

Environmental Protection Agency,
P.O.Box 3000,
Johnstown Castle Estate,
County Wexford.

Our Ref.: CB/KMCS/221209

22 December 2009

Re: Waste Water Discharge Certificate of Authorisation Application for the Kilmacsimon Agglomeration

Dear Sir/Madam,

Please find enclosed the Waste Water Discharge Certificate of Authorisation Application for the Kilmacsimon Agglomeration

The following are the documents enclosed as per the application guidance note.

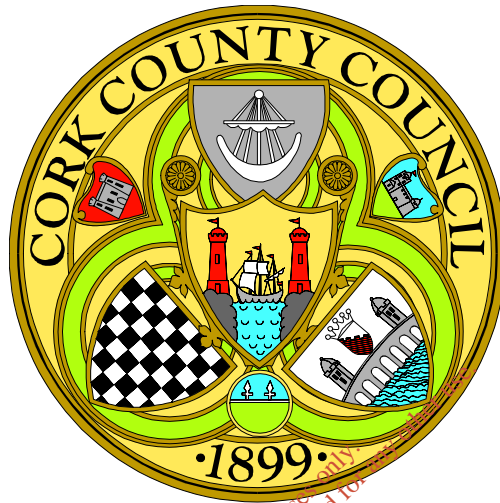
- 1 No. signed original hard copy.
- 1 No. copy of the signed original.
- 2 No. CD-ROMs with the documentation in electronic searchable PDF.
- 1 No. CD with Geo-referenced digital drawing files and tabular data templates.

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

Yours faithfully,

Patricia Power
Director of Services

**APPLICATION TO THE ENVIRONMENTAL
PROTECTION AGENCY FOR A WASTE WATER
DISCHARGE CERTIFICATE OF AUTHORISATION**



Waste Water Discharge Certificate of Authorisation
Application for the agglomeration of **Kilmacsimon** under the
Wastewater Discharge Authorisation Regulations S.I. 684 of
2007.

Water Services Name: *Cork County Council, Southern Division.*

Category of Application: *< 500 PE.*

Submitted To: *Licencing Unit, Environmental Protection Agency,
Wexford.*

Date Application Lodged: *22nd December 2009*

This is a draft document and is subject to revision.



Waste Water Discharge Certificate of Authorisation Application Form

EPA Ref. N^o:
(Office use only)

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

Tracking Amendments to Draft Application Form

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

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

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ABOUT THIS APPLICATION FORM

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

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

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

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

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

PROCEDURES

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

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

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

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

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

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

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

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

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

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

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

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SECTION A: NON-TECHNICAL SUMMARY

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

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

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

A description of:

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

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

Non-Technical Summary

Kilmacsimon Quay is located approximately 6 kilometres to the East of Bandon and 4 kilometres to the South of Inishannon. The village is served by County Road No. L-32041-0. The village is situated on level ground adjoining the Lower Bandon Estuary. In the Local Area Plan, Kilmacsimon Quay is recognized as a centre that provides a local service. The village has not experienced any significant development since the apartment block associated with the WWTP was built.

The Waste Water Works and the activities carried out therein.

The sewerage network in Kilmacsimon comprises two catchments, the existing village and "The Moorings" apartment block development. The existing village catchment is served by a combined sewer which is connected directly to the Primary Discharge Point. This currently receives no treatment. The Moorings catchment is served by a dedicated foul sewer system. Waste water from this catchment flows directly by gravity to the treatment plant, which is located underground in the existing boatyard.

Kilmacsimon WWTP is currently operated by a private operator under a Short Term Operation and Maintenance Contract. The Service Provider is fully responsible for the provision of all plant materials including consumables and labour and is also responsible for all licences and permits necessary to ensure that the facility is operated and maintained in accordance with best practice and any performance requirements stipulated in the Employers Requirements.

The plant is comprised of the following:

- Inlet
- Primary Settlement Tank
- Aeration Tank and 1 No. Excess Sludge Wasting Pump
- Clarifier and 1 No. Sludge Return Pump
- Pumping Station
- Effluent Flow Meter
- Outlet

The effluent gravitates into the primary settling tank which traps the gross solids from the foul effluent and stores them for collection, before gravitating into the aeration tank. Here the effluent is subjected to aerobic micro-organisms, which consume the biodegradable organic matter in the effluent. The effluent then gravitates into the clarifier, where the solids settle on the bottom, leaving the supernatant which gravitates into the pumping station. The treated effluent is then pumped into the Lower Bandon Estuary at the discharge point. Effluent rich in micro-organisms is pumped from the base of the clarifier back into the aeration tank to re-circulate the sludge and maintain the quality of micro-organisms in the system. Small quantities of sludge are removed from the base of the aeration tank to remove dead micro-organisms from the system. They are pumped back into the primary settlement tank.

Samples are taken weekly and are analyzed for pH, BOD, COD and Suspended Solids and monthly for Total Phosphates. The samples are taken and analyzed by Response Engineering, The Operating and Maintenance Contractor. The design capacity of the plant is 225PE. The current contribution to the plant is estimated at 92PE. The plant is designed to provide an effluent quality of better than 20mg/l BOD and 30mg/l Suspended Solids. Records show that these standards are consistently being met.

The sources of emissions from the waste water works.

The population load for the Kilmacsimon agglomeration arises from the following sources:

- Domestic Population
- Commercial Population

The sewage from all non-domestic premises is collected via the existing sewer network and currently is discharged without treatment. However provision has been made to facilitate a future connection to the WWTP. When this occurs, the sewage from the commercial premises will be treated in conjunction with the domestic waste at the WWTP. Kilmacsimon WWTP does not receive any other sludge imported from other municipal waste water sources or septic tanks.

Other potential emissions from the waste water treatment plant include;

- Odour generated from the treatment process – No recorded issues to date.
- Noise pollution – minor during normal operation.

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 final effluent discharges to the Lower Bandon Estuary which is located to the east of the site. The average inflow to the plant is in the order of 22m³/day which is equivalent to a PE of 92.

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

Technology

Not applicable as there are no current proposals for Kilmacsimon WWTP.

Techniques

Not applicable as there are no current proposals for Kilmacsimon WWTP.

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

Test results received from Response Engineering Ltd, the Operating and Maintenance contractor shows that the effluent is consistently meets the standards set out in its discharge licence. The existing village is to be connected to the WWTP when an agreement is reached between the Developer and Cork County Council. This will mean that all of the discharge from the agglomeration will have been subject to treatment.

Measures planned to monitor emissions into the environment.

Response Engineering Ltd, the Operating and Maintenance Contractor carries out sampling for the influent and effluent. Cork County Council Environmental Department, Inniscarra and the EPA take samples from the Bandon River upstream of the existing WWTP outfall at Inishannon Bridge. The EPA also monitors the Lower Bandon Estuary.

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SECTION B: GENERAL

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

B.1 Agglomeration Details

| |
|---|
| Name of Agglomeration: Kilmacsimon |
|---|

Applicant's Details

Name and Address for Correspondence

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

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

| | |
|-----------------|---------------------|
| Name*: | Cork County Council |
| Address: | County Hall |
| | Carrigrohane Road |
| | Cork |
| Tel: | 021 4276891 |
| Fax: | 021 4276321 |
| e-mail: | |

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

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

| | |
|-----------------|--|
| Name*: | Patricia Power |
| Address: | Director of Services: Operational Water Services |
| | Floor 5 (Tower) |
| | County Hall |
| | Cork |
| Tel: | 021 4285285 |
| Fax: | 021 4276321 |
| e-mail: | Patricia.power@corkcoco.ie |

*This should be the name of person nominated by the Water Services Authority for the purposes of the application.

Co-Applicant's Details

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

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

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | ✓ | |

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

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

| | |
|---------------------------|----------------------|
| Name*: | Madeleine Healy |
| Address: | Kilmacsimon Boatyard |
| | Kilmacsimon |
| | Bandon |
| | Co. Cork |
| Grid ref (6E, 6N) | 156343 E, 053388 N |
| Level of Treatment | Secondary |

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

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | ✓ | |

B.3 Location of Primary Discharge Point

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

| | |
|--------------------------|----------------------------|
| Discharge to | Surface Water |
| Type of Discharge | Pipe to River (150mm Dia.) |
| Unique Point Code | SW1KMCS |
| Location | Kilmacsimon Boatyard. |
| Grid ref (6E, 6N) | E, 156387, N 053444 |

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | ✓ | |

B.4 Location of Secondary Discharge Point(s)

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

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

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

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | ✓ |

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

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

| | |
|--------------------------|----------------|
| Type of Discharge | Not Applicable |
| Unique Point Code | Not Applicable |
| Location | Not Applicable |

| | |
|------------------------------|----------------|
| Grid ref (6E, 6N) | Not Applicable |
|------------------------------|----------------|

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | ✓ |

B.6 Planning Authority

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

| | |
|-----------------|--|
| Name: | Cork County Council |
| Address: | Planning Department |
| | County Hall |
| | Carrigrohane Road |
| | Cork |
| Tel: | 021 4276891 |
| Fax: | 021 4867007 |
| e-mail: | planninginfo@corkcoco.ie |

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

| | | | |
|-------------------------------|---|---------------------------|--|
| has been obtained | ✓ | is being processed | |
| is not yet applied for | | is not required | |

| | |
|---|---------|
| Local Authority Planning File Reference N^o: | 96/3436 |
|---|---------|

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 Services Executive Southern Region |
| Address: | South Lee Local Health Office |
| | Abbeycourt House |
| | George's Quay, Cork |
| Tel: | 021 4965511 |
| Fax: | |
| e-mail: | info@hse.ie |

B. 8(i) Population Equivalent of Agglomeration

TABLE B.8.1 POPULATION EQUIVALENT OF AGGLOMERATION

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

| | |
|------------------------------|--|
| Population Equivalent | 92 |
| Data Compiled (Year) | 2009 |
| Method | House Counts and Population Data. |

Presently only the "The Moorings" is served by the WWTP. This contains 9 Apartments, 7 Houses and 1 Office and Meeting room. When the WWTP was designed and installed it was intended that the rest of the village will be connected to the WWTP. This means that an additional 10 Houses plus the Pub and the Boatyard will discharge into the WWTP. This connection has not taken place yet, but it is likely to occur in the near future.

Therefore the total domestic contribution is made up of 17 Houses and 9 Apartments. The total non-domestic contribution is made up of the office and meeting room, the Pub and the Boatyard.

Assuming that there are c2.8 persons per household (CSO Data), this equates to a current estimated domestic population of 73. Assuming that the non-domestic contribution is 15% of the domestic the total 2009 Population Equivalent (PE) for Kilmacsimon is c. 84

While no further planning permissions have been granted in or around the village, an additional 10% should be added to the current figure to allow for future

development. This will allow for a potential increase in the PE of up to 94 during the course of the licence.

AE current treatment plant has the capacity to treat 225 PE, therefore the estimated PE of 92 is well within the capacity of the WWTP.

B.8 (ii) Pending Development

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

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

A PE of 84 was obtained by House Counts. While no further planning permissions have been granted in or around the village, an additional 10% has been added to this figure to account for future development. This allows for a potential increase of up to 92 during the course of the licence.

B.8 (iii) FEES

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

| Class of waste water discharge | Fee (in €) |
|--------------------------------|------------|
| >500 | €3000 |

| Appropriate Fee Included | Yes | No |
|--------------------------|-----|----|
| | | ✓* |

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

B.9 Capital Investment Programme

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

Not Applicable

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | ✓ |

B.10 Significant Correspondence

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

Not Applicable

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | ✓ |

B.11 Foreshore Act Licences.

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

The existing outfall was re-used. As this pre-dates 1933, a new foreshore licence was not required.

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | ✓ |

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SECTION C: INFRASTRUCTURE & OPERATION

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

C.1 Operational Information Requirements

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

C.1.1 Storm Water Overflows

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

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

C.1.2 Pumping Stations

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

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

C.1 Operational Information Requirements

Kilmacsimon Quay is located approximately 6 kilometres to the East of Bandon and 4 kilometres to the South of Inishannon. The village is served by County Road No. L-32041-0. The village is situated on level ground adjoining the Lower Bandon Estuary. In the Local Area Plan, Kilmacsimon Quay is recognized as a centre that provides a local service. The village has not experienced any significant development since the apartment block associated with the WWTP was built.

Kilmacsimon WWTP is currently operated by a private operator under a Short Term Operation and Maintenance Contract. The WWTP is located in the Boatyard adjacent to the Lower Bandon Estuary into which the final effluent discharges.

The sewerage network in Kilmacsimon comprises two catchments, the existing village and the "The Moorings" apartment block development. The existing village catchment is served by a combined sewer which is connected directly to the Primary Discharge Point. This currently receives no treatment. The Moorings catchment is served by a dedicated foul sewer system. Waste water from this

catchment flows directly by gravity to the WWTP, which is located underground in the existing boatyard.

Kilmacsimon WWTP is a relatively new plant. It currently operates well within its design capacity and meets the required effluent standard. It can be said that the plant is generally in good condition in terms of operational efficiency.

Primary Treatment

Under normal operating conditions all of the influent enters the primary settlement tank, which has a capacity of 19.2m³. Here the heavy solids settle to the bottom of the tank and are stored for collection. Waste Water flows from the primary settlement tank to the aeration tank.

Secondary Treatment

The secondary treatment consists of an aeration tank with a capacity of 27m³. The aeration tank has 12 diffusion disks at the bottom of the tank. 1 air blower supplies these disks. The air blower compresses the air and blows it to the diffusion disks at the bottom of the tank. Fine air bubbles rise up through the waste water providing oxygen for the bacteria. The air blower is currently operating continuously.

The activated sludge then flows to the clarifier, where the purified water will be separated from the bacterial growth by means of settling, with the supernatant gravitating via a decanter into the pumping station for discharge.

Sludge is returned from the bottom of the clarifier to the aeration tank to continuously re-circulate the sludge and enable the aeration tank to support the quantity of micro-organisms required to maintain the desired level of purification. Currently the sludge return pump is on continuously.

At intervals some of the sludge in the aeration tank is wasted back to the primary settlement tank. This is to ensure that the sludge is at the correct age and that excess levels of sludge do not build up. Currently the sludge wasting pump is only turned on as necessary by the curator.

A facility exists to run both the sludge wasting and return pumps on timers, though the current method of operation is delivering satisfactory results.

Details of the sampling results (influent and effluent for 2009) submitted by the Operation and Maintenance Contractor are shown in **Table C1.1**.

| Influent | Design | Jan-09 | Feb-09 | Mar-09 | Apr-09 | May-09 | Jun-09 |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| COD Avg. (mg/l) | | 2392 | 992 | 480 | 504 | 570 | 976 |
| BOD Avg. (mg/l) | | 310 | 401 | 237 | 217 | 276 | 480 |
| SS Avg. (mg/l) | | 383.5 | 516 | 70 | 55 | 68 | 116 |
| TP Avg. (mg/l) | | 8.5 | 0.7 | 11.0 | 12.2 | 9.0 | 24.0 |
| pH Avg. | | 6.92 | 6.93 | 7.25 | 7.07 | 7.24 | 7.15 |

| Effluent | Design | Jan-09 | Feb-09 | Mar-09 | Apr-09 | May-09 | Jun-09 |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| COD Avg. (mg/l) | 125 | 43 | 18 | 70 | 48 | 55 | 52 |
| BOD Avg. (mg/l) | 20 | 11 | 5 | 20 | 13 | 19 | 17 |
| SS Avg. (mg/l) | 30 | 11 | 13 | 22 | 15 | 12 | 18 |
| TP Avg. (mg/l) | | 0 | 0.2 | 3.6 | 3.8 | 2.2 | 5.8 |
| pH Avg. | | 6.76 | 6.97 | 7.37 | 6.96 | 6.85 | 7.20 |

Table C1.1

This results show that the effluent is consistently meets the Plant's design standards and the standards set out in its discharge licence.

C.1.1 Storm Water Overflows

Not Applicable, as there is no storm water overflow system in place.

C.1.2 Pumping Stations

Number of duty and standby pumps at each pump station;

The Treatment Plant Pumping station takes the treated effluent from the clarifier and then pumps it to the primary discharge point. There are 2 ABS MF 504 pumps, one duty the other standby in the pumping station. The pumps activate when the effluent reaches a level 1.5m above the base of the tank. The pumps activate on average 4 times per day and have a duty capacity of approx 8.3 Ltr/s.

The measures taken in the event of power failure;

Not Applicable

Details of storage capacity at each pump station;

Approximately 7 hours storage capacity is provided in the Treatment Plant Pumping Station.

Frequency and duration of activation of emergency overflow to receiving waters. Clarify the location where such discharges enter the receiving waters.

Not Applicable, as none have occurred during the lifetime of the WWTP.

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 |
|---------------------|-----|----|
| | ✓ | |

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SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

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

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

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

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

D.1(i) Discharges to Surface Waters

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

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

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | ✓ | |

D.1(ii) Discharges to Groundwater

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

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

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

| | | |
|----------------------------|------------|-----------|
| Attachment included | Yes | No |
| | | ✓ |

D.1 (iii) Private Waste Water Treatment Plants

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

Not Applicable

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 |
|---------|---------|---------------------|--------------|----------------------|-------------|---------|----------|
| SW1KMCS | Primary | Cork County Council | Transitional | Lower Bandon Estuary | pNHA | 156387 | 053444 |

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

SECTION E: MONITORING

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

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

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

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

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

E.2. Monitoring and Sampling Points

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

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

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

E.2 Monitoring in respect of Kilmacsimon Waste Water Certificate of Authorisation Application Form

The plant is currently monitored by Response Engineering to measure compliance with the requirements of the Urban Wastewater Treatment Directive.

For the purposes of this application monitoring was carried out on the effluent and at ambient monitoring points by the Environmental Directorate of Cork County Council.

The River Bandon is monitored in terms of the Freshwater Fish Directive, the Phosphorus Regulations by the Water laboratory of Cork County Council and in recent times the Water Framework Directive as part of the River Basin Project. It is proposed to continue this multi-faceted approach to monitoring the treatment plant and the impacts of the discharge to the receiving waters. This monitoring takes place upstream of the discharge point.

General Laboratory Information

The Wastewater Laboratory of Response Engineering has no accreditation at present.

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

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

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

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | ✓ | |

E.3. Tabular data on Monitoring and Sampling Points

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

| PT_CD | PT_TYPE | MON_TYPE | EASTING | NORTHING | VERIFIED |
|--------|-------------------|----------|----------|----------|----------|
| SW1 | Primary Discharge | S | 156336 E | 053456 N | Y |
| aSW-1u | Ambient | S | 154114 E | 057079 N | Y |
| aSW-1d | Ambient | S | 157448 E | 052615 N | Y |

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

E.4 Sampling Data

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

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

Attachment E.4 should contain any supporting information.

| Attachment included | Yes | No |
|---------------------|-----|----|
| | ✓ | |

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

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

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

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

F.1. Impact on Receiving Surface water or Groundwater

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

Give details of any designation under any Council Directive or Regulations that apply in relation to the receiving surface or groundwater.

Existing Environment & Impact of Discharges

The River Bandon (20B02) is contained within Hydrometric Area 20 and is located entirely in County Cork. The River Bandon rises near Barrboy Mountain and generally flows eastwards towards Inishannon. The river changes direction at Inishannon and flows in a south-easterly direction, past Kilmacsimon and then discharges into Kinsale Harbour.

The Lower Bandon Estuary has "Moderate" status and has been classified as being "At Risk" of not achieving good status by 2015 under the Water Framework Directive Article 5 Characterisation (2004). Kinsale Harbour has "Good" status and has been classified as being "Not At Risk".

The 1998 Phosphorus Regulations set targets for phosphorus levels and biological quality (Q-values) for rivers and lakes. Where water quality is satisfactory it must be maintained and where water quality is unsatisfactory it must be improved. For levels of phosphorus the baseline Q-value determines the median molybdate-reactive phosphorus (MRP) to be achieved.

Water quality in the River Bandon is monitored by the EPA. EPA monitoring station 0900 is located at Inishannon Bridge, approximately 5.4km upstream of Kilmacsimon WWTP primary discharge point. The sampling results show that the Bandon River has maintained an "unpolluted" status since 1994. Water quality at this station has been satisfactory since 1994 with a base Q-value of 4. The monitoring results are shown in **Table F1.1**.

| Biological Quality Ratings (Q Values) | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|------|
| Station | 1971 | 1976 | 1978 | 1982 | 1986 | 1989 | 1994 | 1997 | 2000 | 2003 | 2006 |
| 0900 | 5 | 4-5 | 4 | 4 | 4 | 3-4 | 4 | 4 | 4 | 4 | 4 |

Table F1.1.

Eutrophication is unlikely to occur in water bodies with a biological quality rating of Q4 or higher. There is no monitoring station down-stream of Kilmacsimon WWTP primary discharge point as the river becomes tidal down-stream of Inishannon.

Water quality in the Lower Bandon Estuary has been classified as Eutrophic by the EPA and is classified as Nutrient Sensitive Waters under the Urban Waste Water Treatment Regulations, 2001 (S.I. 254/2001). The EPA has recently released Draft Classifications of river waterbody status in which the Lower Bandon Estuary has been classified as being of "moderate" status and Kinsale Harbour as being of "Good" status.

The River Bandon is not designated as salmonid water under the European Communities (Quality of Salmonid Waters Regulations, 1988 (S.I. No. 293/1988)) however it contains good stocks of salmon and sea trout. The primary discharge point is located within a Proposed Natural Heritage Area, the "Bandon Valley Below Inishannon" NHA. It is unlikely that the WWTP will have a negative impact on the site due to the good quality and small quantity of the effluent. The Proposed NHA at James Fort is located 11.5km downstream from the WWTP in Kinsale Harbour. Given the distance and the reasons previously mentioned it is unlikely that the WWTP will have a negative impact on the site.

Schedule 5 of the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272 of 2009) sets out "Criteria for Calculating Surface Water Ecological Status and Ecological Potential." These are summarised for transitional waters in **Table F1.2 below**. EPA Sampling data from station BN030, which is 400m from the discharge point, was included where available for comparison purposes.

| Biological quality elements | Classification system | Ecological quality ratio | EPA Sampling Data for Station BN030 2003-2008 |
|---|---|--|--|
| | | Good-moderate boundary | |
| Macroalgae | Rocky shore reduced species list multimetric system | 0.60 | Not available |
| | Opportunistic microalgae multimetric system | 0.60 | Not available |
| Thermal conditions | | Transitional water body | EPA Sampling Data |
| Temperature | | Not greater than 1.5°C rise in ambient temperature outside the mixing zone | Not available |
| Oxygenation conditions | | Transitional water body | EPA Sampling Data |
| Biochemical Oxygen Demand (BOD) (mgO ₂ /l) | | ≤4.0mg/l (95%ile) | 2.6mg/l (2005 95%ile) |
| Dissolved oxygen lower limit | | (0psu) 95%ile > 70% Saturation (35psu) 95%ile > 80% Saturation | 164.3% Saturation (2003-2007 95%ile) |
| Dissolved oxygen upper limit | | (0psu) 95%ile < 130% Saturation (35psu) 95%ile < 120% Saturation | |
| Nutrient conditions | | Transitional water body | EPA Sampling Data |
| Molybdate Reactive Phosphorus (MRP) (mg P/l) | | (0-17psu) ≤0.060 (median) (35psu) ≤0.040 (median) | Not available |

Table F1.2 Criteria for Calculating Surface Water Ecological Status and Ecological Potential

There are two Proposed Natural Heritage Areas (pNHAs) located in the vicinity of the Kilmacsimon WWTP discharge point. The effluent from the WWTP discharges directly to pNHA Bandon Valley Below Inishannon (Site Code: 001515). There is also a pNHA downstream of Kilmacsimon, James Fort (Site Code 001060).

- Provide a statement as to whether or not emissions of main polluting substances (as defined in the *Dangerous Substances Regulations S.I. No. 12 of 2001*) to water are likely to impair the environment.

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

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

There is no drinking water abstraction point downstream of the Kilmacsimon WWTP Primary Discharge Point.

- 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/EEC¹ in accordance with the procedures laid down in Article 21 of that Directive,
 - (c) a special area of conservation within the meaning of the Natural Habitats Regulations, or
 - (d) an area classified pursuant to Article 4(1) or 4(2) of Council Directive 79/409/EEC²;

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

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

Assessment of Relevant Legislation Applicable to Kilmacsimon Discharge

The following assesses the relevant European Union Directives and Irish Statutory Legislation that is applicable to the discharge standards at Kilmacsimon.

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

Dangerous Substances Directive 2006/11/EC

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

Water Framework Directive 2000/60/EC

The objectives of the Water Framework Directive (WFD) are to protect all high status waters, prevent further deterioration of all waters and to restore degraded surface and ground water status by 2015. Response Engineering, the Operation and Maintenance contractor is required to monitor the inlet and outlet flows from Kilmacsimon WWTP to ensure compliance with the relevant standards. A downstream location was also monitored by Cork County Council as part of this application. A copy of the Water Quality Management Plan for this area has been included in **Attachment F**.

Birds Directive 79/409/EEC

The directive aims to conserve and manage populations of wild birds throughout Europe partly through the designation of Special Protection Areas (SPA) for birds and their habitats. The discharge point is not located within an SPA.

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

Not applicable as there are no emissions to groundwater.

Drinking Water Directives 80/778/EEC

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

Urban Waste Water Treatment Directive 91/271/EEC

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

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

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

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

Habitats Directive 92/43/EEC

The aim of this Directive is to contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora. There are no Special Areas of Conservation (SACs) or Special Protection Areas (SPAs) under the Habitats Directive in the vicinity of the waste water discharge.

Bathing Water Directive 76/160/EEC

There are no designated bathing waters in the vicinity of the discharge.

Shellfish Waters Directive (79/923/EEC)

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

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

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

The Sea Fisheries Protection Authority has confirmed that Kinsale is a classified area for the cultivation of shellfish such as oysters as detailed in **Table F.1.3**.

| Production Area | Boundaries | Bed Name | Species | Class |
|------------------------|-----------------------------------|-----------------|----------------|--------------|
| Kinsale | Shronecan Point to Preghane Point | All Beds | Oysters | B |

Table F.1.3 Classified Bivalve Mollusc Production Areas in Ireland (14th July 2009)

In accordance with the Classified Bivalve Mollusc Production Areas in Ireland (14th July 2009) and Council Directive 91/492/EEC, Kinsale has a category B status

which means that shellfish from this area have to be treated in a purification centre or a relay bed before they can be placed on the market for human consumption. The water quality standards for shellfish in Category B waters is summarised in **Table F.1.4**.

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

Table F.1.4 Requirements for Faecal Coliform Levels for Live Bivalve Molluscs in Accordance with Directive 91/492/EEC

Kilmacsimon WWTP primary discharge point is located approximately 8km upstream of the designated shellfish water at Kinsale.

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

There was no modelling study conducted for the discharges from Kilmacsimon WWTP.

| Attachment included | Yes | No |
|---------------------|-----|----|
| | ✓ | |

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

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

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

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

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

Attachment F.2 should contain any supporting information.

SECTION G: PROGRAMMES OF IMPROVEMENTS

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

G.1 Compliance with Council Directives

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

- Dangerous Substances Directive 2006/11/EC,
- Water Framework Directive 2000/60/EC,
- Birds Directive 79/409/EEC,
- Groundwater Directives 80/68/EEC & 2006/118/EC,
- Drinking Water Directives 80/778/EEC,
- Urban Waste Water Treatment Directive 91/271/EEC,
- Habitats Directive 92/43/EEC,
- Environmental Liabilities Directive 2004/35/EC,
- Bathing Water Directive 76/160/EEC, and
- Shellfish Waters Directive (2006/113/EC).

Not Applicable as there is no programme of improvements planned.

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | ✓ |

G.2 Compliance with the European Communities Environmental Objectives (Surface Waters) Regulations 2009

Provide details on a programme of improvements, including any water quality management plans or catchment management plans in place, to ensure that improvements of water quality required under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 are being achieved. Provide details of any specific measures adopted for waste water works specified in Phosphorus Measures Implementation reports and the progress to date of those measures. Provide details highlighting any waste water works that have been previously identified as the principal sources of pollution under the Phosphorous Regulations (S.I. No. 258 of 1998).

Not Applicable as there is no programme of improvements planned. The water quality management plan is included in **Attachment F**. There is no catchment management plan in place, only the Draft River Basin Management Plan for the South Western River Basin District (December 2008).

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.

Not Applicable as there is no programme of improvements planned.

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

| Attachment included | Yes | No |
|---------------------|-----|----|
| | | ✓ |

G.4 Storm Water Overflows

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

Not Applicable as there is no programme of improvements planned.

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 |
|---------------------|-----|----|
| | | ✓ |

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SECTION H: DECLARATION

Declaration

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

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

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

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

Signed by : _____
(on behalf of the organisation)

Date : _____

Print signature name: _____

Position in organisation: _____

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SECTION I: JOINT DECLARATION

Joint Declaration ^{Note1}

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

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

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

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

Lead Authority

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.