outcrops on the upper to lower shore will be affected. Although moderately diverse this type of habitat is common within the bay.
Sublittoral rock Photo 4	Moderate to High conservation value	High	High diversity of kelp and encrusting organisms on small offshore reefs. Will be partially affected by works for pipeline
Sublittoral sediment Photos 5 & 6	Low to Moderate conservation value	Moderate	Biodiversity relatively low. Will be affected by dredging for pipeline.
Terrestrial Habitats Dense Bracken HD1 Dry Siliceous heath HH1 /Dry humid grassland GS3	Low conservation value	High	This habitat type is common on marginal land in West Cork. The dominance of bracken has significantly reduced biodiversity.
Dry humid grassland GS3 on clifftop	Moderate conservation value	Low	Contains typical coastal plant species. Used as a pathway by mammal species.
Otters	High conservation value	Low	No evidence of breeding or feeding otters. If otters do feed in this area the disruption will be relatively short in duration.
Seals	High conservation value	Low	No evidence of breeding seals. Localised disruption of feeding may occur over a short time frame.
Cetaceans	High conservation value	Low	Presence in proximity to the site unlikely. Minimal impact expected.
Birds	Moderate to high conservation value	Low	Some disruption to species associated with rocky shores. Waders feed on more sheltered shores to the east and direct disturbance and loss of feeding time is unlikely to be significant. Some loss of habitat for terrestrial species.

RESIDUAL IMPACTS

After construction, benthic communities should recolonise disturbed areas, with an accompanying re-establishment of fish in these areas. For example a number of species have recolonised concrete structures associated with the RNLI building. However concrete surfaces may lack the structural complexity of natural rock and certain niches may no longer be available. A reduction in overall biodiversity is therefore likely.

The location of the outflow pipe is such that effective dispersal of effluent will occur. Deposition of fine silt in the sublittoral sediment was not noted. Some deposition of silt would be expected to occur on gravel/mud shores in more sheltered conditions to the east of the site. However in the context of existing mudflats the deposition of silt and/or increased nutrients is unlikely to have a significant ecological impact at this location.

Overall the reduction in suspended solids, nutrients and bacterial loadings should have a beneficial impact on the ecology and water quality of Roaringwater Bay.

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

Not Applicable

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

Attachment included	Yes	No
	√	

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

Not Applicable

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

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

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

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

Attachment F.2 should contain any supporting information.

SECTION G: PROGRAMMES OF IMPROVEMENTS

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

G.1 Compliance with Council Directives

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

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

Compliance with Council Directives

At present there is no record of non compliance in relation to the emissions from the agglomeration and the treatment plant with the council directives. A programme of improvements, and the new WWTP as detailed in Section B.10, is at the tender stage under a DBO type contract. Once this new WWTP has been constructed and commissioned the level of treatment control and monitoring will be improved and hence further facilitate compliance with the Council Directives. The following details the compliance with the applicable directives.

Dangerous Substances Directive 2006/11/EC

The effluent from Baltimore is mainly tourist and domestic and the industrial contribution can be considered as negligible. For this reason, we can assume that any dangerous substances mentioned in the Dangerous Substances Regulations will not be present in the discharge.

The new WWTP proposed in the programme of improvement shall advance the level of control by increasing the number of sampling and monitoring points. The detection of any dangerous substances will be then facilitated.

Water Framework Directive 2000/60/EC

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 waters to good status by 2015. Cork County Council through the Water Services Investment Programme propose to construct a new wastewater treatment facility at Baltimore to provide tertiary treatment to the effluent prior to discharge to the harbour, thus improving water quality in Baltimore Harbour. Daily monitoring of inlet and outlet flows will be scheduled at the WWTP and a monitoring programme will be implemented to monitor for dangerous substances in the receiving waters.

The proposed pump station is designed to cater for a range of flows. The collection system in Baltimore is combined with a significant contribution of storm run-off. The option of overflowing peak storm flows at the pump station was considered. It is proposed to use the existing outfall as a storm overflow pipe. It is proposed to provide for a peak flow of 3 times DWF to be pumped forward to the wastewater treatment plant. The sump will be sized to retain the equivalent volume of 6DWF for 1 hour. Flows in excess of this volume will be overflowed to the existing outfall. The overflow will be screened to 6mm due to the sensitive nature of the receiving waters. These new pumping stations will be required to take into account all the relevant guidelines and legislation pertinent at the time of construction.

Birds Directive 79/409/EEC & Habitats Directive 92/43/EEC,
The following is an extract from the Preliminary Report carried out by EG Pettit & Company, Consulting Engineers for the proposed Baltimore Sewerage Schemes. This relates to the impact of the treatment plant on the environs.

Roaringwater Bay into which the upgraded treatment plant discharges is a SAC and a pNHA.

Marine habitats will be affected by the construction of the pipeline. These include littoral and sublittoral rock and sediment. Although a variety of floral and fauna species were detected during surveys, the habitats noted are locally common and no rare or endangered species were noted.

The terrestrial habitat to be affected is dominated by bracken with smaller areas of Dry Siliceous heath HH1 and Dry humid grassland GS3. Some typical costal species were also noted. These habitats are locally common and not considered to be of particular conservation value.

Although otters are common in the bay no evidence of their presence was detected at the site or in the immediate environs. The level of human disturbance may be preventing this species from breeding on or close to the site.

Seals do not breed in proximity to the site however they may occur in proximity to the site on occasions. Given the limited duration of the works (4 weeks) no significant impact is likely to occur.

Harbour porpoise and bottlenose dolphin have been recorded from the bay, however it is considered unlikely that these species will regularly occur in proximity to the site. Given the limited duration of the dredging works (4-7 weeks approximately) no significant impact is likely to occur.

Birds may be affected by noise and disturbance, however the species noted in proximity to the site are expected to be relatively tolerant of this type of disturbance. Waders, which may be more susceptible to lost feeding time, occur on sheltered mudflats to the east of the site and are not likely to be significantly affected by the development.

Groundwater Directives 80/68/EEC & 2006/118/EC,
Not applicable as all discharges are to the sea.

Drinking Water Directives 80/778/EEC
This Directive concerns standards for water intending for human consumption. As there is no drinking water abstraction point in the vicinity of any of the discharge points, this directive is not applicable.

Urban Waste Water Treatment Directive 91/271/EEC,
As stated in the S.I. No. 254 of 2001, Urban Waste Water Treatment Regulation, 2001:
"A sanitary authority shall ensure by 31 December 2005 that urban waste water entering a collection system shall before discharge be subject to appropriate treatment in the following cases:

(a) in respect of discharge to freshwater and estuaries from agglomerations with a population equivalent of less than 2,000.

(b) in respect of discharges to coastal waters from agglomerations with a population equivalent of less than 10000.

The treated effluent quality standard for the Baltimore Waste Water Treatment Plant is to comply with the E.U. Urban Waste Water Treatment Directive Standards. Which are as follows:

- BOD 25mg/l
- COD 125mg/l
- Total Suspended Solids 35mg/l

Detailed design of the proposed treatment plant has not yet been carried out. A typical plant would consist in this case of screening, aeration, settlement with return of sludge and sludge treatment and removal and will also include storm water storage.

It is proposed that UV disinfection or similar be installed at the WWTP due to the fact that Baltimore Bay is used as an amenity area for fishing and water sports.

Environmental Liabilities Directive 2004/35/EC,
The Environmental Liabilities Directive is about preventing and remedying environmental damage. It aims to hold operators whose activities have caused environmental damage financially liable for remedying this damage.

It is likely that under the DBO contract for Baltimore Wastewater Treatment Plant, (along with three other WWTP's) a Performance Management System will be required. Such a system would provide a uniform approach to dealing with performance management issues, including procedures for dealing with plant operation, and in particular for dealing with emergencies or failure to meet treated effluent standards. Failure to meet the specified treated effluent standards may result in final penalties to the operating contractor. As a result, the risk of environmental pollution from the treatment plant may be reduced.

Bathing Water Directive 76/160/EEC,
There are a number of bathing beaches in Baltimore. (However there is no designated Bathing Water in the area). In Ireland the legislation governing the quality of bathing waters is set out in the Quality of Bathing Waters Regulations, 1992 (S.I. 155 of 1992) and amendments which transpose the EU Directive 76/160/EC concerning the quality of bathing water.

There is currently no blue flag beach in the Baltimore area. Nevertheless, it is considered that the disposal of treated effluent should result in compliance with the Irish National Limit values for bathing waters particularly in light of inclusion of tertiary (disinfection) treatment in WWTP.

Shellfish Waters Directive (79/923/EEC).
The Shellfish Standards stipulate FC levels of not greater than 14 FC per 100ml for an approved classification of shellfish waters. An evaluation of the impact on the shellfish areas of discharging bathing water quality effluent into the bay from the proposed outfall point was carried out. The nearest shellfish bed is approximately 300m across the bay from the outfall point. When the effluent reaches the nearest shellfish bed it has undergone over 2,500 dilutions. After treatment and dilution it can be shown using simplified dispersion models that the effluent has a negligible impact on the shellfish waters. The concentration of faecal coliforms reaching the shellfish beds is less than 1 FC/100ml which is well within the criteria for an "Approved" classification of the shellfish water under Shellsan Standards. The results of the dispersion model are present in Attachment F.

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

Attachment included	Yes	No
	√	

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

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

Not applicable for discharges into sea.

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

Attachment included	Yes	No
		√

G.3 Impact Mitigation

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

The new wastewater treatment plant is to be constructed in Baltimore which will improve the standard of treatment and quality of effluent discharging from the wastewater treatment plant.

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

Attachment included	Yes	No
	√	

G.4 Storm Water Overflow

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

As there is a high volume of surface water infiltration into the collection system it is proposed to carry out rehabilitating works i.e. relining and relaying, in some of the critical sections identified in the CCTV Survey as having a high proportion of large defective joints in the sewer line. Also it is proposed to lay new storm sewers in a number of key locations in the town which will be separate to the foul sewer and will have an independent outfall into the harbour. They are as follows:

- A new 525mm/600mm dia. Storm sewer is to be laid along the Skibbereen Road to an outfall in the quay wall adjacent to the septic tank, to divert storm water from the foul sewer.
- A new 300mm dia. Storm sewer is to be laid from the town centre to the proposed 525mm dia. Storm sewer along the Skibbereen Road to drain the town centre.
- A new 300mm dia. Storm sewer is to be laid from the hill that is between the town centre and the relief road, extending up into Cliff Estate, draining to the existing 600mm dia. Storm sewer along the relief road.
- A new drainage system is to be constructed to convey the surface water from the hills south of Baltimore to Baltimore Harbour, to alleviate flooding. The drainage system will consist of 375mm, 900mm, 1050mm and 1200mm dia. Sewers. These sewers will be laid from behind Salisbury Terrace to the Cove Road. It will follow the route to the Cove Road and will outfall into Baltimore Harbour south of the pier.

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

Attachment included	Yes	No
	√	

SECTION H: DECLARATION

Declaration

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

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

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

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

Signed by : _____ **Date :** 25/2/09
(on behalf of the organisation)

Print signature name: Moira Murrell

Position in organisation: Director of Service

SECTION I: JOINT DECLARATION

Joint Declaration [Note1]

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

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

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

Print signature name: _____

Position in organisation:_____

Co-Applicants

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

Print signature name: _____

Position in organisation:_____

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

Print signature name: _____

Position in organisation:_____

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

Table of Contents of Annex 1

Section F – Existing Environment and Impact of the Discharges

Attachment F1

Ecological Report by Dixon Brosnan Environmental Consultants – Assessment of the ecological impacts of providing an upgrade Wastewater Treatment System at Baltimore, Co. Cork.

Ecological Report by Dixon Brosnan Environmental Consultants – Additional information on the ecological impacts of providing an upgrade Wastewater Treatment System at Baltimore, Co. Cork.

Duchas Documentation – Site Synopsis Roaringwater Bay
Historical Rainfall Data – Met Eireann
Dispersion calculations for treated Effluent Outfall
Hydroworks Model
Design Calculations for storm Sewers
Wastewater Treatment Plant – Design Data

Section G – Programme of Improvements

Attachment G1- Recent Programme of Works

Attachment G3- Recent Programme of Works & Approved Funding

Attachment G4- Recent Programme of Works & Approved Funding

Tables D

Tables D1(i)(a), (b) & (c) Emission to Surface/Ground Water – Primary Discharge

Tables D1(iii)(a) Emission to Surface/Ground Water – Stormwater Overflow

Tables E

Table E.1 (i) Wastewater Frequency and Quality of Discharge - Primary Discharge

Tables E.1 (ii) Wastewater Frequency and Quality of Discharge – Stormwater Overflows

Tables F

Table F.1(i)(a) Surface/Ground Water Monitoring – Primary discharge

Table F.1(i)(b) Surface/Ground Water Monitoring (dangerous substances) – Primary discharge

Section A

Attachment A1

Map:

- BALT A1-01 - Site Location Map of Agglomeration

AREA OF INTEREST

NOTES

1. Do not scale, use figured dimensions only. If in doubt ask
2. All dimensions to be checked on site
3. Drawings to be read in conjunction with Licence application
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NORTH

No.	Date	Drwn	Chkd	Revision Description

Cork County Council, Western Division.

N.O'MAHONY,B.E.,
SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
BALTIMORE_WASTE_WATER
DISCHARGE_LICENCE_APPLICATION

Drawing Title:
ATTACHMENT_A.1
SITE_LOCATION_MAP

Prepared By:	Checked By:	Date:
J.CREAGH	O.O'BRIEN	FEB.2009

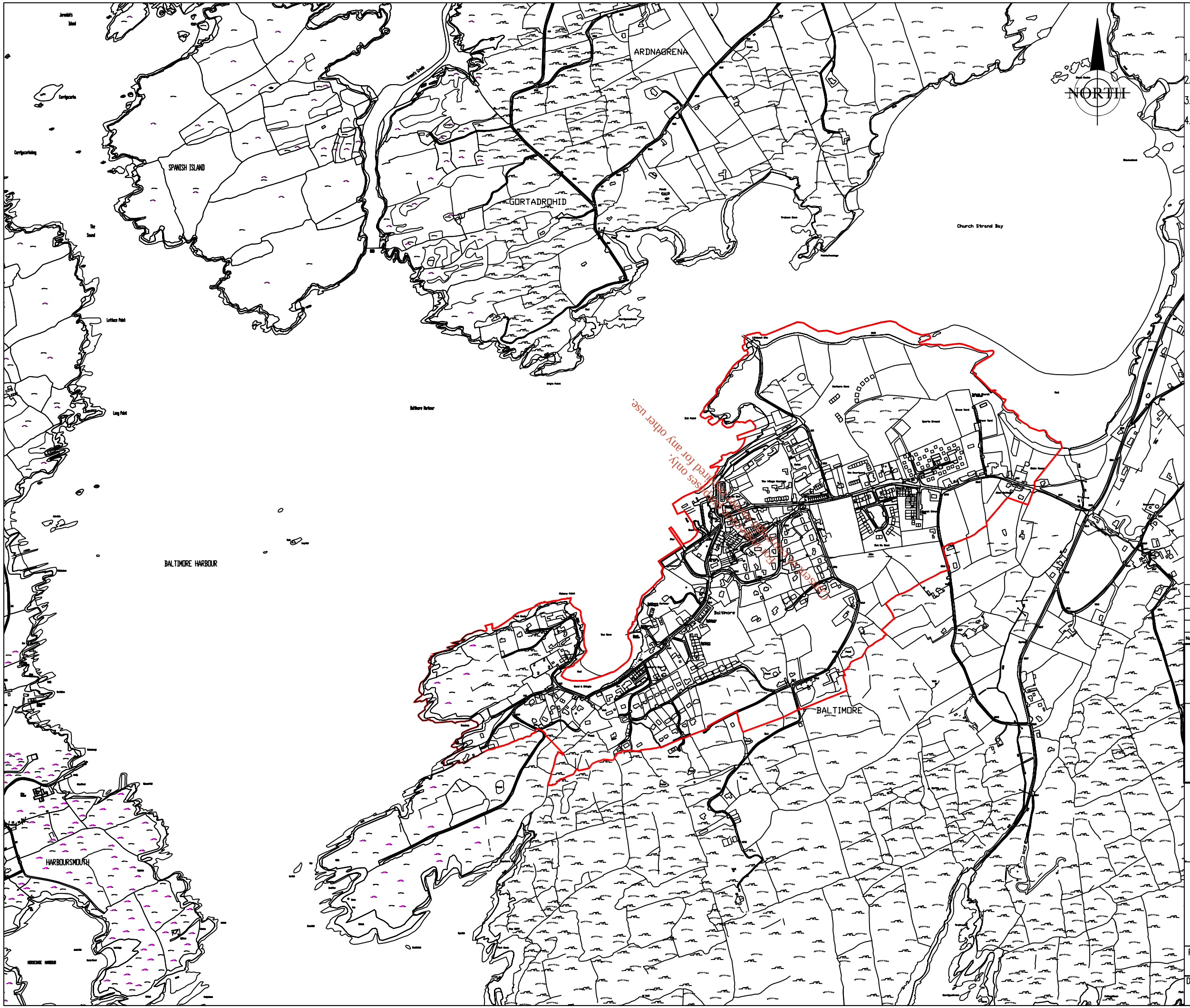
Drawing number:	Scales:	Rev:
BALT_A1_01	NTS	-

Section B

Attachment B1

Drawing:

- BALT B1-01 - Baltimore Agglomeration Boundary Map



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LEGEND

AGGLOMERATION BOUNDARY

No.	Date	Drwn	Chkd	Revision Description

Cork County Council, Western Division.

N.O'MAHONY,B.E.,
SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
BALTIMORE_WASTE_WATER DISCHARGE_LICENCE_APPLICATION

Drawing Title:
ATTACHMENT_B.1 AGGLOMERATION_BOUNDARY SERVED_BY_WASTE_WATER TREATMENT_PLANT

Prepared By:	Checked By:	Date:
J.CREAGH	O.O'BRIEN	FEB.2009

Drawing number:	Scales:	Rev:
BALT_B1_01	1:10000	-

Attachment B2

Map :

- BALT B2-01 – Site Location Map of Existing & Proposed Wastewater Treatment Plants
- BALT B2-02 – Layout Plan of Existing Wastewater Treatment Plant
- BALT B2-03 – Layout Plan of Proposed Wastewater Treatment Plant

acuskeam

NORTH

Lifeboat Stn

Proposed Waste Water Treatment Plant

Mariners Cove

Bull Point

Existing Septic Tank

8.3

5.4

5.0

Hotel

13.3

The Courtya

4.6

The Village Moorings

8

2.5

Castle End

Castle

14.8

22.9

NOTES

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No.	Date	Drwn	Chkd	Revision Description

Cork County Council, Western Division.

N.O'MAHONY,B.E.,
SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

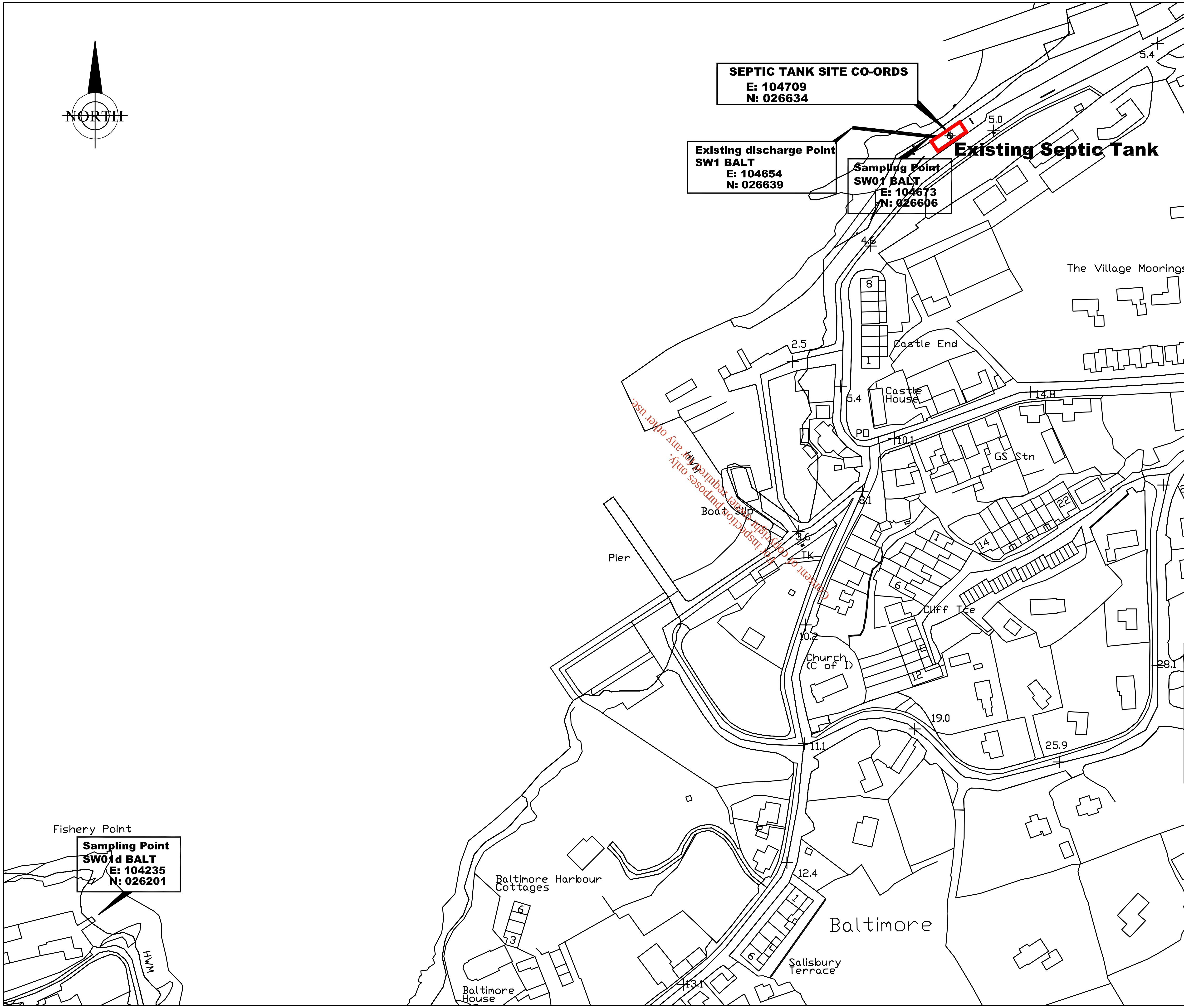
M. MURRELL,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
BALTIMORE_WASTE_WATER DISCHARGE_LICENCE_APPLICATION

Drawing Title:
ATTACHMENT_B.2
EXISTING_&_PROPOSED_WWTP
SITE_LOCATION_PLAN

Prepared By:	Checked By:	Date:
J.CREAGH	O.O'BRIEN	FEB.2009

Drawing number:	Scales:	Rev:
BALT_B2_01	1:2000	-



NOTES

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LEGEND

SITE BOUNDARY

No.	Date	Drwn	Chkd	Revision Description

Cork County Council, Western Division.

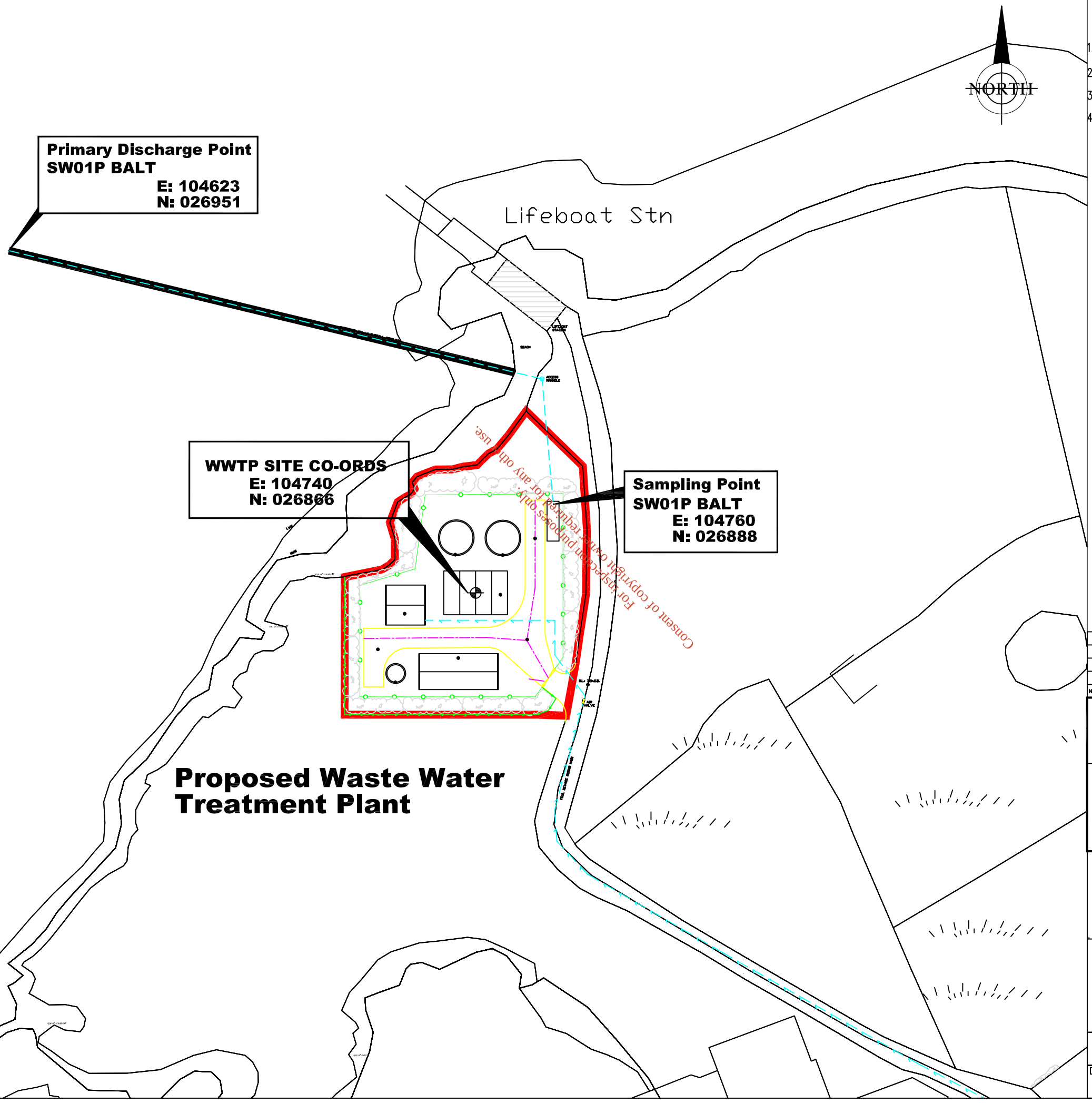
N.O'MAHONY,B.E., SENR.ENGR. (WATER SERVICES), COURTHOUSE, SKIBBEREEN.

M. MURRELL, DIRECTOR OF SERVICES WEST CORK

Job Title:
BALTIMORE_WASTE_WATER DISCHARGE_LICENCE_APPLICATION

Drawing Title:
ATTACHMENT_B.2
SITE_LAYOUT_BOUNDRY
EXISTING_SEPTIC_TANK

Prepared By:	Checked By:	Date:
J.CREAGH	O.O'BRIEN	FEB.2009
Drawing number: BALT_B2_02	Scales: 1:2000	Rev: -



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LEGEND

SITE BOUNDARY

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SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
BALTIMORE_WASTE_WATER
DISCHARGE_LICENCE_APPLICATION

Drawing Title:
ATTACHMENT_B.2
SITE_LAYOUT_BOUNDRY
PROPOSED_WASTE_WATER
TREATMENT_PLANT

Prepared By:	Checked By:	Date:
J.CREAGH	O.O'BRIEN	FEB.2009

Drawing number:	Scales:	Rev:
BALT_B2_03	1:1000	-

Attachment B3

Map :

- BALT B3-01 – Existing & Proposed Primary Discharge Point

Carrigacuskeam

Proposed Primary Discharge Point
SW01P BALT **E: 104623 N: 026951**

Proposed Waste Water Treatment Plant

NORTH

Lifeboat Stn

Mariners Cove

Bull Point

8.3

5.4

5.0

Existing Primary Discharge Point
SW01 BALT **E: 104654 N: 026639**

Existing Septic Tank

Hotel

13.3

4.6

The Village Moorings

8

6

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Cork County Council, Western Division.

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SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
BALTIMORE_WASTE_WATER DISCHARGE_LICENCE_APPLICATION

Drawing Title:
ATTACHMENT_B.3 EXISTING_&_PROPOSED_PRIMARY DISCHARGE_POINT

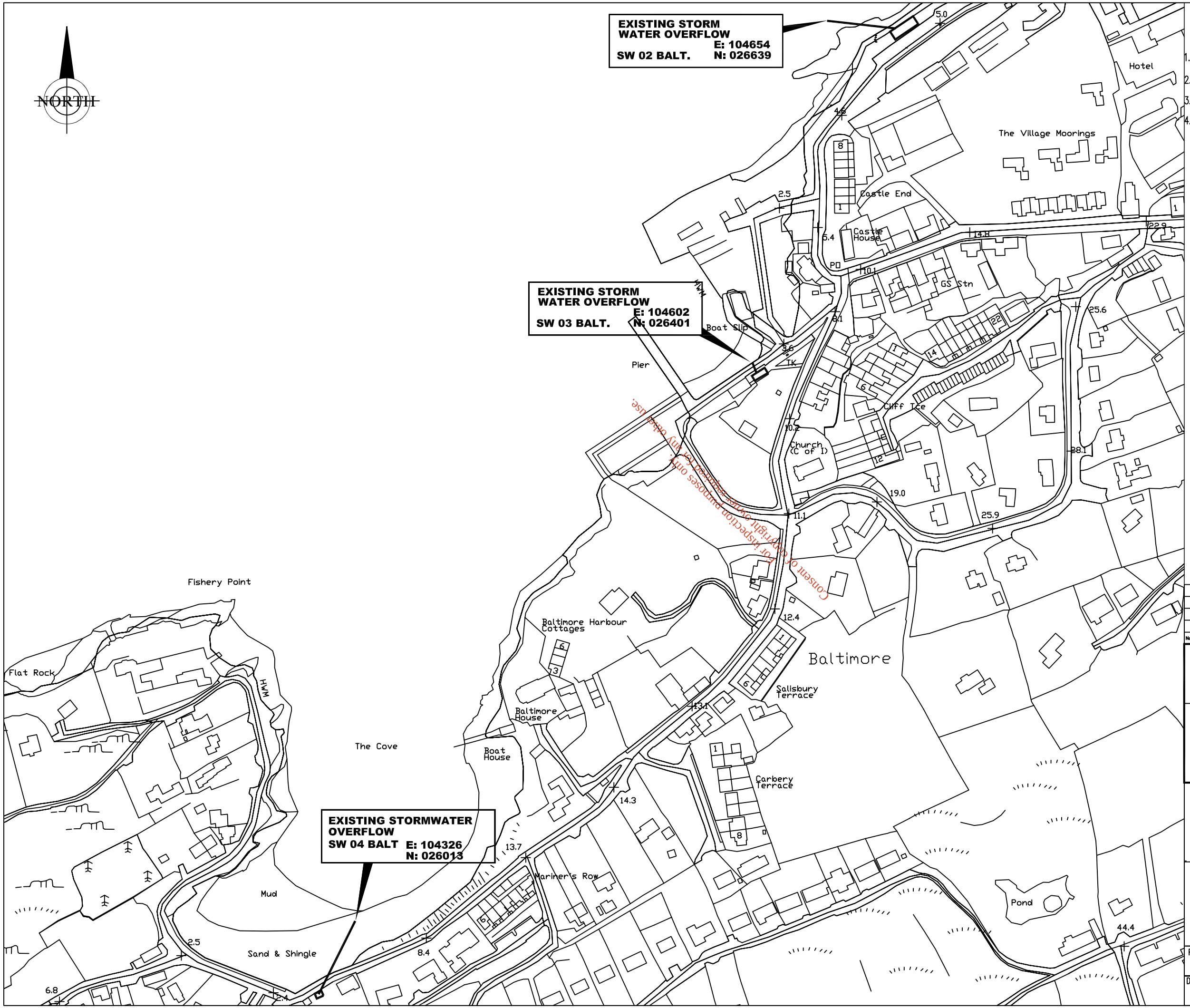
Prepared By:	Checked By:	Date:
J.CREAGH	O.O'BRIEN	FEB.2009

Drawing number:	Scales:	Rev:
BALT_B3_01	1:2000	-

Attachment B5

Map :

- BALT B5-01 – Existing Stormwater Overflow Points
- BALT B5-02 – Proposed Stormwater Overflow Points



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Cork County Council, Western Division.

N.O'MAHONY,B.E.,
SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
BALTIMORE_WASTE_WATER DISCHARGE_LICENCE_APPLICATION

Drawing Title:
ATTACHMENT_B.5 EXISTING_STORM_WATER OVERFLOW_POINTS

Prepared By:	Checked By:	Date:
J.CREAGH	O.O'BRIEN	FEB.2009

Drawing number:	Scales:	Rev:
BALT_B5_01	1:2500	-

NORTH

Bull Point

PROPOSED STORM WATER OVERFLOW
SW 05 BALT.
E: 104606
N: 026602

Hotel
The Village Moorings
Castle End
Castle House
GS Stn
HWM
Boat Slip
Pier
TK
PO

8.3
5.4
5.0
4.6
2.5
5.4
10.1
8.1
3.6
14.8
22.9
25.6
32.9

NOTES

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COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
BALTIMORE_WASTE_WATER DISCHARGE_LICENCE_APPLICATION

Drawing Title:
ATTACHMENT_B.5 PROPOSED_STORM_WATER OVERFLOW_POINTS

Prepared By:	Checked By:	Date:
J.CREAGH	O.O'BRIEN	FEB.2009

Drawing number:	Scales:	Rev:
BALT_B5_02	1:2000	-

Attachment B6

Supporting Information :

- Part 8 Planning Permission - County Managers Report on the Baltimore Sewerage Scheme
- Extract from Minutes of Proceedings at Meeting of Cork County Council held on 14th Feb 2005 - Approval of Baltimore Sewerage Scheme Part 8 Planning Permission

Comhairle Chontae Chorcai

CORK COUNTY COUNCIL (WESTERN DIVISION)

Baltimore Sewerage Scheme

PLANNING AND DEVELOPMENT ACT 2000

County Manager's Report on the Baltimore Sewerage Scheme in accordance with the provisions of Part 8 of the Planning and Development Regulations 2001.

PROJECTS SECTION
WESTERN DIVISION

January 2005

1 DESCRIPTION OF THE NATURE AND EXTENT OF THE SCHEME

The existing collection system, including pumping stations at the Cove and at the pier, collects wastewater from Baltimore and its environs. The collection system discharges wastewater into a septic tank located on the shoreline between the North Pier and Bull Point, close to Glenans Sailing School. The septic tank provides primary treatment for the sewage. The treated effluent discharges via a 300 mm outfall below the LWM at a location near the septic tank. During periods of high flow the septic tank is bypassed by the excess flows.

Due to the increasing load on the septic tank and the need to provide a satisfactory effluent quality, it is proposed to install a modern treatment plant to cater for the future increased loads. This proposal is in accordance with the County Cork Development Plan 2003 and with the Preliminary Report on Baltimore Sewerage Scheme prepared by E.G. Pettit & Co. for Cork County Council (Water Services) in 1998. This Preliminary Report was approved by the Dept of the Environment, Heritage and Local Government in 1999. This plant will be designed to serve a population equivalent of 3,600 persons. This will cater for population growth and development demand for the next twenty years. It proposed to replace the existing septic tank site since it is of limited capacity, provides inadequate treatment by present day standards and is situated in a prominent location. It is proposed to construct a new wastewater treatment plant on a site located on the northern side of Bull Point close to the Lifeboat Station. The wastewater treatment plant may be sunken into the ground and/or screened to reduce its visual intrusion. It is intended that there will be buffer zone between the boundaries of the works and the nearest dwelling or business premises in accordance with the County Development Plan guidelines.

The Dept of Environment, Heritage and Local Government has directed that the wastewater treatment works at Baltimore be procured through a Design, Build and Operate form of contract in conjunction with a number a similar schemes in West Cork. The scope of works for the scheme will include the construction of a pumping station at the location of the existing septic tank nears the Glenans Sailing School. An **indicative** layout of the works is shown at Dwg. No.1339-2(BM)-P01. The final layout of the site will be governed by the contractor's proposals for the site.

It is proposed to discharge the treated effluent to the bay by gravity via a new outfall which is proposed to be constructed from the shore on the west side of the Lifeboat Station. It is also intended that the overflow from the proposed works will operate by gravity to the bay.

The new wastewater treatment plant will consist of preliminary treatment, secondary treatment and disinfection or their equivalent, to

achieve a final effluent of 25 mg/l BOD; 35 mg/l SS; 125 mg/l COD; 10,000/100 mls Total Coliforms; 2,000/100 mls Faecal Coliforms. Mitigation measures will be installed to maintain noise and odour emissions within recognised and acceptable limits at the site boundary. Standby power generation will be available in case of power failure. Thickened sludges will be transported by tanker or skip off site for further treatment or disposal in accordance with the County Sludge Strategy Plan. Screenings arising from the Preliminary Treatment stage will be disposed of to the Cork Co. Co. Landfill site.

The control house and any other building which may be located at the treatment works site will be constructed in blockwork with render finish, incorporating masonry panels using locally quarried stone, and slated pitched roofs. The appearance of the buildings will reflect the local traditional building styles. The paved areas will consist of concrete pavement and macadam. A 2.4 m high palisade fence will enclose the treatment works with stockproof fencing providing protection to the screen planting which will be provided to the external boundaries. The access road to the treatment works will be surfaced in macadam. Fencing to the access road will be in concrete post and wire fencing.

The layout for the wastewater treatment works shown on Dwg. No.1339-2 (BM)-P01 is indicative of the layout type, which will be proposed by the successful tenderer for the construction of the works. The Design Build Operate form of Contract provides for the Contractor to prepare the detailed design of the Works in order to achieve savings in construction costs and in order to obtain the most technologically advanced treatment processes. The final design and layout proposed by the successful tenderer may not resemble the indicative layout in every detail. However, the tenderers for the scheme will be obliged to ensure that the visual and other impacts of the final scheme layout and processes will conform to planning and environmental

A connection from the Baltimore water supply scheme will be taken from the adjacent public main to the treatment works. A power supply will be brought to the site from the nearest available location in accordance with the requirements of the Electricity Supply Board.

Drawings Accompanying This Application:

Dwg. No.1339-2 (BM)-P01 – Baltimore – Indicative Site Layout Plan of the proposed Wastewater Treatment Works.
Dwg. No. 1339-2(BM)-P02 – Pumping Station Layout Plan.
Dwg. No. 1339-2(BM)-P03 – Foreshore Licence Outfall Location Plan and Details.

2 PLANNING EVALUATION

(a) **Development Control:** -

See attached report by Senior Planner in appendix 1. The proposed development is consistent with the proper planning and sustainable development of the area.

(b) Development Plan: -

The proposed development is consistent with the overall strategy and main policy as outlined in chapter 5 (Transport & Infrastructure) of Volume 1 of the Cork County Development Plan 2003, which states that:

- *Investment in the county's infrastructure should be made in a sustainable and efficient manner in order to promote the social and economic well being of the county and its population.*

The proposed development is consistent with the objective for Sewerage Infrastructure as outlined in section 5.2 (Water Supplies, Sewerage and Drainage), which states that (INF 2-5):

- *It is an objective generally to provide support for the funding of sewerage infrastructural requirements as identified by the County Council in order to accommodate the planned levels of growth expected for the county.*
- *It is an objective generally to improve and extend the sewerage infrastructure to serve the planned levels of growth, during the lifetime of this plan, in order to facilitate development.*

The proposed development is adjacent to cSAC-0101 Roaringwater Bay & Island and is consistent with the Specific Objective (Heritage and Amenity) as outlined in chapter 3 Volume 2, which states that (ENV 2-6):

- *It is an objective to maintain the conservation value of those sites identified by Duchas the Heritage Service as candidate Special Areas of Conservation as well as any other sites that may be so identified during the lifetime of this plan.*

The proposed development may possibly be visible at a long distance from Scenic Route A105 Road between Baltimore via Old Court and Skibbereen but is consistent with key objectives as outlined in chapter 4 (Scenic Routes) which state that (ENV 3-4 & ENV 3-5):

- *It is a general objective to preserve the character of all important views and prospects, particularly sea views, river or lake views, views of unspoilt mountain, upland or coastal landscapes, views of historical or cultural significance (including buildings and townscapes) and views of natural beauty.*

- *It is a particular objective to preserve the character of those views and prospects obtainable from scenic routes identified in this plan. These routes are shown on the scenic amenity maps in volume 4 and listed in volume 2 of this plan.*

The proposed development is consistent with Section 7.5 of The Cork County Development Plan 1996 – West Cork, which states: "*The current and anticipated demand for holiday house developments places considerable pressure on the capacity of services in the Baltimore area - The existing sewage disposal system gives visual evidence of overloading during the summer months, and requires modification, possibly including a sewage treatment works - At present sewage is untreated and there is a need for a storm water drainage system. A location for sewage treatment will need to be identified. The number of possible sites is quite limited, and the choice between them will need to balance a number of factors.*"

3 SUBMISSIONS RECEIVED

Submissions were received from the following:

	Name	Address	Date
1	South Western regional Fisheries Board	1 Nevilles Terrace, Masseytown, Macroom.	18-Oct-04
2	DEHLG	Harcourt Lane, Dublin2	26-Oct-04
3	Dermot Kennedy	Garden House, Baltimore.	

4 SUMMARY OF ISSUES IN SUBMISSIONS

Our Consulting Engineer, T.J. O'Connor & Associates and ourselves have considered the issues and our detailed responses to each of the submissions are contained in appendix 2. A summary of the issues and responses is outlined below:

1. With respect to the proposed pumping station it is stated that the pumping station will have an overflow pipe discharging to the estuary to cater for power failure or extreme storm events. The Board feels that a more appropriate option is to provide a back-up power supply and the separation of storm water from sewer system, to avoid the need for an overflow – Backup power generation will be provided. Stormwater in the public sewers is to be reduced as part of a separate network contract, thus reducing the frequency of storm overflows.

2. That the level of nitrogen in the treated effluent has not been considered a priority. Given the importance of nitrogen in tidal water eutrophication, the Board would ask that this matter be considered – The scheme will comply with the nitrogen regulations.

3. Given the classification of Roaringwater Bay as a shellfish water, the Board would ask that serious consideration be given to the level of disinfection necessary to ensure no deterioration in shellfish waters – Disinfection is proposed and given the dilutions available and the low bacterial concentrations of the source effluent it is not likely that there will be any adverse effects on any licensed shellfish sites.

4. The Board would ask that consideration be given to the manner in which all construction works and particularly those below the waterline are carried out with a view to minimising suspended solids pollution - The Contractor will be obliged to submit a method statement for approval by the Engineer detailing the manner in which he proposes to undertake the proposed shoreline works without generating high levels of silt.

5. The whole of the works should be monitored by a suitably qualified archaeologist and licensed by the DEHLG – The works will be monitored by a suitably qualified archaeologist and any necessary licences will be acquired prior to commencement of the works.

6. Now that the lands at Bull Point are owned by Cork County Council, that consideration be given to the construction of a simple pathway with some seats around Bull Point. Baltimore has very little foreshore left that is in public hands and with all the new houses in

the village, this is now a more important amenity than ever – Consideration will be given to the offsetting of the palisade fencing back from the cliff-face to allow the development of an amenity walkway.

5 MODIFICATIONS

No modifications to the Part 8 documentation are recommended. Some conditions in the proposed Design Build & Operate Contract may be modified or strengthened to take on board some of the issues outlined above.

6 RECOMMENDATION

I recommend that the proposed construction of a new Wastewater Treatment Works, access road, pumping station and associated foul sewage rising main and outfalls at Bull Point, Baltimore, be proceeded with as recommended in this report.

Signed: -

_____

County Manager

Appendix 1

Appendix 2

BALTIMORE SEWERAGE SCHEME

Report
on
Submissions received as part of Public Consultation phase of Part 8 Planning

Mr. Jack Matson,
Director of Services,
Environmental Protection &
Water Services
Cork County Council,
Clonakilty
Co. Cork.

T.J. O'CONNOR & ASSOCIATES
CONSULTING ENGINEERS

T.J. O'Connor and
Associates,
Corrig House,
Corrig Road,
Sandyford,
Dublin 18.

Jan 2005

Table of Contents

Submission no. 1 by: South Western Fisheries Board

Issues

1. With respect to the proposed pumping station it is stated that the pumping station will have an overflow pipe discharging to the estuary to cater for power failure or extreme storm events. The Board feels that a more appropriate option is to provide a back-up power supply and the separation of storm water from sewer system, to avoid the need for an overflow.
2. That the level of nitrogen in the treated effluent has not been considered a priority. Given the importance of nitrogen in tidal water eutrophication, the Board would ask that this matter be considered.
3. Given the classification of Roaringwater Bay as a shellfish water, the Board would ask that serious consideration be given to the level of disinfection necessary to ensure no deterioration in shellfish waters.
4. The Board would ask that consideration be given to the manner in which all construction works and particularly those below the waterline are carried out with a view to minimising suspended solids pollution.

Comments

1. A portable back-up power supply (generator) will be provided at the Baltimore wastewater treatment plant less than 200 m away. The generator can be hardwired or moved to the pumping station if power failure has occurred. Thus power to the pumping stations will be maintained.

   The collection system was is the subject of a separate contract and is due to be upgraded at around the same time as the construction of the Wastewater Treatment plant. It is expected that the current levels of stormwater entry will be significantly reduced during the upgrading works.

   In addition to the above, it is proposed to provide storage facilities to store excess flows in the case of a significant rainfall event, such that the Main Pumping Station pumps and storage tank will be designed to cater for 6 DWF for up to 2 hours. Overflows will only occur if this capacity is exceeded. The overflows will be screened to reduce the likelihood of solids being discharged.

2. The effects of nitrogen discharged in the treated effluent was studied and reported on in the report “Baltimore Harbour Sewerage Scheme Marine Survey” by Irish Hydrodata dated September 2004. In this report it was found that moving the discharge from its present site to the new discharge point will improve overall dispersion of the treated discharge. The discharge will be mixed with a greater volume of water and thus contaminants will be dispersed more rapidly. The computed initial near-field dilution for an average neap tide current is a factor of 60. It is clear that additional far-field dilution factors of little more than 2 are

required to reduce levels to below EPA recommended levels and dilutions of approx 50 will ensure that background levels will not be increased by more than 10% on typical levels. Based on previous experience it is thought that these overall dilutions should be achieved within 1000m of the discharge point. Thus it is considered that the standard of treatment is sufficient.

3. The report "Baltimore Harbour Sewerage Scheme Marine Survey", quoted above, also reported on the dispersion of the coliforms in the treated effluent. Most of the shellfish farming sites are of the order of 2.5 km or more from the proposed outfall location. Given the dilutions available and the low bacterial concentrations of the source effluent it is not likely that there will be any adverse effects at the distant sites. However, it is likely that the effluent plume emanating from the proposed outfall would impinge on the licensed site at Carrigacuskeam to the East of Grig's Point some stage of the tide. The Department of the Marine have indicated that they will not renew this licence. It was due to expire in 2004. Despite the absence of a national standard for coliforms concentration in shellfish waters, the residual concentration appears to be sufficiently low to not effect the remaining farming sites.

4. The Contractor will be obliged to submit a method statement for approval by the Engineer detailing the manner in which he proposes to undertake the proposed shoreline works without generating high levels of silt.

Submission no. 2 by: DoEHLG, Development Applications Unit (Archaeology)

Issues

1. The works for the pumping station, treatment plant and proposed pipe-laying works along the greenfield site are to be monitored by a suitably qualified archaeologist.
2. The works for the two outfall pipes should also be subject to archaeological monitoring.
3. The archaeological monitoring should be undertaken by a suitably qualified archaeologist. The monitoring of the pipe-laying in the intertidal / subtidal zone to be undertaken by a suitably qualified archaeologist with underwater/intertidal experience.
4. The monitoring should be undertaken under licence to the Department of Environment, Heritage and Local Government and the licence application for an Excavation/Monitoring licence should be accompanied by a detailed method statement.
5. It is advisable that a Dive Survey Licence be in place (held by a suitably qualified underwater archaeologist) in the event that potential underwater archaeology be impacted. This will ensure that unnecessary delays are avoided should such an event occur.
6. The monitoring archaeologist will have the power to cease works in the immediate area of impact on potential archaeology until the potential archaeology has been properly resolved.
7. It should be noted that all diving should be undertaken in accordance with the Health and Safety Authority's Safety in Industry (Diving at Work) Regulations 1981, SI 422. As such the developer engaging the necessary archaeological personnel should ensure that all dive equipment used and dive team personnel qualifications are properly certified and that the correct commercial dive insurance is in place.
8. It should be noted that avoidance and preservation in-situ of archaeology is the preferred option of the Minister of the Environment, Heritage and Local Government, therefore should archaeology be discovered during the monitoring works, preservation by record, excavation or avoidance / preservation in situ may be recommended.

Comments

1. An archaeological assessment of the land-based elements of the scheme was undertaken by the Archaeological Services Unit, UCC. This report found that none of the known sites around the town will be directly affected by the development. However, it recommended that all topsoil removal should be monitored by a suitably qualified archaeologist.

2. An archaeological assessment of the marine-based elements of the scheme was undertaken by the Archaeological Services Unit, UCC. This report found that

there are no known sites in the vicinity of the proposed works. It concluded that due to the hostile nature of the Treganarin site, it would appear that there are no archaeological remains. Therefore it recommended that development in the area should proceed without any archaeological conditions. In light of this recommendation, we propose that the outfall works would not be subject to archaeological monitoring.

3. A suitably qualified archaeologist will be provided during the topsoil removal. The issue of marine monitoring will be dealt with, if the situation arises.
4. The issue of marine monitoring will be dealt with, if the situation arises.
5. A licence can be obtained in advance of commencing the works.
6. The monitoring archaeologist will have such powers.
7. A suitably qualified archaeologist will be employed if required.
8. The suitably qualified archaeologist will abide by the preferences of the Minister of the Environment, Heritage and Local Government where at all possible.

Submission no. 3 by: Dermot Kennedy, Garden House, Baltimore

Issues

1. Now that the lands at Bull Point are owned by Cork County Council, that consideration be given to the construction of a simple pathway with some seats around Bull Point. Baltimore has very little foreshore left that is in public hands and with all the new houses in the village, this is now a more important amenity than ever.

Comments

1. The ecology report undertaken at Baltimore indicated that there is an animal path along the north cliff-face of Bull Point, where otters and perhaps foxes travel from their nests (holts) to the shoreline. If a public pathway were to be constructed around Bull Point it could also serve as also an animal path according to the author of the ecology report. Various mitigation measures may be necessary, the path should be designed so that animals can to cross the path freely. It would not be normal practice to build amenity features beside wastewater treatment plants, however, it should be possible to provide enough screening of the plant, to make the pathway an attractive amenity. The land purchase negotiations are continuing and are not yet completed.

COMHAIRLE CHONTAE CHORCAÍ

Minutes of Proceedings at Meeting of Cork County Council held in the Council Chamber, County Hall, Cork on 14th February, 2005.

I LATHAIR

Comhairleoir P. Ó Siochain, Méara Chontae

Comhairleoiri C. Ó Murchú, Ó Colmáin, Ó Cathasaigh, Ó hAodha, Ó hArrachtáin, Ó Crualaoch, G. Ó Ceallaigh, Pleaminn, Ó Ríain, Mac Giolla Rua, Mac Craith, Ní Fhúarthain, Ó Cainte, M. Ó Caoimh, Lombard, Ní Dheasmhumhnaigh, C. Ó Caoimh, Ó Floinn, Uí Phaghan, Ó Dochartaigh, P. Ó Buachalla, Uí Mhurchú, N. Ó Buachalla, Ó Donnagáin, Críod, Ó Muimhneacháin, Ó Cochláin, Ó Searlóg, MacGearailt, Ó Conchubar, Ó Síocháin, Ó Maoilmhichill N. Ó Coileán, Ó hEachthighearn, Ó hAilgheanáin, Uí Mhuirí, Ó Súilleabháin, Ó Ruairc, S. Ó Coileán, MacCárthaigh, Ó Cearbhaill, Ó Donnabháin, Ó Dálaigh.

PRESENT

Councillor P.J. Sheehan, County Mayor presided.

Councillors K. Murphy, Coleman, Casey, O'Shea, Harrington, Crowley, G. Kelly, Fleming, Ryan, Gilroy, McGrath, Forde, Canty, M. O'Keeffe, Lombard, Desmond, K. O'Keeffe, O'Flynn, Pyne, O'Doherty, P. Buckley, Marian Murphy, N. Buckley, Donegan, Creed, Moynihan, Coughlan, Sherlock, Fitzgerald, O'Connor, Sheahan, Mulvihill, N. Collins, Ahern, Hallinan, Murray, O'Sullivan, O'Rourke, J. Collins, McCarthy, Carroll, O'Donovan, and Daly.

County Manager, A/Head of Corporate Affairs, Director of Infrastructure, Director of Planning, A/County Engineer

Last Meeting in current Council Chamber

The Mayor and Members acknowledged that the meeting would be the last to be held in the Council Chamber and that future meetings would take place in the new Chamber in the newly built extension to County Hall.

REPORT UNDER ARTICLE 179 OF THE PLANNING AND DEVELOPMENT ACT, 2000:

6(b)/2-1

Proposed by Councillor J. Collins

Seconded by Councillor T. O'Donovan

RESOLVED:

"Noting that in accordance with Article 81 of the Local Government (Planning and Development) Regulations, 2001, notice of the proposed development was published, that 3 submissions were received in respect of the proposal, approval pursuant to Article 81 of the said Act is given for the following:-

Baltimore Sewerage Scheme

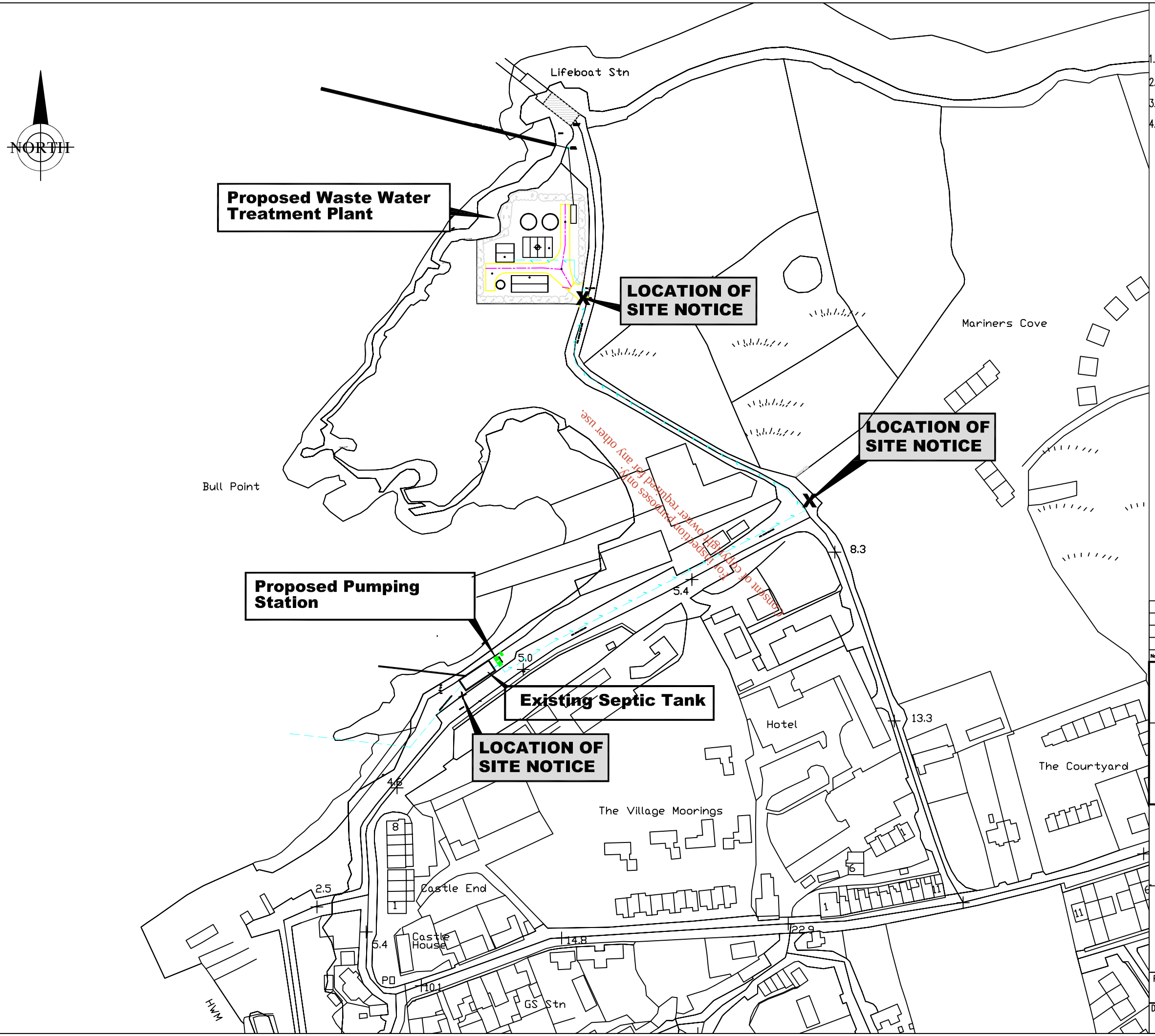
Attachment B8

Map :

- BALT B8-01 – Site Notice Locations

Supporting Information :

- Site Notice
- Newspaper Advertisement



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No.	Date	Dren	Chkd	Revision Description

Cork County Council, Western Division.

N.O'MAHONY,B.E.,
SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
BALTIMORE_WASTE_WATER DISCHARGE_LICENCE_APPLICATION

Drawing Title:
ATTACHMENT_B.8
POSITION_OF_SITE_NOTICE

Prepared By:	Checked By:	Date:
J.CREAGH	O.O'BRIEN	FEB.2009

Drawing number:	Scales:	Rev:
BALT_B8_01	1:2000	-

CORK COUNTY COUNCIL

SITE NOTICE

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A WASTEWATER DISCHARGE LICENCE

In accordance with the Waste Water Discharge (Authorisation) Regulations 2007, Water Services Western Division, Cork County Council, Courthouse, Skibbereen is applying to the Environmental Protection Agency for a Waste Water Discharge Licence for Baltimore agglomeration at the following locations:

Plant Name	Location	National Grid Ref.
Baltimore Septic Tank	**Baltimore**	**E104709 N26634**

Discharge	Function	Townland	Receptor	Grid Reference
Primary	**Major**	**Baltimore**	**Baltimore Harbour**	**E104654 N26639**

Cork County Council proposes to upgrade the wastewater treatment plant at Baltimore, Skibbereen, Co. Cork, Grid Reference (E104740, N26866). It is proposed to discharge treated wastewater from this plant to Baltimore Harbour. The proposed location is detailed in the table below:

Discharge Type	Function	Townland	Receptor	Grid Reference
Primary	**Major**	**Baltimore**	**Baltimore Harbour**	**E104623 N26951**

A copy of the application for the Waste Water Discharge Licence and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the Application shall as soon as is practicable after receipt by the Agency be available for inspection or purchase at the

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

and at

- **Cork County Council Water Services (Western Division), Courthouse, Skibbereen, Co. Cork ; Telephone: 028-21299 Fax: 028-21995.**

Submissions in relation to the application may be made to the Environmental Protection Agency at its headquarters described above.

K COUNTY COUNCIL
OMHAIRLE CHONTAE CHORCAÍ

UBLIC NOTICES

OUTHERN DIVISION

PPLICATION TO THE ENVIRONMENTAL PROTECTION GENCY FOR A WASTEWATER DISCHARGE LICENCE

accordance with the Wastewater Discharge (Authorisation) egulations 2007, Water Services Southern Division of Cork ounty Council, Carrigrohane Road, Cork is applying to the nvironmental Protection Agency for a Wastewater Discharge cence for the Agglomeration of Cloyne at the following cations:

Plant Name	Location	National Grid Ref.
loyne WWTP	Spital, Cloyne	E191154 N067799

Discharge	Function	Townland	Receptor	Grid Ref.
rimary	Main	Cloyne	Stream	E191059 N067821

copy of the application for the Wastewater Discharge Licence, nd such further information relating to the application as may be rnished to the Agency in the course of the Agency's consideration f the Application shall, as soon as is practicable after receipt by ne Agency, be available for inspection or purchase at the:

Environmental Protection Agency, PO Box 3000, Johnstown Castle Estate, Co. Wexford, Lo Call 1890 335 599; Tel: 053-9160600; Fax: 053-9160699; Email:info@epa.ie

nd at

- Cork County Council Offices, Water Services South, County Hall, Carrigrohane Road, Co. Cork, Tel: 021-4276891; Fax: 021-4276321.

ubmissions in relation to the application may be made to he Environmental Protection Agency at its headquarters lescribed above.

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A WASTEWATER DISCHARGE LICENCE

n accordance with the Wastewater Discharge (Authorisation) Regulations 2007, Water Services Southern Division of Cork County Council, Carrigrohane Road, Cork is applying to the Environmental Protection Agency for a Wastewater Discharge Licence for the Agglomeration of Killeagh at the following locations:

Plant Name	Location	National Grid Ref.
Killeagh WWTP	Moanlahan, Killeagh	E200693 N076475

Discharge	Function	Townland	Receptor	Grid Ref.
Primary	Main	Killeagh	Dissour	E200709 N076496
Primary (Proposed)	Main	Killeagh	Dissour	E200722 N076431

A copy of the application for the Wastewater Discharge Licence, and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the Application shall, as soon as is practicable after receipt by the Agency, be available for inspection or purchase at the:

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

and at

- Cork County Council Offices, Water Services South, County Hall, Carrigrohane Road, Co. Cork, Tel: 021 - 4276891; Fax: 021 - 4276321.

Submissions in relation to the application may be made to the Environmental Protection Agency at its headquarters described above.

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A WASTEWATER DISCHARGE LICENCE

In accordance with the Wastewater Discharge (Authorisation) Regulations 2007, Water Services Southern Division of Cork County Council, Carrigrohane Road, Cork is applying to the Environmental Protection Agency for a Wastewater Discharge Licence for the Agglomeration of Killeens at the following

PUBLIC NOTICES

WESTERN DIVISION

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A WASTEWATER DISCHARGE LICENCE

In accordance with the Wastewater Discharge (Authorisation) Regulations 2007, Water Services Western Division, Cork County Council, Courthouse, Skibbereen, Co. Cork is applying to the Environmental Protection Agency for a Wastewater Discharge Licence for Baltimore agglomeration at the following locations:

Plant Name	Location	National Grid Ref.
Baltimore Septic Tank	Baltimore	E104709 N26634

Discharge	Function	Townland	Receptor	Grid Ref.
Primary	Major	Baltimore	Baltimore Harbour	E104654 N26639

Cork County Council proposes to upgrade the wastewater treatment plant at Baltimore, Skibbereen, Co. Cork, Grid Reference (E104740, N26866). It is proposed to discharge treated wastewater from this plant to Baltimore Harbour. The proposed location is detailed in the table below:

Discharge	Function	Townland	Receptor	Grid Ref.
Primary	Major	Baltimore	Baltimore Harbour	E104623 N26951

A copy of the application for the Wastewater Discharge Licence, and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the Application shall, as soon as is practicable after receipt by the Agency, be available for inspection or purchase at the:

- Environmental Protection Agency, PO Box 3000, Johnstown Castle Estate, Co. Wexford, Lo Call 1890 335 599; Tel: 053-9160600; Fax: 053-9160699; Email:info@epa.ie

and at

- Cork County Council Water Services, Courthouse, Skibbereen, Co. Cork, Tel: 028-21299; Fax: 028-21995.

Submissions in relation to the application may be made to the Environmental Protection Agency at its headquarters described above.

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A WASTEWATER DISCHARGE LICENCE

In accordance with the Wastewater Discharge (Authorisation) Regulations 2007, Water Services Western Division, Cork County Council, Courthouse, Skibbereen, Co. Cork is applying to the Environmental Protection Agency for a Wastewater Discharge Licence for Courtmacsherry agglomeration at the following locations:

Plant Name	Location	National Grid Ref.
Courtmacsherry WWTP	Courtmacsherry	E150569 N042742

Discharge	Function	Townland	Receptor	Grid Ref.
Primary	Main	Cullenagh	Courtmacsherry Estuary	E150732 N042818
Secondary	Minor	Cullenagh	Courtmacsherry Estuary	E150106 N042711

Cork County Council proposes to construct a new wastewater treatment plant at Cullenagh, Courtmacsherry, Co. Cork, Grid Reference (E149710, N042520). It is proposed to discharge treated wastewater from this plant to Courtmacsherry Estuary. The proposed location is detailed in the table below:

Discharge	Function	Townland	Receptor	Grid Ref.
Primary	Main	Cullenagh	Courtmacsherry Estuary	E150732 N042818

ROADS

TEMPORARY CLOSURE OF PUBLIC ROAD - WHITEGATE AREA

Notice is hereby given that, pursuant to Section 75 of the Roads Act, 1993, the following road will be closed to public traffic on Tuesday, 3rd March 2009 from 8.30am to 5.00pm:

Road to be closed:
The Old Trabolgan Road at Whitegate Playground.

Alternative route:
R603 - Main Road, Whitegate.

The purpose of the temporary closure is to facilitate the laying of a watermain.

Director of Services, Area Operations, Floor 5, County Hall, Cork.

TEMPORARY CLOSURE OF PUBLIC ROAD - WHITEGATE AREA

Notice is hereby given that, pursuant to Section 75 of the Roads Act, 1993, the following road will be closed to public traffic from 8.00am on Monday, 2nd March 2009 to 5.00pm on Thursday, 9th April 2009.

Road to be closed:
L3617 Ballyadam Bridge.

Alternative routes:
Via Waterrock on the L3618 and the N25 Cork to Midleton Road.
Via the Hedgey Boreen and the N25 Cork to Midleton Road.

The purpose of the temporary closure is to facilitate the construction of the Glounthane/Midleton Railway Scheme.

Director of Services, Area Operations, Floor 5, County Hall, Cork.

PLANNING

PLANNING AND DEVELOPMENT ACTS 2000-2007

PROPOSED CORK SCIENCE, INNOVATION AND TECHNOLOGY PARK

INVITATION TO MAKE INFORMAL SUBMISSIONS

Cork County Council are commencing public consultation in relation to the development of a Science, Innovation and Technology Park at Curraheen, on the western side of Cork City.

Following the public consultation exercise and consideration of submissions made, the Council will prepare a Draft Amendment to the Carrigaline Electoral Area Local Area Plan and a consequential Draft Variation to the Cork County Development Plan 2009, which will also be the subject of public consultation.

An Information Leaflet has been prepared which aims to promote public debate on how the proposed Science Park should develop and will be available **from 23rd February, 2009.** The publication of this leaflet is the first step in the process leading to the Amendment of the Carrigaline Electoral Area Local Area Plan and Consequential Variation to the County Development Plan. A public information day is also planned where staff will be available to discuss this proposal in further detail. This information day will be held **from 4.00 p.m. to 8.00 p.m. on Tuesday, 3rd March 2009, in the Foyer, Floor 1, County Hall, Cork.**

The information leaflet will be available during normal working hours at

- Planning Department, Floor 1, County Hall, Cork

Attachment B9

Supporting Information :

- Application Fee

Comhairle Contae Chorcaí
Cork County Council

Courthouse,
Skibbereen, Co. Cork.
Tel (028) 21299 • Fax (028) 21995
Web: www.corkcoco.ie
Teach na Cúirte,
An Sciobairín, Co. Chorcaí.
Fón: (028) 21299 • Faics: (028) 21995
Suíomh Gréasáin: www.corkcoco.ie

Mr. Declan Groarke,
Senior E xecutive Engineer,
Cork County Council,
Courthouse,
Skibbereen.

Re:- Waste Water Discharge Regulations 2007.
Application to EPA for Licences – 3rd Round Fees:

Dear Declan,

With regard to the application to the EPA for a Discharge Licences for the agglomerations with P.E.s of 1001 to 2000 listed below, I confirm the following in relation to the application fee of €60,000 (being €15,000 for each agglomeration). :-

Transferred to EPA Bank Account:- ***Account No. 23507098***

Date Transferred to EPA Bank Account:- ***13th February 2009***

Electronic Fund Transfer Reference No.:- ***1070025.***

Agglomerations : Baltimore
Castletownbere
Courtmacsherry
Schull

This information should be included with the application to the EPA.

Yours faithfully,

Mary Nolan,
Staff Officer.

Attachment B10

Supporting Information :

- Details of Approved Funding

Cork County

Water Services Investment Programme 2007 - 2009

Schemes at Construction	W/S	Est. Cost
Cork North		
Mitchelstown Sewerage Scheme (Nutrient Removal)	S	221,000
Cork South		
Ballyvourney/ Ballymakeery Sewerage Scheme	S	3,049,000
Cobh/ Midleton/ Carrigtwohill Water Supply Scheme	W	10,135,000
Cork Lower Harbour Sewerage Scheme (Crosshaven SS) (G)	S	4,850,000
Cork Water Strategy Study (G)	W	941,000
Kinsale Sewerage Scheme	S	20,000,000
Midleton Sewerage Scheme (Infiltration Reduction) (G)	S	2,078,000
		41,274,000
Schemes to start 2007		
Cork North		
North Cork Grouped DBO Wastewater Treatment Plant (Buttevant, Doneraile & Kilbrin)	S	5,150,000
Cork West		
Skibbereen Sewerage Scheme	S	20,000,000
		25,150,000
Schemes to start 2008		
Cork North		
Mallow/ Ballyviniter Regional Water Supply Scheme (H)	W	8,632,000
Mallow Sewerage Scheme (H)	S	6,408,000
Cork South		
Ballincollig Sewerage Scheme (Nutrient Removal) (G)	S	948,000
Ballingeary Sewerage Scheme	S	1,296,000
Bandon Sewerage Scheme Stage 2	S	14,729,000
City Environs (CASP) Strategic Study (G)	S	153,000
Cloghroe Sewerage Scheme (Upgrade)	S	683,000
Coachford Water Supply Scheme	W	1,318,000
Garrettstown Sewerage Scheme	S	2,153,000
Inniscarra Water Treatment Plant Extension Phase 1	W	2,678,000
Little Island Sewerage Scheme (G)	S	2,200,000
Cork West		
Bantry Sewerage Scheme	S	7,148,000
Dunmanway Sewerage Scheme	S	2,153,000
Leap/ Baltimore Water Supply Scheme	W	6,365,000
Schull Water Supply Scheme	W	5,253,000
		61,137,000
Schemes to start 2009		
Cork North		
Banteer/Dromahane Regional Water Supply Scheme	W	1,576,000
Conna Regional Water Supply Scheme Extension	W	2,627,000
Cork NE Water Supply Scheme	W	4,326,000
Cork NW Regional Water Supply Scheme	W	6,046,000
Millstreet Wastewater Treatment Plant (Upgrade)	S	1,628,000
Cork South		
Ballincollig Sewerage Scheme (Upgrade) (G)	S	22,248,000
Cork Lower Harbour Sewerage Scheme (excl. Crosshaven SS)	S	73,542,000
Shannagarry/ Garryvoe/ Ballycotton Sewerage Scheme	S	3,780,000
Youghal Sewerage Scheme	S	14,420,000
Cork West		
Ballydehob Sewerage Scheme	S	683,000
Bantry Water Supply Scheme	W	14,935,000
Clonakilty Sewerage Scheme (Plant Capacity Increase)	S	3,677,000
Courtmacsherry/ Timoleague Sewerage Scheme	S	2,472,000
Dunmanway Regional Water Supply Scheme Stage 1	W	12,669,000
		164,629,000
Serviced Land Initiative		
Cork North		
Ballyclough Water Supply Scheme	W	139,000
Ballyhooley Improvement Scheme	W/S	139,000
Broghill- Rathgoggin Sewerage Scheme	S	406,000
Bweeng Water Supply Scheme	W	115,000
Churchtown Sewerage Scheme (incl. Water)	W/S	543,000
Clondulane Sewage Treatment Plant	S	417,000
Freemount Sewerage Scheme	S	150,000
Pike Road Sewerage Scheme (incl. Water)	W/S	2,080,000
Rathcormac Sewerage Scheme (incl. Water)	W/S	555,000
Spa Glen Sewerage Scheme	S	736,000
Uplands Fermoy Sewerage Scheme (incl. Water)	W/S	1,174,000
Watergrasshill Water Supply Scheme (incl. Sewerage) (G)	W/S	4,151,000
Cork South		
Ballincollig Sewerage Scheme (Barry's Rd Foul and Storm Drainage) (G)	S	1,164,000
Belgooley, Water Supply Scheme (incl. Sewerage)	W/S	2,913,000
Blarney Water Supply Scheme (Ext. to Station Rd) (G)	W	416,000
Carrigtwohill Sewerage Scheme (Treatment and Storm Drain) (G)	S	7,632,000
Castlematyr Wastewater Treatment Plant Extension	S	1,200,000
Crookstown Sewerage Scheme (incl. Water)	W/S	1,200,000
Dripsey Water Supply Scheme (incl. Sewerage)	W/S	1,112,000
Glounthane Sewerage Scheme (G)	S	1,576,000
Innishannon Sewerage Scheme	S	277,000
Innishannon Wastewater Treatment Plant	S	694,000
Kerrypike Sewerage Scheme	S	832,000
Kerrypike Water Supply Scheme	W	416,000
Killeagh Wastewater Treatment Plant Extension	S	1,200,000
Killeagh Water Supply Scheme (includes Sewerage)	W/S	485,000
Killeens Sewerage Scheme	S	420,000
Kilnagleary Sewerage Scheme	S	694,000
Midleton Wastewater Treatment Plant Extension	S	4,050,000

Cork County contd.

Water Services Investment Programme 2007 - 2009

	W/S	Est. Cost
Mogeely, Castlemartyr & Ladysbridge Water Supply Scheme	W	2,566,000
North Cobh Sewerage Scheme (G)	S	3,193,000
Riverstick Water Supply Scheme (incl. Sewerage)	W/S	525,000
Rochestown Water Supply Scheme	W	2,700,000
Saleen Sewerage Scheme	S	1,051,000
Youghal Water Supply Scheme	W	2,300,000
Cork West		
Castletownshend Sewerage Scheme	S	1,576,000
		50,797,000
Rural Towns & Villages Initiative		
Cork North		
Buttevant Sewerage Scheme (Collection System)	S	2,446,000
Doneraile Sewerage Scheme (Collection System)	S	1,738,000
Cork South		
Innishannon (Ballinadee/ Ballinspittle/ Garrettstown) Water Supply Scheme	W	6,726,000
Cork West		
Ballylicky Sewerage Scheme	S	2,153,000
Baltimore Sewerage Scheme	S	3,162,000
Castletownbere Sewerage Scheme	S	5,402,000
Schull Sewerage Scheme	S	3,523,000
		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

	W/S	Est. Cost
Cork South		
Carrigtwohill Sewerage Scheme (G)	S	20,000,000
Cork Sludge Management (G)	S	14,420,000
Cork Water Supply Scheme (Storage - Mount Emla, Ballincollig & Chetwind) (G)	W	8,500,000
Inniscarra Water Treatment Plant (Sludge Treatment)(G)	W	5,356,000
Macroom Sewerage Scheme	S	5,150,000
Minane Bridge Water Supply Scheme	W	1,421,000
Cork West		
Bantry Regional Water Supply Scheme (Distribution)	W	9,455,000
Cape Clear Water Supply Scheme	W	1,679,000
Castletownbere Regional Water Supply Scheme	W	8,405,000
Glengarriff Sewerage Scheme	S	2,500,000
Roscarberry/Owenahincha Sewerage Scheme	S	1,576,000
Skibbereen Regional Water Supply Scheme Stage 4	W	7,880,000
		95,646,000
Water Conservation Allocation		**12,206,000**
Asset Management Study		**300,000**
South Western River Basin District (WFD) Project[1]		**9,400,000**
Programme Total		**485,489,000**

[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

Attachment B12

Supporting Information :

- Foreshore License Specific Conditions

An Roinn Cumarsáide,
Mara agus Acmhainní Nádúrtha
Baile Átha Cliath 2.

Department of Communications,
Marine and Natural Resources
Dublin 2.

29th March 2006

Our Ref: MS51/8/1236
(Please quote on all correspondence)

Niall O'Mahony
Senior Engineer
Cork County Council
Water Services
Courthouse
Skibbereen
Co Cork

Re: Foreshore Licence Application For Baltimore Sewerage Scheme- Cork County Council

Dear Mr O'Mahony

I am pleased to inform you that the Minister of State at the Department of Communications, Marine and Natural Resources has now approved the grant of a Foreshore Licence, under Section 3 of the Foreshore Act 1933, for a period of 35 years for the above project.

Details have also been forwarded to the Office of the Chief State Solicitor with a request to draft the appropriate deed. However, it will be necessary for you to forward 2 copies of an Ordnance Survey map certified by the engineer or architect who drew up the plans. The maps should also be dated and the exact area of foreshore involved indicated on the maps. The engineer / architect's qualifications should also be noted on the maps.

Also enclosed please find a copy of specific conditions that will be incorporated into the lease. *Please return a signed acceptance of the conditions to this office as soon as possible.*

Yours Sincerely,

Sharon Sexton
Coastal Zone Management Division

Leeson Lane Dublin 2
Lána Chill Mochargán
Baile Átha Cliath 2

Telephone + 353 1 678 2000
LoCall 1890 44 99 00
Fax + 353 1 678 2449

email: contact@dcmnr.gov.ie.
GTN + 1 18

Specific Conditions

1.

a) The Licensee shall use that part of the foreshore, the subject matter of this Licence, for the purpose of laying, using and maintaining the aforementioned works in accordance with the plans and drawings* submitted to and approved by the Minister for Communications, Marine and Natural Resources and for no other purpose whatsoever.

b) The Licensee may also use the adjacent foreshore but only to the extent necessary, and in compliance with condition 3 (a), for the purpose of laying and maintaining the said works and shall restore the said foreshore to its proper condition immediately after such use.

*(Drawing Numbered 2(BM)-PO1, 2(BM)-PO2, and 2(BM)-P03-01 provided by T.J. O'Connor & Associates.)

2. The Licensee shall prior to the commencement of any works on the foreshore:

(i) provide certification by a Chartered Engineer stating that the works have been designed in accordance with the relevant Irish or British Standard Specifications or Codes of Practice for strength, stability and durability, taking into account building regulations and safety legislation;

(ii) arrange for the publication of a local marine notice in a locally read newspaper giving a general description of works and approximate dates of commencement and completion;

(iii) consult with the local Harbour Master with respect to the safety of navigation of marine traffic in the river and comply with all instructions of the Harbour Master in relation to safety of navigation;

(iv) Ensure that the locations of the check valves at the outfall point are marked using a high visibility flotation mark or a high visibility pylon.

3. The Licensee shall comply with conditions (a) to (d) below, as stipulated by Heritage and Planning Division of the Department of the Environment, Heritage and Local Government. The Licensee shall comply with any instructions of the Heritage and Planning Division in relation to the implementation of these conditions.

a) The works area on the foreshore may extend no more than 5 metres either side of the pipeline trench. The site may only be accessed within the 10 metres foreshore works corridor.

b) Geotextile material should be used to minimise damage to adjacent soft-sediment habitats

c) Material removed during the construction phase shall be used as back-fill once the works are completed

d) Potential contaminants shall be stored in suitable facilities to prevent introduction into the marine environment. A contingency plan shall be devised prior to commencement of works to handle any potential spillage incidents.

4. The Licensee shall ensure that archaeological monitoring is carried out during excavation/disturbance works to the foreshore, associated with the installation of the pipes. Archaeological monitoring shall be subject to the following:

(a) The Licensee shall engage a qualified archaeologist to monitor all groundworks associated with the development. The archaeologist must be licensed under the National Monuments Acts 1930-2004.

(b) The monitoring should be undertaken under licence from the Department of the Environment, Heritage and Local Government and the licence application for an excavation/monitoring licence should be accompanied by a detailed method statement.

(c) Should archaeological material be found during the course of monitoring, the archaeologist may have work on the site stopped, pending a decision as to how best to deal with the archaeological material. The Licensee shall be advised by the Underwater Archaeology Unit of the Department of the Environment, Heritage and Local Government with regard to any necessary mitigation action (e.g. preservation in situ, dive and/or geophysical survey or excavation). The Licensee shall facilitate the archaeologist in recording any material found.

(d) All diving should be undertaken in accordance with the Health and Safety Authority's Safety in Industry (Diving at Work) Regulations (SI 422 of 1981). As such the Licensee engaging the necessary archaeological personnel should ensure that all dive equipment used and dive team personnel qualifications are properly certified and that the correct commercial dive insurance is in place.

5. The Licensee shall ensure that the works are carried out in accordance with applicable environmental laws.

6. The Licensee shall consult with the Area Engineer of the Department of Communications, Marine and Natural Resources during all stages of the works.

7. The Licensee shall notify the Irish Coast Guard by telephone immediately in the event of any spillage or accident occurring below the high water mark of ordinary or medium tides or above the high water mark which may impact on the foreshore during the carrying out of the works, or during operations following the completion of these works.

8. The effluent discharged from the treatment plant outfall pipe shall have a maximum 5-day B.O.D. concentration of 25 mg/l and a maximum suspended solids concentration of 35 mg/l, on a 95% basis. The maximum total daily BOD load discharged from the treatment plant outfall shall be 17kg.

9. All works shall be completed within five years of the granting of this Licence.

10. The Licensee shall:
    (i) advise the British Admiralty Hydrographic Office of the location and nature of the development;
    (ii) apply to the Commissioners of Irish Lights for sanction of new navigational aids/buoyage and/or alteration of existing navigational aids/buoyage;

11. The Licensee shall provide certification by a Chartered Engineer, within two months after completion of the said works, that the works have been completed in accordance with the drawings approved of by the Minister and with the said Standard Specifications or Codes of Practice.

12. The Licensee shall indemnify and keep indemnified the State and the Minister for Communications, Marine and Natural Resources, their officers, agents and employees against all actions, loss, claims, damages, costs, expenses and demands arising in any manner whatsoever in connection with the construction, maintenance or use of the said works or in the exercise of the permission hereby granted.

13. The Licensor shall be at liberty at any time to terminate this Licence by giving to the Licensee twelve months previous notice in writing, ending on any day and upon determination of such notice, the Licence and permission hereby granted shall be deemed to be revoked and withdrawn without liability for the payment of any compensation by the Licensor to the Licensee.

14. The Licensee shall if so required by the Licensor within twelve months after receipt of such notice, or on termination of this Licensee from any other cause, at its own expense remove the said works and restore the foreshore in question to the satisfaction of the Licensor. If the Licensee refuses or fails to do so, the Licensor may cause the said works to be removed and the foreshore in

question restored and shall be entitled to be paid by and to recover from the Licensee, as a civil debt due to the State, all costs and expenses incurred by him in connection with such removal and restoration.

15. In the event of the breach, non-performance or non-observance by the Licensee of any of the conditions herein contained, the Licensor may forthwith terminate this Licence without prior notice to the Licensee.

16. The Licensor reserves the right to review and amend the terms of this Licence based on the results of any monitoring programme or other relevant information that becomes available.

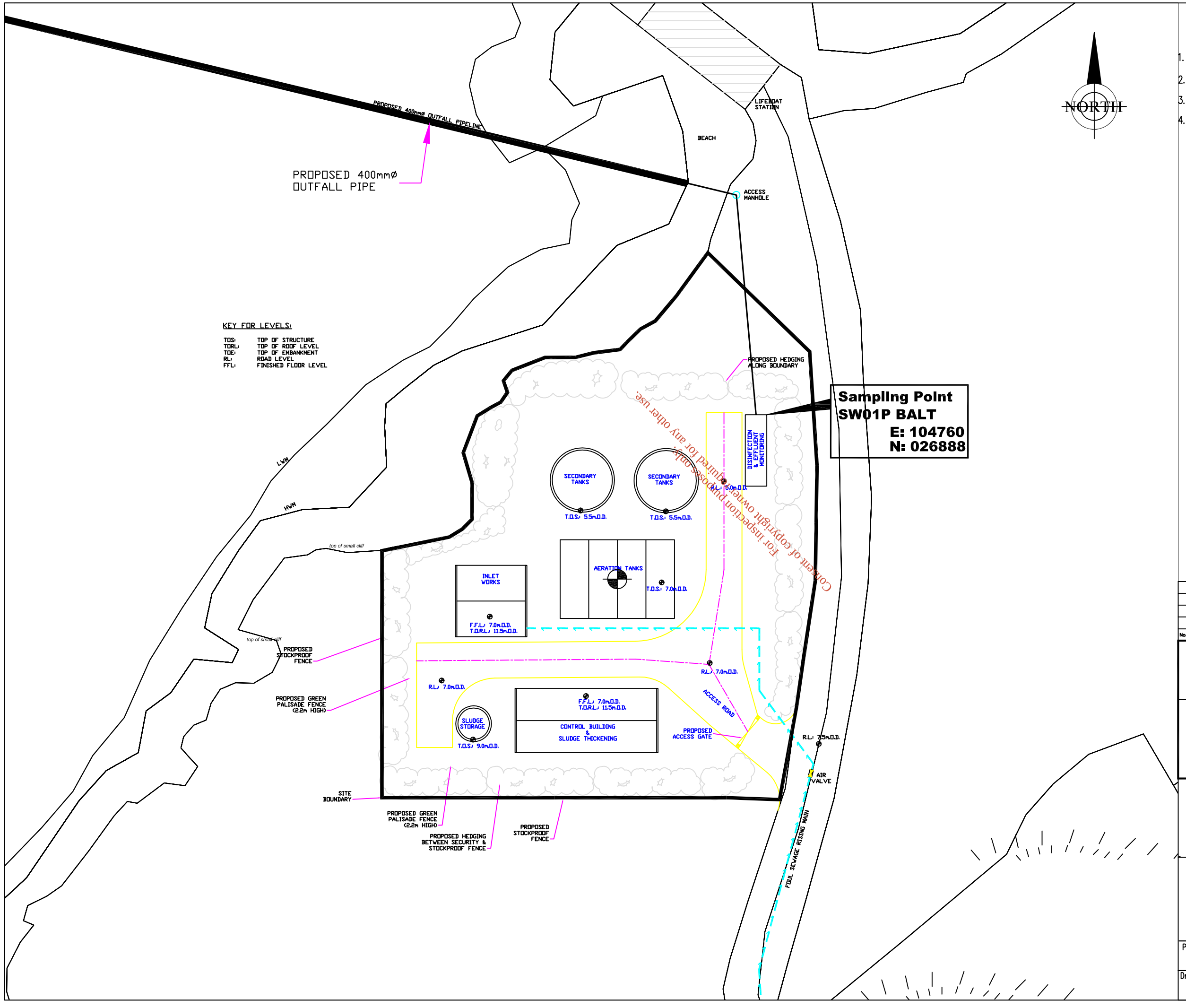
17. Any notice to be given by the Licensor may be transmitted through the Post Office addressed to the Licensee at the last known address.

Section C

Attachment C1

Drawing :

- BALT C1-01 Proposed Wastewater Treatment Plant Process Layout Plan
- BALT C2-02 Proposed WWTP Process Flow Diagram



NOTES

1. Do not scale, use figured dimensions only. If in doubt ask
2. All dimensions to be checked on site
3. Drawings to be read in conjunction with Licence application
4. Includes Ordnance Survey Ireland data reproduced under OSi Licence number Cork County Council CCMA2004/07 Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland

No.	Date	Drwn	Chkd	Revision Description

Cork County Council, Western Division.

N.O'MAHONY,B.E.,
SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

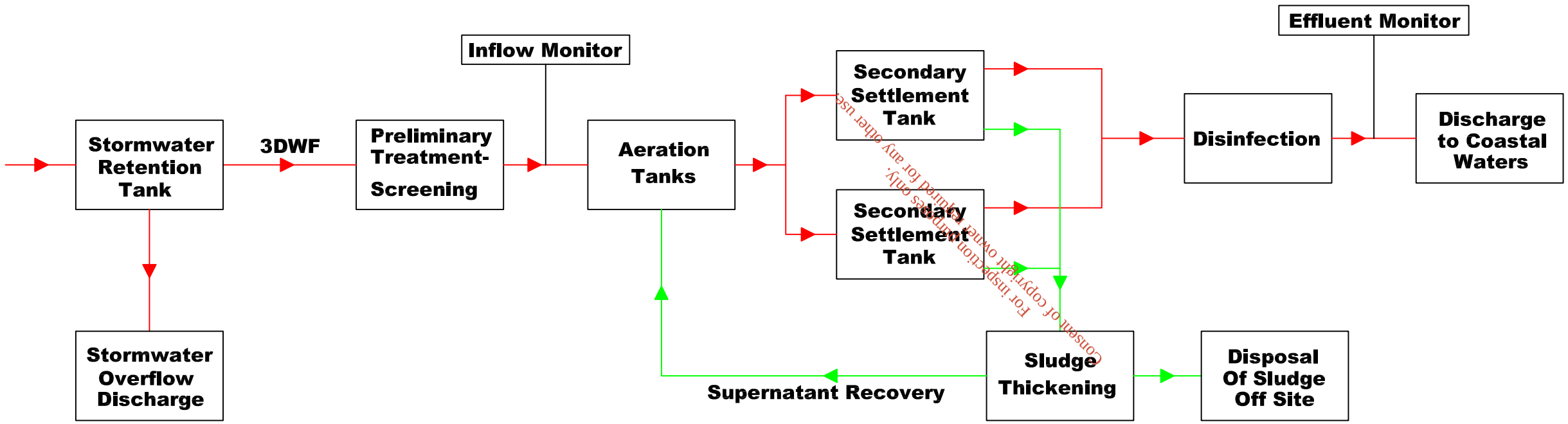
M. MURRELL,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
BALTIMORE_WASTE_WATER DISCHARGE_LICENCE_APPLICATION

Drawing Title:
ATTACHMENT_C.1
PROPOSED_WWTP_PROCESS LAYOUT_PLAN

Prepared By:	Checked By:	Date:
J.CREAGH	O.O'BRIEN	FEB.2009

Drawing number:	Scales:	Rev:
BALT_C1_01	1:500	-



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No.	Date	Drwn	Chkd	Revision Description

Cork County Council,
Western Division.

N.O'MAHONY,B.E.,
SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
BALTIMORE_WASTE_WATER
DISCHARGE_LICENCE_APPLICATION

Drawing Title:
ATTACHMENT_C1
PROCESS_FLOW
DIAGRAM

Prepared By:	Checked By:	Date:
J.CREAGH	O.O'BRIEN	FEB.2009

Drawing number:	Scales:	Rev:
BALT_C1_02	NTS	-

Section E

Attachment E2

Supporting Information :

- Monitoring Programme

Attachment E.2 - Baltimore Waste Water Discharge Licence Application – Monitoring and Sampling Points

Grab samples have been collected recently of the effluent from the primary discharge as well as receiving waters and the results are included in Attachments E.4 and F.1 of this application.

Upstream and downstream samples are not relevant in this case as the discharge is below low tide water level. Sampling of receiving waters was carried out at the west of outfall at Fishery Point.

There is no drinking water abstraction point downstream of the plant and therefore the Abstraction Directive is not applicable.

The recent sample analysis has been carried out by the Laboratory of Cork County Council which is accredited for a number of analytical tests under the Irish National Accreditation Board (INAB) under the ISO 17025 international standard. It is currently accredited for the following parameters under that standard system:

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

It is proposed to sample the influent and effluent from septic tanks where accessible and receiving waters once a year in the future for the following parameters at the Cork County Council Laboratory in Skibbereen:

- pH
- Biochemical Oxygen Demand
- Chemical Oxygen Demand
- Suspended Solids
- Ammonia
- Ortho Phosphate
- Total Nitrogen

When the proposed WWTP for Baltimore is constructed it will be operated under a Design, Build & Operate contract. A comprehensive monitoring and sampling programme will be undertaken by the contractor in accordance with the relevant standards and frequencies as set out by Cork County Council.

Attachment E4

Supporting Information :

- Sampling Data

Attachment E4 Baltimore Discharge Outlet Table E4

Sample Date	06/04/2006	12/04/2007	11/10/2007	22/05/2008	03/09/2008	30/10/2008	18/12/2008					
Sample	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	Average	Kg/Day	Kg/year		
Sample Code					GS841	GS1162	GS1397	mg/l				
Flow M^3/Day	*	*	*	*	*	*	*	1485		Maximum Flow		
pH	7.5	7.7	6.9	7.3	6.6	6.9	*	7.15				
Temperature °C	*	*	*	*	*	*	*					
Cond 20°C	*	*	*	1143	693	722	*	852.66667				
SS mg/L	120	260	125	14	55	18	17	87	129.195	47156.18		
NH_3 mg/L	*	*	32.9	*	26.5	28.2	33	30.15	44.77275	16342.05		
BOD mg/L	85	350	742	33.8	218	70.6	48.5	221.12857	328.37593	119857.2		
COD mg/L	217	682	1089	114	365	132	116	387.85714	575.96786	210228.3		
TN mg/L	*	*	20.9	143	30	24	*	54.475	80.895375	29526.81		
Nitrite mg/L	*	*	*	*	*	0.006	*	0.006	0.00891	3.25215		
Nitrate mg/L	*	*	*	*	*	<0.405	*	<0.405	<0.601425	<219.520125		
TP mg/L	3.35	10.03	7.1	3.8	*	3.5	*	5.556	8.25066	3011.491		
O-PO4-P mg/L	*	*	4.21	3.05	2.64	3.1	3.78	3.356	4.98366	1819.036		
SO4 mg/L	*	*	129.7	*	*	32.4	*	81.05	120.35925	43931.13		
Phenols µg/L	*	*	*	*	*	220	*	0.22	0.3267	119.2455		
Atrazine µg/L	*	*	*	*	*	<0.1	*	<0.0001	<0.0001485	<0.0542025		
Dichloromethane	*	*	*	*	*	14.9	*	0.0149	0.0221265	8.076173		
Simazine µg/L	*	*	*	*	*	<0.1	*	<0.0001	<0.0001485	<0.0542025		
Toluene µg/L	*	*	*	*	*	7.7	*	0.0077	0.0114345	4.173593		
Tributyltin µg/L	*	*	*	*	*	<0.02	*	<0.00002	<0.0000297	<0.0108405		
Xylenes µg/L	*	*	*	*	*	<0.2	*	<0.0002	<0.000297	<0.108405		
Arsenic µg/L	*	*	*	*	*	*	*	*	*	*		
Chromium mg/L	*	*	*	*	<0.02	<0.02	<0.02	<0.02	<0.0297	<10.8405		
Copper mg/L	*	*	*	*	0.024	<0.02	<0.02	0.0147	0.0218295	7.967768		
Cyanide µg/L	*	*	*	*	*	14	*	0.014	0.02079	7.58835		
Fluoride µg/L	*	*	*	*	*	230	*	0.23	0.34155	124.6658		
Lead mg/L	*	*	*	*	<0.02	<0.02	<0.02	<0.02	<0.0297	<10.8405		
Nickel mg/L	*	*	*	*	<0.02	<0.02	<0.02	<0.02	<0.0297	<10.8405		
Zinc mg/L	*	*	*	*	0.026	<0.02	<0.02	0.0153	0.0227205	8.292983		
Boron mg/L	*	*	*	*	0.049	0.04	<0.02	0.033	0.049005	17.88683		
Cadmium mg/L	*	*	*	*	<0.02	<0.02	<0.02	<0.02	<0.0297	<10.8405		
Mercury µg/L	*	*	*	*	*	<0.02	*	<0.00002	<0.0000297	<0.0108405		
Selenium µg/L	*	*	*	*	*	0.5	*	0.0005	0.0007425	0.271013		

Barium mg/L	*	*	*	*	<0.02	<0.02	<0.02	<0.02	<0.0297	<10.8405		

Attachment E4 Baltimore Downstream Table E4

Sample Date	30/10/2008				
Sample	River	**Average**			
Sample Code	GS1163				
Flow M^3/Day	*				
pH	8	8			
Temperature °C	*	*			
Cond 20°C	44	44			
SS mg/L	116	116			
NH_3 mg/L	0.5	0.5			
BOD mg/L	2.48	2.48			
COD mg/L	69	69			
TN mg/L	<1	<1			
Nitrite mg/L**	*	*			
Nitrate mg/L**	*	*			
TP mg/L	<0.3	<0.3			
O-PO4-P mg/L	<0.05	<0.05			
SO4 mg/L	2420.2	2420.2			
Phenols µg/L	<0.01	<0.01			
Atrazine µg/L	<0.02	<0.02			
Dichloromethane µg/L	<5	<5			
Simazine µg/L	<0.02	<0.02			
Toluene µg/L	<0.1	<0.1			
Tributyltin µg/L	<0.02	<0.02			
Xylenes µg/L	<0.2	<0.2			
Arsenic µg/L	<0.2	<0.2			
Chromium mg/L	<0.02	<0.02			
Copper mg/L	<0.02	<0.02			
Cyanide µg/L	<5.0	<5.0			
Fluoride µg/L	0.72	0.72			
Lead mg/L	<0.02	<0.02			
Nickel mg/L	<0.02	<0.02			
Zinc mg/L	<0.02	<0.02			
Boron mg/L	3.045	3.045			
Cadmium mg/L	<0.02	<0.02			
Mercury µg/L	<0.02	<0.02			
Selenium µg/L	<0.2	<0.2			
Barium mg/L	<0.02	<0.02			

** Saline interference in test